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Today is November 26, 2007. And this is Don Warrin with the first interview of Dr. Reg Gomes. If you could give me your full name, and when and where you were born.

Warrin: Today is November 26, 2007. And this is Don Warrin with the first interview of Dr. Reg Gomes. If you could give me your full name, and when and where you were born.

Gomes: OK. My full name is Wayne Reginald Gomes. I was born November 15, 1938 in Modesto, California.

Warrin: And if you could tell me about your parents, where were they born?

Gomes: Both of my parents were born in Hanford, California. My father, in 18—excuse me, in 1909, and my mother in 1913.

Warrin: And what were their occupations, or his?

Gomes: My father owned a small dairy and worked in the dairy industry—in and around the dairy industry—pretty much all his life.

Warrin: Your grandparents, perhaps, were the ones who emigrated?

Gomes: That's correct.

Warrin: And both of them?

Gomes: All four of them, independently.

Warrin: All four, independently. Could you give me their names, first of all?

Gomes: Yes. My maternal grandfather, José Rodrigues emigrated—and I don't have really good dates on this - I can give you some approximations—from Pico, and came across on a whaling vessel as a young boy. Showed up in California, coming across the country, and spent the rest of his life here.
Warrin: You know about what year that would have been when he left?

Gomes: Well he was born, as I understand it, in 1857. And my best guess is, he was about fourteen when he came on—came over. My grandmother—maternal grandmother—came with her family. Again, my best guess is in the early 1890s, and they were married actually in a triple wedding of my grandmother and her two sisters in 1898.

Warrin: In Hanford.

Gomes: In Hanford. My paternal grandparents, I have less understanding of when and where. They and my maternal grandmother came from Terceira. And my understanding is that my paternal grandfather, Manuel Gomes—both my grandmothers were named Joaquina—came over and had contacts here in California at the time.

Warrin: Did they ever express any—presumably you knew them.

Gomes: No.

Warrin: Oh, you didn't—

Gomes: No, I knew my grandmothers. They died when I was relatively young. My father's father died when he was in his teens, and my mother's father died when she was twelve.

Warrin: I see. So no one would have talked about why they left?

Gomes: No. I really have no feel for why they left. Again, with the exception of my maternal grandfather who may have—and some of this is supposition from knowing other things—may have been involved in the case where young men went on whaling vessels rather than be conscripted into the service. My father had always said he was a stowaway, and stowaways at that time were often young men who came out of the islands and got on whaling vessels to work.

Warrin: Yeah. Very often they weren't stowaways—

Gomes: They were “known” stowaways.
Warrin: They were hired. They were known stowaways. They were hired and picked up at some isolated point on one of the islands.

Gomes: I don't know for certain that that's the case, but all of the information that I have on that issue suggests that it probably was.

Warrin: And as far as the other voyages, you don't know.

Gomes: I really don't.

Warrin: Yeah. That's going back a long way.

Gomes: Well it's going back a long way, and again unfortunately to a generation that I didn't know.

Warrin: Yeah. Where did they settle, the four of them, when they arrived?

Gomes: When they got here, all of them settled in the San Joaquin Valley, in the King's County area in Hanford, near the community of Guernsey, near the community of Armona. Indeed, the place I grew up on in Hanford was my mother's uncle's little farm.

Warrin: And what drew them to that area?

Gomes: I don't know what drew my mother's father to the area. As I say, he was very young and had worked out here. He later attracted a number of his brothers and sisters to come out. And again, my impression is that my father's parents came out because they knew someone in the area.

Warrin: And did both the—your grandmothers—work also when they were here? Do you have any idea?

Gomes: When they were here early on, they worked in the packing sheds in whatever jobs they could get at the time. My mother's mother had nine children, so the work of keeping track of those was probably sufficient.

Warrin: Quite a bit.
And then cooking for farmhands and those sorts of things when—at that time, prior to the Depression, both of those grandparents apparently had thriving farms.

I see. Of course, this is a generation that you didn't really know, but do you know how they acculturated, how they fitted in with the community? Was it a mainly a Portuguese community at the time that they functioned within?

My impression is that during the early 1900s, and probably for the life of my grandfathers, that was largely true. As the next generation came along and they actually found a need to assimilate so they could find work, that became much less true. And with my grandmothers, it was not true as they were older. They had other groups that they worked in. My father's mother, a little closer to the Portuguese community than my mother's mother.

Did they all learn English, perhaps, to different degrees?

They all learned English very well.

They did.

They could read English, speak English. They—both my grandmothers—spoke Portuguese fluently, and spoke Portuguese frequently. But they spoke English very well.

To what extent was it a Portuguese area where they lived?

The King's County area today, and obviously it's changed from those days, is really a melting pot. It has people from all over the country and the world. There was a very significant Portuguese community in the south central San Joaquin Valley. There still is. So the King's/Tulare County areas did have a very extensive Portuguese community, but certainly not a majority.

Of course. Getting to your parents. What were the names of your father and mother?
Gomes: My father was Frank, Frank Charles, or Francis Carlos Gomes. And my mother Mary Rodrigues Gomes. And I'll come back to that Rodrigues. It became Rogers after that.

Warrin: Rogers. Of course. What was their first language?

Gomes: Portuguese.

Warrin: It was Portuguese.

Gomes: Yes. My father learned English, I suspect, as a child growing up. My mother didn't speak English until she went to school. At that point, my grandfather and my grandmother decided that school was where you learned English.

Warrin: That was very typical.

Gomes: Yes, it was. Very difficult, but very typical.

Warrin: Yeah, particularly with people growing up on isolated farms, the ability to interact with neighbors was much, much less.

Gomes: That's right, and again, in a family of nine children, the need to get outside was not nearly as great.

Warrin: Right. How did they assimilate over the years? Your parents.

Gomes: Well, again, the very early things that happened on my mother's side, she had five older brothers. Clearly, even though apparently my grandfather had a farm that was doing well, it was not enough to maintain that kind of growing family, and have anything for them in the future. My uncles were all mechanically inclined to one degree or another, and my grandfather actually opened a garage with his sons in Hanford. The building was still there a couple of years ago when I was there.

Warrin: About what year would that have been?
My best guess is 1920. It seems to me the building was built in '18. But about that period. And at that time, it was the Rogers' garage. The first steps towards anglicizing, integrating more. The Rogers name started Rodrigues. It became Rogers. As those boys moved on, most of them to the Bay Area, they found that to get work, they had to use the Rogers name. And so the assimilation into and Americanization, if you will, was at that time, and continued for probably twenty more years.

Why do you think it was difficult for them to get a job with the name, Rodrigues?

Well I think when you came here into the Bay Area in those days, there were an awful lot of Portuguese who had started coming in about 1880. Many of them right off the boat, not speaking English, having no particular skills. And I suspect once the name was seen, whether it was known or not, the assumption was that these were raw greenhorns as the Portuguese called them.

That makes sense. Could you describe your grandfather’s farm a little bit?

No.

No?

No, I have no knowledge of it.

No knowledge.

Again, when my grandfather died when my mother was twelve, on that side, it was a dairy farm, basically, that grew wheat. I knew that. But apparently, my mother—grandmother struggled to maintain the farm. The Depression just ended that.

She lost it?

She lost it.

I see. And what did she do after she lost the farm?
Gomes: She basically worked wherever she could. I mean, she had jobs in—she worked in Peden’s café in the kitchen as a baker. She worked whatever positions would allow her an honest income.

Warrin: And supporting how many children at that time?

Gomes: At the time, the oldest boys were moving on, but she had three younger than my mother who was twelve, so she probably had six at home when he died. Perhaps seven.

Warrin: Quite a burden.

Gomes: Oh yes, yes.

Warrin: On the other side, what did you say the employment was for your other grandfather?

Gomes: Again, he had a farm. And apparently—I know little of—but it was a dairy farm.

Warrin: Also.

Gomes: And apparently was doing relatively well until he died, and then with—one of my mother’s brothers married one of my father’s sisters, and they were on the farm. My parents, first married, were on the farm. And the Depression came, and that was also lost.

Warrin: What year was your father born?

Gomes: 1909.

Warrin: 1909. So he would have just been entering the job market at the time of the Depression.

Gomes: That’s right. That’s right.

Warrin: And what did he do?
At that point, my parents went out and did what they could. They largely hired on. He was a hired milker on the dairies, where in those days, cows were milked by hand. And he would always arrange that he got a house, as many people did. And as I was growing up, he had a little barn where he could start his own herd, which was always what he wanted to do. My mom would work at home taking care of the place, taking care of the little herd while he was milking cows for someone else.

And then as we moved further—we were in Modesto then—as we moved further south in the valley, my mom would go out and cut fruit in the packing plants, do whatever she could to bring some income in. My dad worked for many years as a DHIA supervisor, testing milk for butter fat. He ran an artificial insemination franchise for about fifteen years, and then finally sold out his dairy and everything else. Shortly after that he retired.

How did he make the step from being a milker for someone else to these other responsibilities?

Well again, he started—now this was in Modesto. He was a milker for someone else, and then a family came in that was willing to supplant the two of them for the same money, so they moved—we moved into Merced County. At that point we were staying in a building owned by his uncle. And his uncle’s house burned down, so we had to move again, and my mother’s uncle’s farm became available for sale. At that point, I suppose, he had ten cows, which is absolutely nothing today. At that time, a thirty cow herd was a pretty normal working unit. And so he started with that. He was working outside the home then, or off the farm, and maintaining as he tried to build up his farm. So that became the pattern over time.

I see. And for how many years did your mother work?

I think about the time we moved to Hanford, again, with the exception of seasonal working in some packing plants, with six kids, she was home most of the time. She always had a big garden that she grew to maintain fresh fruits and vegetables. We planted trees. So she worked around the home, but did not work outside of the home to any great extent after the late forties.

I see. Are either of your parents living at this point?
No, no. My mother died almost ten years ago, and my father, twelve years before that.

Could you talk a little bit about your siblings?

Yeah, I have five brothers and sisters. They all, except one, still live in California, or currently live in California. My oldest sister was born in the Depression in ’32, grew up in relatively difficult times and conditions. She went on and was married, has children and grandchildren—lives now in Vallejo. She’s a widow. My second sister was born—there were seven births, one stillborn, in eight years. Rather than go through the dates, unless you’d like them, we can simply say relatively soon thereafter. And again, grew up, went through—all of them went through high school. After graduating from high school, she married a man who was a printer, lived in San Jose, and areas here, and then relocated to Illinois, where she has raised her family. She’s still there, and she is a widow.

My oldest brother was the first to graduate from college. He went to Cal Poly, finished a degree in dairy husbandry, as it was called in those days, and then when he got out, was working with my dad on the dairy farm, helping out there, and started working in the insurance business, thereafter opening his own insurance office, which he still has. He is in Clovis, California. Semi-retired, but he goes to the office at least to visit with some frequency.

My next brother went to school at Cal Poly for a couple of years, and then decided he didn’t want to do that. He spent most of his career in Tulare County, working in and then for, perhaps ten years in charge of the busses in the entire motor pool for the Orisio district school. He would buy buses, sell buses, train bus drivers, and drive them. He has now retired in Dinuba.

I am next, and I have a younger sister who went through Coalinga JC. Completed her junior college degree, married a man who was going to school there, and afterwards in Iowa. So she lived in Iowa. He was Canadian. They lived in Canadian for—Canada for a time, and then came back to the States and they’re in Vallejo. She’s remarried since, lives in Vallejo, and is now retired.

Did you find, growing up, a valuation of education on the part of your parents?
Yeah, no question about it. School came first. No matter what kind of workload there was, no matter what kind of chores there were, if there were things related to education or related to school that we ought to be doing, those came first. And I think my mother in particular was just absolutely adamant that we would get all of the education we possibly could.

Did you find that as a general norm?

No, no. Indeed, as we were going off to college, my older brother first, there was pretty much in the community, a derision. You know, those kids ought to be home working once they graduated from high school. That’s enough education. And if they’re going to do something, go learn a trade. So for awhile, it was swimming upstream. Thereafter, it became pretty quickly much of the norm. I commented that my brother went to Cal Poly, and I did as well. There became something of a pipeline for the Portuguese community from that part of the valley to Cal Poly, even though Fresno State was just north of us.

Why would that have been?

I think as we were active in high school, most of it in the FFA [Future Farmers of America] programs, we interacted with the various colleges. And to be blunt, the Cal Poly people were great recruiters in that community. They knew everybody by their first names. If you accomplished something, you got a note from them. I was going through some old material yesterday. I have a couple of old telegrams from the dean, congratulating me for something; and that has an impression on a young, impressionable person who has no educational knowledge.

So you would credit the administrators at Cal Poly for encouraging Portuguese American youth to ….

The administrators and the faculty members, very, very much so at that time.

I remember at a conference years ago in the seventies, someone speaking, and proudly saying that he was the first Portuguese American in that county in the Valley to have graduated from high school.
And that would likely have predated me, because for Portuguese Americans, graduating from high school in my day was not unusual. To graduate from college was.

But a number were pulled out of school earlier so they could help with the milking.

Help on the farm, that’s right.

Help on the farm.

I can’t tell you for certain if my father was pulled out of school to help on the farm, or if it became a necessity when his father died. But he didn’t complete high school. My mother didn’t go. But again, her father died when she was in the eighth grade.

And then she had to go to work?

And she had to go to work on the farm at that point, just to—she was the oldest girl and had to help her mother deal with the cooking and such—for everybody working on the farm.

Did—at any point did you milk cows?

Oh yes. Yes.

Could you describe the routine—the day?

Well, I started out as a kid, obviously on this little farm. We moved to our own farm when I was about nine. I had two older brothers, so each of us sort of grew into our roles. As the youngest one, my job was to take care of the calves. And so I was feeding calves and teaching them how to drink from a bucket, and caring for them. And as I got older and my brothers moved on, then I did more of the milking. Whoever was there at milking time, milked.

We didn’t have a large herd, but we milked. We had milking machines, but occasionally my dad would get a pasture where the cattle would go out, and there would simply be stanchions. It was a Grade B dairy in
those days. And so, who all the kids he could grab—all the boys he could grab—would go out there and milk the cows by hand.

When I went to school at Cal Poly, they had a separate dairy that was reserved for students to bring their own cattle. And so while I was at school, I had four or five of my own cows mixed in this herd. I’d have to milk them or arrange to have them milked twice a day. And one summer, as people were leaving and there was a herd of about, I suppose fifty cattle there, I stayed on and hired on to take care of and milk the cattle for the other students who were leaving their cattle there. So it was—with dairy cows, I basically worked in the industry milking, staying around them for all of my life until I went to graduate school. And I went to graduate school in the dairy department.

Warrin: Is that right? Now, so while you were at Cal Poly, you had four of your own cows, and you would milk them. Why did you do this?

Gomes: Well the system is set up there. They have projects that students can work on in many commodities, but the dairy industry—or the dairy project—was unique. It had a separate dairy, it had a barn, milking parlor—milking barn in those days—and all of the facilities. People would bring their own cows, they would milk them, and pool the milk. The milk would go to the university creamery—college creamery in those days—and be used in cafeterias and this sort of thing.

So we got 100 percent class—one price for our milk. We were paid proportional to the amount of milk that we put in the tank, as calculated on test day. We paid for feed, grain for the cattle, on a basis of how much we fed them, and then hay, facilities and overhead were per head, with one rate for milking cows, one rate for dry cows, heifers, calves, for those trying to raise their herds. And indeed it was—if you didn’t try to raise a lot of young stock, it was enough of a source of income to equal working outside while you were in college.

Warrin: So your four cows were sufficient to give you spending money and—

Gomes: Sufficient to give me spending money and indeed to help out with some of the living expenses. While we were there, they had two small dormitories on this project dairy. We got very inexpensive housing. They had five double rooms in each. So they could house about twenty people, and they had two kitchens. So we all cooked there, and it made a relatively inexpensive way of going to school.
You know it’s very interesting that CSU has a reputation of being practical. That’s the most extreme example that I’ve heard of.

That’s right, that’s right. They had projects, as I say, in beef cattle. The university would buy the animals, the students would finish them out. The university would pay all of the expenses and take any loss or split the profit with the students. If we had loss, we paid it. But if we made a profit, we got it. So we basically were simply paying rent, overhead, feed. And we went out to neighboring farms, to farms almost into the San Joaquin Valley to buy hay. We made all those decisions as a management group.

And in between this, you of course attended classes.

Oh yes, yes.

What were the hours that—the milking hours?

Normally, milking started at four o’clock.

4:00 a.m. And it was scheduled with a new schedule - not necessarily shaken up very much - but a new schedule every quarter of the school year. And the first person to milk started at four. We were usually completely done by six. And so you might have a milking slot of 5:30. And that was the time you were to show up at the barn. If you were sleeping in, you had a number of guys on your back very quickly.

It would teach you quite a sense of responsibility.

Oh, absolutely. Again, having grown up on a dairy farm, when the rule of thumb is nothing is more important than milking the cows when it’s time to milk the cows.

Seven days a week.

Seven days a week, rain or shine, you milk the cows.
Warrin: And what time was the evening milking?

Gomes: Four o’clock.

Warrin: Four o’clock, also.

Gomes: Yes. So generally four to six. And that’s partly why the schedule was revised. If you had a class scheduled in the afternoon that went until five, you could get a late milking time, and that would carry over into the morning the same way.

Warrin: I see. How did you feel on campus in this particular program, compared with the general student body? How did you interact?

Gomes: Oh, I don’t think it affected my interactions at all. I belonged to the same clubs, I held the same student offices. I competed on dairy-cattle judging teams, which is part of what we did. I took the same classes. It simply meant that our afternoons were shot, and we had to squeeze in a little bit of sleep to get up in the morning and milk. In addition to the milking, obviously, each of us had our own chores, and your chores were based on a calculation of the time required to do them, and that was prorated based on the number of cows you had.

Warrin: How did you get the cows to Cal Poly?

Gomes: They came two or three ways. One of them was—two of them, I guess—were cattle I had at home, that we just moved there, and I bought two.

Warrin: I see. And what did you do with them when you graduated?

Gomes: Sent two of them back home, and sold two.

Warrin: I see. You mentioned that your family dairy was a grade B dairy. Could you explain the classification system?

Gomes: Oh sure, sure. And it’s changed over time, with pricing of milk. But Grade A milk is, in these days, it’s no longer called that. It’s for fluid milk consumption. It’s the milk that comes from the dairy that had to
be of the highest, freshest quality. The cleanliness, the pipes, the required facilities for it, are inspected on a regular basis. And that goes into fluid milk.

Grade B milk in these days now, or various other names now, would be the milk that would go into manufacturing. It would be used largely for making cheese and other non-fluid milk products. So it required a less modern facility. It is the sort of thing, if the cattle were out on pasture, and you put the milk in cans—and all the milk in the early days was in cans—that would be sufficient. You couldn’t do that on a Grade A facility. You would have to bring the cows in, and they would have to be milked in the facility. And it was a significant price difference.

Warrin: Grade B was less expensive?

Gomes: That’s correct.

Warrin: Could you explain—you talked about thirty cows at one point early in the twentieth century being an average dairy.

Gomes: Oh actually later in the century.

Warrin: Even later? Perhaps even up to mid-century?

Gomes: Mm-hmm. Certainly.

Warrin: A big change took place while you were still in school, presumably, to these large dairies that exist today. There are many less dairies than there used to be, but they’re much, much larger.

Gomes: They’re much, much larger. And there are—the number of cows on a farm has—per farm—has exploded. The dairy industry up—underwent two or three major changes. The first was the milking machine. If you were milking cows by hand, to have the ability to do it yourself or to hire enough people to milk those cows, meant you didn’t have herds of above fifty cows. A thirty cow herd in the mid fifties was pretty common.

The second major change was the bulk tank. Rather than handle milk cans and have to move them around by hand, cool them individually, cool the milk individually, move them on—lined, stainless steel tanks
were put in virtually every milk house. These were refrigerated. The milk could go directly into them. It could be kept for a day or two before it moved on, rather than twice a day, milk cans be moved, or once a day on some Grade B dairies.

The third was probably artificial insemination. As the industry came in, it freed the dairy farmers of having to have bulls. And to maintain a large herd of bulls, which you’d have to have if you had many cows, was entirely alleviated.

So when I was a youngster growing up, my dad as I commented, was a DHIA supervisor—Dairy Herd Improvement Association supervisor—and tested the milk on many of the herds in the county. The largest one that he tested, and I think the largest one in existence in Kings County had about two hundred cows. When I was in college I went to a dairy in Los Angeles that had over 1,000, and we visited a number of dairies in the late fifties in the Chino area - coming on, moving out from Los Angeles to Chino - that had between four and five hundred cows. And that simply was unheard of anywhere else. As I traveled through the years to the Midwest, the average herd in the eighties in Wisconsin was still thirty-five or forty cows. And they just simply were astounded that there were herds of five hundred and were sure they couldn’t be—that couldn’t be done anywhere else. It has.

And now, herds probably commonly are seven hundred fifty cows. And if you want more, you just simply build another dairy adjacent so that they don’t have too many running through one facility.

Warrin: So that’s the optimal size?

Gomes: It seems to be going that direction. Now some people say it’s 1,200, but units are put together, rather than continuing one to 20,000 thousand cows.

Warrin: Many of those Chino dairies, as Los Angeles expanded, many of the Portuguese have moved up to southern Idaho, Twin Falls area.

Gomes: That’s correct. First of all, and again, going back into the early fifties, there were dairies in Los Angeles County. Those moved to Chino, and now Chino has become more and more crowded, and they’re moving out. They went to southern Idaho, went to Arizona. There is a huge dairy industry in Arizona. Not—proportionally fewer Portuguese probably moved to the Arizona dairy herd than moved to Idaho. And then now those dairies are beginning to show up all over.
Warrin: All over, meaning?

Gomes: All over the country.

Warrin: All over the country.

Gomes: Yes, there are large dairies now in northern Ohio, Indiana. I drove by one in Indiana that has, I think, 2,400 cows, earlier this year. And that’s become the pattern. [As well, the “California” type dairy now is the norm in Japan, Israel, Saudi Arabia, and other countries.]

Warrin: Have the Portuguese moved out to those various areas or—

Gomes: No, they’ve gone to Idaho. For the most part, they’ve stayed here otherwise. They came from Chino up into the San Joaquin Valley, and now Tulare County is the dairy county. And they’ve just simply lined them up in the San Joaquin Valley. They were joined after World War II, or prior to World War II, in some cases, by the Dutch. And so now a very, very significant part of that industry is owned and run by Portuguese Americans and Dutch Americans.

Warrin: And Dutch Americans. I see a statistic that in 1972, 52.5 percent of San Joaquin Valley dairies were owned by either Portuguese or Portuguese Americans.

Gomes: Mm-hmm. I think that’s probably not—it may not be quite that high proportionally, but it’s certainly not very far from that today. That became the industry of choice in California.

Warrin: Right. And most of these dairymen were from Terceira [Azores].

Gomes: Yes. And whether that island emigrated a greater proportion than the others, I simply don’t know. I don’t have a good feel, for example, of what’s in Brazil, or what’s in New England, as a proportion of island origin.

Warrin: Particularly the—either Terceira or the western part of the Azores, because they—the western part, not Terceira, but Pico, Saint George, Flores, Corvo, Fayal—were the islands frequented by the American whalers.
Gomes: Yes.

Warrin: And so this was the case of your grandfather who was—

Gomes: From Pico.

Warrin: From Pico, yes. And they were the ones who tended to be in American whaling more than the others.

Gomes: Yes.

Warrin: Could—[microphone falls to the floor]

Gomes: Is it all right? Does it work?

Warrin: It shouldn’t disturb anything. I don’t have my earphones, but I’m sure it’s fine. Let’s just go back to your childhood. What was it like being brought up in a Portuguese American family?

Gomes: We were probably not typical. I commented that my mother didn’t speak English until she went to school. She felt that was a great handicap. She thought that because she couldn’t speak English, she was not able to move at the pace she would like to. I don’t think there’s any question that she caught up. That wasn’t the issue. But she felt it was a handicap, and decided that her children were going to learn English, and English only. And they could learn Portuguese later if they wished. You know, at one point later she thought that may have been a mistake, but nonetheless, we grew up in a home where—while my parents could speak Portuguese, and obviously would when they didn’t want to—didn’t want us to know what they were talking about, we didn’t. And so we were out of town six miles, relatively isolated. None of the schools that we went to had more than a small proportion of kids of Portuguese descent - grade schools, elementary schools.

Warrin: About what proportion would you say?

Gomes: Oh, at any given time going out in that area, I would suppose it would be 10 or 15 percent. Probably true on into high school. There were a couple of Catholic elementary schools in Hanford, and one junior high
school, but no Catholic high school, which is where those communities would probably have congregated.

And so the degree of interaction with Portuguese people was mostly oriented towards family. We would visit with and do things with my mother’s family. And again, largely that same attitude carried through them. As I say, the brothers had to Americanize, and they didn’t want their kids to have to go through that. My father’s side retained more of the Portuguese community, retained more of the Portuguese traditions, and we would pick up some of that visiting with them, but we were not deeply involved in it.

01-00:46:38
Warrin: What about food?

01-00:46:43
Gomes: Portuguese food Americanized by my mother, if you will. She would do many of the things that were Portuguese. We didn’t make linguica, for example, but my dad’s families did. And so we would have Portuguese sausages, we would have Portuguese sopas. But during the Depression, as things were available, my mom would substitute eggs—which she had from her chickens—for beef. And she would substitute something else for lard, because she thought lard may not be really good for you. And my dad, again, grew up in a meat and potato family. She would substitute vegetables in wherever she could. And so while we had foods that looked like, in many cases—I was just in Lisbon—in many cases tasted like Portuguese food. The ingredients got somewhat adjusted.

01-00:47:50
Warrin: Got changed. Perhaps the olive oil stayed, and some ….

01-00:47:53
Gomes: Some of the olive oil stayed, but she would—tended to go to lighter oils.

01-00:48:01
Warrin: What about religion?

01-00:48:06
Gomes: Again, the distance was such that we simply were not there as frequently after kids as we might have been. We were going in several directions. We went to catechism classes. We all got through the early stages to first communion. But pretty much after that, floated away. There was no Catholic church in the area we lived, within a five or six mile radius—or perhaps a ten miles radius. And again, when you’re relatively small and your dad’s doing—milking twice a day, and you have one car to get in, just didn’t happen that often.
What about your early companions and your school friends and so forth? Was anybody separated by ethnicity or—

No. I think there was an awareness of ethnicity. And I would carry that even further. This was the time after the Dust Bowl, and there’d been a huge emigration, a huge movement from Oklahoma, Arkansas, those areas. And so everybody was identified as Portuguese, Italian. But you might be identified as Okie. And if you were called an Okie and you were from Arkansas, you resented it. So everybody had a label. But I don’t know that there was any particular class distinction. Probably the African Americans were still not given as central a role as they might be. They were separated from—they might have been very active in many things, but there was always that line of recognition. And probably there was some with the Latinos. And some circles, I’m sure some with the Italian Americans. But there was a recognition of background, but not necessarily a prejudice based on it.

And so at least at school there was a mixture.

All of them. All of them. And I haven’t mentioned, but there was a not insignificant Japanese/Chinese community, at least in the high school.

What about at the level of your parents. With whom did they socialize?

Other people in the area who—usually parents, because we were so involved in school, and this sort of thing. And my mother—more than my father in these cases—would be to PTAs [Parent-Teacher Associations] and parent groups, and FFA mothers groups and all of those sorts of things. My dad socialized as the DHIA supervisor, for example, with the people where he served.

So in both cases, they were moving outside of the local Portuguese community, and into a more general communication.

That’s correct. That’s correct.

What about Portuguese festas? Did you ever—did your family attend any?
Gomes: The family as a family didn’t. As we got older and would get time, and there was one going, my dad might say, “Hey, let’s go to the festa,” and would take a couple of us. And whoever was there might go. But to make an event of it, generally no. So in college, for example, there’d be a whole series of them going down the central coast in the summer. And several of us might go over and see what’s going on, if you will. But we might or might not be Portuguese American to go to the festa in those days.

Warrin: It was quite a popular—

Gomes: It was a party.

Warrin: —event among the general public.

Gomes: Yeah. It was a big event.


Gomes: No, we never did do Portuguese music. I actually was not familiar with fado until the first time I went to Portugal some years ago.

Warrin: So you hadn’t experienced that as a child. Perhaps it’s more common today, or in the last few decades than it has been.

Gomes: I think that’s right. I think just as when my parents were kids, there was a very, very strong move to Americanize. I think over the last two or three decades, there’s been an increasing awareness of ethnicity and culture, and I’ve been involved in that as well. I’ve spent some time learning—obviously as so often happens—I started after the people who could teach me were gone. But that’s become something I’ve seen much, much more of in the last twenty or thirty years.

Warrin: I think this is a good point to take a break, change our tape.

[End Audio File 1]
Warrin: So we’re on tape—tape two of our interview with Doctor Reg Gomes. I’d like to ask you to recall what a typical day in the life of your family was, maybe when you were ten or twelve years old.

Gomes: Sure. Twelve years old. A pretty typical day is, we would—well, we would roust out about five o’clock in the morning to get out, milk the cows, do the chores, so that we could be done in time to rush back in and head off to school. At twelve years old, the older—when I was twelve, the older kids would be catching the bus to high school, and the younger ones would be catching the bus to elementary school. At that point, the younger were two of us. And so all of the others would have been heading off to high school. I think all would have still been in high school at that point.

And at the end of the day, we would come back on the bus from school, unless there were activities at school they were involved in. My oldest brother played football and wrestled, and those were after-school activities. And there would be either a bus that would take kids home after that time, or arrangements had to be made to pick them up. My older sisters were in the school choir, and some of that was after school.

So depending on what the schedule was, almost always involved around school. Perhaps at that day, at that stage, involving 4-H. Going to meetings after school. The circumstance always was that somebody had to drive, and only one person in the family did.

Warrin: Because you only had one car.

Gomes: We had one car, and at that point, my older sisters had not learned to drive, at that point. And my brothers weren’t old enough. So nobody was old enough to drive, and there was only one car. So arrangements had to be made to haul people, pick up people, and somehow milk cows.

Warrin: Never forgetting to milk cows.

Gomes: Never forgetting to milk cows. And that was a pretty typical day.

Warrin: And by this time, you have milking machines?
By that time we had milking machines, yes. And one person could handle the milking at that point, but it was better if two were there because there was feeding and calves to take care of, and all of the other chores that went along with it.

How many cows were there on the ranch?

Probably at that stage, we’re in the low twenties.

That was fairly typical of the area at that time?

No, it was a little bit small. Well, there were lots of herds that size, but you had to work outside the home too, to live with a herd that size. But probably the average herd around Kings County at that point was thirty-five or forty.

And you still used milk cans at that point?

Still used milk cans when I was twelve. I would guess within about two years we had a tank.

And what was the process with the milk can? How did it get to market? How did it—

You milked the cows into a machine with a bucket on it. From that machine bucket, you poured the milk into a stainless steel bucket that was then poured into a bin hopper that ran the milk through a cooler. So there was a series of coils. The milk would run down on it—over it to chill it. It was actually cold enough that milk would freeze on it. The milk would then go into the cans cold. We would keep them because of the nighttime or the early morning pickup. We would just keep those in a cool area of the milk house until the truck came to get them.

In some of the Midwest in the old days—and I didn’t run into it very much in California—they had water tanks that the cans could sit in to keep them cool, but because our milk was picked up daily, the evening milk would stay cool overnight and the morning milk would be all right to go. It would be chilled, but it would go immediately.
Warrin: So that sometime during the day, every day, seven days a week, they would—And who picked up the milk?

Gomes: The creamery. The milk processing plant.

Warrin: Right. Were the Portuguese involved at that level at all?

Gomes: Yeah. There were always young men working. I don’t know that that was necessarily a job they gravitated to, but there were Portuguese involved in the hauling, there were Portuguese involved in the manufacturing. At one point when I was in college, I had a pasteurizer’s license, so I legally could pasteurize milk, make cheese, ice cream.

Warrin: Which is a job performed at the creamery.

Gomes: That’s correct.

Warrin: I think there is at least one large Portuguese trucking firm—King’s, I think it’s called—that became very important hauling milk.

Gomes: Yes. And I don’t know how much of it they did at the can level, but yeah, there was no question. I had an uncle who had some milk tankers in later years. There is, as you say, a very large one in California. There are Portuguese associated at relatively high levels with some of the dairy plants, now—the manufacturing processes. So they’ve grown throughout the industry in that time. But one of the requirements, almost, to move up very far in that industry was a college degree. And in the days we’re talking about, they didn’t have them. So they’ve grown into the industry, including the education.

Warrin: You mentioned briefly this evolution of Portuguese beginning to graduate from high school and going on to college. When would that have become important?

Gomes: It probably—it was unusual when I went off to college.

Warrin: Which is what year?
Gomes: I went in the fall of 1956. When my brother went three years earlier, it was rare. At that point, I probably knew of three or four or five Portuguese who were college graduates—Portuguese Americans. By the time the next generation came along, it was expected.

Warrin: That you would go to college.

Gomes: That you’d go to college. It was the same goal as anybody else.

Warrin: And did the majority of them go to study agriculture?

Gomes: In the early days, yes.

Warrin: Early days meaning—

Gomes: My time.

Warrin: Your time.

Gomes: I think if you went to a place like Cal Poly or Fresno State, the majority would have been in agricultural areas, and the bulk of those in dairy.

Warrin: How old were you when you decided you wanted to go to college?

Gomes: I think my mother had decided we—the boys especially wanted to go to college when we were very, very little. That was always an expectation. And, you know, as today, kids grow up, they expecting to go to college. That was very rare, that was unheard of, actually. My brother had gone off to college, and so that obviously meant it could be done. And so probably by the time I was entering high school, it was with the expectation that I’d go to college. But the route to it was not the same as today. They had the college prep program, and we didn’t do that. We did the Ag program, which made it a little different route to it.

Warrin: How do you think your mother—how did she—
Accomplish that?

How did she get these—adopt these values? Higher education, rather than keeping the kids on the farm?

My mother’s family—people around referred to my mother as a dreamer. She was the eternal optimist. And always wanted better for her family and for her kids, and for anybody around her. So whatever it might be, she was always striving to move forward. I think she was the person that they once said, if she were—if she knew she were going to die tomorrow, she’d plant a tree today. That was simply the way the woman was. It was not typical of her family. And I don’t mean the family denigrated education. But the degree to which she believed in moving on and accomplishing things, working hard for them, was simply her characteristic.

And it was particularly enlightened at the time, because she also could have simply wanted you to buy a lot more cows.

Absolutely. Absolutely. She didn’t necessarily want us to have a bigger farm or even be on a farm. She wanted us to have a chance to be what we wanted to be. And she said the only way you can guarantee that is education.

So you, at a fairly early age, had decided on your college education. Could you talk a little bit about your college years?

Sure, sure. As I say, my older brother had been to Cal Poly. He had been in the department, and so I had something of a feel. I had been very active in FFA, and at that time, all of the state championship competitions, save one—

Excuse me, that’s Future Farmers of America?

Future Farmers of America. Actually, today it isn’t. They have decided to go as Exxon did, with the FFA as their name, so that it extends beyond farming. But it was Future Farmers of America then. I was very active in that in high school, and was in a number of state competitions. The competitions and things like dairy judging, and parliamentary procedures, some other activities, would have regional contests that might be held at Fresno State or UC Davis, but the
championships were always held at Cal Poly. And they made that a huge event for recruiting, for familiarizing students with the campus, and that was the place we went. When I got there, I was familiar with it. I quickly got involved in dormitory life, and student government, and going to classes, and learning was it was all about. Cal Poly, at that time, had about 5,000 students. It was the first year women were admitted, so that put a slightly new twist on it.

Warrin: They hadn’t had women before your year?

Gomes: They had not had women. It became coeducational in 1956. But again, 5,000 students compared with a high school of 1,000 was not a huge, huge jump for me. But it was a question then of just getting into the routine of, again, doing many things I was familiar with—milking cows, with making decisions on management, but at the same time, budgeting time to go to class, to be involved in activities, to live the college life, and did that for four years.

Warrin: At what point did you decide you were going to move on to graduate school?

Gomes: I went to Cal Poly with the goal of becoming a high school vocational agriculture teacher. I thought that was what I would like to do.

Warrin: So you didn’t want to go back to the farm.

Gomes: I didn’t plan to go back to the farm. That farm obviously would not be the one. And probably at that stage, I decided that having Sundays off was not a bad idea.

Warrin: I don’t blame you.

Gomes: The program at Cal Poly was such that you did an undergraduate degree—a baccalaureate—in a major, in a production/agriculture field, if you will—or an agricultural field. And then you took additional classes and graduate classes in agricultural education.

Mixed in that, your electives in your program would be education, psychology courses, to have that background. As I took those courses, I decided that that wasn’t the sort of thing I wanted to spend most of my time on, as opposed to the doing. So I began to look at alternatives. A couple of faculty members told me graduate school is where you
ought to be going so that you can look into research and teaching at a
different level. I resisted that, because frankly I didn’t know what
graduate school was, didn’t know what it took. I’m not sure I knew
what a PhD meant in those days.

Warrin: It was pretty unique in the culture of the region.

Gomes: Yeah, it was not the sort of thing they did. And Cal Poly was not a
graduate oriented school at all. You know, graduate programs were a
master’s degree in Ag education. So finally, I decided to give it a try. I
applied to three institutions. I was accepted at all three, and the timing,
circumstances—

Warrin: Which one—

Gomes: I applied to the University of Arizona. There was a faculty member
there who had been in the dairy industry and wanted to open up that
pipeline, if you will, to his school. A number of Cal Poly graduates—a
small number, because not that many went on to graduate school—had
gone to Washington State University. And my advisor at Cal Poly
through my junior year, had gone to work at the University of Illinois,
and asked me to apply there. So I applied to the three of those, was
accepted at all three, but didn’t know it at Illinois until I had accepted
an assistantship and a position at Washington State, and went there for
my master’s.

Warrin: How did you find living in eastern Washington?

Gomes: New, different, but—maybe one of the best things that ever happened
to me was spending a good deal of my life outside California, because
it was a very different world. [phone ringing in background]

Now we go through the pickup. We’ll see if it—

Warrin: We can take a break here for a moment.

Gomes: Yeah. [sound of answering machine in background] Mm, that’s my
sister.

Moving out of the state, seeing a new way of doing things, seeing a
different way of doing things probably gave me a greater appreciation
for the unique nature of California agriculture. Washington State was
the first such move. For the first time in my life, it snowed where I was living, on my birthday there.

Warrin: That would have been unique, yes.

Gomes: It was new. It was different. Washington State is an isolated community. It is in a very small town. A university and farming community, and you learn something about the town-gown relationship that, as a student at Cal Poly you didn’t fully appreciate. I was introduced to the world of research and laboratory and the hours that were involved. I worked a whole lot longer and harder in the laboratory than I ever had on the dairy farm. And I didn’t think that was possible. And it was seven days a week as a graduate student.

So it was an introduction into an entirely new way of life. Probably about the time I was completing my master’s degree, a development into a new way of thinking. Education prior to that had been as so many students do, you go there, you memorize what you were taught, you put it on the exam, and you forget it as quickly as possible. In graduate school it became a question of trying to understand the field, of trying to develop an awareness of how it fit, and how the big picture works so that you could carry it on.

Warrin: And you’re looking more to the future.

Gomes: That’s right. So you could build a pattern of thinking, rather than necessarily pieces. And that was new to me. I can’t tell you exactly when it happened, but it was obvious that it happened. It didn’t happen for me until I was in graduate school.

Warrin: It does open intellectual frontiers.

Gomes: It does. It suddenly meant that I was saying, well you know, I took that course and I never really appreciated this, or gee, I wish I had taken that course, which is something we all say after we’re no longer going to school.

Warrin: So you got your masters at Washington State.

Gomes: Got my masters at Washington State. As I was in the second year of a two year program, my major professor—and the professor/student relationship in graduate school—
Very different.

—particularly in laboratory sciences—is very, very close. My major professor accepted a position as assistant head of a department at his PhD alma mater, which was Purdue University, and asked me if I’d like to go along and work on a PhD, so I did that. Which again involved travel to new places, and I had never crossed the Mississippi, and so it gave me a new world to look at.

How did you maintain contact with your family during this time?

Through letters. And I would be the first to admit, I’m not the world’s best letter writer. But in those days, we still—we grew up with a culture, and much of it still existed that a long distance telephone call was for emergencies. Great news or death. So it was basically letters. I got home the summer between my two years on the master’s degree for a week. And that was essentially the visit.

Then you studied at Purdue and received your PhD, and then you stayed on there?

No, no. I interviewed for a position—was offered a position at Ohio State University, at that point, and in very early 1965, started there, and worked there for sixteen years.

Until ’81?

Until January—February of ’81, yes.

And then you came back here?

No. No, at that point I’d accepted a position as head of the dairy department at the University of Illinois, and served in that for three or four years. And the dairy science department and the animal science department were merged, and they asked me to head that department. I did that for four years, and then became dean for another five, six years, and then came back here.

And then came back, but what year did you come back here?

Warrin: 1995. And I imagine you’ve found things changed.

Gomes: Things are very, very different. I think I was not unaware of many of the things that were happening in California, the changes that were taking place. But obviously even when you’re here, you can only keep track of so many of them. So I had a pretty good feel for the changes in the dairy industry. As I went back through the San Joaquin Valley, the changes in the cropping patterns, the changes in the commodities being raised—as you go to the central coast, it changes in the nature of things like strawberries. The way they’re grown, and the numbers—the volume of productivity there. The beginning of the packaged salad industry were all things that were new to me, and that I had to learn.

Warrin: Now Vic, of course, is going to talk in detail about much of this. I was interested in your connection with Portuguese culture during this period when you were gone from the state, and when you came back, and now you’ve retired from your position. Could you discuss that a little bit?

Gomes: Sure. We talked a little bit earlier about the period twenty or thirty years ago, when people became more aware of their ethnic backgrounds. I did as well, and while I lived in Ohio, to a degree, and in Illinois to a greater degree. I did more reading and visiting with the few people who had that background, and who knew about it, on what it was all about, and where the places were, which islands were where. And while I’m still a novice in that respect, I began to develop more awareness. I became more aware of a developing culture in California, in particular, where the Portuguese were now not only going to college, they were not only dairymen, but they were lawyers and congressmen. They were developing a leadership role in many industries in the state. Largely in agriculture, but not limited to agriculture.

So as I came back, that reintroduction to that community took place at two or three levels. One, I could now visit with dairymen who were running big, huge, successful dairy businesses. I could visit with Portuguese Americans who were running large dairy plants, but I could visit with Portuguese Americans who were state representatives in Sacramento who were in congress, who understood the kinds of backgrounds that we were talking about, and brought that ethnicity to it. The Luso American club then became a little more interested in
what was happening—or I became more aware of what they were doing and what was happening.

So my involvement with the Portuguese community has certainly not been extensive since I’ve been back, but it’s been infinitely more extensive than when I was in the Midwest. You know, I like to tell people that I was Portuguese and there was one other in each state. That’s a little bit of an understatement, but we were a rarity.

02-00:28:48
Warrin: And those places—

02-00:28:49
Gomes: Ohio, Illinois, Indiana do not have very large Portuguese communities. Occasionally you would run into a little one.

02-00:29:00
Warrin: Yeah there’s an old community from the nineteenth century in Jacksonville and Springfield, but other than that, I think in the Midwest you don’t find anything.

02-00:29:16
Gomes: No.

02-00:29:18
Warrin: And you came back, invited by the University of California, and to what position? Just so that we could put it on the record.

02-00:29:25
Gomes: To the position of Vice President of Agriculture and Natural Resources.

02-00:29:28
Warrin: I see.

02-00:29:30
Gomes: It’s a position in the system offices.

02-00:29:37
Warrin: Just to ask about your family. You got married at some point.

02-00:29:44
Gomes: Got married just prior to completing my PhD degree in Indiana. My wife died in 2000—

02-00:29:56
Warrin: I’m sorry to hear that.

02-00:29:56
Gomes: —and I was remarried then, three years ago. I have two children, and my wife has two children. So we have four.
Warrin: Do you have anything to—that I haven’t asked?

Gomes: Well, to tie those in—and it just popped in my mind—when I was married in Indiana, again, there were no other Portuguese in the state, so obviously I didn’t marry into the Portuguese community. When I was remarried, my wife was widowed from a man named Freitas, so—

Warrin: Portuguese, Portuguese American?

Gomes: Portuguese. So she has no Portuguese ethnicity in her background, but certainly her husband and her husband’s family did.

Warrin: And so your stepsons are Portuguese American.

Gomes: So my stepson is one quarter—and stepdaughter—

Warrin: Stepdaughter.

Gomes: —are one fourth of the Portuguese nation. Their grandfather on the—their paternal grandfather was Portuguese.

Warrin: So you’ve come back full circle.

Gomes: I’m back full circle.

Warrin: Good. OK, well thank you—thank you very much. I’ve enjoyed this.

Gomes: Well, so have I.

[End of Interview]
Interview #2: January 21, 2008
Interviewed by Don Warrin, ROHO

Begin Audio File gomes3_1-21-08.mp3

03-00:00:26
Warrin: This is January 21, and this is Don Warrin with a second interview of Dr. Reg Gomes. In your last interview, we talked about your childhood, your family, your dairy experience, your years at Cal Poly, and then graduate school at Washington State, and your time back East, and then coming, finally, back to California. So I’d like to go back a little bit, ask you—as a child, how did it feel being Portuguese? Was that any different for you growing up than other people you knew?

03-00:01:26
Gomes: I don’t know that at that time it was particularly different. There were expectations, or lack of expectations, that tended to categorize people ethnically. So certainly, the expectations of Portuguese kids, the expectations of what they might do and, frankly, of what they could do, were somewhat lower than might be the expected norm. We had talked about the likelihood of going to college, and some of those things. Beyond that, there was an awareness of ethnicity, and any time that exists, there is always the kids playing the king of the hill game, where one ethnicity is better than another. But I don’t think it was particularly egregious in the time I was growing up.

03-00:02:26
Warrin: In terms of expectations within the Portuguese community, do you know how those expectations were formed?

03-00:02:38
Gomes: Well, I can only suppose that immigrants were coming over who basically didn’t have education. Many of them were illiterate. And so the general expectation of what people could accomplish was based largely on what had been perceived of their accomplishments. As well, if you grow up in a family—and I’m thinking of a two- or three-generation family—where something like education was not perceived as something that we did, you simply fell into the pattern of believing that we couldn’t do it. So I think expectations of that sort develop largely from the community that exists. We face that now with some minority communities, for example, in the San Joaquin Valley, where parents think that graduating from high school is the ultimate.

03-00:03:40
Warrin: Compared with their own background?

03-00:03:43
Gomes: Compared with their own background and their neighbors’ backgrounds.
Warrin: Right. So there were both individual and community values, which were brought over from the islands, essentially.

Gomes: I think so.

Warrin: And a very agrarian society that had neglected its education.

Gomes: Or had never developed it.

Warrin: Yeah. What about as you moved along in high school? Did your perception of being Portuguese, or other people’s perception of you being Portuguese, did that have an impact at all on you?

Gomes: I don’t think so. There was always the question, including among Portuguese, of where they fit in the ethnic spectrum. For example, the Hispanics have names that are very, very similar to the Portuguese. Were we the same, or different? And I think those questions were raised. But in the time and the place that I went to high school, a number of Portuguese Americans were leaders, were very active, and so there was not the separation of expectations at that level.

Warrin: Was there a sense at all that you were European?

Gomes: Generally, no. I actually have a cousin that, one time when we were asked to fill out a form showing ethnicity, where it was Caucasian, Asian, or whatever, she put “other,” because she was unaware of what that background might be. I think if there were an awareness of it, it would not have been European so much as it would have been Mediterranean, thinking in terms that the Portuguese, and the Italians, and the Spanish all fit into one broad category.

Warrin: That’s true. It is ironic, however, that Portugal is not a Mediterranean country.

Gomes: No, it isn’t. But the peoples may be Mediterranean.

Warrin: Right, and of course, it’s part of the Iberian Peninsula—

Gomes: It is.
Warrin: —which we could say is a Mediterranean area.

Gomes: And I think most of the California Portuguese—probably most of the American Portuguese—at that stage don’t really understand the geographical location of the Azores, the relationship of the Azores to the mainland, and how they’re the same or different.

Warrin: Yes. Right. And they have their own history, going back centuries. What about at Cal Poly?

Gomes: I don’t think so. Again, there were a few of us showing up—I think maybe not enough of us to be considered a minority, if I can put it that way. It was just a question, there were Portuguese kids there, and they were beginning to show up. And at Cal Poly at that time, everybody was doing his thing, and we were aware of differences but paid no attention to them.

Warrin: It was a big melting pot by then.

Gomes: It was becoming a huge melting pot by then.

Warrin: And when you moved out of state to Pullman, at Washington State, any feeling of ethnicity or—

Gomes: Well, I was almost a minority of one for the next thirty years, and so there was curiosity. There was, you know, where is that, and how does it work? But it would have been akin to someone coming in at that time and saying, I’m Latvian. Most of the world would have no idea what that meant, nor care.

Warrin: Exactly, both those things.

Gomes: So I think there was virtually no awareness consciously of that difference.

Warrin: To move on, you left California, we might say, as a farm boy with a BS degree. You came back with a PhD as one of the Vice-Presidents of the University of California. How did that feel to you?
It’s an interesting thing. When you ask the question, it makes me aware that there should have been a big difference. But in reality, I have pretty much thought of myself as being in the place that I am at the time I am, and I have never particularly been impressed with station. I think I was more impressed with the changes, and the changes in the people around, than the changes in myself. Clearly, when I left, I knew a group of students and producers. I was well aware of what was going on in the industry but certainly didn’t mix with or know the same people that I would when I came back. It changed the places that I could be comfortable, the people that I would be welcome to visit with, the places that I would be expected.

And, of course, in your extended absence, you grew professionally.

Sure. The Vice-President of Agriculture and Natural Resources is administratively responsible for the Cooperative Extension Program across the State of California in every county, and on the Berkeley, Riverside, and Davis campuses, administratively responsible for the Agricultural Experiment Station on those three campuses, and involved in about nine research and extension centers across the state. So I was administratively in charge of making sure those programs ran and worked. I was the liaison between those programs and the President of the University. I was responsible for the federal budgetary components of those institutions. And perhaps more, I was seen as the face of University of California agriculture across the state. Clearly, the Deans on the three campuses fill that role, but more on a regional basis.

Could you describe briefly those two major programs that you were overseeing?

Yes. The Agricultural Experiment Station is a national spin-off of the land-grant university. It was formed in 1887, with a charter in each of the fifty states, plus the Pacific Islands and a number of other places. The experiment station coordinates all university research with USDA—with the US Department of Agriculture—and coordinates university research on agriculture and natural resources within the
state. The Cooperative Extension Program developed about twenty-five years after that, in the early 1900s, and it was developed to take the land-grant university and the experiment station data results, making them useful to the people. The people in the early 1900s were almost all on the farm, and so they were programs to carry the latest scientific techniques to the end user. It was developed with initially an office in each county, with an officer—an advisor in California—in each county, and all of these people interacting with the campuses and the system to make certain that information is available where it’s needed and when it’s needed.

03-00:12:53  
Warrin: When you came back, could you describe, in terms of the Portuguese community, what you found different?

03-00:13:05  
Gomes: Yeah. When I left, there were clearly Portuguese dairymen. There were Portuguese working in the dairy plants. There were Portuguese now going to—then—going to college. When I came back, the president of one of the largest dairy manufacturing plants in the state is Portuguese.

03-00:13:31  
Warrin: Could you give me his name?

03-00:13:34  
Gomes: Jim Costa. The director at that time of the California Farm Bureau Federation, the manager—head staff, chief of staff, if you will—was Portuguese (George Gomes). The assembly members from Fresno County, and Merced County, and northern Stanislaus County into San Joaquin County—I was trying to remember the county where Stockton is—were all Portuguese Americans. Two of those are now Congressmen.

03-00:14:23  
Warrin: And could you give me the names?

03-00:14:24  
Gomes: Yeah, Jim Costa—and I gave you the wrong name earlier. Jim Costa is the Congressman now from Fresno. Richard Cotta is the President and CEO of California Dairies, and Jim Gomes is its Executive Vice President. Costa was the assembly member. Dennis Cardoza was the assembly member from Merced County, and he is now the Congressman from that area. Mike Machado was the assembly member from San Joaquin County—and some of those go beyond—and is now a State Senator in that area. John Vasconcellos, who was a long, long-term State Senator and recently termed out, has a background from Madeira. So there were those and more. A Congressman Nunes is now in—
Warrin: Devin Nunes?

Gomes: Devin Nunes, correct, is now in Kings and Tulare County, recently elected. So there is an increasing cadre of Portuguese Americans in state and now national circles.

Warrin: There was Richard Pombo, also.

Gomes: Richard Pombo is another, yes, and Tony Coelho.

Warrin: And they do reach across the political spectrum, also.

Gomes: Absolutely, absolutely—though interestingly, most of them tend to be in the San Joaquin Valley, and the Democrats tend to be Blue Dogs, and so they are less ideologically separate than there is partisan separation. The way in which that affected me, I think, was that, as I visited with each of these people on my return to California, they recognized that I was Portuguese American, and they recognized that that was not common in the higher administrative rankings of the University. As well as I see in their positions as developing uniquely within the community, they saw my position in that same kind of a light.

Warrin: As a uniqueness also.

Gomes: Yes. And so, I think it gave me a little more entree to them, a little more openness so we could be discussing our mutual interests without other kinds of background baggage.

Warrin: What about Southern California, as far as the Portuguese community in agriculture down there?

Gomes: I think most of the Portuguese community—again, my awareness, though there are a number in Chino, I think they have not separated themselves from the group as a whole, in my thinking. When I think Portuguese, and I think Portuguese and agriculture, I largely think of the San Joaquin Valley. There’s a huge congregation in Tulare, Kings, Fresno County, and then traditionally moving all the way up to San Joaquin County. Not very much north of there, but some.
Warrin: Years ago, there was a pretty vibrant community in the Sacramento Valley.

Gomes: Yes.

Warrin: Farther north.

Gomes: And there was a huge community in Oakland. There still is a real remnant of that in towns like San Leandro. But those communities were not in my background, in the whole dairy industry, and that kind of agriculture.

Warrin: Yeah, dairying was big—starting with Portuguese in the 1860s, and Marin County, Contra Costa County, Alameda County, and then Portuguese tended to flee suburbanization, even.

Gomes: That’s correct. And their next stopover would have been probably in Stanislaus County, San Joaquin County, and then they moved south. They never quite got so far as Kern County in a dairy industry. Though there is some slop over at the bottom of Tulare County, you can almost tell the county line by looking at the beginning of the dairy farms.

Warrin: What about some of the people in the dairy industry whom you met, who had moved up to higher levels?

Gomes: Portuguese in California provided leadership beyond the dairy industry, which was significant. I mentioned the director of the Farm Bureau Federation, George Gomes. He’s now an Assistant Secretary of Agriculture for the state. I think what one ran into is that the second-generation Portuguese Americans didn’t have the farms, in large measure, that they could go back to with large families, and went on into service, education, other kinds of leadership roles. And so, the producers—the people who are running the big farms now—tend to be people who came along later, after I left. And, while I have run into them, I haven’t found that they are necessarily spokespeople for the industry.

Warrin: What about the Portuguese that you met socially?
Gomes: I think most of the people I would have met socially would be the same kinds of people we are talking about now because most of my time, with the exception of some local things that I might have done here, would have been related to my university activities and my agricultural organizations that I belong to. So it would be the same people.

Warrin: Could you say when you became most interested in exploring your ethnic background?

Gomes: I don’t know that there was a particular point. When I was in Ohio, I was aware of—exaggerating—being a minority of one. I was aware that there was no ethnic group there. For example, both of my children are adopted. When we were working with the social worker to adopt my first child, my son, she said they worked very, very hard to match ethnic backgrounds. My late wife was from a German, Irish, English background, and she said, we have no trouble at all matching that half, but there are no Portuguese in Ohio—her comment. And I think, you know, that awareness was there. As I moved to Illinois, I became aware of the smaller communities that were there. There were a couple of people on our faculty with Portuguese backgrounds, and we began to discuss some of that history. I then began to pick up some literature and began reading about the migration of the Azoreans to the U.S. and to California, and so at that time was developing something of an interest. When I returned, obviously, it put me back in the community and piqued my interest further. The shame was that all of my relatives who would know about personal background were going or gone now, and I’m down to one aunt living from my parents’ eleven siblings. And so, to find that information is more difficult. One of my sisters has begun to develop an interest in genealogy and has been looking things up, and my wife now, as we commented last time, has a relationship to that Portuguese background, and she has an interest in it.

Warrin: It is very typical that when we decide to ask questions, the people whom we could have asked—

Gomes: Are all gone.

Warrin: Are gone.

Gomes: Are gone.

Gomes: And those who remain have memories that are sort of like mine. I trust it sometimes [laugh].
You talked about the Luso-American Club. What exactly was that? Is that something you belong to?

It’s something that I began receiving literature from, perhaps fifteen years ago. It comes out of Washington, and most of the literature was relating when a Portuguese ambassador was coming over to visit, and some of these things. So I have had some very, very slight interactions with them. I’ve not been a member or attended the functions. Generally, the ambassador was in New York when I was in Illinois, or whatever. But it’s the sort of thing that I became aware of. I have talked with some of the people who are central to it from California. The former Congressman Coelho, who is now very active, was one of the early founders or early members of the Luso-American Club.

Aren’t you referring to PALCUS, the Portuguese American Leadership council of the United States?

No, no. I’m sure they’re related, but it is apparently a different group.

Oh, okay.

I’m sure many of the people are the same.

So Coelho was an early member of this, or—

He was, I understand, an early member of this; and he was, to my knowledge, the first of the California Portuguese Congressmen, which began to get the ethnicity in there.

I think so, yes. You mention having gone to Portugal. How many times have you traveled there?

I’ve been there twice. I was there first in the late 1980s. And then again this year.

Did you get to go to the islands?

I have not been to the islands yet. That’s still on my list.
Warrin: You’re missing quite an experience.

Gomes: I know that I am.

Warrin: Is there anything else that you might add that I haven’t asked you?

Gomes: I don’t think so. You know, it’s been a view of my life and my growing up in a community—a part of a community, but certainly not being deeply within that community. I think in reflection since the last time we talked, one of the reasons that I probably was never as closely involved in the community during festas or visiting in community was my lack of Portuguese language. It is still a community where there is a good deal of Portuguese spoken, and I’m left out. So the community has reached out, and I have reached out at times, but there is always that limit. I would like to do it, but haven’t been able to have time, but I have had an invitation for the last two or three years from a man in Fresno, who annually has a linguiça making day. And a week earlier, they cut meat for linguiça. Matter of fact, the day is next Saturday, and they all show up in Fresno, and they cut their linguiça, and they make their linguiça, and they visit. And I think that would be interesting.

Warrin: One day you’ll do that?

Gomes: One day I’ll do that. I don’t know the extent to which the language barrier might be there, but all of them that I know speak enough English, and English frequently enough, that I don’t think I would be completely left out.

Warrin: Have you ever thought about taking a language class and—

Gomes: I have. I have. Again, the whole time I was in the Midwest, I thought about it. The problem is, if I were to have taken Portuguese at the University of Illinois, where it was offered, I would have no one to speak it with, and the Portuguese I would have learned would have been mainland Portuguese, which is significantly different from island Portuguese and Brazilian Portuguese, I understand.

Warrin: Particularly from Brazilian.
Gomes: Yes. My son has been to Brazil and actually took a quick and dirty course in conversational Portuguese from the Brazilian side. And so, I’ve thought about it. It is just something that up until now I haven’t had time to do.

Warrin: Sure. Okay, well, thank you. I think we have—

Gomes: You bet.

Warrin: —covered everything well.

[End of Interview]

[End Audio File 3]
Interview #3: April 7, 2008  
Interviewed by Vic Geraci and Robin Li, ROHO

Begin Audio File 4 4-07-08.mp3

04-00:00:00

Geraci: Today is Monday, April 7, 2008, and we are in the Oakland California home of Dr. Reg Gomes. This is the third interview with Dr. Gomes, and is being conducted by Victor Geraci, associate director of the UC Berkeley’s Regional Oral History Office. Assisting is ROHO specialist Robin Li. Reg is a professor emeritus from the Ohio State University Dept of Dairy Science and Ohio Agricultural Research and Development Center. He is also professor emeritus from the Department of Animal Sciences, University of Illinois at Urbana-Champaign. Dr. Gomes’ titles also include being dean emeritus from the College of Agriculture at the University of Illinois at Urbana-Champaign, and recently retired as the University of California vice president for agriculture and natural resources, where, as the chief executive officer, he was responsible for activities in agriculture, natural resources, environmental sciences, family and consumer sciences, forestry, human and community development, and numerous other related areas. The vice president, ANR, is also the director of the California Agricultural Experiment Station and the California Cooperative Extension. This interview is part of a series called “Taking the University to the People,” of interviews to document the post-World War II history of the University of California’s Land Grant mission to the people of California. Funding for these interviews comes from private donors, under the encouragement of Robert Dynes, past president of the University of California.

Okay, Reg, with all that said, now we can actually start. What I’d like to do in today’s interview is talk about your training, your research. I know Don Warrin, in the first two interviews, has talked about your family, grandparents, and parents. So we have that down. We got through your years at Cal Poly. Let’s start talking about your research, and in particular, how this research, which basically is around animal reproduction, kicks off your career. So I guess like all good stories, let’s start at the beginning.

04-00:02:14

Gomes: [chuckles] Well, I suppose the beginning is when I first went to graduate school at Washington State University, developed a relationship with my mentor, my major professor, and began a career in the physiology of reproduction. He was conducting research in two or three different areas. And I began to develop an interest in the endocrinology of the reproductive cycle. And we were working with cattle in the Department of Dairy Science at Washington State
University. We were on the cusp of some revolutionary changes, not only in the industry, but in the science of the industry. At the time I began to start, I was measuring the pregnancy hormone progesterone in cattle, and working with assays that had sensitivity of about one microgram. To put that in perspective, today’s assays will measure portions of a nanogram, [he or Geraci laughs] and so we’re talking a million times the sensitivity. In those days, we were collecting a liter of blood in the hope of finding the hormone; today it would be a drop, with some to spare. So we began the process of going directly to the veins leaving the ovary, to follow the hormone patterns. We were also collecting ovaries at the slaughterhouse. When animals were leaving, we’d follow so that we could determine the changes that were taking place. And we did the very early work on the mapping the significant changes in progesterone leaving the ovary of cows during the estrous cycle. We extended that work into pregnant animals, to see what changes were taking place. About the time I finished my masters, my major professor moved. He returned to—

Geraci: Who was this person?

Gomes: His name was Ralph Erb. He moved, and returned to his PhD institution, Purdue, to be assistant head of the Department of Animal Sciences, and asked if I would go with him. I said, “Certainly.” I think I told him at the time, “I’ve never been to—Where’s Purdue?” [they laugh] He said, “Indiana.” I said, “Well, I’ve never been to Indiana.”

Geraci: About what year was this?

Gomes: This was 1962. And so we went there. And in the Department of Animal Sciences, we continued some of the same work, but we expanded it to other species. I did my PhD work with swine, with pigs. We worked very cooperatively with the College of Veterinary Medicine there to collect ovarian venous blood to pattern the same sorts of things, and improved our assays to the point where we could measure a tenth of a microgram. Needless to say, all of those assay methods are obsolete now, but the background was there. We began the process of determining not only the production of hormones in animals in various reproductive states, and working with other graduate students in neighboring areas, but their metabolism, their directions of metabolism in different reproductive situations; and in some very interesting work, still in cooperation with Washington State University, some of the reproductive anomalies that took place when those hormones were not at the normal level.

Geraci: Now, when you say anomalies—
When cattle give birth—or any mammal—the placenta is released and follows out after birth. “Afterbirth” is the common term that farmers use for it. In cattle that had insufficient hormone from their ovaries. So veterinarians were required to come in and correct this anomaly, this situation of retained afterbirth that occasionally dairymen have to work with. So we were able to tie directly the physiological manifestation, the pathology, if you will, with the physiology of the hormones.

About that time, as I was finishing up, I was offered a position at Ohio State University, working with the department chairman, who had recently gone there from Illinois. He was an internationally known male reproductive physiologist, and offered me a position, asking that I work on the male instead of the female, but continue to work in the endocrine areas, plus. His name was Noland VanDemark. And he was my boss and colleague for the next nine years. During that time, the dairy industry had just made the change from either using bulls or using artificial insemination with fresh liquid semen. Incidentally, VanDemark had done some of the very excellent work on extending semen, so that it could be used on many cows from one bull, and so it could be stored for up to a week, in those days. But at that time, frozen semen was just making its way into the industry. It went through a number of manufacturing changes. Early on, semen was kept in large glass ampoules, and frozen. It was then found that if you put it in one milliliter plastic straws, the freeze would be more even. The semen would last longer. And so the equipment was required now to eject the semen from the straw, rather than take it out of an ampoule. And then they found that half-milliliter straws worked even better. And so they could work with different dilutions, they could work with different concentrations of semen. In this way, they not only improved the quality of the semen being delivered, but they could extend it to the point where one bull, in one week, could produce enough semen to sire thousands of calves.

That makes for a super-bull.

It means that if you *have* a super-bull, you could use him wherever you wanted to. And that became one of the real keys. The artificial insemination industry at that point said, “Well, now, the numbers of bulls that we have are not limiting, the quality of the bulls that we have is limiting.” And the only way you could accurately determine the quality of the bull—you could predict a lot, but in the final analysis—was to have that bull sire calves. So they would predict bulls’ genetic capacity when the bulls were very young; you could do this on paper. They would buy those bulls; they would collect semen and inseminate a significant number of cows; and then put the bull aside to rest until
the results came in. Now, they have all of these bulls “in waiting,” so that when the results of the daughters’ production came in, three and four years later—because they don’t start milking till they’re two—they could then pick the very best of those bulls, put those into their pool, and release the others or cull them.

Geraci: [over Gomes] So they’re doing some preliminary genetic mapping, at that point.

04-00:11:02
Gomes: They were doing all of—Well, they were doing preliminary genetic selection. On paper, you can determine what the bulls should be like—obviously, with genetic variation; they won’t all be that way. And so they selected what should have been the best. And you might get 200.

Geraci: So this is a precursor to the DNA-type mapping that we’re doing today.

04-00:11:28
Gomes: Oh, very much so. Very much so.

Geraci: But you’re just working with phenotype, genotype.

04-00:11:31
Gomes: Basically, the test that was developed at that time was called a contemporary comparison. In the very early days, what they did to see if a bull was better was to compare his offspring with their parents, with their mothers, their dams. A daughter/dam comparison. And they determined that because of age difference, environmental differences, the differences when the dams were younger, that was not a good comparison. So what they would do, if Bull A was to be tested, he would be inseminated to a proportion of the cows in a herd. The production of those daughters would be compared with all of the other cows in that herd, under those same conditions. And so the contemporaries would be the herdmates, not the national group. If, on the other hand, in the early days, you wanted a bull to look good, you bred him only to the best cows in the best herds, so the daughters looked good. This one corrected for that advantage This one.

Geraci: Now, is all of this work being done at Land Grant universities?

04-00:12:48
Gomes: Nearly all of it.

Geraci: Is there a new industry that’s actually starting up doing this?

04-00:12:54
Gomes: The artificial insemination industry started in the Land Grant University. And almost all of the bull studs, until the forties, were in
Land Grant universities or associated with Land Grant universities. At that point, the development of the industry was such that private organizations began to develop and grow. They eventually became—either private organizations or cooperatives—eventually became the industry. The genetic progress that we’re talking about, the genetic measures, were made almost entirely from DHIA, Dairy Herd Improvement Association testing records, which had started in Land Grant universities and had grown to the point where the industry had taken it over. Those records were housed in USDA, in the United States Department of Agriculture, and people could gather data from them to run the comparison studies. The research was done in Land Grant universities and in USDA, and when it finally reached the point where the herds such as we were—where the studs such as we were talking about were testing their own bulls, then they would be doing some of those comparison calculations. But they would be using them with public data. It reached the point, in the late seventies, where some of the collection of data, the computing, the \textit{massive} computing that had to be done on millions of records, was done in private organizations.

\textbf{Geraci:} Because this will become a major future shift in dynamics.

\textbf{Gomes:} It did. In each one of these issues. And a number of us think that’s the way it ought to be. The early research was done in the universities. The development of that research was done through extension, working with the producers. When it reached the point where it was a business process, not a research venture, but a system that could stand on its own and thrive, then the industry took it over. And the university went off, as I say, to do another good deed. [Geraci laughs] Unfortunately, a lot of those good deeds get forgotten over time.

\textbf{Geraci:} Get forgotten over time. Now, considering that you’re working with mammal reproduction, this is during the same era that the world is being introduced to the birth control pill. Did human reproduction benefit from what you’re doing? Or did you benefit from human reproduction studies?

\textbf{Gomes:} [over Geraci] Well, in the long run, both. We are talking mammalian reproduction. Let me give some example in a second. Back in the forties, as these industries were developing, as people were saying, “Look, we have to understand the reproductive cycle because we can’t do anything with this semen, we can’t do anything genetically, unless we can understand mating and function and pregnancy—” So the early work done, largely in farm animals, was adapted by the human
researchers. And the development of the pill—Very early on, were a progesterone based pill, synthetic progesterone based pills.

Geraci: Well, that’s the reason I was asking, because your initial work was in progesterone.

Gomes: Yes, and so it was very similar. When I was a young assistant professor, an organization was started that pulled people from human, and biology departments, and animal sciences, dairy science departments, and veterinary medicine, and medicine, into an organization I was a charter member of, called The Society for the Study of Reproduction. I was pleased that a visiting professor in my lab from Japan and I had two papers in the inaugural issue of that issue. That journal still exists. It’s very highly respected. It brings together research on reproductive phenomena in any species. It will tend not to center itself on very practical agricultural issues or very clinical human issues, but on the biology that fits all of those species. So if you want to know about the human or the aardvark, [Geraci laughs] if you want to know about the sheep or anything else, then that would be a single source that one might go to. Actually, I served on the editorial board that got the journal started, of that group. It was just a phenomenal time, to see those changes taking place. Let me put that in a little different perspective. I began my graduate work in 1960. Sputnik went up in 1957. And the United States went from a relatively sleepy research country to one that was gearing up to study everything. In that gearing up, the National Institutes of Health became a major player. And they became the source of funding for much reproduction research in mammals—in animal departments, in medicine, everywhere else.

Geraci: That was the era of some very interesting scientific problems like Thalidomide and that was a downside.

Gomes: Of course.

Geraci: We are just totally experimenting with who we are as humans, physiologic—I think one thing that’s interesting is how your jobs and job opportunities shifted your research at that point.

Gomes: They did. It was an interesting thing and maybe another change in time and philosophy. In those days, the methods, as I’ve talked about, were somewhat crude. The equipment was developing. We had a piece of equipment in my lab at Purdue that would measure radioactivity on chromatography strips. I don’t want to get technical, but we could separate compounds, and by putting in some radioactivity, we could
measure them. This strip counter—essentially a Geiger counter that measured the paper going through—was made by a new company. Their catalog, as you went through it, had places where sentences had been taken out with a razorblad and new typed pieces of paper put over the top of it with Scotch tape. You’d look at this, you’d say, “Boy, I would never invest in Texas Instruments, would I?” [Geraci laughs] So everything was on the flux. A man named Lyle Packard, not Hewlett Packard, began to develop a counter that would allow us to measure radioactivity. He did it in his basement, in the late forties. Hewlett-Packard just began shortly after that. All of these companies that are now huge were in their infancy. Beckmann Instruments, at that point, made only some very small instruments. So we were talking the concept of using a hammer and a saw to build houses. If you’re going to use only a hammer and a saw, and you don’t have the power equipment, you have to learn to be a carpenter and an electrician, and you have to learn how to make all of these things work together. Maybe that’s where my Cal Poly education helped. Because you adjusted to the question, rather than decide what questions you could adapt to your equipment.

Geraci: But that’s going on in general in American society. We’re moving from a very generalist approach to professionals who are very specialized.

Gomes: Of course and it’s essential. But it’s also important that we not lose sight of the big picture. It’s, if we’re to understand reproductive physiology, we have to understand DNA. We have to understand RNA. We have to understand the organelles and what’s going on in all of those. But once we do understand those, we have to realize that the limit of the world is not the cell membrane. It’s the organ, it’s the animal, it’s the population of animals. It’s the environment in which those animals exist. And while no one person can understand all of that, you can keep it in perspective. So now I think that’s some of what we’ve lost. In those days, we went where the opportunities and the questions were, where we thought we could make a difference.

Geraci: Because it’s a major shift. In looking at the vast amount of articles that you were publishing while in graduate school, and then moving to your first job as an assistant professor, it’s obvious that there’s a shift from the progesterone studies to the testicular type-work that you were doing.

Gomes: Yes. And that was clearly in those two places. I did very little female work when I was at Ohio State. It was almost all male work. After we got started there, part of the issue we were just talking about, trying to
see the big picture, led me and my chairman/colleague, and a postdoc fellow with us, to compile volumes on the testis to get—There was no work on the male side only that covered biology, the physiology of the animal.

Geraci: And that’s huge. Well, it’s four or five volumes, isn’t it?

04-00:24:03
Gomes: It was three, originally, in 1970; and then in ’77, we did one more that updated those.

Geraci: Okay. So that was really trying to bring all the literature together.

04-00:24:15
Gomes: Exactly. There were huge volumes. *Sex and Internal Secretions* was a great two-volume set. There were many volumes on the female, on reproduction in general, but nothing that talked about the male, the male process, from the biological point of view only. And we saw a need, and went to work on it. We originally planned one volume. And those things have a way of reproducing. [they laugh]

Geraci: Reproducing on their own. What kind of work were you specifically involved in, as far as with the male reproductive system?

04-00:24:55
Gomes: Well, most of what I was doing was working closely with my graduate students at any given time. Anything that any of us was doing in those days, we were all involved in. It’s just that various students had different parts they were working on. So we were working on the biochemistry of testicular function. We were looking for and finding ideas—Again, rudimentary biochemistry is so much improved now that what we did then is instructive, but no longer current. For example, we were looking for the kinds of specific proteins or isoenzymes that would relate to specific functions of the testis. The testis, for example, functions better at a lower temperature than the rest of the body. If you move the testis to body temperature, it stops functioning. That means the testis has to have some mechanism, some reason why it should be at a lower temperature, and the differences between those two temperatures. Some of the early work we did hinted at—and it was not related to what we were chasing, and we didn’t chase it much further—but hinted at a prostate specific protein. That now is routinely used as a test for prostatic cancer.

Geraci: All males over forty-five, fifty, it’s a regular test.

04-00:26:41
Gomes: Get it all the time. So those kinds of things, that is, a protein that’s specific to the prostate, it’s there for reasons, the test is not related to
the physiological reasons, but related to changes that take place in
certain pathologies. And so all of those kinds of things were part of
what we were looking for and chasing down.

Geraci: Was there any commercial chasing going on? By that I mean, if we’re
also moving into the era of freezing semen, are you looking for certain
bulls that can produce semen that can withstand the freezing process?

04-00:27:20

Gomes: Oh, yeah, there was no question. While it was not a major factor early
on, there’s no question that certain bulls produce semen that freezes
better than others. That became a part of the component in the
selection process. It usually was secondary. Because what they do is,
you freeze the semen and then you begin to process it, evaluating it
under the microscope in various other ways. There was extensive
work—Extensive is not the right word. There was work done over a
long period of time, in a relatively small number of groups
internationally, to try to separate the X and the Y sperm, with less
success than some people claimed. It can be done in different ways.
Basically, if you could do that, then you could use only X sperm and
have all female offspring. Or vice versa. So if you wanted to produce
dairy cows, you use X sperm; if you wanted to produce steers, you use
Y-bearing sperm. That research has existed at one level or another for
more than fifty years, without the level of results that one’s looking for.
Can be done, but it’s almost like going in with tweezers and picking
them out one at a time.

Geraci: [laughs] Which at that level’s a little bit more difficult.

04-00:28:59

Gomes: Precisely. Commercially, there were—In the human area, there was a
good deal of effort to look for a male pill. To look for ways in which
the male could be made temporarily infertile. So that not only women
would have to bear the brunt of avoidance of pregnancy. And that,
too—There were some promising things. There were some that
worked, but some of the side effects, some of the other issues in
those—

Geraci: Because you had written an article dealing with this?

04-00:29:43

Gomes: Yeah, I actually wrote several on that subject. So that work was going
on. We were using those chemicals to study the testis and what made it
turn off and turn on, and begin producing, and those sorts of things.
But the next level, then, would’ve been could it be commercialized?
So we ended up looking at the effects of a lot of things on the testis, all
the way from heat to caffeine to—You name it.
Geraci: Yeah, I noticed one article dealing with caffeine.

Gomes: Well, that was an interesting thing. I had been doing some work on the testis, and was asked to consult on the issue of cyclamates. Do you remember cyclamates?

Geraci: Yeah.

Gomes: Cyclamates were an artificial sweetener that—Yeah, I don’t know if they predated saccharine, but they were much more effective than saccharine. They were much lower dose, they had no side taste. They were the ideal sweetener, if you will. Inexpensive, easily produced. An article came out that showed that there was a level of cancer in some mice that were treated with cyclamates. In actuality, the mice were treated with cyclamates and saccharine, and the cancer probably was caused by the saccharine. But the cyclamates were removed from the market and never came back. I don’t know that we’ve had as good a sweetener since, from my point of view, in terms of taste and cost. But that was the kind of issue that occasionally we would end up looking at data on. I didn’t do research with cyclamates myself, I didn’t do research with caffeine, but I researched the literature on both of them, and examined samples (microscopically) taken by others.

Geraci: To see the possible effects that occurred?

Gomes: To see effects, to compare effects.

Geraci: See overlays. So there seems to be a holistic approach amongst those of you that are doing this research. You have to look to many, many different disciplines and fields.

Gomes: There was then.

Geraci: [laughs] Fair enough.

Gomes: As technology, as science moved forward, as the technology of science moved forward, then the need to narrow down and become more and more specific removed much of that.

Geraci: Now, this is at the time when you’re at Ohio State. What kind of courses were you teaching?
I taught a course in physiology of reproduction of domestic animals. I taught a graduate level course in advanced physiology of reproduction, which leaned more into the biochemistry of the hormones, that went into the biochemistry of the animals, went into the mechanisms, included things like the evolutionary development of sex. So that when you go from an asexual reproduction in a single cell animal, to earthworms that are bisexual and reciprocally mate, to two sexes and separation of sexes, you learn. Or at least you can examine what happened. Then we went into questions, for example, of development of internal reproduction, instead of laying eggs. Keep the young in. The first stage of that is the marsupial, where the young are born very, very early—they are little more than slugs—and they find their way to a nipple in the pouch and attach and develop the rest of the way there. So you go through these stages to try to understand reproduction, reproductive processes and phenomena. So that now the human is only one example of the primates, which are one example of—And so the difference between the estrous cycle and the menstrual cycle, all of those things were in the advanced course. I taught a course—The title of it varied a little bit. It was the philosophy and the practice of science. So that we talked about the scientific method, we talked about how one might develop and examine scientific ideas. We’d bring in a statistician, not to talk about doing statistics, but to talk about what statistics could do, how they could be used and misused. We would have our students develop a research proposal. We would have them develop an abstract. We would have them examine research proposals as if they were reviewers, and examine scientific articles as if they were reviewers, present scientific papers—the whole gamut of the practice of science, going back to the philosophy of science.

Any overlaps into bioethics?

Oh, sure. Sure.

What were the issues? Because I’m sure the issues have evolved and changed greatly over time.

At that time, particularly in the animal world, the concept of animal welfare and animal rights was just beginning to burgeon. The practitioners in the philosophical area—Michael Fox and company—were just getting their feet on the ground, and weren’t talking very much to the practitioners of agriculture. The few people in between—One of them—he was my friend and a fellow student at Purdue, and later we overlapped a lot at Illinois—Stan Curtis, became the guru, if I may, of the animal industry, on animal welfare, and still is highly recognized in that field. But the issues were here. We talked about
those, trying to get away from “he said/she said,” “Well, those guys are nuts,” and, “These people are butchers.” So the issue was just evolving, and we talked about it. We worked with it.

Geraci: I don’t think most people realize that those conversations had been going on for a while.

04-00:36:53
Gomes: Oh, a very long time. One of the arguments that the practitioners made—narrowedly, but one that can’t be completely dismissed out of hand—is, look, we want our animals as healthy as possible because we want them to produce as much as they can. Therefore, and the argument is, well, producing that much in one area may not be healthy in another area. So the arguments will never end, so long as animals are used for any human purpose. But there is ground in the middle for thinking people from both sides to meet and we tried to do that.

Geraci: I’m sure we’re going to be revisiting this in future interviews, as we talk about the role of ANR.

04-00:37:49
Gomes: Absolutely. The question of bioethics, the question of research ethics was one we did very early and very often. What are the obligations of a scientist? I had an article I gave to all of my classes, I think for the entire—I taught the course for seven years—I think for the entire time. The title of the article was “When Should Research Be Stopped?” If you simply ask that question, it opens up all sorts of issues. What research should not be allowed?

Geraci: Especially in the present era where we are now looking at cloning issues.

04-00:38:38
Gomes: Of course. But then, cloning—

Geraci: Yeah, it wasn’t even on the horizon?

04-00:38:40
Gomes: At that time, carrots had been cloned. [laughs] Some plants had been cloned. It wasn’t an issue. But the issue that arose then and continued was genetics. Do you do the genetics of race? Should it be allowed to do those studies? Many, many others that can be raised, certainly.

Geraci: I imagine people that are arguing for that are really coming to the animal sciences, because you have been looking at species and subspecies.
Gomes: Forever.

Geraci: Forever.

Gomes: Forever. 150, 200 years ago, there were something like five or six breeds of dogs. Now we have everything, Great Danes to whatevers.

Geraci: Did you have a lot of overlap at that time with veterinarian schools?

Gomes: Sure. If you go back to those days, nearly all of the veterinary students had come from colleges of agriculture. The route from biology into veterinary medicine was much less. The entry portal to veterinary school was departments of animal science and dairy science and poultry science. So those were our students.

Geraci: It seemed to me that it would be logical that these are the people you’re training.

Gomes: Sure. And much of the growth of animal science departments—and they were huge departments; still are, in many cases—was with pre-veterinary medicine students.

Geraci: One of the things—we don’t have to do it at this point, but as we go through and we’re talking about your career—you’ve mentored a lot of master’s programs and PhD dissertations. Let’s be sure and try and work in some of your students and some of how your research has gone off with other people.

Gomes: Sure. As I indicated earlier, almost everything I did was in conjunction with those students or with postdoctoral students. I didn’t have research of my own that my students weren’t involved in. We had in our laboratory at any time—depending on demand and funding, we would have at any time, from six to a dozen people. We would meet with regularity, we would be in the laboratory. If one found something interesting, everybody sat down and talked about it.

Geraci: That became a seminar, quick. [laughs]

Gomes: It became instant seminar, yes. Yes. When somebody was doing some work where samples had to be collected, everybody else drops—goes to help collect samples. I mentioned my friend Stan Curtis. He was doing some work at Purdue on farrowing pigs. Farrowing is giving birth. And pigs don’t farrow on an eight to five schedule. So we were
setting up cots in the barn. One person there, and as soon as the pig starts farrowing, the calls would come out. We’d all get out of bed and rush out to the barn to help work and collect samples as the pigs came out. So it was an interesting time, an interesting way of life. When I started, the work week was at least five-and-a-half days, sometimes six. Routinely. We had Saturday morning classes. The lab week was seven. You might get away on Sunday for a time, but we just constantly were in there. As a graduate student—especially prior to getting married, which was right at the end of my graduate career, and to a degree afterwards, because I was finishing up—it was eleven o’clock at night and however early you could drag out in the morning.

Geraci: What kind of students were you bringing into these programs? Where are they from? What are their backgrounds?

04-00:43:00
Gomes: My first PhD student was an Ohio State undergraduate. His name was Dean Massie. My first graduate student, I’m sorry. He was working on his master’s. He later got a PhD with me. My first student to complete a PhD was an animal science major at Purdue. He went on after he finished his PhD, became a chief of a section at the National Institutes of Health, and then became the president of a medical college in Virginia. Gary Hodgen was his name and he was recognized very widely as an outstanding endocrinologist. I had students from England, from the Philippines. I had a technician working in my laboratory who was working as a part of his alternate service. He was the first conscientious objector from Muhammad Ali’s draft board. Or Cassius Clay’s, if you prefer and next to him, I had a Vietnam veteran. So we said we had the United Nations. The postdoctoral—not postdoctoral, but a visiting professor that I had the first article in Biology of Reproduction with was from Japan. We had students on continuing programs that Ohio State had internationally. We had students from India, and I had two graduate students from India. I worked with three who were not my students, from Brazil. So we had Oklahoma, Texas, California—I had a couple of Davis graduates—Colorado, a number from Ohio, New York, Pennsylvania, Indiana, Iowa—off the top of my head.

Geraci: This is a good cross-section.

04-00:45:28
Gomes: From the whole country and much of the world.

Geraci: I would take it most of the students were male?

04-00:45:34
Gomes: Early, most of the students were male. I think—I had more female graduate students than anybody in the department and over time, I
would guess about a quarter, though I haven’t counted. I guess about a quarter of the students who completed degrees with me were women.

Geraci: Because I could see initially—Did most of these people have working class backgrounds—Were they farm boys, coming from and pushing their way up?

04-00:46:13 Gomes: Students who didn’t have a farm background were more inclined to come to work with me than they were with other people in the department, because I would spend time on biology issues, less—I was considered to be less practical.

Geraci: More research based.

04-00:46:30 Gomes: Yeah, more theoretically based, more research based, and certainly, a broader base. I suppose at least half of my students were not from typical American or typical Midwestern farms.

Geraci: Now, while you were there, where’s funding coming from to do all these things?

04-00:46:52 Gomes: Funding is a very interesting thing, and it’s a discussion we may get into as we come back to California. Prior to that time, prior to Sputnik—and I mentioned that earlier—most of the funding for colleges of agriculture was USDA based. After Sputnik, funding to USDA did not increase proportionally; funding for NIH burgeoned; funding for NASA, the early days, was there; funding for NSF was increasing, and for a number of related agencies. We’d have bits—And funding from the Ford Foundation, the Rockefeller Foundation, organizations such as that, was becoming significant. Most of my research was funded by the National Institutes of Health, over the years, the vast majority of the dollars. But I had money from USDA, I had money from the artificial insemination industry, I had some Ford Foundation money. The Japanese visiting professor was a Ford Foundation grant. And we had some student support from NASA.

Geraci: Interesting how NASA felt they might use this research.

04-00:48:29 Gomes: Well, NASA actually, at that point, put out a number of graduate student fellowships and what they were doing is training scientists. Because they had funding and they were getting started.
Geraci: So basically, your studies in animal sciences, then, are following pretty much the common trend through American higher education at that point, heavily investing in math and science, with federal funding.

Gomes: Very much. Very much so.

Geraci: Congressional designated funds.

Gomes: I may not have been the norm. That is, a number of people in agriculture, particularly those who had been there ten and fifteen years earlier, still looked largely to USDA for their funding. They said, “That’s where our money comes from, that’s what we do.” If you go to NIH, you obviously have to direct your research slightly differently than you might if you were getting money to do more practical research.

Geraci: I’m just trying to set sort of a benchmark. There seems to be a shift in the way that it’s being funded, within agriculture, for the land grant colleges.

Gomes: [over Geraci] That’s true. It is more true in animal agriculture than it was in plant agriculture. There obviously was not a great demand for plant agricultural projects in the National Institutes of Health.

Geraci: Although that will come later.

Gomes: It came later, but it still never came to the same degree. That is always a difficulty. Plant scientists, for basic science, would look to the National Science Foundation more, for example. In recent years, Department of Energy has put more money into things that they might be doing. And there are some real strengths in federal funding now in the plant sciences; but they tend not to be a strong component of the National Institutes of Health.

Geraci: So this is 1972? I think you were there until 1981 and you were also part of the Agricultural Research and Development Center.

Gomes: Yeah, that is the Ohio name for the Ag Experiment Station. The dean and director at that point—actually, just as I was arriving at Ohio State—decided that the Ohio Agricultural Experiment Station sounded too old and mundane, so he decided we are now the Ohio Agricultural Research and Development Center.

Geraci: Sounded a little too farmy.
Gomes: Yes, it did. He was an interesting dean. I’ve had some very interesting deans in my time, and learned something from each of them. My first one just died. Earl Butz. My Purdue dean, not my first dean. [laughs] Another story, but we don’t have time.

Geraci: I was going to say, Earl Butz, this is a major impact on modern American agriculture.

Gomes: Yes. Yes. The dean at Ohio State, Roy Kottman, was a major player—some say for good and bad—but a major player in those days.

Geraci: Earl Butz really made it apparent to, I think, modern agricultural people, the role of policy.

Gomes: That was his field. He actually was in Washington in the Eisenhower administration, and then went back. A number of his colleagues and protégés are still in Washington. That relationship between Purdue’s ag-econ family and Washington has remained very strong.

Geraci: And they’re major players in the Farm Bills?

Gomes: That’s where they play, mostly.

Geraci: Yeah. And in this year in particular, considering we’re waiting for our next Farm Bill to come out. Next it says in 1974 you did a Fulbright.

Gomes: Yes, I did. I got a letter one day from the Fulbright people, telling me I had been nominated to go to Yugoslavia. And they wanted me in a medical school there, in Zagreb—the University of Zagreb—to come and work on male reproductive issues. The project would last from six weeks to a year, the grant. So I said, “Sure, we’ll look at it.” And I said, “No way I could go for a year, but I could squeeze out six weeks.” So we followed through, we had the discussions. They said, “Okay, everything’s go.” And I said, “Well, can you tell me who nominated me?” And they said, “You don’t know?” I said, “No, I have no idea.” They told me. “This is not the way it works. It’s usually a done deal.” But it was a nomination based on my work and my publications. So I met my hostess when I got off the plane in Zagreb.

Geraci: That’s rather gratifying, to know that your work is being used. And it’s a way to honor you.
Gomes: Well, and it was an interesting time, because this was strictly in a medical school, working with male reproduction in humans.

Geraci: It seems we keep coming back, these ties to human and animal reproduction.

Gomes: Oh, sure. At the biological level, there’s no difference. There’re little differences. But the principles, the processes are the same thing, with little variations.

Geraci: It seems this is right about the time when you have a whole series of publications? Well, your publication list is huge, to begin with, but you have a whole series of publications and it seems one of the central themes would be artificial insemination.

Gomes: This was a time of a real push in the industry, because as we had talked about, they had gone now from liquid semen to frozen semen, they had begun the process of getting into the straws. So the next questions were the sexing of semen, the extending of semen, and freeze-drying of semen.

Geraci: Freeze-drying?

Gomes: —dream at one point. Never happened. But we were freeze-drying strawberries and putting them in cornflakes in those days.

Geraci: [laughs] Why not semen, too?

Gomes: Why not powdered semen? There was a question—I commented that you had to match the insemination to the cycle. There was phenomenal amount of work on estrus synchronization, synchronizing the cycles, particularly in beef cattle. So they would all come into heat the same time. You’d just run them down the chute and inseminate them, rather than chase them out in the pasture one at a time. That extended the ability to use artificial insemination in range cattle. Then there was the question—again, never quite getting there—can we find ways of preserving semen in time release capsules, so it would last for the duration of a cycle? And whenever the egg came there, there were the sperm. That’s what happens in chickens. Chickens mate, and the sperm stay around, viable for a week, two weeks, nearly three weeks. And each egg can be fertilized as it comes along, without having a rooster there. In bats, they mate in the fall and get pregnant in the spring. Now, if one could understand those phenomena, then all you’d
have to do for your artificial insemination is, hey, just once a month, or once a year, or whatever the case may be, we can inseminate.

Geraci: Let’s continue this discussion on the next tape. This tape is just running out, so we’ll end for this one, take a little break.

04-00:56:52
Gomes: All right. Want some more coffee?

[End Audio File 4]

Begin Audio File 5 4-07-08.mp3

Geraci: This is tape number four on April 7, 2008. When we left off, we were talking about taking a look at all of these issues. And then in our little break you were talking about a couple of people in particular. So could we kind of pick up our conversation dealing with them?

05-00:00:28
Gomes: Which two people are we on?

Geraci: Which two people? When we were in our break, you had mentioned a couple of people. I can’t remember the names now. We’ll come back to it when I get over my senior moment.

05-00:00:43
Gomes: Well, good, I’m glad that I am not the only one to forget.

Geraci: When I get over my senior moment, we’ll come back to it. Just following your career along at this point, in 1980, you picked up a visiting professorship, in Kyoto University in Japan.

05-00:01:03
Gomes: I had mentioned earlier that I had a visiting professor from Japan. A number of years later, in 1980, he called and asked if I would be willing to come on a visiting professorship to Kyoto University. Again, for six weeks to a year.

Geraci: [laughs] That’s pretty broad.

05-00:01:22
Gomes: And at that point, I had already—No, I hadn’t. I started to say I had already accepted the job at Illinois, but I had not. At that point, I said, “Well, yes, but I can’t take a year off now.” I hadn’t taken sabbatical. I should have. But we were busy. We had a big lab and a lot of people and things going. So I said, “I’d love to come for six weeks.” So he nominated me to the Japanese Society for the Promotion of Science, which is their big science organization. And they offered me a fellowship to come to Japan for, as it turned out, about six weeks. I
took my family with me. We were housed in a little international apartment in Kyoto. I went to work at Kyoto University every day. My children, who were twelve and ten or thereabouts at that time, would do their homework in the morning, and they and my wife would go out and explore Kyoto in the afternoon. In the evening, we’d go shopping, we would go walking, we would visit, or graduate students would take us someplace, or our host would take us to various other places. While we were there, we did three scientific meetings. I presented papers, in English, and visited much of Japan. It was a wonderful time to learn about Japan, to learn about science as they were doing it. One of the experimental studies that my friend had going was on reproduction in oysters, because they were working with Mikimoto Pearl Farm, and trying to find ways to develop reproduction so that oysters would produce pearls rapidly and routinely, as they went forward. To develop a pearl, you put in the small sphere of shell, with a bit of embryo from oysters. And they wondered if they could freeze the embryo. So again, science attempting to have a practical outcome, a relationship, in an industry that had begun there. Cultured pearls began with Mikimoto and they’re probably still the world’s leader.

Geraci: But I notice one thing. As you talk about each of these, it’s science and it’s research, and it’s trying to extend the outer envelopes; but you’re drawing from things that are very broad in all the animal kingdom. Your example of the chicken with the eggs and how long the sperm will last. You’re taking something that’s already there and saying, how can I transfer this to somewhere else?

Gomes: It’s always interesting to ask questions. As I indicated earlier, the differences between the human and the duck billed platypus are relatively minor. If that’s so, why can’t the human do things the duck billed platypus can? A question I’ve asked for years—not scientifically, but—why can’t we regenerate limbs? There’re many, many organisms out there that can regenerate limbs, organs. If we had someone with an arm cut off, why can’t they grow it back? If you take a salamander and you cut it off here, it grows it back from here. If you take out a bone very carefully, so it doesn’t grow back, and then you cut it off here, it leaves that missing piece of bone gone. So there are enough phenomena in nature to say, why can’t we do that somewhere else?, that I don’t have to dream up something that doesn’t exist.

Geraci: [laughs] Yeah. There’s a lot of pre-established dreams at that point.

Gomes: One of the things that I did in my advanced reproduction course, and to a degree, in my undergraduate course, was give students questions to which I didn’t know the answer. All of my exams were posted in the
library. I would tell students early on—I’d just combine the questions. I’d say, “You’re liable to see some of these again, because I still don’t know the answer.” They would be take home exams, for the midterm. They got too extensive to do that on the final. But for a midterm, it would be a take home exam. They’d have up to a week to work on it. I’d tell them, “Use anything you want, except consultants.” And the question was how did they analyze the issue? What kinds of knowledge could they bring to bear on it? In some questions, I would ask them to design an experiment to test it. So we were always trying to push the issue of “why not?” Why does that happen? Why should it? Or why doesn’t it?

Geraci: It’s that pure scientific inquiry.

Gomes: Yeah. It’s questions.

Geraci: It’s wanting to know why, being curious. Wanting to know why the world does things.

Gomes: Yes. And that’s the basis of science in the first part, human curiosity.

Geraci: Well, as we left off, you were in Japan. Did you find a lot of differences between the way they were approaching animal sciences and you were approaching it?

Gomes: Not a lot of differences. Their structure was different, in that as Japan developed its pre-war institutions of higher learning, they did, as the Japanese are wont to do, travels all over the world to look at other people’s systems and they settled on the Germanic system. So that each major subunit in a department—and reproductive physiology might be one—would have one professor, and would have one, or at most two, associate professors, and a few assistant professors. And until the professor left, nobody became professor. At that stage, I had gone from assistant professor to professor in seven years.

Geraci: Which is a rather quick advancement.

Gomes: Well, it was. The books and some of those things helped. But it was the other end of the spectrum entirely. Except that I had the title of professor. And in Japan, as in Yugoslavia, a level of respect attended to that title that the Americans would laugh at.

Geraci: It’s pretty much true throughout Europe.
And it’s true in Asia. When we were at one scientific meeting—it was of a medical society—we were sitting on the floor, with tables like this [shows twelve-inch height]. There were half a dozen of us. After a time, they were allowing the medical students to come in and visit with us. Now, the Japanese have something of a tradition of bowing and the lower you can go, the more you show that you’re “inferior.” Well, the practical relationship there is that when the professors are on the floor sitting, and you’re coming in to see them, you have to be lower, physically. And so the medical students were coming in literally, on their stomachs, to visit with us. One might find it funny, but in reality, it tells you something about the hierarchy, about the tradition of rank that exists. And that, I think—at least from my point of view at that time—may have been the real limiting factor for the Japanese, educationally, because it didn’t encourage those down here to think, to develop ideas. The laboratory I was in was something of an exception. Again, because the professor had worked with us for a year, he worked with the graduate students, he understood all of this input, and he encouraged it. But the system didn’t encourage it.

I guess we should be happy for what goes on in the UC system, then. [laughs]

We have a really remarkable higher education system in this country.

Then in 1981, you make the big shift. What happened there? It seems that what we’ve been talking about thus far, you were very happy in your job, you had had a Fulbright, you’d had a visiting professorship. What prompted you to make the shift?

Well, at the time I was a professor at Ohio State, I also asked “why not?” about things administratively. I was a rabble rouser. I was one of these people that said, “Come on, you can’t do that,” or “We can do that,” or “What’s going on here?” You know the type. So I got a call from a friend of mine at Illinois. Stan Curtis, who I mentioned, was on the search committee for the department, the dairy science department. He said, “Reg, you got a letter inviting you to apply for this job.” I was getting a lot of those letters. So I said, “Yes, Stan, I know that. My father-in-law’s terminally ill, and I’m going to Japan this fall, and I just don’t have time to think about it. But I’ll send a ‘no thank you’ response.” He says, “No, no, don’t do that.” He said, “Send in your CV.” I said, “Stan, there is no way I could make your deadline.” He told me when it was, two weeks or something. And as I say, my father-in-law was terminally ill. He died about two weeks later. So he said, “Well, just hang on. Don’t send that letter.” And the department chairman—or excuse me, the committee chairman, who was the
associate dean of veterinary medicine, called me up and said, “Well, don’t worry about the deadline. Send us your CV, will you, please?” So I talked to my wife, said, “Why not?” It’s one of those if you aren’t willing to do it, you’ve got to quit complaining about it. Put up or shut up. And so I applied, with no particular expectations, but a friend of mine had asked me to. I went there, gave a seminar on what I thought department administration ought to be. And it was something of a departure from what department administration was, especially at Illinois. I can come back to that. And they liked what they heard. They offered me the job. I got a letter from all of the graduate students of the department, asking me to take the job. Which I found interesting.

Geraci: Refreshing.

05-00:14:07
Gomes: Yeah. And from the faculty, as well. So we decided to make the move.

Geraci: What about your graduate students that you had had in Ohio?

05-00:14:18
Gomes: I was at the point where I could finish up one, and one other was just getting started and could transfer. And two others, I worked back and forth to get them finished up. Thos are always issues you have when you move, but it worked okay. I mentioned the nature of administration at Illinois. Universities, especially historically, have very different styles of administration. Illinois was a strong department head institution. Indeed, their statutes had department heads appointed, originally, for indefinite term. And the only other place that phrase is used in describing tenure. So department heads, in the early days, especially, and going up pretty much to the time I arrived, were Captain Blighs. They ran their ship, and they made the decisions. And I had gone there and talked about getting faculty input and—Making final decisions, but getting all the input in discussions, and reading faculty papers, rather than just counting them. A number of these issues. So it was a very extensive change for them, when I got there.

Geraci: But wasn’t that change kind of going on throughout all our university systems at that point?

05-00:15:56
Gomes: Yes. It was and it extended beyond that time. There were, when I arrived, some of the old line department heads who found that this was being pushed on them, and they were resisting it; whereas I think I got into a time where we led it.

Geraci: This is everything from the sixties and seventies movements from Berkeley, it’s rippling across the entire US at this point. Students are asking for courses and professors are asking for academic freedoms.
Very much so. There were differences. Berkeley, UC system, Cornell, to a lesser degree, Wisconsin, but not much less, were all strong faculty institutions. Some institutions—Iowa State, for example, is a strong dean institution, traditionally. Illinois, Purdue were strong department head institutions. Ohio State, a strong dean institution. So where the leadership came from for change varied in those places. Over time, then, it became less and less distinct. It became more a shared governance. But at that time, there were still some very significant differences. Oh, the other point we were talking about in the break was, at that time, both in my work and in these changes, I met the pioneers.

Oh, yes, exactly.

In my work, the endocrinology of reproduction got its first Nobel Prize in the thirties, discovery of these new hormones. The people who did that work, the people who followed that work, were just retired or beginning to retire, as I began in the field. The people in animal reproduction basically started in the forties and I knew them personally. When I was a graduate student or a young assistant professor, I worked with Harold Cole, who was a pioneer at Davis in reproductive physiology of animals. He wrote books. Matter of fact, I wrote a chapter for him in a book, some years later. But he had retired here, and was still very active after that. I knew Les Casida and as I mentioned in the break, his son was on the search committee that brought me here, at Cornell. Excuse me, at Wisconsin. I knew Bill Hansel and Bob Foote at Cornell. And these, again, are the pioneers, going back to Asdell at Cornell. These are names that if you go into the field of animal reproduction, and you go back in its history, you find as the founding fathers. They were all active in those days. So understanding the field and the research that was being done related much, much more to talking with people than it did only reading the literature. Students would ask me in lectures, “How do you remember those names?” I said, “Those are my friends.”

It’s that networking process that goes on in academic communities.

And at that time, it was a much smaller community, it was a much more general community. So you really knew them all. When the Society for the Reproduction started up, that brought in people from Harvard, Medical College of Georgia, and all over the country. So we were rubbing elbows with those. One of the really interesting pioneers in reproductive physiology worked in the dental college at Harvard. And you would say, “How?” Well, something got started and he worked on it.
Geraci: How did you segue to a dental college? [laughs]

Gomes: That’s right. I never knew. I knew him. [laughs] We mentioned progesterone. I had met the man who coined the word.

Geraci: And who was that?

Gomes: His name was Amoroso. He was at dinner with two people, one named Chang. And off the top of my—Butenandt was the other, who was a Nobel Prize winner. One group called the hormone progestin, and the other one called it luteosterone. (It comes from the corpus luteum.) And he said he got a napkin and wrote down both words and crossed out the I-N in “progestin” and crossed out the “luteo” and said, “Progesterone.”

Geraci: [laughs] There’s the compromise there.

Gomes: There’s the compromise, and the name exists. There’s no record of that. Except now, I guess there is. But Amoroso was originally from Trinidad, and spent his career at the University of London. Just a phenomenal person.

Geraci: Those had to have been pretty exciting times?

Gomes: They never quit. It was busy. As I told you, we were working long hours, but we were doing things, meeting people, beginning the very early stages of using computers for our work. I’ve had more programs kicked back to me because I had two cards out of order or one card punched wrong, or one wrinkled.

Geraci: The fact that you’re mentioning cards. [laughs]

Gomes: Oh. Yeah.

Geraci: Within these groups, this is an immediate post-World War II generation.

Gomes: Actually, we’re getting into Post-Korea. So the World War II people—And this is an interesting phenomenon, if you look at universities in general, and these in particular. Until World War II, these were relatively small institutions. When the GI Bill came out, and Johnny came marching home again, and he wasn’t going to go back to the farm, now that he had seen Paree, he was going to college. He’d never
been to college before. He wasn’t a wide-eyed seventeen- or eighteen-year-old, who was going to accept what you told him anymore. These were GIs and sailors and Marines. They had been there, they had been in the foxholes, and now they wanted something that they could use. They wanted something valuable. They weren’t there to play. And so they begin to grow and build. Well, you had to have faculty and we were hiring faculty left and right. Young people, in general, and some of them GIs and many of them ex-GIs. But they were still relatively young people populating our departments in the late forties. When I came on, that was twenty years later; those people were mid-career. When I became a department head—it’s an interesting phenomenon—those people were retiring and vacating the deans’ positions and the department head positions. So they had to make the leap to the next group, to get their next generation department heads. There was a gap there, because we didn’t hire between Korea, the little bump in Korea, and the late sixties. And so to go down there, they had to skip ten years and the oldest of the next generation—and I was in that group—came on ten years younger than the last of the World War II generation. So when we talked about things, they weren’t the same things. Our approach was different, our perspective was different. At that time, Derek Bok was becoming president of Harvard, in his thirties or some such thing. But they were going to young people to get leadership. Now we’ve gone to old people to get leadership. But we grew into it.

Geraci: We go through these surges, it seems, that you’re mentioning. Is this a function of World War II and the Cold War that created this shift?

Gomes: Oh, yes.

Geraci: American universities in the fifties and sixties exponentially increased in their size and their numbers.

Gomes: Yeah, but mostly the sixties. If you go from ’55 to ’65, until we got geared up after Sputnik, there’s almost no hiring.

Geraci: And a lot of those were trained from the GI Bill era.

Gomes: Of course. Yes. They’ve trained from the GI Bill, in that early period. The later period, then, was me. And we were post-Korea. I went to college with Korean vets. And they were the average raisers.

Geraci: Right. [laughs]
Gomes: I had a sixty-one-year-old classmate who’d retired from the Navy. He wasn’t there to party. [laughs]

Geraci: He was there to learn.

Gomes: Yeah, and presented just a wonderful perspective on going to school.

Geraci: Which leaves, then, the faculty—that leaves an odd situation of faculty growing older together, without a good mix of young and new.

Gomes: You got it.

Geraci: Now, let’s get back to that Illinois story. Is that part of what you were stepping into?

Gomes: Yeah.

Geraci: A transition of bringing in and opening the door to let in some new people.

Gomes: The new people, when I was at Ohio State. As I came, that was the new people arriving. There was an age gap between me and the next youngest; but this way, they were all backed up behind me.

Geraci: We’ll talk about this later, but did you not face this same phenomenon in the UC in the nineties, going into the 2000s, as UC had hired huge amounts of faculty in the sixties?

Gomes: Yeah. It was true everywhere. The bulk of the original group was ’45 to ’55, 1945 to ’55. Those people had a mix of master’s degrees and PhD degrees. Those people were in the leadership roles forever. I had a colleague when I was first a department head, from Michigan, who had been a department chair for thirty-three years. There was one from LSU who had been a department head for thirty-six years.

Geraci: That’s a lifetime position.

Gomes: Not just faculty members, department leadership. So that change was huge. Starting in ’65, and give or take a year or two. But that’s what happened here, then, the hiring till ’75, roughly. And if you look, there was another gap after that. Those people were leaving, as I was.
Geraci: Who were the universities that were training these new leaders at that time?

Gomes: Same ones, same ones that are now. About 10 percent of the institutions in this country produce something like 80 percent of the PhDs. In agriculture, the institutions are Davis, here—and I’m thinking largely numerically and quality, if you will—but then you go to the Midwest, with the Minnesotans, the Iowa State, Wisconsin, Illinois, Purdue, Michigan State, Ohio State; swing over to Penn State and Cornell; down to the South, where North Carolina’s significant, Florida, Texas A&M. Those would be the big players.

Geraci: But it seems from what you’ve just given in examples, that the Land Grant phenomenon was healthy?

Gomes: Oh, entirely. I think the contributions to agricultural PhDs from non-Land Grant domestic institutions would be absolutely minimal. Tufts has a veterinary college. The Land Grant component of Cornell produces the agricultural PhDs. University of Pennsylvania has a veterinary college. The 1890 institutions, the historically black Land Grant universities, seventeen of them, most don’t produce PhDs. They produce master’s students, who go on somewhere else. Tuskegee may have some, and they have a veterinary college. So occasionally, one might show up from there. I can’t think of another PhD school. Now, we would hire people who came from non-Land Grant universities as faculty. My associate vice president, until he retired a couple years ago, had his PhD from Michigan. Many ag-economists have University of Chicago backgrounds. So there is that feed in. But the agricultural component of it is strictly Land Grant. Not undergraduates, not undergraduates. The CSU system, and a handful of other institutions across the country would fit undergraduate studies.

Geraci: So would it be fair to make the statement, then, that this is a phenomenal idea, to set up Land Grant colleges, but it also set in motion a system to perpetuate the intellectual pursuit of agricultural issues?

Gomes: Oh, I think there’s no question of that. But part of the role of any university is to produce its own seed, if I can use an agricultural term. Much of my time and effort as a faculty member, and to a degree, as an administrator, is geared towards not only undergraduates, which are seen as the product, but certainly, graduate students, who are the next generation of academics, of scientists.
Geraci: That cross-fertilization, if I can continue the analogy, existed between all these institutions?

Gomes: Oh, absolutely. Absolutely. I had very few students who received three degrees at Ohio State, where I had most of my students. And I strongly discouraged it. Now, I have three degrees from three institutions. And some say that’s a bit much, and I wouldn’t necessarily argue with them. But I would not trade it. I learned something about institutions and something about myself at each of those places, if for no other reason than how you interact with different people in different places.

Geraci: Well, administrative skills. Now you start moving to Indiana?

Gomes: Illinois.

Geraci: Illinois, excuse me. You’re not teaching as much now?

Gomes: Oh, very little. I taught a little bit in a reproductive physiology course, I suppose until three years before I left. And at that point, I told the instructor that I was not going to teach anymore. And she said, “Why not?” I said, “Because I don’t feel that I’m up on my field enough to really be ready to handle everything the students want or need.” She says, “Well, they don’t know that.” [Geraci laughs] I said, “Well, when they do, it’s too late.” So at that point, yes, I had become far enough removed from my field that I say I used to be a reproductive physiologist.

Geraci: What removed you from the field?

Gomes: Oh, all of the other things that one had to do in administration.

Geraci: Well, let’s go into that, because obviously, you make a shift.

Gomes: Okay. And that shift began, then—I became head of the dairy science department. This was a department of nineteen faculty, a relatively small number of students, many more graduate students, proportionally, than undergraduates. Remarkably capable and gifted faculty, who were underperforming on almost every level. Their morale was completely shot. And they were the ones, again, who tried to convince me to come there; and when I came there, they blossomed. One of the things I told them in my seminar, I used the old story of Alexander the Great going to visit Diogenes. And he found him outside his hut, sitting at a small desk, working in the bright day. And Alexander the Great rode up to him, and he looked down and said,
“Teacher, is there anything I can do to help you extend your work?” And Diogenes said, “Yes, sire, you can stand out of my light.” And I told the faculty I thought much of my job was to get out of their way and let them work. And they did. They went from an extremely promising group of people to being recognized, in just a few years, as amongst the best in the country, of their kind. My job was to know what they were doing, to encourage what they were doing.

With a group of nineteen, it’s management by walking around. Helping them decide things, understanding what’s going on. So now I’m spending a tremendous amount of time trying to understand the work that our dairy manager is doing in automation, in automatic sampling of milk for any mastitis. Actually, at this point, testing progesterone in milk to see what the estrous cycle was, because the assay methods had moved far enough. He was working on a BARD [Binational Agricultural Research and Development Program] Grant with the Israelis, and attempting to develop an understanding of what was going on there, and in automation in Holland, mostly in Europe. The cattle were set up so they were carrying their own monitors, so each animal got a different level of feed, depending on her production. That was controlled by the computer. Now, the computer took all of these measures and put them in there, and suddenly you have the “paralysis of analysis” issue. You’ve got all these data piling up around your ears. If you’re the poor dairy farmer, how in the world do you handle it? Well, they put in a system they called Management by Exception. The computer, every day, would take the data from an animal—they had a pedometer on her, they had the feed thing on her, they had monitors on her, they were measuring milk constituents—and compare all of these to norm. And norm might be that animal’s norm. If the animal suddenly showed a deviation from normal, an exception to normal, it would print out that list. And that was the list the herd manager had to follow up that day.

Geraci: Which means now our herd managers, in these dairies, need to be college educated?

Gomes: Oh, very much so.

Geraci: Is this part of the shift, then, from the small family herd to agribusiness?

Gomes: Absolutely. Another part of the shift is the equipment. You simply can’t afford that kind of equipment for a small dairy. This was research level, but the next level exists many places. There are now—and some have reached this country—automatic milking machine attachers. We’ve had detachers for years. When no milk was coming
through, it fell off. Well, now the cow walks in, and it moves in, and it electronically finds the spigots and hooks them up and—The robot is milking the cow. Well, you can’t afford that for thirty cows. So these were the things I was involved in. The department had largely become divorced from the industry, which is why there were so few undergraduates. And I spent a tremendous amount of time with my cooperative extension people, out working with the industry, trying to build that relationship. And I think it built very well. So that lasted about four years.

And the dean, in a strong department head institution, decided to merge animal and dairy science. And said to me, “Reg, I want to make you head.” And I said, “John, not without the faculty interviewing and doing it. Not without a search.” He says, “Well, all the dairy people will back you.” They’d done an evaluation of me, the five year or whatever. It was very good. They did it early, but it was very good. He said, “They’ll all back you. And half the animal people will back you, and the rest don’t know you.” I said, “And that’s the issue. I’m not going to be shoved down their throats.” So we did a search, and I was selected head of this new department. So now, instead of nineteen faculty, we had sixty. And we had 450 undergraduates and 120 graduate students. And we were working with horses and dogs and cats, and chickens, pigs, and sheep and cows, and all of the other things now that I had to become familiar with. You don’t do much management by walking around, with that many people. So I had to learn a different system, had to set up some committee structure, without taking that away from the faculty or getting me too far removed. So it was that next stage in administration of a larger organization.

Geraci: What did you model it on? Usually when we’re moving from one stage to another in our lives we draw on past experiences, that we consider to be successes.

05-00:40:13 Gomes: Yeah, and I didn’t have much of that. Remember, as I said, I came into this trying to get out of the old model. There were models when I got there, and I changed them. What I did was talk to a lot of people about what might work, and tried some things. And if they worked, fine; if they didn’t, we’d adjust them. So I modeled it, if nothing else, on developing what looked like a good idea, but being flexible enough to change it.

Geraci: A very pragmatic model.
Extremely pragmatic model. And so that department went through the issues of marriage, of merging, that had existed. The animal and dairy departments of the nation, and poultry, for the most part—Illinois was an exception on the front end—begin separating into individual departments. From animal husbandry, they went to dairy husbandry, animal husbandry, poultry husbandry, and then the science names, in the period between World War II and about 1950. Starting in about 1960, they started coming back together again, as size became a factor. Illinois was among the last of them to come together. And I’d watched a lot what happened. The first ones that I was knowledgeable of, Washington State merged the year after I left, and Purdue the year before I got there. And in each case, the leadership—The departments had consummated the marriage, if you will, when the first department head or chair left, after putting all this stuff together, and the new “salvation” came through, the new peacemaker. And so here I knew I was in that role of having to put it together.

And luckily—maybe I wasn’t there long enough—but luckily, we were able to develop a kind of rapport that worked. Part of the reason, again, fortuitous—and even though it was a great bother—we were building a new wing on the building, and I had to move a lot of people out. And we moved them back in in different groups. So the reproductive physiologist from dairy and the reproductive physiologist from animal science were now commingled. The same with the nutritionists. And it was very difficult to have a “them” and “us,” if them and us is here together. And so I was fortunate in that respect. And the department functioned beautifully. We had a national review, where one of the people from USDA who did a lot of this reviewing said, “This is the finest department of this kind I’ve ever seen.” It was everything from extremely practical to members of the National Academy of Science, in the one department. And they were doing just remarkable work. And I was fortunate to be there as that developed.

I think the reason I’m delving into this is that as you come over to the UC system you entered an institution that was also going through a transition.

Oh, yes.

This was a practical experience for you [Gomes laughs] in learning the means to make a transition?

[over Geraci] Oh, I have a bigger one coming up.

Oh, okay. [they laugh]
Gomes:

One of the things I never had in mind as I went into any administrative position—department head of dairy, department head of animal, dean at Illinois, or vice president here—was to reorganize. I always said reorganization is what you always do in administration just to keep people busy. I never had thought much of reorganization. Everywhere I’ve gone, I’ve been involved in reorganization. And I hope, for the right reasons. But certainly, it was never an intended mode.

Geraci:

And it causes turmoil, because you do create issues of old versus new.

Gomes:

Yes. But when Ohio State, which was one of the last institutions to do so, merged animal and dairy and poultry science, when I was dean at Illinois, they asked me to come over and talk with them about it. And the first recommendation I had was, “Move the faculty. Don’t let them stay in their three buildings. The longer they stay separate, the longer you’ll be separate departments under one umbrella.” Well, they didn’t take my advice, because it would be too much work, and too much effort, and too much destruction. And ten years later, they were still three old departments talking about, “We have to hire somebody for ‘ours,’ and ‘we’ have to get one of those.” It just makes the changes that much more difficult for all of them.

Geraci:

Just drags it out?

Gomes:

Yeah. Yeah.

Geraci:

How did you feel as you became more and more of an administrator? Were you starting to miss any of the research?

Gomes:

Oh, right from day one, I missed the research. I missed the teaching. Because while I was a department head, I was doing some teaching, but it was much less. But at the same time, I was busy with all of the new things that were coming up then, in addition to growth of institutions. Now departments—colleges more, but departments to a degree—were expected to interact with the industry—that was always the case; to interact with the politicians—to a lesser degree, obviously, than the dean or somebody else, but that’s part of it, into policy issues; and to raise money. Because we’re getting into the time when Land Grant institutions are saying, “We have to go out and build our own endowments.” The private institutions have been doing it for decades. But the Land Grant institutions, up to that point, were still largely state funded and federal funded.
Geraci: Now in the case of California, it’s Prop 13 that becomes the watershed movement.

05-00:47:16 Gomes: Sure, but even if Prop 13 hadn’t passed.

Geraci: Yeah, but this is happening, as well.

05-00:47:19 Gomes: It was happening everywhere. The light came on: We can do it. The argument was—it still exists, but much, much less—well, look, if we go out and get our own money, will the state take our money away? The answer is, the state’s going to take your money away anyhow, [Geraci laughs] and it won’t be related to how much you raise someplace else.

Geraci: You’re going to lose it so you better plan ahead.

05-00:47:42 Gomes: You’re going to lose it, go get it now. And so that began. And all of these things, then, kept me busy. They were substitutes for research and teaching. And yes, you miss it. To this day, I still have curiosity. And wouldn’t I love to go chase that down? But you do what’s there that’s exciting. And it was exciting.

Geraci: I think we’re going to end for today. And this makes for a really nice place, because we can start finishing up your years as dean, and then we can start moving into professional organizations that you’ve belonged to, and then we’ll start moving into the ANR.

05-00:48:36 Gomes: Sounds good.

Geraci: Well, thank you very much for today.

05-00:48:37 Gomes: Oh, my pleasure.

[End of Interview]
Geraci: Today is Friday, April 18, 2008, and we are in the Oakland, California home of Dr. W.R. Reg Gomes. This is the fourth interview with Dr. Gomes, and is being conducted by Victor Geraci, Associate Director of UC Berkeley’s Regional Oral History Office. First, Reg, thank you again. It’s good to be back. I’d like to pick up where, on the last interview, we were talking about your teaching career and research career. I think we got through and got a good bit of information. I’d like to look today at the administrative training and administrative career that you have had. As you come back to California, and you’re brought back as a chief administrator, there were some skills that you had to learn along the way. I think really, this starts for you in the early eighties?

Gomes: It does. As I think we discussed a bit earlier, my first administrative position was as a department head of a relatively small department. Thereafter, that department was merged with one twice as large, and I became head of a large department, and then dean of the college of agriculture at the University of Illinois. So each of those positions presented a new level of administrative requirement, developed—Each presented a situation that required different administrative approaches and skills. And perhaps I was fortunate, in that I could evolve into the larger positions by going through the smaller—

Geraci: [over Gomes] So it seems that it’s a matter of a lot of trial and error?

Gomes: Oh, there’s no question about that. We were in a tremendous change in the way universities approached things at that time. There was a greater expectation in the Midwest for more faculty participation, for more openness, for more transparency—for all of those good things that we hear—from a time in the first half-century plus in Illinois and some of the other large Midwestern universities, where the department head, in those cases, the dean in others, was pretty autonomous. They pretty well made the decisions. And that transition was one that I was right in the middle of.

Geraci: So you’re moving into an era of more of a cooperative approach?

Gomes: Cooperative may be going too far, but certainly, more the consultative approach.

Geraci: But that’s still a huge shift.
Gomes: Oh, it was. It was a shift that some of the old time faculty weren’t even comfortable with. If you asked them, well, what do you think we ought to do here? That’s a sign of weakness from the captain of the ship, who’s supposed to say, well, you go forty degrees right.

Geraci: I guess we should say, this was still staying within your area of research expertise as head of the department of dairy science and animal sciences?

Gomes: It was in my research expertise, more broadly in my general area of expertise. When I had the department of dairy science, for example, we had National Academy of Science level microbiologists in that department. And I could claim no expertise in that field at all. But what we could do was put together a mix that was not seen outside of colleges of agriculture, and too infrequently seen within. For example, in that department, we had microbiologists who were working on anaerobic microbes of the rumen. Now, they were colleagues with the microbiologists on campus and across the world who were working with anaerobic microbes, but not necessarily in the rumen. The rumen is the first stomach of the cow, incidentally. By working on those, they could determine the metabolism of those microbes, which changed the metabolism of the entire gut system of the cow, which was the business of our nutritionists. So we had superb nutritionists who were talking with the microbiologists about the very basic, fundamental, cellular level activities going on in the rumen; determining how to change those through the diets that they gave to the cows; and then giving those results to our extension specialists, who were advising the dairymen on how to feed the animals. Because we could put together the level of expertise and the movement from the very, very specific to the very general, within a small group of faculty, we were able to serve the community from the science to the user, in a very coordinated fashion.

Geraci: I guess two questions immediately come to mind for me. First off, is this a move to more of an interdisciplinary approach?

Gomes: It’s a move to more of an integrated approach. You see, for me to have taken the microbiologist—now, as I say, this is a world class microbiologist, very interested in what was going on out there—and having him go out to the dairies to talk about feeding their cows, he would’ve been lost and they would’ve been lost. But his expertise was reaching them, because we had integrated his work with the next level of work and the next level of transmission of knowledge.
Geraci: Well, I guess in some ways, this puts us dead center in the heart of what the Cooperative Extension service and the Land Grant colleges were all about — “taking the University to the people.” How do you take what a research scientist is doing — you’re the dean now of a whole group of them — and translate that to the dairy farmer, to the range cattle guy? How do you get them to understand what you’re trying to help them with?

06-00:06:53 Gomes: Early on, the same people could do it. When the University of California College of Agriculture was formed, the first professor of agriculture gave lectures to farm groups on a regular basis, as well as being dean and teacher and — not very much, but — researcher. He was also the extension person, pre-Extension. As our faculty numbers grew here and elsewhere, those faculty interacted with the producer groups, because what they were doing could be taken that next step to the farm level very easily. As we got into the fifties and science became more and more and more reductionist, as people became more and more and more specialized, we probably ended up with more division of duties and expectations than might be expected. That is, we had basic scientists and we had applied scientists, and we had extension specialists. I think to the detriment of ourselves, we tended to separate those people. We tended to have the basic scientists talking only with basic scientists, the extension specialists talking only with extension specialists, and the two neither understanding nor appreciating the other. What I think we were able to accomplish at Illinois in the early eighties is almost the antithesis of that. It is the point where we had extension specialists going to and participating in seminars of basic scientists, and we had some basic scientists out talking about very specific areas of their work in the field, to the farmers. Now, you can’t have everybody do everything. Time doesn’t permit it, the expertise isn’t best used that way. But if one can integrate those — If you leave a college of agriculture where all of those skills exist in one department, yes, it’s interdisciplinary. But with us, it went to the area of, originally, dairy cattle, later animals, where we were attempting to use whatever scientific skills we had, whatever communication talents we had, to integrate those in the range of answers to issues about animals. And so we changed the nature of the unit.

Geraci: Now, during this same time period, did you find that farmers were having less resistance to the old idea of a distrust of book farming?

06-00:09:43 Gomes: Oh. Some. During that time, we were making a transition, where more and more farmers were our graduates. And if you go to a place like Ohio, where there is one major institution in the state, or a place like Illinois, where there is, and for many years was, one major public
university in the state—Until some of the state universities began to
develop their own constituencies, all of their graduates became farmers
in the state, or vice versa; all of the farmers in the state were graduates
or had their sons—and, later, their daughters, but in the early days,
their sons—who went to college. Now, the real push and pull between
book learning and practical knowledge was less between the university
and the producers, and more between the fathers and sons. Because the
sons would come home with all those newfangled ideas in their head,
and the dads say, “I’ve been doing it like this for years, kid, wait your
turn.”

Geraci: And your granddad did it like this.

06-00:10:53
Gomes: Well, no, I changed what your granddad did, but that was good.
[Geraci laughs] So change in that kind of situation, in those days, was
generational. The nature of science, agriculture and progress since that
time has said, you have to be more rapid. You have to make the
changes. You have to anticipate the changes. So we were producing a
new cadre of producers. We were developing a new cadre of producers
who could see and make those changes. But they, too then, were
working in an atmosphere where many people said, “What we do now
is good enough.”

Geraci: So if I were to rephrase this, I would say that the institution, the Land
Grant University, is in the beginning of the process of rapid change
and that the real thing that’s slowing the whole process down is the
generational change?

06-00:12:00
Gomes: Of course. So we speeded that. But that continues to be a problem
today, particularly in many of the Midwest states. And New England
states and Southern states. I’m speaking now from my experience. But
the adaptation or adoption of new research, the willingness to take a
risk, is something that still is developing in much of that part of the
country.

Geraci: Now, at that time, also let’s take the professors that are doing this
research. Was there a sense of frustration on their part, coming up with
all these new fangled ideas and farmers’ resistance?

06-00:12:48
Gomes: I don’t know that frustration is the right word. The very basic scientists
fall in love with the basic science. If someone isn’t using it—other
than their peers and their colleagues—that isn’t a major problem. The
more applied scientists become adapted. As when you teach a class,
you get a new group of freshmen every year, and you have to begin at
the beginning every year, and repeat it and hope that they grasp
enough of it to pass the exams. You can carry much of that attitude to the field. We repeat some things over and over and over. And when we had successes, we showed the successes. And we praised the successes, and we’d have a few more. But I think all of us realize that you don’t go out and change a population by simply coming up with a new idea.

Geraci: Now, I know in the early years of this process that you had demonstration farms, you had your experiment farms, you had the trains that were traveling all over the United States doing the lectures, and literally taking it to the people. Had that process changed?

Gomes: Process had changed quite a lot. And one of the very nice historical examples is at Tuskegee University. George Washington Carver, when the university was formed, had an old converted school bus that he would take around the state to show farmers how to do things and to teach classes. To teach extension classes, no credit classes, if you will. And as you say, there were what we call dog and pony shows going all over the country and all over the states. There were experimental demonstration fields. We probably always have had and always will have some of that, but they become less central. Field days, we still have here in California on a regular basis, at many of the research and extension centers. So producers and farmers and the general public can come in and see some of the latest things that are happening. I think those are excellent.

Geraci: And aren’t those the precursor to the days—Didn’t you have caravans out of Berkeley that used to do this?

Gomes: There were caravans out of Berkeley that went out. When I was at Illinois, the department of dairy science, every year had a winter dairy days. And they loaded up about ten of us—I went on some of these—and we would head out in January and spend a week in the northern part of the state and a week in the southern part of the state, back to back, talking about the topic of the year, or the topics of the year. There would be extension specialists, but there would very likely be an extension veterinarian; there would be a nutritionist or two; perhaps a geneticist, depending on what topics were hot. And in January in Illinois, it was a hazardous adventure. We had one time where, on Monday morning, the roads were all closed with a snow storm. And so we postponed—We went out on Tuesday, finished that week; but we were going to go back two weeks later on Monday. It snowed and the roads were closed. And the next Monday it snowed and the roads were closed. So you didn’t always get them in on the days they were supposed to be, but we got there. In ten working days, we would do fourteen sites, and visit with more than a thousand producers every
year. Now early on, much of that was done one-on-one or three-on-one, or with a tent show, if you will. But those things evolved and developed, so that the information was there, a new topic was there, current issues could be covered. One year, as we began our dairy days show, the federal government instituted a buy-back program on dairy cattle. We were changing the content of our program day by day, as we were getting new information out of Washington—and we were checking every day. And we had the Washington representatives in the counties coming to our seminar to find out what they were going to be doing.

**Geraci:** I guess the good question would be who is driving this research? Is it driven out of the pure research of the scientists? Is it the farmer who’s saying, I want this improved? Or is this the USDA out of a national need?

**Gomes:** Ideally, with the integrated kind of unit that we were striving for, the scientists would say, look, I have seen this. I’ve made this discovery. My colleagues in California or Heidelberg have found this. We think this is important, and we have to get it into the system. And the nutritionists would say, well, look, all of a sudden, the hottest thing in the world is whole cotton seeds. They’re a glut on the market. They have a tremendous amount of oil in them. They are very high in protein. They have a little problem with a chemical called gossypol. Can we figure out how to get by the gossypol and take advantage of this wonderful new byproduct? And the extension specialists would come back and say, well, the farmers are really having a problem with this right now. All of those would come together and put together a mix of the kinds of things that got done and showed up two years later. And then the federal government would pass a program, and we’d have to change our whole program day by day. [Geraci laughs] And you have to be adaptable. But if you have the kind of communication that can exist in that kind of unit, then everything gets fed in and gets sorted out, and you start making decisions on priorities. The worst thing that can happen—it happens too often—is that the department head or the dean or Washington can decide what’s important and start telling people to do it. It doesn’t work.

**Geraci:** We definitely have a little bit of a tension that’s going on within that. In the long run does it all work out?

**Gomes:** In the long run, it’s like a marriage; it all works out as long as everybody works day to day to make it work.

**Geraci:** It’s like a good relationship. It takes work along the way.
It takes work along the way. You have to understand there will be disagreements. You have to be able to compromise without giving up on your principles.

So could you say, then, maybe a good lesson you learned in those early years in administration were, number one, the skill of compromise, and number two, the ability to be flexible, to be adaptable?

I think you’re absolutely right, but there is the caveat. Flexibility and adaptability can reach the stage of being wishy-washy, too. And so that was my comment earlier. Your principles. You have to decide that which is important. A great driver of research—whether we’re talking about the National Institutes of Health in the sixties, whether we’re talking about the US Department of Agriculture in the forties, or whether we’re talking about British Petroleum in this century—the great driver of research is the money. And when we reach the stage where research was increasingly funded by a diverse set of groups from industry to foundations to federal government to corporations, we always had to make the decision between whether we were doing something that was important to be done, or whether we were doing something because there was money to do it. And this is a constant battle. There are a number of people who worry—and you’ll see this in the press frequently—that research funding drives research results, that scientists are willing to fudge their results to make the funder happy. I think that’s an extremely rare situation. I think that is an unusual situation. On the other hand, the research that is done is driven by the funds that are available to do it. And that’s a reality. So if you had a very, very good idea as a scientist, or a very great need as a specialists, and nobody would pay for it—We might have some state funds, we might have some discretionary funds, the department head’s office or the dean’s office, to address it on a pilot level, to gather enough data to show that it was important to get funding someplace else. But if that was insufficient, the work didn’t get done.

I guess in a way, that circles back to our original part of this discussion. You said you had resistance from some of the older professors as you start coming in. Could this really tie to their resistance?

Oh, very much so.

Because the idea that they’re having to leave their pure research to be driven by where the funding is coming from.
Gomes: You can—[phone rings] Let’s let that just go.

Geraci: Okay, we’ll let that ring.

Gomes: We’ll let it go, but we’ll get a voice mail here. [phone rings] So if you’re okay, we’ll go ahead. [audio file stops & re-starts]

Geraci: Returning after a phone call. When we left off, we were talking about the issue of funding and older faculty. So let’s pick up with that.

Gomes: During the days after the Great Depression and World War II, and then the huge growth after World War II, research in agricultural experiment stations was funded both by the state and by the Hatch Act of the federal government, the act that formed the agricultural experiment stations, the network across the nation. That funding was significant, and in most cases, sufficient for faculty, in through the forties, to conduct the research that they developed. Yes, it had to be approved at the college level; it had to be approved by USDA. But once it was approved, then they would have funding and they could move forward on their own research, without outside interference, if I can put it that way. And outside, in this case, being the producers and the dean, if you will. Hatch Act funds have continued to this day, it’s just that in round terms, they haven’t increased. They’ve taken an inflationary bite every year, so in real money, they’re worth less than 10 percent of what they were in those days. Significantly less. And as research became more expensive, they became less and less a factor. And it was required that if faculty wanted to do research, or if they wanted to be promoted, that they would have to find funds to conduct that research.

Many objected, on several levels. The first would be, look, I have this research, it’s important research; it is an obligation of the state and the federal government, if they want this research done, to pay for it. The next level would be, clearly, I’m not going to go out and grub for money. That’s not my job, that’s somebody else’s job. I’m a scientist. And that degree of “purity” would often be a circumstance. And then a certain amount of jealousy gets set up when, particularly new, young faculty members come in, and go out and get money and build thriving, strong research programs; and the more senior faculty, who didn’t get outside money and continued to scramble along on their meager, now, and reducing funds, think that’s an inappropriate way to run a business. So it was a difficult transition; but it was a transition that was made real by the fiscal realities of the time. One of the things I learned in administration, and maybe to a degree there, is that you have to also work with that which is doable. We all have wonderful, wonderful
dreams and ideas and creative thoughts; but in reality, in the final analysis, you have to work with that which is doable. The down side of that is that too many people are willing to settle for something less than that which is doable, because they say, “Gee, we can’t do that.” But you have to work in the world of reality.

Geraci: So it seems then that in the dean’s role you’re learning and pushing this point that there are funds available, and you do have a say—at least department-wide—how those will be distributed?

Gomes: Yeah. And this varies. At the Ohio State University, where—And I’ve used, or will use, the term weak and strong, not necessarily defining people, so much as authority in positions. At Ohio State, the dean’s position, the dean was a very strong one. This was true of the individual, too. But it was a position that pretty well had final say on everything that was going on in the college. That dean in particular retained final say on hiring secretaries in the extension offices. The department chairs were relatively weak. And I mean now, again, not in a sense of the individuals, but in the strength of the position. At Illinois, the department chair was king. The strength was in that position. The dean had coffers that were college-wide. In the first case, the decision was if you wanted to do something, and you convinced the department chair, then the department chair, or you and the department chair, would try to convince the dean. And you might get some funds to get something started and moving. At Illinois, the department head made those decisions through delegation from the dean. Now obviously, the dean had some authority on what went to the departments and what went to the department heads; but most of the decisions at that level were department head decisions. So the pot of money that all faculty always assumed the next administrator has was usually limited. It was certainly less that everybody thought. But the discretionary funds were usually there to address, to start new, to fill in between grants when one ended and the next one didn’t start, to try to keep things moving in the department. At Illinois, it was a department function; at Ohio State, the dean retained it. In other places, it’s done different ways.

Geraci: So this varies?

Gomes: It varies, depending on the history, the nature and the current operations of the university.

Geraci: Which did you prefer? Or maybe a hybrid of the whole thing?

Gomes: I preferred when I was department head to have the money, when I was dean to have the money. [they laugh] Don’t we all?
Geraci: It’s a matter of controlling the money.

Gomes: Of course. Actually, what we developed at Illinois was to soften the department head’s role within the department, to have more participation from the faculty in those kinds of decisions, in a consultative fashion, and yet to be able to make the decisions, then, as close to where the money was being appropriately spent as possible and I still prefer that. I still really think that the further you move from the laboratory or the farm site where you’re teaching, or the classroom, in making decisions about what has to be done, the worst off you are.

Geraci: So there needs to be the consultative input?

Gomes: There needs to be the input, there needs to be the delegation of decision making, as far as it can go. But the other side of this is, individual faculty working on their individual research don’t have a lot of interest in what their colleagues are doing or the funding that’s necessary for them, so that next level has to coordinate all of that. And the dean has to coordinate all of that for the college.

Geraci: Let’s talk a little bit about this coordination. I guess one of the factors is you’re in charge of a large faculty and department heads and helping distribute this money. How do you keep track of all the projects and what’s going on and whose work is cutting edge?

Gomes: I think that, in part, is what I was just talking about. As a department head of a small department, I read every paper our faculty wrote. Now, I didn’t understand many of them, or all of them, but I read them. I attended at least one, and generally two, lectures by every faculty member every semester. I met with students. And so for me to keep track of what was going on in those units was a full-time job, with my dairy days trips and so forth, but that allowed me then to help coordinate, develop, build, encourage or discourage certain activities as they came along. And then I could actually talk with the dean, or the dean and associate deans, about what was going on in my department at a fully knowledgeable level. As it went to the next level, then I couldn’t read all of the papers, but I made a point of trying to keep track of them, the projects, annual reports, and what was going on. And talk with faculty, again. The dean can’t. The dean understands the big picture of what’s going on, tries to know who all the faculty are and the areas they’re working in, the things they’re looking for. You build a relationship of understanding with the department heads, so that you know what’s going on in the college; but if anybody talks to you about a specific Hatch project, a project with an organization, you
simply say, look, I don’t know those details. I’ll find them out if I need to.

Geraci: Bring me up to speed.

Gomes: Bring me up to speed. And brief is a word that—not in lawyer terms, but in mine. [they laugh] And so at each level, you delegate authority, you delegate decision making, but you try to coordinate what’s going on in the big picture.

Geraci: One of the things, then, it seems is developing is your skill to know how to, number one, delegate—because as you said, you’re going up in these layers in responsibilities—and delegating who has to do all these tasks, learning how to identify those people?

Gomes: Well, that may be the most difficult thing. When one is an active, young assistant professor—As we commented last time, I was a very active researcher. I had my program, I had my people. I ran it. The decision on what project we were going to work on next was my decision. And while we might talk about ideas, we did it. And I didn’t have to coordinate with the person across the hall. The department chairman gave me a good deal of leeway to make my own decisions. So I was the entrepreneur that many faculty are. That entrepreneurial spirit, as wonderful as it is in academe—allows us to be creative and to chase ideas—it rarely requires that we coordinate, that we integrate, that we delegate—except to some of our own people.

When I became a department head, they had, in that small department, set up a hierarchy of subheads, of assistant heads. And I abolished that. I said, “We’re not going to have units with hierarchies within them, so that we can consider that we’re all working together and trying to accomplish things.” But that meant that I had to tell my extension specialists, “Amongst you people, you’re going to develop the dairy days. And if you need help when you want to bring in a nutritionist or a veterinarian, you need a call or something, come and see me. If you want to bounce ideas off me on what we’re doing as a whole and what my—Absolutely. I’m willing to do that. That’s wonderful. But I’m not going to tell you how to run your program.” And so at each level, then—

Let me back up one step. I commented in one way when I was interviewing for the first department head job—and have seen since that Hilgard here, as Dean, in so many words, said the same thing—“My job is to find the very, very best people I can and then let them do their work.” And if you can establish that way of thinking for
yourself—hands off, with good people—then delegation becomes easy. You suddenly realize that they’re doing things that you could never do. Now, you have to be very careful because in administration—I should be a little more delicate here—[Geraci laughs] it becomes very easy to take those people who are not producing well anywhere else and make them junior administrators. And that’s a danger. All of us hate to take highly productive faculty or highly respected specialists and give them a big administrative load. We do it too often. But you have to find the balance between having people who can coordinate the work, who are capable of doing it very well, and taking all of your good workers and overloading them. That’s a little bit of the issue of delegation, how much and to whom.

Geraci: I guess in some ways, learning to identify the difference between the skills people have and that gift—Some people have the gift of being able to work with people. They have people skills. Are you saying that you needed to look for good researchers and good faculty members with good people skills?

Gomes: Yeah, there’re not enough of those. You are defining the ideal administrator. People who have their own skills, who can accomplish those things; who can, in a university setting, do research; who can, and understand, and enjoy teaching in the classroom; who can work with the industry, whoever they may be, and yet have people skills. And can delegate then. One of the problems that exists, up to that last caveat, was that those sorts of people sometimes demand the spotlight. My ideal administrator out there is willing to give up the spotlight. Because the faculty, the graduate students, whoever may be active at that particular time, need recognition for their accomplishments. And a pat on the back goes a very, very long way, from an administrator.

Geraci: A well timed one.

Gomes: A well timed one, yes, yes. Early on, whenever I published a paper, I got a form letter from the director of the experiments station, telling me how pleased he was with my work. Well, I would get the letter and throw it away, because I knew he had no idea what I was doing. [Geraci laughs] It was an automatic kick in. This was in the days of carbon copy manual typewriters, so it took some work, but it didn’t carry any level of sincerity and it obviously wasn’t well timed then.

Geraci: Knowing that you have these people skills, one of the things you mentioned is our way to reward these people sometimes is by giving them more of the responsibilities.
Gomes: Yeah. Yeah. And a reward can be a curse. So you give them more responsibilities, until you overload them. That means that they have to learn to delegate. And we have to be careful that we don’t spend all of our time administering programs, rather than running them. But if we do put people in position to gather information, to influence decisions, and they can then delegate to others who will do many of their own things, I think you have the ideal situation. So long as communication’s coming back.

Geraci: Was that a hard skill for you to learn, this idea of learning to delegate?

Gomes: Yeah, it was. You know the old saying, if you want something done well, do it yourself. It was early on, pretty difficult for me to learn to avoid that. Let me give a simple little example. When I became a department head, I had a department secretary. She had been there for many years; she knew the ropes and knew—if you do anything as an administrator, you cultivate the secretaries, because they run the place. But nonetheless, she didn’t know my style of writing letters. No way she could. When a letter came in requesting something, I would draft a response and she would type it. After a few months, I suggested to her that she draft the response. I said, “You’ve seen my letters enough now. You know what my general approach would be.” And I said, “I’m going to ask you to draft the letters, with only one understanding up front. That if I change what you wrote, that doesn’t mean I didn’t like it, it simply means I wanted to put something different in.” And so I would get the letters in and she would have words that I wouldn’t necessarily use, she would have phrasing that I wouldn’t necessarily use. I’d bite my tongue and leave it. I would make some changes where it was important that the idea be there, but I had to encourage her to develop an understanding of what I was thinking, slowly. And if I got the first letter in and I said, “Well, this is terrible,” I wouldn’t get any more. Well, by the time I left that job, or any of my jobs, I had secretaries who knew what I was thinking—or assistants, or a deputy, in this case—who knew what my response would be and how I would state it, almost routinely. Delegate, yes. But you have to be able to build confidence in the people you’ve delegated to, that you’re not going to stomp on them as soon as they make a mistake.

Geraci: I’m fascinated somewhat by how you learned it. Because to me, it comes back to this is not something that can be taught.

Gomes: No, it can’t be taught, and it isn’t natural for a young, aggressive professor. As you grow up, you learn: you want to move ahead, you do something. You get it done. And if you wait for everybody else, it might not get done. And so to develop this kind of a team approach
with people working with you on that team requires a good deal of patience. But you have to tell yourself, look, you’re trying to get to the greater good here.

Geraci: In looking at this whole process for—as you are an assistant, an associate, and then a full professor, what made you think, I want to go into administration?

06-00:45:38 Gomes: Well, I think we talked about this a little bit last time. I didn’t. I really didn’t want to go into administration. But I had been a critic of administration and administrators. As most faculty do, and probably from a selfish point of view, I thought that most of them weren’t bold enough. I thought that they wouldn’t stick their necks out to make appropriate changes. And when this first position came up at Illinois, I had not intended to apply. And again, I think we went through some of the details. But finally, my friend says, “Look, it’s the time to either put up or shut up. [Geraci laughs] If you’re going to tell us how to do it, you show us how to do it; otherwise, you’re just another critic.” And so I said, “Yeah, I think I can do this. This is a great place.” It was a department that was in turmoil, but populated with remarkable talent. It was, frankly, a time and a place where I could go in and thought I could make a difference and I think we did.

Geraci: There was a lot of potential sitting there, and you knew that you make it work?

06-00:47:02 Gomes: Tremendous potential.

Geraci: Could I possibly bring that to fruition?

06-00:47:06 Gomes: One of the very, very difficult things to do as an administrator is to think about where you can go from where you are. And I won’t give any specific names, but there are institutions in this country that clearly could use help. But there are administrators who would get there and find they were beyond help. Each one of those is at an incremental level. And I think you have to, as a potential administrator, find yourself in a situation that allows you to work with people and work towards unachieved goals that are within your comfort zone. And by comfort, I don’t mean you think it’ll be easy. It’s something you can do. It’s doable.

Geraci: Well, part of it is you’re moving into two very different positions here. Any time an organization gets new leadership and there’s talk of new directions, there’s a resistance between old guard and new guard. And people inherently, no matter their profession or what they do, resist
change. Because in some ways, they feel that their past work is not being validated. How do you deal, or how did you *learn* to start dealing with some of those issues? Because there are going to be some crushed feelings.

Oh, there’s no doubt of that. I think that change is something—and particularly in those days—was something that was *very*, very difficult for many people. I was fortunate. Again, for a variety of reasons, morale in the department I went to was down. People didn’t perceive that they were appreciated. I had an extraordinary honeymoon with that group, in that I came in after I had given my seminar during the interview, where I talked about a lot of the ideas of administration that I had, that I had never done, they were excited. And so basically, I came in and said, “Folks, we are going to make changes here. Not, I am going to make changes here, but we are. And we’re going to talk about them, and we’re going to develop the ways in which we can accomplish what we want to accomplish. In the final analysis, I have veto power. But we’re going to discuss this.”

We went through, with a small faculty, a time when my wife and I had two faculty members and their spouses—one was single at the time—to dinner at our house on Friday night. And we did it every Friday night, till we got through the entire faculty. So that my wife wouldn’t be concerned about what she had served to somebody the next time around, we had the same menu every Friday night. I was sick of that menu by the time we were through. But we had people in a social setting, we had them in a setting where they could get to know us, and then we would get together in a setting where we could understand the whole department. And we were able to turn morale around without changing the makeup of the faculty at all. That faculty went from floating around to one that not only was as good as there was anywhere, but at that point, four years later, thought I was good. They just thought, this is wonderful. And so it gave me a marvelous starting point, where we were able to change the structure of the department, the administrative structure; we were able to change interactions—small cliques no longer existed; where we were able to change the integration of functions. Incrementally, in each case, but we did all of this in about four years. And so it was a wonderful experience for me. I decided that management by walking around’s the only way to do it. Until you have three times as many faculty. [Geraci laughs] And so, with the next change, I had to learn new ways. But the goals were pretty much the same. The goals were to see what we could accomplish together, even if I’m the one that’s got the leadership position.
Geraci: But it seems from what you’ve just said here it’s the people skill. I have to get you, as the new person I’m overseeing or I’m supervising, whatever the relationship may be, to have faith in yourself. Because once you have that, you’ll have faith in me and together, we can move on. Is that a fair way of summarizing?

Gomes: [over Geraci] I think that’s fair. I think people skilled is a term that implies that I can do this to you. And I guess I don’t have a better term, but it’s a question—It is, yes, developing the ability to work with people so that they are very, very happy about what they’re doing, while at the same time, confident in what you’re doing.

Geraci: This is between 1981 and 1995 and what does this lead up to in your career?

Gomes: And even now, the first four or five years of it.

Geraci: Right. What we’re really leading up to is that you must’ve done this extremely well and it came to somebody’s attention, more than just within your institution, because The University of California is going to select you for a very important position. And what I’m trying to dig at is—

Gomes: Why? Yeah, what happened?

Geraci: —what is it that these people will see? Obviously, Reg did something good.

Gomes: Yes. Something good happened when Reg was there.

Geraci: Okay, let’s frame it that way, then.

Gomes: And that’s part of it. Because again, I had exactly the right kind of people to work with, the right kind of circumstance—in a time of transition where a lot of institutions were still looking back. I was one of this very early jump in generation into administrative roles. When I went to department head meetings across the Midwest, which was a couple times a year, I was surrounded by sixty-five-year-old department heads who had been in the job thirty years. So the concept of this sort of a change was one that was not being done a lot of places; it was being done successfully. There were things that we did that helped. You commented on having people know they’re appreciated. One of the first things we did in that department was establish a committee we called an awards committee. Their job was to scour the
American Dairy Science Association, the college rolls, the campus rolls, for awards that were given annually—or whenever—to determine whether we had faculty who were qualified for, who would be good to have in consideration for those awards, and write nominations for them. And if they didn’t make it, that went into a file, so that the next year we determined whether we should return that one or put someone else in. And our goal was to have a nomination for every appropriate award every year.

Well, the college had an awards program where they gave eight awards. The first year we won four. And the next year we won three. And my fellow department heads began to say, “Reg, what’s going on here?” I said, “Oh, look, this is fair. One for us, one for everybody else.” But we got recognition for our people for what they were doing. And they were doing it well. There were little—little—things that you learned to do. My second year, I was visiting with the dean and the associate deans at salary time. And unlike UC again, I had complete control over salaries of the faculty—or over their raises. And so I came in with my recommendations for faculty.

One of the faculty members had been in a spat with an associate dean, who later became dean. And the associate dean brought it up. And I said, “Look, I understand that you and he have a problem. But I want to judge him on what he’s accomplishing.” And I got my recommendation. And then I said to the dean, “Dean, I have two additional requests here. I don’t have it in my budget to do it, but I’d like to borrow $2,000 from you.” Now, this was at a time when beginning faculty were making about $20,000. So it was not an insignificant amount. “And I would like to put $1,000 on this faculty member and $1,000 on that faculty member,” both associate professors. And I said, “I want to tell them that they didn’t earn it, but that the dean loaned me the money to bet that they would earn it next year.” And the dean looked at me like, what? I said, “These are two people who are floundering. They both have a lot of capability, but they have to get out of where they are and get into where they’re going. I’ve been encouraging them, and there’s some movement there, but I want to give them a pat on the back that’s not deserved. And I’ll tell them it’s not deserved yet.” And so the dean said, “All right, you go ahead.” The dean says, “Well, what if they don’t earn it next year?” I said, “I’ll get it back. I have control over these raises. In the long run, I can always get it back. This is an investment, as I see it.” So he gave me the $2,000. One of those faculty members, within ten years, was recognized around the world as the leader in his field. The other one retired as an associate professor. Well, for $2,000, I batted .500. Fielding .500 is terrible, but I batted .500. And the one was well, well worth the effort. But it was something that hadn’t been done. When I
went into the dean and I said, “They haven’t earned it, and I want to
give it to them.” He just didn’t understand that. But it worked.

Geraci: Learning to sometimes think outside the box?

Gomes: Learning that there shouldn’t be a box. It really goes in—And we can
get out of the box question a little bit into the next level, where I had to
do some real reorganization. My first rule was, we’re going to do a
frame breaking exercise.

Geraci: Let’s pick that up on this next tape. I need to change this one.

Gomes: Okay. Need a refill?

[End Audio File 6]

[Begin Audio File 7 04-18-2008.mp3]

Geraci: This is mini-DVD number seven of interview four. Reg, when we left
off, we were talking about the reward systems and these things that
lead into making a good administrator. What I’d like to move us into
are comments about the skills and the things that you learned that
catch the attention of the University of California and make them say,
this is a man we want.

Gomes: Well, I don’t know that that’s what I was trying to do, but in any
event—We commented earlier, we talked earlier about the consultative
nature, the participatory nature. An important component of that is not
the advice that you get, but the things that the people you ask learn.
Now, let me give an example or two. When I arrived at Illinois, as I
commented, the department head was the captain of the ship. At that
point, and through today, department head has veto power over
promotions, over tenure. There are faculty committees—now; there
weren’t then, necessarily. There may have been, but they were not
required. But if the department head says no to promotion, that
document goes to the dean and is not reviewed further, except for due
process. If the dean says no, that’s the end of it, also except for due
process. So the ability of the dean to overturn that decision legally was
nil, if due process had been carried out.

When I got to Illinois, I had faculty committees set up, and I would get
their advice. I wasn’t bound by it, but obviously, what they learned
from reading those documents, about their colleagues, was more
important than the advice that they gave me. The next level, I
mentioned that the department head had almost complete control over
faculty salaries, salary increments, with the dean’s approval. That decision making had never been shared with the faculty. But when I arrived, I had a faculty committee of representatives of faculty, a small group. I gave them a curriculum vitae for each faculty member, updated from the year before, each year. And the first year, I asked them to grade them—A, B, C, D. As faculty are wont to do with grade inflation, everybody got A’s. Which was the equivalent to giving me no advice whatsoever. But they had read the documents, and they knew something about their colleagues. The next year I gave them the documents, nineteen of them.

Let me digress. One faculty member, and with the faculty independence that exists, says, “What if we don’t want to turn this in?” I said, “Fine. I’ll assume you don’t want a raise.” I had that level of authority. Needless to say, they all turned them in. And the next year, I told my advisory group, “You must put them in quartiles. Or not A, B, C, D, but of the nineteen, you must have three groups of four and one group of three. Now, I’m sure all of you are going to have three on the bottom group, but that’s your prerogative. If you think there are three outstanding, you should make the break there.” And so then they had to work at it. They came in and understood the kinds of decisions that get made if you’re going to differentiate on those levels. They understood why too many department heads and department chairs give everybody an average raise. You don’t make enemies.

Geraci: It’s the easy way out?

Gomes: It’s the easy way out. I think you also don’t make progress, but that’s my opinion. And so armed with that, plus the information that I had, I could go into the dean and say, “All right. This is what my faculty committee did, this is the publication record, this is the feedback on teaching, this is what has been done in research, and these are the grants.” I had that data and the dean routinely said, “Great. Wonderful. Can I add a little money here?” I never told the dean he couldn’t add a little money there. I might tell a faculty member, “I didn’t give you that money, the dean did. So I don’t know if it’s because you sucked up to him or what.” [they laugh]

Geraci: That’s right. You did something right.

Gomes: But nonetheless, I tried to give credit where credit was due, and take blame otherwise. When we had faculty meetings, I had another rule: we don’t take votes. Now, that really raised some eyebrows. They said, “Why?” I said, “Look, I should be smart enough, if there is a consensus here, to see it from the discussion. And if there isn’t, rather
than have it split fifty-fifty, and have half of you mad at the other half, I’d rather have all of you mad at me. I’ll make the decision. Because I’d have to anyway.”

Geraci: When push came to shove?

07-00:06:17

Gomes: When push comes to shove, I’ll have to make the decision anyway, so we’re not going to take votes. We’ll discuss anything openly. And the rule worked.

Geraci: I could see where a group would just be totally taken aback.

07-00:06:29

Gomes: Oh, yeah. The first reaction is, what are you talking about? You’re going to be dictator, huh? I had the authority to be the dictator. But I actually have used that no vote principle throughout my career. If everybody over there agrees, I may disagree, and I’ll let you know why. But for the most part, we’re going to do that. But if it’s contentious, then there’s no reason setting up camps.

Geraci: You say you’re taking the full responsibility. How does one handle that when you’ve made a negative decision, in somebody’s mind?

07-00:07:22

Gomes: Depends. If it is in your own mind—if you think you’ve done something wrong, you apologize. If you’re making the right decision, what you perceive to be the right decision, and somebody thinks it’s a negative decision, then you just simply say, look, I’m sorry. I have to make a decision. And I appreciate that you disagree with it, but this is the decision I’ve made. And this is why, and this is where we go from here. There is another old saying: what it takes to do the job is sometimes different from what it takes to keep the job. I honestly believe if one can keep doing the job ahead of covering your rears that everybody’s better off.

Geraci: Right. Okay, it seems that we’ve talked a little bit about this. So we are into the early 1990s now.

07-00:08:26

Gomes: Well, actually what we’ve done, we are stuck in the mid-eighties. I went to the larger department, and then they put the faculty in quintiles, to follow up on that example. I had faculty come in who were on this leadership advisory group, elected, who said, “Such and such a faculty member, I have in the bottom group.” I’d say, “Yeah?” “I’ve always thought he was one of our best faculty members.” I’d say, “Well, why do you have him in the bottom group?” He said, “I’ve decided that I always thought he was one of our best faculty members because he
spent so much time telling me about it. He hasn’t accomplished anything.” And I knew that. But now suddenly, the leadership knew it. And when this person got an increment in his salary commensurate with his accomplishments and his rating, he went to complain to all these other senior faculty who had put him in the bottom group. And all of them had. They didn’t want to say, well, wait a minute, you didn’t earn it. They didn’t say that. They commiserated a little bit, but boy, they’re shaking their heads. And it was no longer me that was the bad guy, it was that this person was being judged fairly. He was being given rewards or lack of same appropriate to his level of performance. While they could get along with him just fine, he wasn’t moving forward. He left as an associate professor and became professor elsewhere, but has been undistinguished. And frankly, was one that—When you’re a department administrator and a faculty member comes in and says, “I’ve gotten an outside offer,” they want to be very careful that you don’t say, as my first department chairman did to a faculty member, “Congratulations. There is no way we could match that.” Because you’re gone. And there are a few that you’re just delighted when they come in and do that.

Geraci: Thank you. Don’t let the door hit you in the rear as you leave. [laughs]

Gomes: You got it. You got it. Actually, you look appropriately sympathetic and proud of them, but you don’t fight the issue.

Geraci: Okay, so is there anything else, then, for this mid- to late 1980s period?

Gomes: [over Geraci] One other thing I learned. And this, again, may have just been establishing the nature of what you do as a faculty member to what you might do as administrator. As a major professor, there’s nothing you love more than to see your PhD students go on to wonderful jobs, to grow and develop and succeed. As a department head, when somebody outside the department wants to hire them, I always thought—The first thing is, if this is a good one, hell, no. You can’t go. I’m going to match it. I’m going to beat them, going to keep you here no matter what. The first thing I always try to do is say, are they offering something we can’t? Is this better for this person? Is it to move up to a place he’s denied by senior faculty here? Is it to become a department head, where this person has the skills and should has as a goal being a department head? And if the answer’s yes, then you tell them, look, I’ll make an offer, if it will help your ego. Or if you really don’t want to go, let’s talk about it. But this is an opportunity. I’m not going to stand in your way. And you do that with some of the good ones. Over the years, you develop some remarkable people in a network that were your colleagues.
Especially for your graduate students. We haven’t talked very much about your graduate students. You had quite a few?

I had a couple dozen.

I guess right now might be a good time to discuss where did they end up? Where did they go? Did you say a couple dozen?

Yeah, they ended up a huge variety of places. My graduate students were, to a degree, caught in that transition. As we talked earlier, my funding was from the National Institutes of Health. Much of their research was done with laboratory animals, rather than cattle. And so they may not have been the first choice in a department of animal sciences. So my first PhD, I think I mentioned, ended up in the National Institutes of Health, as a chief of a section, then president of a medical college. My next PhD went to Chemical Abstracts and had a long career with the abstracting organization. If there is a trend, it would be medical school orientation and private industry. A shared PhD with my department head ended up with private industry, with a chemical company. And so my students went in that direction, when they were PhD candidates. A significant number of my MS students went to veterinary school. And those went on to practice or into veterinary colleges. My international students, both of my Indian students returned to India, to faculty positions. My Puerto Rican student returned to Puerto Rico. And so they had a variety of careers, some of them already mapped out for them when they came to work with me.

It seems to be a really great sense of network that’s going on, even reaching the international level. As they start turning out their own graduate students, there almost becomes a hierarchical genealogy of research that’s going on.

It does. Probably in my case, some of it, a good deal of it, was lost when I moved to the dark side and became an administrator. [they laugh] But certainly, had I continued on in the research field, that would then be the feedback. My first PhD student got his masters degree with my PhD mentor. And that sort of relationship exists. The field is relatively small. The number of institutions that have significant graduate programs in agriculture, particularly PhD programs, is relatively small. And then when you get within one field, you know everybody. And one of the first things you’ll do when you’re looking for a graduate student is to call your colleagues, call your former students, call your former major professor, and carry on that network. Or see them at meetings. Because each of these
organizations has an annual meeting. And at one point, I was a member of perhaps a dozen professional organizations. I didn’t get to a dozen meetings a year, but—

Geraci: [laughs] You could only wish. What type of organizations did you belong to?

Gomes: Oh, I was in the American Dairy Science Association, the American Society of Animal Science, the American Physiological Society. I mentioned the Society for the Study of Reproduction, that I was a charter member. I was the chapter president of Sigma Xi at Ohio State. The Federation of American Societies for Experimental Biology brings about five groups together every year—brought; I’m not sure they meet that way anymore. In those days, at Atlantic City, pre-gambling. But there were seventeen or eighteen thousand scientists during this week long period that you interacted with.

Geraci: That is huge.

Gomes: Huge, huge meeting, in a place like Atlantic City that was empty in the winter—they did this in April usually—was necessary. I was a member of the Endocrine Society—off the top of my head. So a number of professional organizations.

Gomes: Were those organizations valuable for you as you went into administration?

Gomes: They were valuable for me in that I was able to build networks, able to know people. And probably in administration, where they gave me my greatest advantage was when I was looking for faculty. When I was trying to work on ideas and people, then I knew who to talk to. I knew the experts. I knew which ones would tell me what they thought, rather than what they thought I wanted to hear, and I knew which opinions I respected.

Geraci: So the network—This is typical of most of the professional organizations. The most valuable thing is not so much listening to papers delivered as it is the network that’s built?

Gomes: Yes. The papers that are delivered are almost always ten to fifteen minute papers. And they are always abstracted. And if one reads the abstract—When you read the book, you got more than when you see the movie, even though that might add something to it. So listening to papers at meetings was never one of my great goals. An exception
would be the federation meetings that I mentioned, because they would have seminars, plenary sessions with true experts talking about fields that were enough removed from what I was doing that I could learn a lot. I could go into a molecular biochemistry plenary session that would be given on a general enough level that those of us who were ignorant of the intricacies could understand, and yet a specific enough level that you could get the cutting edge of what was happening. So those were very helpful. Otherwise yes, professional meetings, you learn in the halls. You learn—

Geraci: Right. At dinner.

Gomes: At dinner. You learn just bumping shoulders and talking to people that you haven’t seen for a while.

Geraci: I guess our next step is to get into the nineties. You’ve been an administrator going on a decade and were you looking for a job elsewhere, or does the job come knocking?

Gomes: At that point, maybe some of each. I’d been the head of the larger department—After I had been head of the larger department for a year, two jobs came knocking. Came almost arm twisting. One of them in particular would have been—I’ll be blunt. I was offered the deanship at Purdue. I had not applied. I was called by the provost and said, “If you will send us a CV, we’ll have you on our interview group.” And I said, “Look, I’m not looking for a job. It is not a good time for me to move. We have just merged this department. It would be almost like running out on these people.” And he said, “Look, if there’s one chance in five that you would take the job if it were offered, send us a CV.” Well, I followed his rules. I sent the CV, I interviewed, they offered me the job, and I turned it down. For the reasons I mentioned. I wouldn’t have felt right leaving then. But that was a place I would’ve gone. A couple years later, when the dean left to become president of Oklahoma State University—

Geraci: This is at Purdue again?

Gomes: No, this is at Illinois, still. I became the interim dean. And applied for the deanship, and at that time, looked at others. So if you ask was I looking for a job, at that point I decided I was going to be a dean, probably; if not in Illinois, than probably somewhere else.

Geraci: So that’s really a big transition, at least a mental transition.
Gomes: Yes. I think at that point, the decision was, I’m in the dean’s office and this is where I go from here.

Geraci: That’s a major turning point for a career.

Gomes: It is. It is. As interim dean, acting dean, whatever term is in vogue, I took the attitude and I told the faculty, “Look, I’m not going to start long term changes or make decisions that will kick in the distant future. That’s inappropriate. But other than that, as far as I’m concerned, I’m the dean. I’m going to act as a dean, not for the dean.” And they understood that. And so we did some things in that six or seven month period. As I say, I looked at some other positions then, and I was offered the job at Illinois.

Geraci: Okay. With this move you have the job in Illinois. How does the California connection come back?

Gomes: Oh, not for years.

Geraci: This is not until 2000—you become emeritus at Illinois in what? ’95.

Gomes: Yes. I became dean in ’88, I guess, as interim, and ’89 as dean.

Geraci: As dean, yes. And then?

Gomes: I was in that position for half a dozen, or almost half a dozen years, before I came here. And that actually is where I probably went through some exercises that ended up getting me asked to come here.

Geraci: Can you give us some examples?

Gomes: Yeah. The nature of the national economy, the state economy, the university economy is it tends to go in cycles. And those tend to be ten year cycles. And we tend to go from very high to very low quickly. When I took over as dean, we began to enter into one of the low cycles. And we had to handle cutbacks and layoffs and all of those things. And I looked at it, at the college at that point, and I said, “Look, what has happened over the years, the federal funds have decreased. The state funds are now decreasing. We’re reducing our number of people. We have fifteen departments or units here. And as we reduce each one, because we have a full-time department head and a full-time department secretary, and a full-time department budget officer, bookkeeper, if you will, we are increasing the administrator to faculty
ratio in each of these departments, by reducing the latter and keeping the former.” I said, “I think it’s time that we started doing some consolidation and reorganization, so that we can become a more efficient organization administratively. I have been through a small department. I know how wonderful that is to run. I’ve been through a big department, as big as there was in the college at that point, and I know that you can still do things effectively at that point; but you can do things much more efficiently. Some departments just put more layers of administration, but you don’t have to.”

So I went through these exercises. I started with a faculty committee and I said, “Okay, this is strictly an exercise of ‘what if’. In the end, we’ll look at what you have, but nothing will be driven by it directly.” And they said, “What? Are you playing games?” I said, “Yeah, I’m playing games with you. But I want you to play this game.” I said, “I want you to frame break. What if you were about to form a college of agriculture that includes the human sciences, that includes cooperative extension, the experiments station? It has all of the components that we have now. How would you organize it?” And they spent a semester and came through with some—I said, “You can’t change the footprint. It has to be equal to or smaller, administratively. You can’t change the rest of the university, though you can make some comments, if you wish here.”

So they came in with all the things that they would do. And some of their comments were, we would take our psychologists in child development and move them over to the Psychology Department. And they could’ve gone there. But basically, they came up with some new ideas, frame breaking. So I said, “Okay. Now, new committee.” I put together a new committee. In fact, I gave them that. I said, “Now, the restrictions are: we have a college, we have this report. How can you get from where we are to something more efficient, more streamlined, taking into account all of these open-ended brainstorming ideas that have been laid in front of you? And now you can’t do anything with the rest of the campus. And this is your footprint.” And they came up with some recommendations. Now, at this point, you have to be able to do a couple things. The system there, the system both places, if I were going to make these changes, they would have to be approved by the faculty. Technically, there would have to be a faculty vote on them. If the faculty vote were negative, it wouldn’t matter; I wasn’t going to go on. They would have to be approved by the campus senate, by the chancellor, by the senate’s conference—which is the system—by the president, and by the Illinois Board of Higher Education.

Geraci: That’s a daunting task.
Yeah. And here we are back at the beginning, just with ideas. Moreover, a lot of people say, “Well, gee. It’s so daunting you can’t do it. Nothing’s been done in X number of years, and nothing ever at this level.” At the same time, the Illinois Board of Higher Education said, “Look, we have got to do something about our administrative structures.” They were looking for ideas. Now, we’re still just starting. Then second, the key, you have to convince the faculty. Let me change that. The faculty have to be convinced that the status quo is not viable. Faculty, like anybody else, will cling to the status quo until they sink off into the sea. They became convinced it wasn’t viable. So then we took this plan, rough as it was, and I put it out for comment, for recommendations, for changes, and got all of those back. It was out for a month. Got all the comments back in and sat down with my associate deans and we made adjustments to that. And I sent it out for comments again.

Now, we’re now nine months into this process. Got those back, and then I said, “Okay, folks. Here’s what we’re going to do. This is the start of summer. I’m going to give these to the associate deans. Each one of them, in thirty days, is going to give comments back to me. I am going to then develop a set of recommendations. I will put those out for one last set of comments to the faculty, at the end of which, I’ll come to a faculty meeting and present a new organization for your response.” So we went through this process. And I said, “In the final analysis, it’s mine. I’m to blame if you don’t like it.” Said, “I’m going to take this to the faculty. Going to present it at a faculty meeting. You’ve already had your chance for feedback, the last thirty days. This is one that you may not amend. Because if you get in the cycle of amendment, you’re forever. It’s yes or no. We are going to, at the end of this faculty meeting, send it to everybody, every faculty member in the college, including those on sabbatical leave overseas. And you have thirty days to return your ballot.” Basically, people said, “Well, what if it’s 51 percent negative?” I said, “Look, I don’t know what the number is. But if it is a house completely divided, we can’t do it. Because there are too many things beyond here. It has to be a positive response.” Well, in the final analysis, we had 82 percent of the ballots returned, and they were 84 percent yes.

That’s consensus.

I thought that was a consensus. So I then went to the faculty senate, the campus senate, and presented this and said, “Folks, I’m presenting this. I’m asking for your vote on it. I won’t accept any amendments.” And a faculty member says, “What are you talking—you can’t tell us whether we can amend it or not. We have every right to.” I said, “Of
course, you do. But if you amend it, I'll withdraw it and it won't come back. It is an up or down, because we've already now been a year in this process. This is what is being presented to you by the faculty of the college.” The college of agriculture now—we are including changing our name. I said, “If it is not acceptable as is, tell us. If you want to say, well, you could amend it this way and that, that’s certainly your business. But if you pass it with amendments, it would have to come back to my faculty, and I won’t take it back to them.” So they passed it. The chancellor thought this was great. He took it forward. We had obviously greased the skids. The president was waiting for it. He took it to the senate’s conference and they were fine with it. So then we thought, well, now the Illinois Board of Higher Education usually takes four to six months to run things through. We got it to them on Wednesday, they approved it on Friday.

Geraci: They must have wanted this?

07-00:34:07
Gomes: They wanted an example. If we’d been second, we might’ve been another year in the process. But we were there, we presented the plan, it went through. Now, this is when you really get into timing for the transition It was set up so that we had about a semester of transition. We went from fifteen departments to six.

Geraci: Boy, that is a massive cut.

07-00:34:35
Gomes: Yeah. It wasn’t a little change. We changed the name of the college, we changed administrative units in the college. So now at this point, we have to decide who’s going to be the leadership of these new departments. Faculty from each of the new units has to decide whether they want one of the existing department heads or whether they want to have a search. We gave all the ground rules for all of this. Faculty say, “Well, if we have a search, we’ll get another faculty member, and we’ll keep the ones we have.” And so you say, “As soon as you go outside, we’ll fill it, and then we’ll take away a faculty position.” [Geraci laughs] To get rid of the game playing. So we went through that whole process. We went through the budgeting on the old basis, and developing budgets for the new basis, so that the start of the university fiscal year, August 21, 1995, the new plan would be in effect and the old one would’ve ended. On August 20, I left the University of Illinois.

Geraci: How did it work out?

07-00:35:49
Gomes: I think very well. They are pleased with it. Of course, there were changes.
Geraci: There are always some.

07-00:35:53
Gomes: There are always little tweaks.

Geraci: Yeah, little things.

07-00:35:55
Gomes: But they’re happy with it, they’re pleased with it. The new name was a name made by a committee, which I always hate. But we had for years—The people who started as home economics went through several name changes, wanted to be seen as part of the name of the college of agriculture. The environmental sciences wanted to be seen as a part of the college of agriculture. The natural resources wanted to be seen. So again, you can either do the name made by a committee or you can do the abstract. Eventually, you better think about the acronym. So we ended up with the College of Agricultural, Consumer and Environmental Sciences—which is ACES. And the college, on campus, is known as ACES.

Geraci: That has to be somewhat gratifying to know? Even though you left prior to it taking place.

07-00:37:00
Gomes: Well, that may be the best time to leave, but—[Geraci laughs] Well, because basically, the person that succeeded me now, if things went wrong, could say, hey, I didn’t do that, Reg did. We’ve got to make it work. It really put him in a much better position. The other component that went through this time, we haven’t talked about at all, and may be less of a factor in my coming here, because of the nature of this system, was that I was involved for a ten-plus year period in extensive capital campaigns. We built buildings. Lots of buildings. A major one was one that had been a dream of at least four deans prior to me, and it was starting on a very low level when I got there, when I came to that position—a college library. We ended up with a college library information and alumni center that is the heart of that campus now and it was begun just after I left; it’s now completed. And that’s now the heart of the ACES college. So a number of buildings went up in that time. Each of those, in its building, in the changes that take place, involved the kinds of administrative decisions that we made. But for the first time in a very significant way, we were into fundraising.

Geraci: Being part of and running capital campaigns is a full-time job in and of itself.

07-00:38:43
Gomes: It’s more than a full-time job. I started with a development office in the college that I inherited from my predecessor that had two people
and one secretary. When I left, there were twelve people. Everything else in the college had shrunk, but the development office grew. Just two years before I left, the campus was starting on a new campaign, capital campaign. It was to a billion dollar campaign. The goal for the college was $100 million. Now, if you think of one college raising $100 million, when eight years earlier, Purdue had completed their capital campaign of $200 million for the entire campus. Puts the perspective on where those things are going. And it’s happened here. We now have campuses with $2 billion campaigns. But the whole of the fundraising for capital, the research fundraising, the political ins and outs, which we’ve talked about very little, with federal government and beyond, it all became a massive part of this job.

Geraci: It circles somewhat back to the dependence on capital campaigns and the huge blocks of money that come in from business.

Gomes: Absolutely.

Geraci: That goes back to the ties of what’s happening to university pure research, if businesses are buying the buildings.

Gomes: That’s right. That’s right.

Geraci: So [Gomes laughs] he smiles.

Gomes: Well, in reality, the purity of research, for the most—Let me even say—You mentioned recycling. We talked about the ethics of research last time, back when I was a young professor. That’s the basis of all of it. If a company comes in and a company wants to build a building and put its name on it, the university can protect the integrity of its research under those circumstances. And it must. When Oracle put their name of the coliseum here, I think it was understood that they weren’t going to pick who the next basketball player on the Warriors was. That’s the kind of understanding that has to be there. We appreciate your support. We will put up this wonderful edifice. We’ll put your name on it. But we’re going to have research integrity. Now, I had one battle here with a state agency, over the integrity of our research and it was nasty. But I think it’s the sort of thing we must stand up for first. If it isn’t appropriate for the university to do this, I don’t care who pays for it.

Geraci: It’s back to the basic ethics.
Gomes: Yeah. The other side of that, if it’s not worth doing, it’s not worth doing well. There are lots of people who want you to do things that aren’t worth doing. You have to understand that, too, money or not.

Geraci: Now, in running capital campaigns, what else do you think? This is obviously a learning curve for you.

Gomes: Oh! Tremendously.

Geraci: A great learning curve?

Gomes: Tremendously. You are now rubbing shoulders with millionaires, in many cases, and you’re going to ask them for millions of dollars, and you’ve never done that before. Now, I was fortunate, in that many of these millionaires were people that I knew very well. I had interacted with them in the state. One family had already given a million dollars to this library when it was a $6 million project. By the time it was built, it was twenty million. The second person that I was cultivating to try to build up some things we were doing was with me at a basketball game, in the chancellor’s box. That’s the sort of thing you do. And he said, “Reg, I’ve decided I’m going to give at least a million to this library project. Would it be all right if I told the chancellor?” Now, well, yeah. [they laugh] So it works in very different ways. Nobody that I’m aware of gave a million dollars to the campaign, or more—any of these campaigns—as their first gift. These are all people who had been supporters. [mic noise]

Geraci: Need some help with that?

Gomes: {inaudible} [mic noise] got it in the wrong place. They are all people who had been supporters, and ended up moving to a new level. And one of the rules of thumb is you have to thank them. At every level. So whenever a gift went into the college during my time as dean, they got a letter. Now, we talked about our form letters earlier. They got a letter from me, personally signed, and usually with a little note on the bottom, for that gift. The note at the bottom was pretty brief for one dollar gifts. [Geraci laughs] Which we got a number of. Some little old lady would send a dollar. But they got a personally signed response from me on every one of those, identifying the gift. And if nothing else, it could go for an income tax receipt. But a lot of colleges sent them out from other people, from the development office. Those came from my desk, with my hand signature on them. And at times, they led to something else. The third leg of this big building was contributed by the widow of a faculty member. She came to my office one day and
said, “My husband and I, before he died, had decided to buy an annuity for the university and it will maximize at term,” twenty years or something, “at a hundred thousand dollars.” I said, “Well, that’s wonderful. That’s extremely generous.” I was pleased. I said, “To thank you, may I take you to lunch? You’ve got two daughters here, married daughters. Can I take all three of you to lunch?”

So my development officer and I took them to lunch, had a nice lunch. She came back in about a month later and she said, “You know, you were so nice that I got to thinking about this. You’re going to put my husband’s name,”—hers, too—“on this segment for this building. I got to thinking about it, and my husband and I also own these farms out here that will eventually go to my children. But right now they’re earning money. I’ve worked with my farm manager and my accountant, and we’ve calculated that the money that they earn will pay the premium on a life insurance policy for me, and with the university as a beneficiary. So we have increased this to a million dollars.” I thank you in a lunch. And this wonderful lady came in and actually allowed us to get that building built.

Geraci: It’s amazing, the amount of generosity and philanthropy that is still strong in the American spirit.

Gomes: We commented earlier about my international activities. That’s one of the things that people in the rest of the world simply cannot understand, this charity. And that’s what it is, is people giving what they have to the greater good. And it’s a way of life here. So we have going from the point where public universities rarely asked for such monies, a mere twenty-five or thirty years ago, to the point where now it’s a way of life.

Geraci: Well, the fact that our public institutions now are starting to mirror the great private institutions in endowments, in building capital campaigns, we’ve made a big transition.

Gomes: [over Geraci] Well, it’s necessity. If you look at those states where they haven’t gone after private money, their physical plants are deteriorating, their support is deteriorating. The promise of their future is deteriorating. It is not so much a case, I think, of the public universities becoming more like the private universities, but the public universities and the people understanding that if they are to be great, they have to find sources of funding beyond traditional government sources.

Geraci: Almost a hybridized plan?
Almost. In reality, if one looked at the total budget, including federal grants and this sort of thing, many of the large privates have as much public money in them as our public universities do. So it’s a mixed source of funding. The difference is the governing boards. The public universities still answer to public bodies. Private universities have to answer to public constituencies, but they are not government constituencies.

Anything else on this? I find the capital campaign experience to be a huge issue.

Well, if nothing else—

An arrow in your quiver.

We were talking earlier; you had raised the question of the sorts of things that may have given me visibility, which led to my coming here. I can’t tell you how that was perceived out of the state. But clearly, the efforts to raise funds for buildings at Illinois was—to raise capital funds, but for buildings, in large measure, at Illinois—was ahead of any other Land Grant university, with the possible exception of Cornell. Cornell is mostly non-Land Grant university. So it was something that other people were looking at and addressing. The extensive changes that we made to the college presented a model that—not the process, but the product—led to changes at a number of others. I think none as extensive, but at least they could use us as the bad example. [Geraci laughs] They could use us as the extreme example, and go part way there. So a number of other major institutions did some streamlining. Many of them changed their names, many of them combined units. I think the Illinois model was part of that. So whether I had notoriety [laughs] or admiration’s beside the point. It’s the old story: just so they spell your name right. [Geraci laughs] We were doing things at Illinois that other people hadn’t done. We were getting them accomplished. And I suspect that led to my name being on lists.

I actually just jotted down some notes while you were talking. I see five or six things that we’ve just talked about. I’ll throw these ideas out, just to rephrase. Number one is that your research was strong. You had a great career as an assistant and associate professor; you had done your own research. You had your graduate students out there. You proved, as department chair and as a dean, your basic administrative skills. Lastly, that fundraising capital campaign is a huge personal skill and all these are things that people look for in a good upper level executive management.
But less here in the office of the president. That’s more of a campus function here.

Geraci: That’s more of a campus function.

But certainly, someone who understands it might get hired.

I think your skill at reorganizing was important. But then the fifth one, the last one—that I keep referring back to, even though you were uncomfortable, I think, can be summarized with the phrase—was your people skill. You knew how to speak to people, which many academics do not know how to do. Would that be a fair summary of what we just talked about?

[over Geraci] Let me, if I may, rephrase your last phrase into communication skills.

Great. Absolutely.

Okay. I’ll buy that.

I can absolutely do that. Well, I think we’re at a point on this tape where we have just a few minutes left. So what I’d like to do is somewhat end here. And then when we pick up on our next interview, we have you coming to the University of California.

Come to California.

Coming to California. Reg, thank you very much.

You bet. My pleasure.

[End of Interview]
Interview #5: May 5, 2008
Interviewed by Vic Geraci, ROHO

Begin Audio File 8 05-05-2008.mp3

Geraci: Today is Monday, May 5, 2008 and we are in the Oakland, California home of Dr. W.R. Reg Gomes. This is the fifth interview with Dr. Gomes, and is being conducted by Victor Geraci, Associate Director of UC Berkeley’s Regional Oral History Office. Reg, when we left off in the last interview, we were really talking about your career up to that point as a professor, as a researcher, as an administrator, and all the things that you had done within those venues. Then came the move to California. So let’s pick up with the move to California. First of all, how did it happened? We covered this a little; if we overlap, that’s fine.

Gomes: All right. One day when I was at the office in Champagne, Illinois, in Urbana, Illinois, I received a phone call from the president’s assistant here at the University of California. And as I recall the conversation, she said, “We have been searching for a successor to Ken Farrell, the vice president here.” And I said, “Yes, I’m aware of that.” I was aware that the position announcement had been out, and had closed some three months earlier. And she said, “We’ve developed a shortlist of three or four people.” And I fully expected her next words to be, “You know these people and we’d like to talk with you about them.” Instead, she said, “You’re on it.” And I said, “I’m on a shortlist?” She said, “Yes. And what we would like, if you’re willing, is to have you come out and interview for an hour and a half.”

Geraci: So this is all—

Gomes: —you’ve heard of it.

Geraci: —you’ve heard of it.

Gomes: Well, I was aware, as I said, that Ken had retired, or was retiring; and I was aware that the position announcement was out there. But I had done nothing, and had no conversation at all about it. I found out subsequently they had had lots of conversations with people sworn to secrecy. But this was the first I heard of it. So I said, “Well, if you need an answer right now, the answer is no. I’m not looking for a job, I’m not interested in moving.” And she said, “No, I don’t need to hear right now. Why don’t you talk it over with your wife and get back to me in the next few days?” So I went home and related this conversation to my wife. And she said, “Well, you spend an hour and a half in the hallway talking to students.” And I said, “Yeah? You think
I should go talk to them for an hour and a half?” She said, “Why not?” So we arranged an interview. I surmised at the time, from the timing—and I subsequently think it was accurate—that they interviewed three of us on one day. The search committee was there, and they told me that my appointment would begin at eight o’clock and would be an hour and a half. At eight o’clock I walked in, and at nine forty-five, I was in the taxi back to SFO. My best guess is that they did one at eight and one at ten-thirty, and one after lunch. But again, that’s a certain amount of supposition I think is accurate.

Geraci: Did you ever subsequently find out who this competition was?

Gomes: A year later. One of the members of the search committee said to me, “Reg, whatever happened to the other two people we interviewed?” Which is the first time I knew it was exactly two. I said his name, I said, “I don’t know who they were.” And he told me. So the process at the university, of hiring upper level administrators is very, very confidential and does very well. I haven’t repeated those names.

Geraci: [over Gomes] I think it does that even at the academic level.

Gomes: I think it does, except, for example, when we have been searching for deans; they come in and give seminars. Suddenly it’s very difficult to maintain confidentiality, if people are giving seminars. But nonetheless, I came in and met with them for an hour and a half, went home. And the next morning at seven-thirty California time, nine-thirty Illinois time, I got a call from the president inviting me to take the job. And I went home and told my wife about that. She says, “Well, now, this is not standing in the hallway for an hour and a half talking to the students any longer.” So we spent about a week deliberating, and finally decided it was the thing to do.

Geraci: And made the move back?

Gomes: To make the move.

Geraci: How old were your children at the time?

Gomes: Oh, they were grown.

Geraci: Okay. So the kids are grown, so that’s not a concern.

Gomes: [over Geraci] So it’s no longer a factor of the kids. The job at Illinois was to the stage and in the place where the transition we had talked
about was being carried out. It was a done deal, in the transition period to take place in August. And so it was probably a reasonable time for me to do that.

Geraci: I think, if I remember right, in our last interview, you said it was almost an opportune time, in that a new person coming in could now claim plausible deniability.

08-00:05:47
Gomes: Absolutely. Absolutely. Though I don’t want to sit here and say I moved here as a favor to Illinois. [they laugh] Some might tell you that.

Geraci: Some might think so.

08-00:05:59
Gomes: But it’s an interesting phenomenon, because once I began to deliberate, I thought then and I think now that there was no other administrative job in university agriculture that I would’ve considered. So it was this or nothing and I hadn’t applied for this one.

Geraci: But also it’s quite a step up. And as you’re looking towards an end of a career, it’s a good place to end?

08-00:06:33
Gomes: Yeah, though I’m not certain, thirteen years ago or so that I was looking towards the end of a career. It was the next stage. I’m sure I was aware that I wouldn’t go on to another ten or fifteen year position. But that wasn’t the frame of mind at that point.

Geraci: So you’re taking this as a long term challenge?

08-00:06:59
Gomes: Yeah. My opinion in each of the administrative jobs I’ve taken was that barring a complete mismatch that I was going to spend at least five years; and my goal was to leave in ten, because I thought it was time to turn over the position to somebody else. The first five years, it’s very, very easy to change those things your predecessor did. In the next five years, you have to start changing the things you did. And obviously, they were brilliant.

Geraci: [laughs] At least in your mind.

08-00:07:37
Gomes: [laughs] Well, sure. Sure. It does become more difficult to say, well, now, all those things we put in are now outdated.

Geraci: Now, as you’re coming and you and your wife have made the decision, we are going to make the move. What did you know about California and the position and what the challenges would be for this position?
Gomes: I knew about California from having grown up here. I knew the general structure of the universities and the system. I knew of the University of California, particularly Davis, to a lesser degree Berkeley, because my field was in the animal sciences, and Davis was the campus I would’ve related with; and really, very little about Riverside. But I knew of the structure of the Land Grant university system and how California fits in that. So I was aware, but I wasn’t current as to what was going here. As for the issues, the individual issues, the concerns, the problems, the opportunities beyond the obvious ones, no. You never know those until you walk in someone else’s moccasins, if you will.

Geraci: So there were not any really outstanding or egregious things going on that you were going to have to pick up?

Gomes: No, I didn’t—One of the things, as I move into one of these positions, is I try to avoid coming there with a plan to fix something, because too often, in my experience, people who have done that want to fix something that was wrong at their last institution. And I didn’t think it would serve me or California well if I came here to solve Illinois’s problems.

Geraci: I like one thing, though, that you just said in your perspective of it. You have a larger Land Grant perspective in mind.

Gomes: Very much so.

Geraci: I think that is very crucial for coming into this role. How will California—Yes, it’s exceptional within its state and what it has to do; but it also fits into a greater—

Gomes: Very much so.

Geraci: —structure.

Gomes: The Land Grant university system, and particularly the agricultural component of it, where probably the Land Grant universities started, is a network. It’s a network comprising major universities, smaller universities, institutions in the Pacific and Puerto Rico. It includes the 1890, the historically black institutions. And shortly before I came back to California, added twenty-five Native American institutions, most of which are community colleges. So it’s a huge variety of institutions, agricultural experiment stations, Cooperative Extension programs, interacting as a semi-democratic organization, even though
the institutions in there are extremely different and work very differently. So one of the issues that California has faced, Illinois faced, the institutions I’ve worked with have always faced, is that there is a group—in its needs, in its opportunities of institutions that might be the Division 1-A of football, if you will, the big powerful institutions—that might want to shape things in one way, and that might be deleterious to the smaller institutions. On the other hand, if everything were done to build the research capacity of Guam and Samoa at the expense of Cornell and Wisconsin, then the entire nation would not be as well off. So finding the appropriate balance, finding the way to interact, finding the way to help the developing institutions while maintaining the vigor and the strength of the major institutions, is a real struggle.

Geraci: This is almost politically applicable to any group; the dynamics of the large entities within the group versus the small, because there are differing needs—

08-00:12:42
Gomes: Oh, absolutely.

Geraci: —in bringing the two of those together.

08-00:12:45
Gomes: Yet at the same time, while the vast majority of the PhDs, in agriculture and anywhere else, are produced in the major few, those people are going to work at Tuskegee and South Dakota State and the other institutions that aren’t producing PhDs.

Geraci: So this almost follows a good academic model of—You’re planting these seeds at the large institutions and then distributing that across the nation?

08-00:13:19
Gomes: But then bringing in genes, if you will, from the smaller ones, to make sure you have the vitality. One of the concerns that I’ve had where I’ve worked is that within a department, one could get too much academic inbreeding. And it happens.

Geraci: Well, it’s the academic incestuous fear, that you don’t want your graduates at your institution.

08-00:13:44
Gomes: No, no. So those are the kinds of issues that override the scene when I’m coming to California. But there are so many California specific issues that I had to catch up on, to learn about, to become facile with—not only aware of, but knowing that I’d have to live with them every day—that I carved out that period of time to learn.
Geraci: Could that have been one of the strengths that they were very interested in? You have a California experience, but you also have a very broad perspective.

08-00:14:25
Gomes: It’s an interesting thing. I’m not at all certain, when I came here to interview, that they knew I had a California background. They didn’t have my CV.

Geraci: They just knew you from past experience?

08-00:14:42
Gomes: They knew me from experience. And as I indicated, they had talked with a number of people. I found out subsequently that they had talked with the dean of veterinary medicine at Illinois at some length, about me as an administrator. They had talked with the chancellor at the University of Illinois, prior to contacting me, and I don’t know who else. But each conversation was sworn to secrecy, and until it was all over, I didn’t know anything about it. So they knew a good deal about me. But I don’t know that they had gone into the details of my pre-graduate school days and what I’d done.

Geraci: Well, we’re going to get into it in the next step, but I guess one of the things I would like us to keep in mind is this is an era of some major changes for Land Grant institutions. The person they’re bringing into this position is going to have to shepherd the institution through some tough times. And this would hold true whether it be California or Illinois.

08-00:15:46
Gomes: Of course.

Geraci: It was just nationwide.

08-00:15:49
Gomes: The fact that I had that kind of background, the fact that I had been a scientist, a researcher, that I had worked pretty extensively in Cooperative Extension programming and programs, that I had led departments and a college, I’m sure were the kinds of factors that led them to ask me to come out here. I suspect that they didn’t look very far beyond sitting deans. Although my successor is in another mode. This is a different time, also.

Geraci: But wouldn’t it have made sense that that’s where you would go to get the next candidate?
Gomes: Oh, sure. Sure. I think it’s the logical thing to do. Certainly, director of a large experiments station or something like that, if it weren’t a sitting dean.

Geraci: They were looking for the combination of academics, but also administrative ability and experience.

Gomes: Mm-hm, mm-hm. And probably, with the type of position that exists here, maybe even more administrative experience. The academic ability, from the position of understanding and appreciating it. But the fact that one can work in a laboratory is pretty far removed from the management level, leadership level questions that exist here.

Geraci: So I guess the big question is, you arrive with natural trepidations?

Gomes: I did.

Geraci: I can imagine arriving in a new job like this is somewhat intimidating. How did you go about finding the things that you needed to know? Just what is the state of the whole organization at that point?

Gomes: Well, one of the things that I promised, threatened, was that for about a year, I would be doing more asking of questions, visiting and learning, than I would be presenting new directions and ideas. Obviously, one has to face day-to-day issues, and even larger issues, to determine where you’re going. But I carved out a year to learn. The ways in which I did this were to work in the office, to meet everybody I could in the office of the president. For the first time, I would be working directly with Regents. To reach out to the industry wherever I could, to learn and visit and meet. The position has historically—still does—has a seat on the State Board of Food and Agriculture. And so I was meeting with industry leaders and government leaders in that respect. The position has and does have a seat, an advisory seat, on the California Farm Bureau board, and I met with that group regularly, as well as other groups. I went to various organizations and talked at their banquets. I met with them, I talked with individuals, to learn what was happening and what people were thinking, and what they saw as the needs from the University of California. At that time, the structure of the organization had four deans and four regional directors, along with the vice president, associate vice president, assistant vice president, as a management group. I told each of the deans and each of the regional Cooperative Extension directors that they could have forty-eight hours of my time. Show and tell. Take me where they wanted to, show me what they thought I should see, tell me what they thought I should hear,
and ask me what they wanted to ask—with the caveat that I’d be doing more asking than I would answering. So the first to take me up on this was the north regional director. The regions have been changed since. But he picked me up in a small plane, and over the next two days, we did eight takeoff and landing combinations all over the northern part of the state. We visited a research and Extension center, we visited Cooperative Extension offices, we looked at oyster beds on Humboldt Bay, we were in the mountains with the Quincy Library Group. So we saw what he saw over the course of his travels around the northern part of the state. He had it set up so that our first stop, for example, was at one of our research and Extension centers north of here. The director of that center was on the plane with a briefing book for me, as we flew from here to there. As we flew the next leg, the county director of the county we were going to was on the plane with me, briefing me. So they used my time between stops to tell me what I should expect, to tell me what I should be looking for, what the issues were, and then I could see it when I was there. So we spent, of that forty-eight hours, a minimal amount of time sleeping, [Geraci laughs] not very much eating, except with a couple, three groups.

Geraci: Well, you had asked them—they had forty-eight hours of your time.

Gomes: He used it. And he used it, I thought—He had a map for me, showing where we’d be flying and where we’d be stopping. So he had done his homework. And I felt as thoroughly briefed in that forty-eight hour period as I could’ve been.

Geraci: Well, I think in some ways that was a very brilliant move on his part, because agriculture is geographic dependent.

Gomes: Absolutely.

Geraci: You have to understand that lay of the land. So you got to physically experience the location.

Gomes: Each of these regional directors, in his or her own way, did the same thing. So I traveled the entire state. During that year, I went to eight of our nine research and Extension centers and went to the—Actually, I’m sorry, at that time, nine of our ten research and Extension centers. And went to the tenth shortly after that. I was on all the campuses, I was on all of the ag campuses; of the University of California’s nine campuses then, I think I was on seven. And again, picked up the other two very shortly after that. So it was a case of getting all over the state, getting into research and Extension centers, getting into Cooperative Extension offices, going to other institutions. I visited with people
from the California State University system during that time. And basically, learned everything I could about California agriculture and the role of the university in it, and what people perceived as their needs.

Geraci: I imagine you were introduced to very interesting research projects?

Gomes: I think maybe that was what impressed me the most, the research and the diversity of the programming. In my thirty-three years in the Midwest, I didn’t go to any oyster beds. I didn’t go to anyplace where they were working with sturgeon. The huge variety of agricultural enterprises, and therefore of agricultural research programs and projects, if not overwhelming, was impressive.

Geraci: Well, I think that’s one of the reasons that makes California exceptional, though, isn’t it? Is that we have one of the most diverse agricultural states.

Gomes: We have the most diverse agricultural state, far and away.

Geraci: The numbers of crops and animals and programs is just huge.

Gomes: I said early on when I got out here, that if you wanted to contact, to interact with the agricultural leadership in Illinois, you should talk with the leaders of the corn growers; of the soybean growers, most of whom were the corn growers; of the pork producers, most of whom grew corn and soybeans; of the dairy producers, many of whom grew corn and soybeans; perhaps the wheat producers, who had that in a rotation; and beef; and if you wanted to be exotic, the horseradish producers, because there were only two, but they produce half the nation’s horseradish. That covered 95 percent of the agriculture, and I could get all of those people in one room. In California, with somewhere between 280 and 300 commodities—and the wine grape growers don’t talk to the table grape growers, and the table grape growers may not even know the raisin grape growers, the garbanzo bean people do something differently from the lima bean people—there simply is no way that you could get all of the leadership together, of the commodities. They wouldn’t fit in one room, and they would have no idea who the others were.

Geraci: And each of them have specific needs and desires?

Gomes: Each has needs and expectations, demands. And none was bashful about voicing them. And that’s good.
Geraci: Now, as you’re traveling—you start off with the example of you going through the north, and that you had done this statewide—I am sure even though you told them you were just going to be listening, they gave you what their fears were. What were their worries or their concerns at this point?

Gomes: They gave what the fears were, what their worries and concerns were, and what their hopes and aspirations and expectations were. We had just, as a university, state and the university, had just gone through one of our ten year down periods.

Geraci: Now, I guess we should throw in what year that we are in?

Gomes: I arrived in ’95. And we had just come out of the period of the VERIPs, the Very Early Retirement Incentive Programs at the University of California, some real cutbacks, simply because state government was in trouble, funding was in trouble. So we had lost a lot of people. There were lots of open positions. And people were feeling the crunch. Having felt that crunch for several years at that point, and with the realization the economy was beginning to turn, they were looking for recovery. Now, how we recovered, what we did in recovery, where we put these anticipated new funds, if we could get them, and whether we’d get them were all issues that were being raised. I went to one county and visited in the Cooperative Extension office. And the first thing they did was give me a list of all the positions that had been open, many of them five or six or seven years, and asked when I was going to fill them. And I said, “I’m probably not, because we aren’t going to go back to where we were five or six or seven years ago.” So one of the things I felt I had to do was overcome the idea that we’re going to try to put ourselves back where we were. I think that does two things. It puts us in a mold of not changing, and it puts us in the mental position of thinking backwards. So the mantra I began to teach was that we are no longer going to emphasize discipline and geography, particularly in Cooperative Extension. We’re going to emphasize issues and opportunities.

Geraci: But that’s a huge—In many ways, you’re upsetting the apple cart here.

Gomes: Very much.

Geraci: This is abandoning what was the traditional status quo.

Gomes: Yes. And if there is anything in my history, it’s disrupting the status quo.
Geraci: You say that with a smile.

08-00:30:06
Gomes: Well, it’s reality.

Geraci: We talked about that before, and it was a key thing, you had said, that it was very important to your past to think outside the box.

08-00:30:19
Gomes: Absolutely. And sometimes that means just discarding the box. Not with a lack of appreciation, not with no respect for what it was, but with the realization that the buggy whip is gone and we’re in a new world. I can’t tell you specifically, but if they asked the question—and I can’t imagine they wouldn’t have—when I interviewed for the position, I’m sure I told them I don’t believe in the status quo. If that wasn’t what they wanted, then they certainly picked wrong.

Geraci: Well, you’re looking towards growth?

08-00:31:05
Gomes: [over Geraci] I was hoping for growth.

Geraci: And as you said, it seemed that their biggest need was recovery.

08-00:31:12
Gomes: Mm-hm. But that’s growth from where they were. And inevitably, agriculture, agricultural education programs funded by state and federal government have never grown at the rate of everything else. “Never” being in fifty or sixty years. Each time one of these downturns comes, agriculture takes at least its “fair share”—I’ll put that in quotes—of the cuts, and almost never gets a proportional share of the recovery.

Geraci: But isn’t that strange, in the fact that it is one of California’s greatest economic production items?

08-00:32:07
Gomes: Perception is everything and agriculture is perceived as being unimportant in California. That’s one of the things I had to face. Agriculture in California—

Geraci: Agriculture is not dot.com.

08-00:32:24
Gomes: It is not dotcom, it is not the entertainment industry, it is not a huge variety of very important things. It is not, numerically, a very large social group. So while California agriculture is far and away the largest in the nation—in a good year, we’re twice Texas, which is number two—the importance of agriculture in California economically
amounts [to]—you can use the numbers any way you like, but—perhaps 10 percent of the state economy. Iowa has an agriculture about a quarter of California, but it is the driver of the state. And so much of the perception and the attitude and the degree to which programs are supported has to do with its relative importance. The State of California legislature is based on population, as it is in every state since a Supreme Court decision of some years ago. And the population on farms in California is perhaps 1 or 2 percent. And so the clout of agriculture in the statehouse, in the federal government from the California delegation, is very, very small. Right now the Farm Bill is in its final stages of arguing. The impact of California in that Farm Bill is very, very small. Because there’re many states, in the South and the Midwest in particular, where agriculture drives the decisions of the legislators.

Geraci: Could it be that the Farm Bill is also one of the most complex political policy things that is done on a five year basis?

Gomes: If they get it done in five years.

Geraci: [laughs] If they get it done in five years because it is a political trade-off system. We have California, where we have Pelosi actually backing some very traditional Farm Bill things, and we have President Bush wanting to break away from those.

Gomes: Bush has, since he arrived in Washington, attempted to do this, to carve out the pork, if you will. I think that Speaker Pelosi would like to do that, as well; but the political reality is that so much of the strength in the party is driven by those issues.

Geraci: The art of compromise.

Gomes: The art of politics. [they laugh] The complexity of the Farm Bill is real. It is not as complex as the income tax bills, but because it brings in such things as conservation and food stamps, because it brings in women, infant and children programs and price supports, it has a huge variety of constituents. Each of those constituents wants to carve out a larger piece of what has been a shrinking pie.

Geraci: Is this not in some way the old political battle over hundreds of years, of city versus rural?

Gomes: I think that describes the situation I was talking about in California, yes. Less with the Farm Bill, though more and more, the urban are
carving into the Farm Bill for their programs. The majority of the dollars in the Farm Bill go to food stamps, which is not a rural program.

Geraci: But yet within the Land Grant mission, it seems that over the years, part of the way to get your funding and keep up to date with programs has been to deliver food items and to also deliver food health issues and training and education in the cities, which is a far cry from agriculture. This does really start in those years of the nineties, as you’re coming into this position in California.

08-00:37:23 Gomes: It’s a deviation, a change from our roots. But if one goes back to the very early work that was being done, particularly as Cooperative Extension came online, the charge of working with homemakers—the old home economics programs—the charge with working with consumers and with youth was there. And the homemakers are still eating foods and preparing foods, though they’re no longer canning them.

Geraci: This is not a new proposition for these institutions. Take World War II, the idea of victory gardens. Educating people how to process foods, how to eat properly for efficiency’s sake, for the war effort—we’d already done this before. So it seemed like almost a natural organization to do it again.

08-00:38:27 Gomes: Well, there are several places it is a natural organization to do it; there are several places that it would seem obvious, and it hasn’t always been. We have, for example, in Cooperative Extension in our 4-H programs, fostered a number of school gardens for decades. Recently, the governor’s wife once removed took on school gardens as her own project. There was a very strong push to put in school gardens. And yet no one said, well, look, we already have somebody doing it; can we build on this and develop it? They wanted to come in, a different organization, a different way, build a new structure to accomplish these. Often when people come up with what they think is a new idea, they tend not to find out whether it exists and whether there are ways—the existing one can be improved; I’m not suggesting it’s perfect.—whether there are ways we can take advantage of that which we already have.

Geraci: Well it seems to me that as you’re going around and doing this that you were gathering your information and must have noticed a certain amount of angst amongst the old timers? I could see them saying who’s this new guy? And he’s talking these new directions.
I don’t know if angst is the right word. I was well received. The people were very friendly and very open. And it’s my experience that people are very welcoming of change and new directions in somebody else’s shop. Only when I got into their shops was I meddling. For the most part, I think my relationships, my discussions were very good. As I indicated earlier, the people in industry had no problem telling me what their needs were and telling me what their expectations were. I had no problem telling them what I knew I could deliver, and what we thought we might be able to deliver, and what we couldn’t deliver.

What were some of their needs and expectations?

Oh, for example—and I’ll just pick one out of the air that we can’t deliver and shouldn’t try to—the agricultural industry is very concerned that regulations—clean air regulations, clean water regulations, the EPA, the FDA—everybody is regulating them to death. And in California, even more so. So that they can give you actual examples of differences in costs of producing dates in California and across the border in Arizona. And the two differences are essentially regulations and taxes. And they’re huge. So they said, “Look, this is our problem. We want you to get in there and fix that.” And I can tell them, look, I will preach—and I will preach to the governor and the legislators and everybody else—that when you legislate, you ought to at least be informed by good science. It’s our job to produce that good science. Beyond that, I’m not going to recommend regulation and I’m not going to damn regulation. The university can not be in the position of being a regulator or offering regulations. We should be in the position of offering and producing the science that informs them. And if legislators choose not to use the good science, we can tell them they haven’t used it, but we can’t do anything else about it.

It’s their decision.

It is their decision. There are political decisions will be made in opposition to what science says.

We are talking here about the large agribusiness corporations?

I’m talking large agribusiness corporations, but I’m talking about—a specific example is the Hilmar Cheese plant. Large, huge organization that reached the point with regulations that the owner claimed that the water board regulations required that he put out cleaner water in his effluent than he was getting in his pipes. He said, so if he were simply running water through and doing nothing with it, he would have to
clean it up before it left. He said that finally reached the stage where he scrapped all of his plans for growth in California, and has opened up a new plant in Texas. Well, I can make that comparison, and I have, to legislators; but I can’t tell them, your regulations are wrong or this is wrong. I can tell them, science says that this is perfectly good. But the nature of the public—if science says that there is no harm at this level, then a typical legislator would say, well, fine. What we’ll do is make the regulations one tenth of 1 percent of that; then we’ll know we have a thousand-fold margin of safety. I can’t tell you that’s wrong. But I can tell you there’s no evidence to support that.

**Geraci:** Were you doing any consumer outreach at this time? Because the USDA does run all the consumer awareness programs.

**Gomes:** We have extensive programs, largely through Cooperative Extension. One that comes to mind is the FNEP program. FNEP is expanded Food Nutrition Education Program. It’s a national program, funded strictly by the federal government, no state funding in it, and funded in large communities, metropolitan areas. It is designed to help people eat, prepare healthy diets, prepare economical diets, and work within their ethnic and community areas. One of the problems that we have in California is there is a large Latino population; many of them have come in with a basic diet of rice and beans. And rice and beans as a base can be very good, but they certainly are not a balanced diet. When the beans are refried it’s usually, in the old days, in lard. So these tend to be very carbohydrate, fat heavy diets. And weight becomes a problem. So extensive programs working with individuals, a program of train the trainers. The university personnel actually train people who go out and work in small groups with homemakers to help the diet.

**Geraci:** That is a very old traditional role for the Extension program.

**Gomes:** Precisely.

**Geraci:** That was one of the original goals?

**Gomes:** It’s how we did it. There is a FSNEP, Food Stamp Nutrition Education Program, that does the same thing, but specifically works with food stamp recipients to now think about how they can put together their food dollar to have a complete, balanced, nutritious meal on fixed money, fixed income. And so those programs are very extensive. We had developed programs ten, fifteen or more years ago, at Berkeley, at Davis, working on issues of obesity, long before it became a national concern. Indeed, the program at Berkeley, until they decided to change
it to Weight and Health, was called the Obesity Program. So in the areas that we work—that is, in nutrition, in foods, in certain home design areas—we have programs pretty extensively. Some of it is strictly urban, some of it is strictly rural, some is at the interface. There was some wonderful work being done at Davis a few years to set up inexpensive housing, largely for farm workers. But the kind of housing that could be used in almost any urban setting. So a huge variety of issues—social issues, people issues—was there.

Geraci: I would think these aren’t issues that are that different than anywhere else?

08-00:48:28
Gomes: No, no. California is different in the distribution of its people, to a degree. If one goes to Minnesota, Michigan, Illinois, approaching half of the population or more is in one area. In Illinois, two-thirds of the population’s in Chicago or the counties surrounding Chicago. In Minnesota, more than half the population’s in Minneapolis-St. Paul. In Michigan, Detroit has the lion’s share of the population. Indiana, it’s Indianapolis, plus a little bit of Chicago slopping over. Ohio is different. California is different, in that we have a degree of urban growth in most parts of the state. Yes, Los Angeles, Long Beach, San Diego, if that’s one area, is huge; the Bay Area—

08-00:49:43
Gomes: Yeah. But it is not quite the same thing as growing from one city out. It’s cities merging together. And there is a phenomenal amount of agriculture on the interfaces and the fringes of those places. In Illinois or Minnesota, the city is here and the farms are there. In California, they’re mixed.

Geraci: Especially as you speak of the Southern California experience, as you used to travel from San Diego to Los Angeles, there was a great open space there. And especially in the northern part of San Diego, there was a lot of agriculture. Now that’s urban, but there’s still some reserve and there’s still some agriculture going on.

08-00:50:27
Gomes: Well, not only is there some agriculture, San Diego County has the nation’s sixth largest city, and a billion dollar agricultural industry, which in itself would make it larger than half of the states’. If we took out San Diego County, the avocado industry of California would virtually disappear, a number of others would be really hurt. So it’s big. And it is in an urban area, with an urban mentality.

Geraci: Farmers in the midst of the city.
Gomes: No, the city surrounding the farms. [they laugh]

Geraci: One of the things I’d like to shift to, along the same line, is as you were walking in and doing these first observations in this first year, I’m sure that one of the things going through your mind was, I need to find programs that I feel are successes and working, and I need to find programs that are marginal. Maybe not failing but at least marginal. Because in your reorganization schema that you’ve talked about before, there has to be cuts somewhere.

Gomes: Yes. No question about it. And in that first year, I was trying not to make those decisions, so much as gather the information that would inform those decisions. The difficult thing in times of growth is making the decision on what’s going to grow, even if it’s just recovery. The good thing about cuts and growth is that you’re allowed to make those decisions. If times are good, it is very, very difficult to stop doing anything. Whether it’s the university or whether it’s government, maybe whether it’s your household, to finally say, I don’t need to do that; it’s good, it’s okay, but it’s not central. It’s not where I have to put my resources. And so an allocation of resources can take place almost only when you have no money. A careful allocation of resources including shifting of money, can almost take place only in horrible times.

Geraci: This is just human nature?

Gomes: It’s human nature. It is also very, very difficult to do. That’s where it’s time for you go to when you do it. Because in effect, anybody can say, we’re down 10 percent, everybody takes a 10 percent cut. And that may be management; it certainly isn’t leadership. It isn’t how decisions have to be made. Well, we were at the stage then where we were anticipating some recovery, some old money coming back, if you will. We had to be in a position of allocating that where we could make the strongest, most appropriate impact. And those were the decisions we had to make.

Geraci: So it wasn’t so much a matter of having to cut marginal programs as decide, where new resources came in, who would get the lion’s share.

Gomes: Yeah, though we cut some marginal programs.

Geraci: Would you like to speak about some specific programs?
Well, as we got into some reorganization and actually had to do some cutting of programs in the next downturn, we closed the Center for Cooperatives, for example. It was an organization that was formed many years ago to help California. One of the very strong roles Extension had early on was the establishment of farmer cooperatives. And we had an organization that brought leaders of cooperatives together to talk about issues, that did some research on cooperatives. But it was a program that had been living on its state allocation. It hadn’t grown, it hadn’t morphed, it hadn’t changed, it hadn’t evolved. It was existing. And it was doing some good things. I don’t want to suggest it was bad. But it wasn’t healthy. And at that point, we either had the choice of, make it healthy—And the group came to me and said, “We need four times as much money.” And I said, “And if you don’t get it?” “Well, we just can’t exist.” And so I essentially said, okay, you don’t exist. We had to make some decisions like that of, we’ve been cut back; could we recover if we left those things that way, in their reduced state? And if they were in their reduced state and they were not finding alternate sources of funding, if they weren’t finding ways to grow, could we maintain them without hurting the greater good? And so we made some of those decisions.

Geraci: And those are the tough decisions?

Gomes: Those are the very tough decisions because those involve people, they involve programs, they involve ownership of programs. It’s easier, as a chancellor at an institution I worked at once said, to go straight for the capillaries. That is, you just bleed them to death. Ten or fifteen years from now, they’re still there, but they’re really nonexistent. I don’t like to work that way.

Geraci: That’s almost cruel and unusual punishment.

Gomes: It is, but politically, that’s often what happens. For example, USDA has sites all over the nation. They’ve been trying to close some of them for forty years. But every year, the local government, the local politicians, local organizations tell them, “Don’t close our station,” And USDA has said, “Okay. We’re not going to anger the local politicians. We’ll keep it open. We’re just not going to put any money in it.” So many places, these things are sitting there. The local governments have put something in it, but they’re anything but healthy. They’re anything but progressive.

Geraci: Did you find some examples of fledgling parts within the system that you were immediately going?
Gomes: Yeah. Let me give you an example of that. We had an advisor position that came open in northern San Joaquin Valley. It was a reproductive physiologist, an animal scientist. And the industry people came to me and said, “We want to fill that position with another one just like that.” And I said, “Okay, but let’s set that aside for a moment and talk about your industry. What are you doing out here? What’s going on? What are your day-to-day problems? What are your big issues?” And they said, “Oh, [they laugh] no question. Our issue is waste management. We have all of this manure out here, and we’ve got the EPA on our back, and we’ve got the Fresh Air Act and the Fresh Water Act, and we’ve got all of these things that are killing us.” And I said, “Now, tell me why you want a reproductive physiologist.” I said, “Don’t get me wrong. I’m a reproductive physiologist. I love the field. But that’s not what you need. You have big herds. Your reproductive management in the herd is run by either a veterinarian, who has a program running these herds, or you have your own people doing it. Isn’t that right?” They said yes. I liked the person we had. He ran wonderful schools. He did some research, and they appreciated it. I said, “What about a specialist in waste management?” They said, “Oh, that, too.” Well, it isn’t a that, too. And so we filled the position with a waste management specialist. And now there are half a dozen people out there working specifically on waste management issues with the dairy farmers in the San Joaquin Valley.

Geraci: Because that becomes a major groundwater quality issue.

Gomes: Well, but it was an issue that was real. It was an opportunity for us to do good things. It fit both of my criteria. Reproductive physiology wasn’t an issue, and there wasn’t really any opportunity to do anything new or better there.

Geraci: We’re running out of tape here, and we’ll start the next one in a second. Let’s pick it up with—It seems to me that part of what you needed to do is, during that first year, gather information on whether these programs are successes or failures and what are their needs? What do we need to do to maximize their effectiveness?

Gomes: What are our opportunities?

Geraci: What are our opportunities? So we’ll pick it up there on the next tape.

Gomes: Or what issues can we anticipate?

[End Audio File 1]
Geraci: This is tape number eight. Today’s date is May 5, 2008, continuation of our interview. When we left off we were talking about data gathering, and you’d given us the waste management example. I think what we’re looking at now is the idea of looking for new solutions during that first year. You were looking for, what are opportunities for us to expand? So let’s pick up at that point.

Gomes: What are opportunities for us to expand and what are opportunities for us to introduce new ideas or better ideas? The changing nature of agriculture and agricultural industries, and the increasing interface of the urban/rural issues, the growth of environmental issues were all crying for solutions. Our traditional structure and expertise, in itself, couldn’t address those very well. And so it was necessary for us to evaluate, to guess about the future, to do some reasonable predictions as to the major issues that were going to be facing the industry, and to determine where we could have our greatest impact. We actually, somewhat later, put together a list of the kinds of things, criteria we should use to determine whether we take on an issue; whether it was good for California agriculture; whether it was appropriate to the University of California, going back to the regulation thing I was talking about; whether we were the organization within the University of California that ought to be doing it; whether we had the people to do it, or could get the people to do it. [coughs]

Geraci: Want to stop for a second?

Gomes: Let me take a break here, if I can.

Geraci: Okay, continue.

Gomes: So as we worked on these criteria, we developed two or three things that we really approached. One of the issues was, where’s the funding going to come from? The likelihood that we would have state money, or university money, or federal money in hard money to carry out new programs is very small. So is this issue one that will have funding, will have growth, will compete for grants? And those are questions we asked. It might be that something wouldn’t compete, and we’ll still want to do it. But that’s a criterion we should look at. The next level of thinking was, how broad should we centrally be thinking about these things, or how narrowly? Are we talking about issues or projects? Our people should be talking about projects. They should be talking about projects within an arena. But centrally, we had to be talking about major issues. So we began to develop a short list of big issues that we
had to keep on our radar. Then we wanted to put it in perspective, so we put into effect two or three things. One, the division has had, for fifty years, a publication entitled *California Agriculture*. It was originally designed as a place to put our research and get it to the public. The public, in this case, included not only producers; it included politicians, legislative leaders, and educators everywhere. So we were coming upon the millennium; we were coming upon the fiftieth anniversary of *California Agriculture*. And I commissioned our *California Agriculture* people to put out four special issues that year. We formed groups of academics to lead each of them, to help us design it, to find writers for the issues. These were to be a look at these major areas in California agriculture, and we hoped, a prognostication from these experts, on what to expect in the next twenty-five years. The first issue was population. There is no question that the population of California, the increasing population of California, the demographics of that population, both ethnic and geographic, were going to be major driving forces affecting California agriculture in the next twenty-five years. So an entire publication on those issues, with academic leaders writing. The hope that I had, that I think fell short in the four issues, was that academics don’t like to stick their necks out too far. Their predictions of the future tend to be extrapolations of the present. And they don’t want to talk about too many things they can’t give evidence for or document. So we probably ended up with a marvelous up-to-date history and perspective on those issues, rather than a prognosis. But that served well.

The second issue—and I have to get these in order; or I may not—was natural resources. Very clearly, the issue of water in California is probably rate-limiting to California agriculture and a lot of other things. The issues of weather. Global warming was on the surface at that point, and just beginning to be an issue. And then the whole land/air/water erosion set of issues, in volume two, or the next volume. The third was technology. Everything from computers to DNA, to the developing areas of genomics and proteomics and all of the sciences that were going to come to bear on California agriculture. And we put those in some perspective. And then the fourth—now, this was prior to 9/11—we called food security. Well, security at that point didn’t have the same connotation it did a year later, when the whole question of bringing in diseases and foot and mouth disease and some of those came about. It was a question of, do we have a secure food supply? Can we provide a nutritious food supply for our population? Et cetera. And those were the four major issues we talked about in that publication.

With the deans and the other leaders in the division, we then put together four or five big areas that we ought to be evaluating our position in and our progress. One was the genomics, proteomics, gene
mapping, all of those kinds of issues. Another was natural resources. Much the same sort of thing we were talking—But we didn’t have population as a study issue on our current issues. And it’s an interesting phenomenon, but I pushed for years, and our group was reluctant to consider very much until very recently, the bioenergy issue. They almost had me convinced that I saw something that wasn’t there, but not quite.

Geraci: And boy, has that become a hot issue.

09-00:09:41
Gomes: That’s obviously, politically and in other ways, just blossomed and brings in a huge set of ramifications outside of energy. The whole price of corn question. So we began to develop that kind of framework to determine where we would be going. We can get into changing organizational structure, but we began to develop units within the division that would be responsible for different things. One of the major changes I made, and I made very early, was to delegate the selection of new advisor positions which would be filled. Prior to my arrival, those decisions were made by the vice president. The vice president was subjected to very, very heavy lobbying. We had some industry groups that frankly, our people formed to lobby the vice president. That was never in their charter, but in reality, that’s what they were there for. I met with them, I talked with them. But I went back and said, “All right, these will be our criteria. These are the kinds of issues. I have final approval, but I’m not going to make decisions unless something comes up that I just absolutely say, wait a minute.” So I had a group of our people in Cooperative Extension from the campuses and the counties make recommendations on filling positions. They took those to the associate vice president, who put together the final roster, and I approved it. But it took probably two years to convince the people out there, most of the people out there, that writing letters to me, telling me how important a position was, wasn’t going to have an effect.

Geraci: I’d like to come back to the organizational structure and back to the four issues. I’ve read these four issues.

09-00:11:59
Gomes: Oh, they were marvelous books.

Geraci: What I never realized, though, that these really, for you, were your historical policy guidelines to set the future research criteria for the organization.

09-00:12:12
Gomes: We were at a time, with the millennial change, of saying, okay, this is the time to sit back and reflect, and to plan, and to make change as we
go forward. And it seemed an opportunity to get us some visibility with those publications. It gave me the chance to get our people thinking about issues. Because if you look at that, none of those was, “What are the issues in ag-engineering or dairy science?” Indeed, in other places and other times, where we’ve done the perspective/prospective kinds of publications, they almost always broke out department by department.

Geraci: Yeah, and to me, the departments are invisible in these publications.

Gomes: Issues and opportunities, rather than disciplines and geography. And that was what we—Quietly, maybe, maybe not always so quietly, this is what I was constantly trying to infuse into the organization.

Geraci: This is a major shift—

Gomes: It was.

Geraci: —in the paradigm of thought for the organization.

Gomes: We tried to make that shift. I may have been aided in that by the VERIPS. Because a lot of the old timers—who would’ve said, “Well, by God, we ain’t going to do it that way”—weren’t here. Many of those were a huge loss to the organization.

Geraci: Normally when we talk of VERIPS, we talk about intellectual loss to the university.

Gomes: Absolutely. But in a time of change, sometimes the senior people are your greatest deterrence. So the one little bit of silver lining, if you will, on the VERIPS was that we probably could come in and begin that shift in philosophy, of how we went about doing things.

Geraci: So these are produced within the first few years?

Gomes: They were begun—

Geraci: Probably what? Like your third year?

Gomes: Yeah, about my third year, we had the committees put together and they were begun, because I was gearing it to come out in 2000. The idea had been there, we’d begun some background work on it, and we’d begun to put together the kinds of things we thought should go
into them. The writing probably took place in ’98, ’99, for the most part.

Geraci: So this is actually the fruit of those first few years, when you were gathering the data?

09-00:15:07

Gomes: Exactly. It was an attempt to put those data, that information, into a kind of perspective that was different from the traditional.

Geraci: That gives me a new view on them. [chuckles] Now, knowing that, these four publications, identified future goals, and determined that obviously the old structure needed some at least tweaking or pruning.

09-00:15:43

Gomes: It did. It needed tweaking or pruning, and to a degree, it needed some philosophical shifting.

Geraci: Some grafting.

09-00:15:58

Gomes: Yeah. This was perhaps the one area in which I reversed some things my predecessor had been doing. Ken Farrell was my predecessor. And Ken had infused in the organization a delegation of authority, a distribution of authority. He wanted, rightfully so, to see that Cooperative Extension was given the same kinds of opportunities that the academics on campuses had. He wanted to build in the kinds of feedback, of shared governance that the university is very proud of, and rightfully so. One of the ways in which he did that was to delegate a good deal of the decision making from the division to the campuses, and to each of the four regional directors. And again, I can’t argue with the philosophy of doing that. But as I went around the state, one of the pretty routine complaints I got was that side by side counties in two different regions would have completely different perspectives, outlooks, ways of doing things, because these had become autonomous units. Even though the regional directors visited, each was making his or her own decisions. And so it began to look as though we had four Cooperative Extension programs in California, rather than one. Just as in many cases, decisions on specialists were being made at Davis based on what Davis wanted, and in Berkeley, based on what Berkeley wanted, with no perspective on the University of California decisions. So I pulled some of that back. And the Cooperative Extension philosophy, then, is to change the regions.

Geraci: Now, when we say the four regions, what were the original four regions?
Well, they changed over the years. When I got here, there was the north region, there was the north central region—North region was basically cut across the state east/west, above Yolo County, where Davis is. So it was the far north part of the state. The next region, the north central, went from there down, to pick up San Francisco and Tahoe, that slice. The next slice was one more down, and it included the San Joaquin Valley and Monterey.

Geraci: Central coast?

Gomes: South central region. Because it went all the way to the mountains. It included Mono County, on the other side of the Sierra Nevada, which is one of our outposts. And then there was a southern region that was basically the Tehachapis south, and across the coast. It included up to Ventura, Santa Barbara. And when we were reorganizing, instead of saying, well, now we’re going to have three, or now we’re going to have anything else, we put together a group called the transition team. And this was a long term project. You remember my other experiences. It was informed by them. Part of what I learned there, I brought into this group. But we brought representatives from the organization, on the campuses, in the counties. It had no deans, it had no regional directors. So the head administrators were not part of this group. But we basically put them together, we met about once a month. Some came in the first month, oh, we can do it. We can sit down and do it. And I said, “Oh, I’m not even going to listen to you for two or three months, because we’re going to go through some exercises on what might happen and what we might develop.” What I did the first months was have them all do their organizational structures independently, put them on the wall. So there were twelve of them. They could see, first of all, that they were all different; secondly, that the perspective coming from the campuses and the perspective coming from the county leaders was different; that we had some things we had to sort out. When we finally reached the point where we put together a new structure, it changed the advisory organization and it changed the management teams and the roles that they had. One of the rules I put upfront is the footprint could not grow. The administrative footprint could not grow. Normal thing on teams is to add administrators and then complain that there are too many. So we did some switching off. We ended up, then, instead of the deans and the regional directors and some administrators being in the advisory-to-me group, we ended up with the four deans; an assistant vice president, who was to be in charge of all Extension programming, redistributing; the associate vice president; and me in this group. We called that the executive council. The next group, the program council, was chaired by that assistant vice president. It included all the regional directors, it included the
associate deans from each of the campus. And this was to be the group—Let me digress. That first group was the one to look at those big issues, at long term directions, help us decide what our philosophy, directions, and broad programmatic area emphasis was going to be. The next group was to think in three to five year terms. This would be the group that would look at open positions; that would make recommendations on what positions would be filled, using the kinds of criteria we talked about; make those recommendations; would come to the associate vice president. So those two groups now exist. The latter meets monthly, goes through a lot of detail on what’s going on. The former meets usually quarterly, and talks about direction of the organization. In putting this together, we then went from four regional directors to three, and three regions. How we put those together, then, became a major discussion.

We ended with a region called the north coast and mountain region, because we were trying to build about three criteria into our decision. One, rather than have a slice of everything in a region, we wanted a region that had a degree of programmatic consistency, one or two major ones. Second, we wanted as much geographically contiguous arrangement as we could get, while fitting the first criterion. Third, we wanted the regions to be approximately equal in administrative load. So whether that’s number of counties or number of advisors, we tried to do some guessing. So the first was the north coast and central region. I hate long names, and we always end up with a lot of them because they’re descriptive. This basically goes including the Sierra on the east side, it goes up, includes Tahoe, and swings around all the mountains to the north, and down to north of the Bay Area. And so these are all things we—I’ll come back to the names they put on these, their code names, and give you a little of that impression. The next, then, was the central valley region. It included everything from Shasta County to Kern County, just that whole great valley in the middle of the state. And the third was the south coast and southern region. That basically picks up the Bay Area, all the way down the populace coast, across south of the Tehachapis, and over through the desert. That’s the most diverse region.

Geraci: So that would be Riverside County, San Diego County, and Imperial County?

Gomes: The whole bit. Imperial County, San Bernardino County, Los Angeles. So it’s a big region, and the most diverse and the most populated. They became known as Logville, Fogville, and Smogville. [laughs]

Geraci: Very appropriate names! Because I was just going to say, that the northern region includes all of California’s forests.
Yes. Yes, it was Logville. And so that was what we put together. We, as it happened, ended up with all new regional directors. Not intentionally. The existing regional directors knew they could stay as regional directors, but one decided he didn’t want to be a regional director any longer—actually, two did; a third one moved to another position as a dean at a CSU campus; and the fourth retired. So we ended up with three new regional directors, within a short period of time. At that point, the dictum from the vice president that we are one organization—And while we want input and we want directions, an advisor in this county and advisor in this county are going to live under the same rules and regulations and expectations.

So this provides a blanket of standardization or centralization of basic process?

Yeah. Yeah. And while I very much appreciated what Ken was trying to do, I thought we had to reverse it because of what we needed to have.

Could it have been part of it is it was time for that? I mean, organizationally, in the history of organizations, you have a decentralization that takes place and by the time you get to the eighties and nineties, everyone is centralizing or standardizing within their large structures.

They are, but again, the atmosphere at the University of California, if you look at the larger scale of the campuses and the office of the president, what gets done where? How much are we a university of ten remarkable campuses? How much are we one university, with ten remarkable sites out there? That issue has been an issue for the university, it’s been an issue for the division, probably since the southern branch was formed and became UCLA, and we put a farm at Davisville and one in Riverside. Who’s in charge and who makes what decisions and what level of autonomy exists is a very, very difficult one.

It has always been a complex dance.

And it isn’t going to go away soon.

[laughs] In looking at that organizational structure now, it would seem to me that many of the people who had to make a lot of the changes, that if you're switching just the regional structure, you are
standardizing and centralizing and that it had to have changed up and down the line? Everyone’s job description changed somewhat.

09-00:29:56
Gomes: It didn’t change very much what they were doing, it changed the way in which they reported. It changed the kinds of expectations measuring their progress.

Geraci: But isn’t that another way to change their behavior?

09-00:30:13
Gomes: Oh, yes. Yes.

Geraci: The behavior of what they’re doing.

09-00:30:15
Gomes: Yes. No question. It changed it to that extent. But if a person was doing excellent work in one project area, and providing the right kinds of information, wonderful. We didn’t want to mess around with success. But at the same time, we wanted people who fit, who could represent the University of California Cooperative Extension program, rather than a county making a decision or a region making a decision that might be very, very different from those being made in—philosophically very different from those being made other places in the state.

Geraci: But didn’t it also give you—or give the organization, not you in particular—the ability then to start identifying, as I had spoken of earlier, the marginal, or the programs that are not as successful? Now you have a standardized way to deal with that.

09-00:31:17
Gomes: The first step in doing that was to apply criteria to the filling of positions on a statewide basis. Instead of a regional director saying, well, I have six positions open this year, and the budget means I take a 10 percent cut, so I can fill four; these are the four I’m going to fill. Or—actually, Ken hadn’t delegated that—having that region then try to convince the vice president to fill these four, or five or six. An organization was set up that said, we’re going to get together, we’re going to look at needs, going to look at opportunities, we’re going to look at issues, we’re going to look at urgency, and you’re going to rank these. Then we’ll figure out, if there are twenty-seven positions that have been requested and vetted coming up through the system, and that’s the way they do it, we want you to rank them at least through twenty because we’ll figure out, as the year goes along, how much money we have to fill, whether it’s thirteen or fourteen or fifteen. The others go back in the hopper. And that’s been done now for several years.
Geraci: That’s taking the program as a whole—

09-00:32:41
Gomes: Precisely.

Geraci: —That’s looking at your needs over a period of that three to five years and identifying the issues, the needs and how your new structure can fill those positions.

09-00:32:52
Gomes: The associate dean at Berkeley has an input on and an appreciation of the needs in Imperial County. And that’s helpful. The other thing that was put in the structure then were four program leaders, part-time, who worked across the system to bring cohesiveness of thought, of understanding, of program direction, to issues of agriculture production, of nutrition and health, those kinds of issues—pest management—so that they could do their scientific broad issues. Again, instead of saying, well, we need an entomologist here because we had an entomologist here, they would say, all right, in the big picture now, of pest management, we need some expertise in entomology in this part of the state; what do we have?

Geraci: It may be a different region, also?

09-00:34:06
Gomes: Might be a different region. It more often would be a case that, can we get one person to cover three counties, instead of having each county independently do it? And how can we work that out? Because we also have contracts with fifty-seven California counties.

Geraci: That’s huge.

09-00:34:29
Gomes: And each one gets renewed. Or not, [they laugh] but should get renewed.

Geraci: Should get renewed. Was there an immediate effect on the work culture itself?

09-00:34:43
Gomes: Oh, I don’t think you have an immediate effect on any large organization, other than reaction. As this transition team was taking place, early on, we let everybody in the division know that we had a completely open line of communication, one way. We would accept any input; we weren’t going to report to them. Which caused a good deal of angst with some of them: what are they doing? That then meant that there were some people out there who said, “Well, look. You ought to talk to me.” I said, “Fine. Send me your information.” “No, no, we want to talk and converse and hear what you’re doing.” And I
said, “Sorry.” We then developed the entire new plan. We had complete buy in from the transition team. It was more than consensus. We went in demanding consensus, we got complete buy in. And then we traveled with the transition team to, I think, six sites in the state, to report the plan and get any input that we needed at that point and continuing for the next month, before we implemented it.

Geraci: Now, in any great shift like this, it seems to me that one of the next large steps was how do you deliver this plan to all these thousands of employees?

Gomes: That’s how we did it. We had mass meetings up and down the state. And we had posters and brochures and slides. We would show them, here’s the plan, here’s the structure. It’s on our website. These are the expectations of this group, this group and this group. It was color coded. So this position now has three colors in it, which, if that was the associate vice president, means the associate vice president sits on the executive council and the program council, and is in charge of this green group coming up here. We developed all of the interrelationships, then, between the campuses and the counties and the regions.

Geraci: So this is a whole new organizational chart?

Gomes: It was a whole new organizational chart. What we did—again, based on my last experience—was say, though many parts will be the same, we’re replacing this one with this one. Here it is. July 1, folks, that’ll be it.

Geraci: I guess being a person who thinks about nuts and bolts, that has to change the way you’re doing business? Are there training sessions going on?

Gomes: Oh, yeah. Yeah. We had training sessions, we had developed many transition teams. For example, if we had two regional offices and we’re now—we had four and we’re going to go to three, where are we going to put them? Do they have to be in the region? Logically, we have a building, an A&R building at Davis; can we put all of them there? Can we put two of them there? We had one at Riverside; there were two there before. The southern region can do it out of Riverside very nicely, where we had a facility. And we ended up with one in Riverside and one in Fresno, at the research and Extension center at Kearney, and one in Davis. Now, the one at Davis is Logville, and Davis isn’t in Logville. But Davis is central to Logville. So those were kinds of issues we had. And then we had to say, well, before we had
two in Davis; now we’ve got to merge part of one of those. We have to do something to listen, at least, to the people over in Monterey who say, “Wait a minute. We are logically part of the San Joaquin Valley agricultural district, rather than this whole mishmash of coastal cities and deserts.” And so all of that exists. You go through it, you go through the angst, you go through the questions of how do you do it, how do you make it work, what do you have to change to get from where you are to where you’re going? What we had to do in Monterey was convince the people we’re talking about a difference in administrative structure.

Geraci: And what are the ramifications, as far as dealing with the University of California, with its faculty senate, with its own organizational structure as a whole university?

Gomes: In this particular case, very few. Remember, the senate, in its reforming in 1919, said they aren’t part of us. That is, those who are not teaching faculty are an ancillary organization. And so if UNEX, for example, were to change the way it did things at Davis, that doesn’t require approval by the senate. And so for the most part, we would inform—and we have senate representatives in the office of the president—inform them of what we are doing on a regular basis. But it was not a situation that we had to go through senate approval.

Geraci: So there is a sense of autonomy there?

Gomes: There is a sense of autonomy on the structure.

Geraci: Well, that made that part easy.

Gomes: That made that part easy. It was not senate, not senate’s conference, not Board of Higher Education. Some of the things that we did, the changing of administrative assistant vice president positions, require Regential approval. And so we would take those to the Regents. But again, the senate representatives, for the most part—

Geraci: What about the USDA, did they have any input?

Gomes: [over Geraci] No. The USDA only has to approve the director of Extension once. So when I was selected for the position here, they hypothetically had to approve me. Or they officially had to approve it, and they did. I don’t know that they have ever refused to approve one. Now, that is the other structural issue that exists. The campuses individually don’t report to the USDA for the Hatch Act, for the
Cooperative Extension. All of that comes through the central office. So state money will go directly to the campuses; federal money has to get through the central office to the campuses. And helping the senate or the president understand that is a major part of the vice president’s job.

Geraci: Then you have industry money that’s coming into this?

Gomes: Industry money coming in each of those ways. So to keep track of where it is, and who’s in charge, and what decisions are being made is extremely complicated.

Geraci: What were the toughest times in doing all this? This is a massive reformation of an organization.

Gomes: It was a massive reformation, but again, it was in perspective of the other things we’re talking about, of changing over the millennium. The toughest times are when you tell somebody, your job, as it is, doesn’t exist anymore. We have a new structure, and you can be a part of it, but we have to work out how. That’s the tough thing.

Geraci: Or you may need to retrain?

Gomes: Well, yes, yes. That’s how you work out some of these things. The toughest times were where we did close down programs. That got worst in this last budget go around. We laid off fifty people in one day. Those are tough times. It’s like the old story of Lee Trevino. They asked him, “That was a $50,000 putt. Were you nervous as you leaned over?” And he said, “No, no.” He said, “When I was putting for enough money to put food on the table at home and I had four hungry kids, that was pressure.” When you’re having a direct effect on people’s lives and livelihood, that’s tough. That’s hard. But big idea philosophy and direction, it’s stressful, but it’s fun. That’s really what the job is all about.

Geraci: Did you enjoy the process?

Gomes: I enjoyed the outcome. [Geraci laughs] I enjoyed getting there.

Geraci: But it seems to me that—

Gomes: And the trip—Excuse me, but the trip was okay. To see that transition team, for example, go from a collection of everybody who thought they had the answer the first meeting to a coordinated, cohesive, agreeing team at the end was something. That was important. And this
was one of the ways it allowed us to think as an organization, to agree as an organization.

Geraci: Good. Anything else you’d like to add that has not come up in just this discussion?

Gomes: I don’t think so. We have talked about two or three legs of the kinds of things that we were doing to build a new outlook, to build a new vision. The other sorts of things that we built on were relationships, then, between the division and the president and the president’s office; relationships between the division and industry, and those two organizations, the president’s office and industry; and then our visibility. I commented on the California Agriculture. You’ve seen the logo. I commented to you, I think off tape, about the President’s Reserve wine. So we instituted a significant program to try to build our visibility—public relations, if you will—at the same time we were doing these other things.

Geraci: Do you have a public relations and development officer within ANR?

Gomes: We started a public relations and development office. We now have a part-time development officer paid from development monies, but in the last budget cut down, that was one of the positions that was let go. We just simply couldn’t justify maintaining a public relations officer, if that meant laying off academics.

Geraci: That is the tough decision.

Gomes: Yeah, those were tough decisions. So that was a case where you’re cutting out good programs in both cases. But there is some development activity. As I say, there has been enough income generated by that, that we’re able to have a part-time person work on it.

Geraci: What about industry response to all of this?

Gomes: When there were questions and I talked with some of them, they were fine with it. They said, “For the most part, we’re interested in what you deliver to us, not in what your organizational structure is.” This came up later, when coming from the campus at Davis, was a plan to decentralize all the Cooperative Extension to the campuses. And we took that plan and took it around the state to eight sites, I believe, where we met with people around the state with—I went with the four deans. And we went to these sites with this plan, to see what their response was. And the overriding was, we’re not interested in how you
do things administratively, we’re interested in what you deliver. But we’re also not interested in having the academics on campus telling the county advisors what they should be working on, or how. And so that structure then went by the wayside.

Geraci: It would seem to me they would be most—As you said, number one, what’s the product that you’re delivering? But number two, does the product meet their needs? And that’s something you had already done and you were trying to figure out what were their next needs?

09-00:48:38 Gomes: We’re trying to do that. Yeah. The problem that happens there is if you ask most producers, what do you need? They will relate back to what their problem was this morning. Or yesterday. Your first response is, well, what’s bugging me now? Very rarely will they sit back and say, well, what out here will we be facing, and how can the university help it? So that’s part of a thought process. I had introduced the question of the industry and the university. One of the things that we formed with President [Richard C.] Atkinson, when he was here, was a President’s Advisory Commission on Agriculture and Natural Resources, with industry leaders, fixed terms, who come in and talk about big issues. One of the first things we tried to instill in that group, and now gets instilled in the new people as they come on is, we’re not here to talk about little problems. We’re not here to talk about what advisor is leaving or what position needs filling or what your needs are for one person to help you. We’re here to talk about how the university, as seen by the president of the university, can serve California agriculture and natural resources better in the future. This has been a remarkable relationship.

Geraci: So how long has this advisory committee been organized?

09-00:50:22 Gomes: Nine years.

Geraci: So this is something that came with your reorganization process?

09-00:50:28 Gomes: Well, it came at about that time. It’s part of the process of visibility. See, the president of the university is the president of a huge organization that’s got ten campuses. And while people see us as being very big, we’re a little bump. Two presidents that I served under—The first that I served under, I served under for a month, so that doesn’t count in that respect. But both Dick Atkinson and Bob [Robert C.] Dynes said to me, at our first meeting, “Look, Reg, I know nothing about agriculture. What you want me to know, you’ll have to teach me.” And what I eventually came to, in about three years or so, with Atkinson was, Dick, I would like to have you meet—Let me digress. A
number of these organizations out there were trying to get through to meet with him on a regular basis, to advise him. And he said, “What should we do about this?” I said, “You should have your own advisory commission. You should pick who’s on it. You should set the ground rules for the kinds of discussions you want to have, so you aren’t constantly being badgered to address little issues that shouldn’t come to your desk anyway, because it’s my job to keep them off.” And so he said, “All right. Tell me what you’re talking about. Design it.” So I put together a plan, a program. And he looked at it and said, “This’ll work.” I said, “Well, there are only two things that I think are absolutely essential for this organization working.” He said, “What’s that?” I said, “You have to meet with them. You have to be there. If you want to delegate it to me, don’t form it. You have to listen.” He said, “I can do that.” So every meeting, twice a year from essentially noon to noon, this group met with Dick Atkinson. One meeting he missed because President [Vincente] Fox of Mexico had come up and he missed half of a day to visit with President Fox. Between the two meetings, he hosted dinner at Blake House for us. The second one, he had a temperature of 104, coming back from China, Australia, from an international trip. And he was in his bedroom very sick, while we were having dinner at his house downstairs. So when Bob Dynes came in, I said, “Bob, you’ve got this organization.” He says, “Yeah, Dick says it’s a good one.” And I said, “Bob, two rules.” [they laugh] He says, “I’ll meet with them and I’ll listen.” And he’d been there every meeting, and listened. The relationship that those presidents developed with the industry, with the agricultural industry of the state, I think it’s safe to say is the strongest that any president has had with that industry in fifty years. To the point where if the president needed something—We promised we were not going to call often. But if something comes up that’s important, you might get a call. And the president has, on occasion—Other times, they feel free to talk to the president because we’ve limited them, and they know, look, this isn’t a place to bitch. You go to Gomes for that. He’ll punch your card. And the relationship’s been wonderful. I think the respect the university has been excellent because of that. Indeed, the California State University chancellor, after about six years of seeing this and hearing about it, formed his own advisory group from agriculture. [laughs]

Geraci: Well, that shows you a recognition of agriculture as being a viable part of the California economy and lifestyle.

09-00:54:44 Gomes: Well, the other step that took place—And it started with the Regents. We set up some agricultural tours with the Regents. Probably strictly happenstance, purely accident that the first one was in wine country. [Geraci laughs] But nonetheless, the Regents who went there learned something. We worked them hard. I mean we moved them, but they
met with people, they had a good time. We did one in the Salinas/Monterey area. And so we had Regents out in the middle of a lettuce field, picking heads of lettuce. We were set up to do the third one when the last budget crunch hit. And I said, “Look. This, again, is one of the very best investments we can make. Our relationship with the Regents is better than it ever has been.” Not that it’s been bad, but it’s been from not knowing you’re there to appreciating the organization. I said, “But I don’t dare do a dog and pony show with a bunch of Regents. It looks like a junket, when we’re hurting. And so we—

Geraci: The Chronicle would love that.

09-00:55:57 Gomes: Yeah. So, even though it’s the time you should do it, we decided we couldn’t. So we stopped doing those, but we continued taking the president out to various meetings and places. Bob Dynes, I think, has done something like twelve or thirteen trips around the state with me, and my successor now, to look at different places, to talk with industry people, to visit with Cooperative Extension people, to see our programs in action around the state. And I think he built a level of appreciation for agriculture in the state, and for the University of California role in agriculture that, again, hasn’t been there for a very long time.

Geraci: Now, on this advisory committee, what types of people were being tapped to serve there?

09-00:56:53 Gomes: We did not have legislators. We had an exception to that, but our goal was not to have government types, federal or state. So we didn’t have the secretary of agriculture, for example. He has visited with the group. We did have producers. We tried to cover different areas. We had, in the early group, for example, John De Luca representing the wine industry. We had John Kautz, who is a Central Valley wine grower, has a winery up in the mountains, has been very active in California organizations. We had Don Gorden, who has worked for a number of cooperatives and agricultural organizations. We had Paul Espey, No. When you get old that happens. The largest poinsettia—Paul Ecke, the largest poinsettia grower in the country. Paul has since died, and his son is on, Paul Ecke, Jr. Maybe three. We had a man (Ted Horton) who, at the time he came on, was the director of Pebble Beach Properties, the person in charge of all of the golf courses and all the lands around Pebble Beach, who had all of the issues of growing turf, and pesticides, and the sea, and erosion, and Monterey Pine canker on his trees. So all of those kinds of issues, in what was seen as a very urban area. We had a lemon grower from Ventura. We had the woman
who imported kiwi fruit to California and the United States first. So from all over the state, we had people in agricultural industries, in agricultural organizations. We had a local legislator. We have had a county schools person who was in charge of nutrition and feeding programs.

Geraci: That’s a pretty broad spectrum of California.

Gomes: That’s the idea, to try to get the face of agriculture. We have had always, somebody from the environmental community on it. Two, three of them now, over time, have been there. So it’s a question of trying to get those people who are affected by agriculture, those people who affect agriculture, and those who direct it. The organization, once it got rolled in, has three year terms, renewable once, so that the people in there will change, but they have now built up a relatively significant alumni group.

Geraci: That’s great.

Gomes: I think that group then continues to be accessible to the university for advice and support.

Geraci: Well, I think we’ll end up here today, because this tape is just finishing. Thank you very much.

Gomes: My pleasure.

[End of Interview]
Today is Monday, May 19, 2008, and we are in the Oakland, California home of Dr. Reg Gomes. This is the sixth interview with Dr. Gomes, and is being conducted by Victor Geraci, Associate Director of the UC Berkeley’s Regional Oral History Office. Reg, in our last interview, when we left off we were talking about after you had finished your initial first year, the beginnings of what you considered to be the reorganization, as you were coming in as your position as vice president. I think one of the things that I would like to get started with today is how—you got in place a means, or a format, to address ongoing issues as they occurred. Could you just start there?

Sure. Well, what we tried to do as we developed this organization was put together structures that allowed us to build on the strength we had in scientists on the campuses, to coordinate better that which we were doing on the campuses with the counties, with the advisors on the ground, and to renew or re-enhance the relationships with industry as we went forward. Some of the things that we did, for example, we put in a work group structure that required all three to be together to have the work group exist. And these were evaluated and renewed annually and with a three year cycle of real renewal.

Now, what types of people would be members of these working groups?

These would have scientists from the campuses, they would have faculty, they would have advisors from the counties, and they would have industry representatives on them. They would meet periodically. Depending on the work group, they might meet annually, they might meet monthly. They would work as part of a larger coordinating council, to make sure that the issue of the work group, which was relatively specific, fit into the broader planning of natural resources, for example. They would bring relationships, then, from the people doing the science, from the people using the science, and from those delivering it. So for example, when the industry began to work with the federal government to say, look, we need more research in viticulture—this was related mostly to the wine grape growers, but not entirely—the federal government put together a program. They had money. They divided it half and half, with half of the money going to Cornell to administer the program for the eastern half of the country, and the remainder coming to us to administer the program for the
western half. Well, in the terminology of such grants, this would’ve been “pork.” And we said, “Look, we can use the money. We can use the money very well. We can do good science. But rather than just have this come as a grant to our office and we’ll sit down and decide who does what,” we set up a competitive grants program. And the program required applications from scientists or whomever wanted to apply for this research money, from basically the western half of the country, but in certain issues, that might mean Florida. It meant anybody could apply. The applications had a basis, a program for scientific evaluation, but then the funds were awarded, and the call initially had come from an industry: scientists’ consortium group that decided what was important. And so we were giving out the money with appropriate science, but going to important areas, from the industry point of view.

Geraci: You were going outside your own university system now?

10-00:04:34

Gomes: In this case, we were doing the entire half of the country. And simultaneously or shortly thereafter, the wine grape industry in California said, that’s good, but we need enology put in such a program. They went to the state government and got a similar grant for enology and viticulture. Now, we said, “We can reinvent the wheel. We can duplicate what we did with the viticulture consortium for the federal government. But what if we were to take our scientific panels, add in enologists for this part of the program, perhaps reduce some of the—” We would reduce outside applications, because this was limited to California. Not to the University of California, but to the state of California. The program then ran simultaneously. The call for proposals went out the same time. And then when we got them back in, we began to sort where they would fit. Now, there was another component to our half of the federal grant, and that component continued on in the state grant: half of the money supporting this research had to come from industry. And so we worked very closely with industry. We would then suggest to them how their money fit in a particular area. If the raisin industry had money in, obviously, they weren’t going to be funding a project on wine grapes. But we were able to sort those out through this program, take it back to the industry; and we ended up with a full one to one—actually, more than a one to one match from industry.

Geraci: Now, is this being done nationally in other states? Because this is a major shift in policy for ANR.

10-00:06:26

Gomes: Yeah, I think we’re unique. I can’t say that nobody else is doing it, but I think we are unique in the way in which we have handled these funds.
Geraci: Because with the original intent, the way things are set up nationally from the beginning, this is local, state and federal funds that are used in coordination with each other to promote the mission statement for agriculture in the extension. Now you’re bringing industry into the equation.

10-00:06:56

Gomes: And coordinating—Well, remember, though, these are not formula funds, but these are special grants. These are the kinds of things that a number of members of congress are sending to their districts. And often, to a single researcher or to a single site where the decisions are made. We have taken those special grants and said, “We’re going to work within the parameters listed in those grants, but we’re going to make certain they’re competitive research, and we’re going to work very closely with the industry, from the point of view not only of their input of ideas, but input of money. Or vice versa; not only from the input of money, but from the input of ideas. So we had these two programs in place, and the glassy-winged sharpshooter showed up in California, and Pierce’s disease hit the southern wine grape industry very, very hard. So we began immediately, with the industry’s encouragement, to say, all right, a priority for some of the state—for many of the state dollars will be Pierce’s disease, glassy-winged sharpshooter research. We began the process, then, of diverting, directing some of those funds into that area. The industry became very active, the state government became very active on this front, from the point of view of attempting to control the glassy-winged sharpshooter; from the point of view of doing things through APHIS, the federal agency that works to protect against invasive species; but also from the point of view of doing the research. So there was a research program started, largely with industry money, with some state and federal money. And we incorporated it into the same program, the same system, but obviously, then with a panel, a group of state workers, a group of industry people that helped us decide which projects should move forward. Beyond the university.

Geraci: Yeah. In moving in this direction it seems that this put you center in this world of politics and lobbying? Are you having someone do this for you? Or is industry doing the lobbying, and the university’s just a beneficiary? Or does the university get involved in courting industry? Because you have a lot of different industries all vying for a very small resource pie.

10-00:09:50

Gomes: Absolutely.
Geraci: If you’re doing it through the political system then somebody has to be there to tell congressional people what it is that they need?

10-00:09:58
Gomes: It’s an interesting thing. In much of the country, what you describe happens. The university and industry go in and lobby. The University of California has tried to avoid getting into lobbying for these kinds of monies. On the other hand, they would have to be programs that would be the senator doing it or the congressional person doing it would say, look, where’s the university on this? So basically, we had worked with the president, we had worked with the chancellors, and they’d said, “Look, if the industry is moving this, if it can be done in this competitive kind of fashion, then we will prioritize it within the university system and talk on the hill, in this case, with congress or with legislators about these issues.” So it is somewhat as you gave in your second example. It’s an industry program, it’s something they want to do; but we’ve worked with them to make it something that is both good for industry, acceptable to the university, and a program that we can endorse. And yeah, we work very closely with legislators, with {inaudible}

Geraci: [over Gomes] Because in the case of the glassy-winged sharpshooters that you just mentioned, quite a bit of money was brought together by both state and federal agencies.

10-00:11:26
Gomes: A phenomenal amount of money was brought together very quickly. Much of it went into control and not research. But particularly with industry coming in, there was a very significant amount of money for research. And we wanted to make certain that it was done in the appropriate fashion, that the best research could get done, and that the best science could get done. We also wanted to make certain that the industry had input on what they considered the most important. I think it’s reasonable to say that when something like this happens, the industry wants to immediately come in and eradicate the bug and forget about it. And you don’t blame them. Well, eradication is not a solution; control probably is. But for the long term, you have to think about whether you can do biological controls, whether there are genetic fixes, where there are ways we can understand both the glassy-winged sharpshooter, which is the vector carrying the disease, and the organism that has the disease, and how it functions in the plant. So all of these things had to be put together and coordinated. That meant educating industry, in large measure; but it also meant industry had to educate us on how they did things and how they could do things.
Geraci: Now, in this particular case, since the majority of grape growing really does take place in California—at least in the case of the wine industry—

Gomes: It’s true overall.

Geraci: Overall. These grants, then, pretty much probably would have stayed within the state?

Gomes: Most of them did.

Geraci: Had this been another industry, possibly then, we could be using state monies to fund research in other AG universities or agriculture?

Gomes: Yes. Now, what happened, there were federal monies and state monies. So I talked earlier about apportioning the raisin money into the appropriate grants. We had grants, with the glassy-winged sharpshooter, monies being spent in Florida, in Texas, in Brazil. Because there was some very extensive work being done on mapping the genome of the bug that causes Pierce’s disease in Brazil. And rather than replicate it, the industry said, “Let’s spend California money in Brazil.” Now, there could be problems with spending state money, and so this case, you spent federal and industry money. But you got the job done, coordinating all of the sources of funding, making certain that you stay within the parameters of the funding group, but that you get the big picture addressed. It worked very, very well.

Geraci: Making sure you’re always reaching in the right purse.

Gomes: Yes. The accountability of the funding is something that we worked very hard on. And frankly, that was something we could do without necessarily getting into parsing out all of the pieces for people to make decisions on. We would then say to the funder, this is what we suggest the monies can go for; it’s a win-win. They were very pleased with that.

Geraci: Now, within your organization, you’ve just gone through this big reorganization. To implement something like that requires a fairly well staffed bureaucracy?

Gomes: Actually, we absorbed much of it. We had a man on the Davis campus who worked for us half-time on the viticulture consortium and some other programs, and he expanded more of his time. We hired
essentially an accountant. And we ran the programs through our existing budget office, by adding a quarter of a person to that. So we attempted not to put in a new bureaucracy, just as we attempted not to build a new granting program, but to absorb it in what we had and to expand on a temporary basis, as long as it was going to be there. One of the problems with establishing bureaucracies is that they live beyond the program.

Geraci: They don’t go away.

Gomes: And we tried to avoid that.

Geraci: So we can say—at least I’m saying at this point—California seems to be a little bit exceptional in this approach?

Gomes: I think that’s correct. I think that’s a safe statement.

Geraci: Are other people starting to model this?

Gomes: Not that I’m aware of. This is something that requires the institution to say, well, this free money is now going to have strings on it. A lot of institutions would just as soon not do that. And frankly, there are a lot of politicians of whom I aware who want to say, look, I want money to go to this institution and to this scientific organization or this laboratory. That’s the sort of thing we had to resist.

Geraci: I just find this very fascinating, because in some ways, this is exactly what the Morrill Act was trying to accomplish—

Gomes: In many ways.

Geraci: —in its very roots. It’s just more of a modern way to do it.

Gomes: It is that. But it requires coordination, it requires—You can’t start from scratch with these relationships with the industry and with the campuses and the counties. That’s why having the structure in place, having the relationships in place and building them was so important to our ability to address these issues.

Geraci: Now, through this discussion, we have made references to the industry. You have a lot of small growers within that, you have large growers, you have middling and we have agribusiness. How are the relationships between them?
Well, as these particular issues arose, the leaders were the American Viticulture Association, for example, on the federal level. We had the wine grape growers organizations in the Napa Valley. We had the leaders of the wine and table and raisin grape industries in their organizations. Those were the ones we brought together to discuss these issues. Clearly, people in Farm Bureau and some of those organizations would be interested and involved. But it didn’t include all of agriculture in California. When the E. coli outbreak in spinach too place in Monterey, then it was—or Salinas—it was a case of bringing together a new group of participants—again, people we had worked with in different organizations—bringing together new scientists, new advisors, into the same type of framework. When there was a foot and mouth outbreak in England that caused a huge furor around the world, we didn’t have it here, but the questions were there. What could happen? What would happen? What would the response be? What are the issues? How do we exclude it? And that meant working very closely with the state Department of Food and Agriculture, because they would be the ones controlling those things. We would talk about how the science would be done, how the detection would take place, what the holes were. And clearly, after 9/11 then, that fit into the whole question of security and terrorism. So in each case, as an issue comes up, often one—we have known about foot and mouth disease for a very, very long time, but until there’s a major outbreak in a part of the world where foot and mouth disease is not indigenous, it sort of floats in the background. And this comes to the forefront. We are constantly working on things like E. coli. But until there’s something like the spinach outbreak or a salmonella outbreak in, frequently, poultry, or an E. coli outbreak in ground beef, where most E. coli outbreaks occur, we are working on a steady state level. When the emergency arises, we have to have the organization that allows us to bring people together to move forward. That requires respect, coordination, and the understanding that we are there in between those times, and not just coming running forward saying, send money, when an issue arises.

Geraci: So it’s a good structure to react to modern emergencies?

Gomes: It’s a good structure to respond, and we hope in a positive fashion, to issues that we’re already aware of. Or issues related to fields that we’re already aware of.

Geraci: Do you think it works well?

Gomes: Oh, I think it would work much better if we had the funding to anticipate these sorts of—
Geraci: I think this is where I’m going, because that’s the reason I used the word react in my question, and you came back with the word response and there is a fine nuance there.

Gomes: There is.

Geraci: I guess what I was trying to get to is, you need continuing research along with the ability to react when a problem occurs?

Gomes: Precisely. But you also need to have the people in place in these areas, so that you can react or respond. If we had no one with expertise in these areas, then our reaction would be, oh, my goodness, isn’t this terrible? Can we start from scratch someplace and look for somebody to help? And that doesn’t help. By the time, then, you gear up to respond rather than react, the crisis is past. Either all of your grapes are gone, or as in the case of E. coli, the outbreak has past. By the time the outbreak was discovered from that one incident in Salinas, the issue was past. The contaminated lettuce had already gone past its use by date and it was a single issue. The federal government largely determined that, and we were able, working with them, to say, all right, the crisis is past; let’s don’t forget about it, and let’s determine how we can move forward to make it better.

Geraci: I would find that would probably be the hardest political part?

Gomes: It is. It always is.

Geraci: We respond well to crisis, but thinking beyond the crisis becomes problematic.

Gomes: Well, thinking beyond, and frankly, having the funding to address those kinds of things. So we try, as we discussed last week, to think about the big picture, to think about the areas in which we have to have strength, so that we can respond rather than merely react. That response can be very rapid or somewhat slower, depending on the cadre of people we have and their expertise.

Geraci: So always keeping a well balanced, as you put it, cadre of staff, of positions, becomes very important to the organization?

Gomes: It does. It does. Those people aren’t sitting waiting for the next crisis; they’re obviously working in important areas, but they’re able to adjust in the shorter term.
Geraci: I think for the series of interviews that we are doing here, this really fits into what I believe is one of the key issues we are trying to get to, and this is the idea of adaptation to change. How ANR, throughout its history, has been probably one of the most—at least for me—adaptable public institutions we’ve ever had.

10-00:24:58

Gomes: I think we’ve been extremely adaptable. I think clearly, because of demands for issues, because of the slowness of evolution of academic things, we have perhaps not changed as much as some of us would like and perhaps that not all bad, either. But we have adapted to issues as they arose, and I think made some very good decisions in the process.

Geraci: We have just talked about the example of viticulture and we have also, in past interviews, skirted around the issue of our goal to serve the people of California by taking this to the people. When 98 percent of our people have nothing to do with agriculture is this difficult?

10-00:25:59

Gomes: Have nothing directly to do with it.

Geraci: Directly. We all do; we eat the product.

10-00:26:02

Gomes: Well, but I think that’s an important point. For example, the ways in which—we talked earlier about development issues. And I commented that we try not to step on the toes of the campuses and the scientists doing that. But that doesn’t mean we aren’t in development. For example, about ten years ago, perhaps eleven, the CEO of Bank of America, Richard Rosenberg, retired. The Bank of America wanted to do something for him, have a scholarship for him or have some sort of recognition that would continue. Dick Rosenberg has a particular interest in water. Water issues in California, obviously, going beyond agriculture, but water in California is agriculture plus environmental issues, plus urban issues. And in discussions with him and with Bank of America, we established a Richard Rosenberg endowment for an international forum on water. The first was held in San Francisco, perhaps nine years ago. We have since held these fora in Barcelona, in Australia, in Turkey, in Canada. It will be with the centennial of Spanish something, this summer in Saragossa Spain, at their nationwide centennial celebration. We have developed the program where the Rosenberg endowment funds the basic structure of the forum, and the local host picks up all of the local expenses. Turns out to be about a fifty-fifty split. And we have now, the University of California, with Dick Rosenberg showing up at all of them, established a reputation for authority, for objectivity, and for international understanding of issues related to water. And that should continue into perpetuity.
Geraci: And that’s a major world issue and crisis.

Gomes: Certainly. And critical to California. But not only California agriculture, all of California. At the localest level—I don’t know if that’s a good word—[Geraci laughs] but trying to show the finite, rather than the very, very broad. A man named Dick Elkus had a farm over outside of Half Moon Bay that he gave to the university for the specific purpose of providing a ranch for a 4-H program that would emphasize, if not be limited to, kids with disabilities. And so these kids come up and they farm and they ranch. We had money enough, working with fundraising all the time, to try to keep this program going and expand it for more kids. Well, a few years ago there was some interest in the area, in preserving open lands along the coast. And there were some organizations buying lands. Well, they came to us and said, “This ranch fits. Would you put it under an easement that would force you to do this? Would you be interested in selling it?” And we said, “Look, I can’t put the decisions of the Regents of the University of California under somebody else’s easement. We owe it to the Elkus to maintain this. But about half of the land isn’t used by the ranch at all. It would fit, and we would consider selling that.” I talked with the Elkus family and they said sure. So that hasn’t quite transpired yet, but there’s a good chance that that land will be sold, the funds will go into an endowment to perpetually support the Elkus Ranch.

Geraci: Oh, that would be great. So then it becomes self-supporting.

Gomes: It becomes self-supporting—or nearly so. That means if you do fundraising, you do it for specific projects or expansion, or to build the endowment, so you’re not caught in a how-do-we-keep-going-day-to-day program. We had a woman in Ventura County who wanted to support our extension programs in agriculture, but maybe as much as that, our relationships with the community as a whole, and agriculture in the community. So she gave us a ranch and an endowment. It was very generous. Well, the ranch is relatively close to Ventura, and getting closer to Ventura. And we said, “Well, what if we were to sell that and move further out to have something larger that would more nearly fit what this lady wanted us to do?” Well, we did some work with potentially selling to developers. At that point, there still needed to be some rezoning and some planning on what might be done. And the developers, one took an option for a couple years, but then backed out. So we worked with our real estate organization in the university, and we have done the work to tell the city about what might done to talk about rezoning, and reached the point now where, if the land is developed—and it well could be, once the real estate situation turns around—the university could have a large sale that would go back into
the Hansen Trust—Thelma Hansen was the woman—and it would continue to support programs in Ventura. Local, yes, development, yes; but the first issue in development is to make certain you’re following the wishes of the donor. And in each case, we’re trying to do those things.

Geraci:  I think those are great stories for how you’re reaching out further. We think of ANR far too often as being so industry tied.

10-00:32:27  Gomes:  And none of those would be typical agriculture. The latter, perhaps, but—

Geraci:  Are there any other places where things are coming to the people of California out of ANR that the people of California probably wouldn’t even think about?

10-00:33:45  Gomes:  Oh, yeah. There are programs—And many of these are 4-H oriented or within the 4-H umbrella. But we have programs in Placer County, where horseback riding lessons, horseback riding programs, are run for kids with severe mental and physical handicap. Specific programs, so those kids can come out and have one on one, sometimes two on one adult supervision. And they get on those horses and their parents tell us routinely, this is the highlight of their week. This is something they look forward. It’s a wonderful therapy thing. We have programs—again, largely through 4-H—where seeing eye dogs are placed in homes—puppies—until they’re old enough to go through their official training, and provide a way in which those programs can be enhanced. We have programs where dogs and—mostly dogs, but dogs and cats are taken to senior centers to provide companionship, to visit. To provide companionship for elderly. And again, a wonderful program, something that most people don’t know about.

Geraci:  They would never think it’s coming out of your programs.

10-00:35:23  Gomes:  And certainly, what’s that got to do with agriculture? We had extensive programs—we may have talked about them a little bit earlier—in Los Angeles, in Oakland, in a number of our cities, for after school programs. And these were in the urbanest of areas—they were in the projects of Watts, for example—where kids are coming in after school, studying, working. We have programs in schools across the state, where kids are studying music, they’re studying computers, they’re studying their own projects, they have school gardens—a huge variety of things to keep these kids interested, keep them involved, in places where sometimes that interest and involvement is lost.
Geraci: So it seems one of the oldest of all the traditions, then, of education, is still very strong?

Gomes: Oh, extremely. Extremely.

Geraci: Are there any ties with the schools of education between the ten campuses?

Gomes: It’s an interesting thing. I’ve had discussions with some of the leaders in schools of education in UC. I had extensive discussions with our people here, who were doing outreach to the schools. They had an extensive outreach program to go to a number of the schools that were having trouble qualifying people for UC. And they wanted to set up a statewide network, and we said, “Well, yeah. We’ve got offices.” [Geraci laughs] We don’t have offices, in many cases, that we own, but we do have places that University of California has a presence. “And whatever we can do to help enhance what you’re doing, without reinventing the wheel, we’d like to.” Those discussions have moved forward and back, as their programs expand and contract. But those are all issues we continue to talk about. Because our offices are supported by individual counties, we can’t just say, okay, we’ll move something else in there. But we do have a network where we can talk with the counties and see what relationships can be built.

Geraci: Outside, even within this same realm, what are the relationships today with the University of California, with Farm Bureau, Future Farmers of America? These have always been organizations somewhat outside you, yet very dependent upon you and your work.

Gomes: Sure. It’s an interesting phenomenon. Farm Bureau was formed as a condition of Cooperative Extension. Many people don’t realize that. And their offices, for many years, were on the Berkeley campus. They then moved to downtown Berkeley, and subsequently to Sacramento. So their relationships to the university have, often intentionally, been separated. But their interaction with the university continues to be very strong. The vice president—actually, the director of Cooperative Extension, and both are in the same person under our current structure—has a seat on the Farm Bureau board. State board. And I met with them regularly. We interact with Farm Bureau in the counties and statewide, on a routine basis. So I think the relationships there are very, very good. The FFA program started out as a result of the Smith-Hughes Act, same Smith as in Smith-Lever. And this was placed in the state Department of Education, rather than the university system. And in California, over the years, most of that evolved to a strong relationship at Cal Poly, which is in a different system than the
university. So our relationship to FFA is good, it is cordial; but because our youth program has been 4-H, that one has run something of a parallel course.

Geraci: So for the FFA the California State University system would be far more important?

Gomes: California State University is more involved with FFA than UC, yes. It isn’t “theirs,” if you will; but because the state Department of Education works with CSU—CSU is “governed,” quote, by the state, whereas UC is governed by the Regents, which technically are a separate branch of government in California.

Geraci: I didn’t realize that.

Gomes: Yeah, they have autonomy from the state. They have to get their money from the state, they have to follow the same laws of the state; but the governing is through that board, rather than through the state. And so the relationship is a little bit separate. But even in other states, the FFA relationship tends to be once removed from the state university or the Land Grant university.

Geraci: Just to shift for a little bit, we’ve been talking about some of these other ways of taking it to the people. I would like to circle back a little bit, getting back to industry. In the 1980s, there was a cry coming from many people in agriculture that we had sold the research that was going on within these systems to the highest bidder. Is that a fair statement?

Gomes: I think the way it was presented, it’s a very unfair statement. I think there is a realization that research can’t be done without funding. And as I’ve indicated before, the participation of federal formula funds—the Hatch Act funds, for example, the Smith-Lever funds that funded the experiment stations and Cooperative Extension—has diminished, in real terms, to a shadow of its former self. The expectations only expanded. So people out there wanted the same level of service that they got from Cooperative Extension and the experiment station in the forties and the fifties, at a very, very much diminished level of support. I don’t think they quite ever were willing to grasp that. They said, “Well, you owe us this.”

Geraci: Well, those are also the days, at the federal level, of the Reagan era, the Gramm-Rudman Act. We were looking at cutting government and cutting government’s responsibility to pay for things.
Yeah. And whether government was cut or not, certainly those programs were. At the same time, there were some programs—not necessarily in agriculture, though some there—of competitive grant funding, of direction of flow of dollars, from the federal government in particular, being driven by what the federal government wanted done. If we were to get those funds, we had to compete for them. Even if they weren't going the directions that the local industry necessarily thought they might be. So to the extent that we went with federal dollars that way, to the extent that we used industry dollars or went to the National Institutes of Health or National Science Foundation, the direction of our research was driven by the dollars that could support it. There were many things we’d like to do that we don’t have the funding to do.

Geraci: Again, that would make the way that you reorganized far more responsive to the on the ground need?

Gomes: On the ground needs, but with the understanding that there have to be on the ground funds.

Geraci: Right. And to say that, well, if the states and the federal government are not going to give us the money, we still have these needs; how do we fund it?

Gomes: And that really has been the kind of evolution that’s taken place since the eighties. There is another issue that constantly arises, and you will hear it from industry—perhaps more in the Midwest, certainly more in the South, but to a degree, in California. That is, you do this research, it becomes public knowledge, and suddenly the Chinese and somebody else are using it. How do we keep our research quiet? In reality, you don’t, unless you want to strangle yourself.

Geraci: And wouldn’t a response to that have been the Bayh-Dole Act? It was actually supporting universities getting patents at this time.

Gomes: But see, that then became one of the complaints: the universities now have patents, and they’re selling us their research. But they might sell it overseas, too. We have a number of protected things, where we work with an industry. If we get a new variety of strawberry, for example, we can limit, for a time, the distribution of it. And we can also put a differential charge, based on whether somebody supported it, on plants that go out. But those are limited in time, and the response really says, you use them when they’re new and you have the advantage. By the
time they go to the whole world, they’re a commodity, and you should be developing the next stage.

Geraci: Same philosophy with the pharmaceuticals.

Gomes: Same philosophy with the pharmaceuticals. There is one other real component to this that American agriculture doesn’t realize or won’t buy. We don’t grow anything for the table—with three exceptions—in this country that is native to the area we’re growing it in. Everything except turkeys, cranberries, and maybe some forms of pumpkins—actually, gourds—came from outside the forty-eight contiguous states.

Geraci: So basically, Thanksgiving dinner is a true dinner, then.

Gomes: Thanksgiving dinner is a part of it. [they laugh] But that’s obviously something we don’t want to buy. The soybean came from China. And a lot of people have been upset in China that we got those things. China has some germplasm we’re very interested in, and they’re beginning now to make it more difficult to share. And perhaps rightly so.

Geraci: Well, this protection of intellectual property—we’re getting into all these issues. But your organization was founded as taking science to the people.

Gomes: To the users.

Geraci: For the benefit of the people of the state of California, in our case, or to the United States. Could that have been why many of the larger agribusiness corporations now have their own research and development outside of universities?

Gomes: I think there are two reasons for that. One is they wanted to maintain the intellectual property, and they wanted to keep it proprietary, so that other big organizations couldn’t get the jump on them. They’re selling products. Secondly, they can control the research that is being done, if they do it in house; and they can direct the research that’s being done if they do it in house. And third, there wasn’t enough money going into the areas they wanted done, so rather than put it in universities and share it with everybody, they said, “We’ll do it ourselves.” What they still demand from the university and require from the university are the scientists. All of the scientists in the world that are working in industry or anywhere else, come from a university system. We’re the producer of the talent.
Geraci: I don’t quite understand the short-sightedness on their part when the university staff is the very people they need. Wouldn’t it have been just as important to put that money back into the university? Or is it the university’s fault that they didn’t?

Gomes: Some of each. Some of each. I think as we have developed over time, industry, for example, has wanted, in many cases, to develop working relationships with universities. We’ve had some relationships here that we were trying to establish a few years ago on the Berkeley campus. The furor that came from the campus, that industry might be buying its way in, was overwhelming. It was an absolutely marvelous relationship with Syngentia, for the University of California. It would have been a groundbreaking system across the country, if that sort of relationship could’ve been established. The university was getting almost complete freedom. The response vilifying the company basically meant the program didn’t last, even though it was excellent, and isn’t going to go anywhere else. The response from industry in this case is, well, we really don’t need to be beaten up for trying to do a good deed. Well, the good deed they accomplished was that now British Petroleum is coming in and doing some very extensive work with the Berkeley campus, plus. But had that ground not been broken and moved forward, I think that wouldn’t have happened, either. The university has to understand that relationships with industry can be done on the university’s terms—or certainly, almost entirely on the university’s terms—but they have to be done, if we’re to have that kind of cooperation.

Geraci: My guess is that maybe we were a little slow in realizing. This has been going on since the turn of the nineteenth century and the early twentieth century. Historian Olivier Zunz, in his book *Why the American Century?*, uses the Department of Agriculture as one of the great examples of his matrix of business, university and government, and working in a cooperative system, developing what America becomes after World War II. We’re the great nation. Are we uneasy with that relationship?

Gomes: Well, we’re uneasy with that relationship. And some of it—and I don’t want to get too much into university politics—but some of this comes from the component of campus that isn’t doing laboratory research, that really doesn’t depend on relatively large amounts of funding to be able to function well. And so it’s a—

Geraci: You can go ahead and say the humanities. [laughs]
Well, it isn’t only the humanities, but certainly some of the humanities. But there were components, for example, in the college of natural resources that were very interested in being anti-business. And so they raised those issues, as well. There are people who study issues of ethics, and raise questions: Is it ethical to work with the dark side? So the honest confusion in a university, the differing agendas of people in a university often make these things very difficult to move forward.

Geraci: Going back to agriculture doing its own funding for many of these. Could they not be viewing the fact that the specialists, in particular, and many of the people that you were hiring are no longer out in the field? They are in the university now. Especially, I believe it’s in the mid- to late nineties, you have a reorganization of the specialist position itself. Could you talk a little bit about that?

Gomes: Yeah, what happened—it was in the early nineties; it was before my arrival. One of the goals of my predecessor was to decentralize as much as possible. And the administration of the specialists moved completely within the colleges, almost, and within the departments, even more. So their promotion, their evaluation, the reward system for them was being determined largely at the faculty level, as opposed to at a level that had a broader industry relationship. The perception in industry, right or wrong, was that these people were now going to think like the ivory tower thinkers; that they were going to be doing theoretical stuff, and they weren’t interested any longer in the problems of industry. It reduced the gap that probably existed in those days between the resident faculty and the specialists; but it probably widened the gap between the specialists and the advisors in the counties and the industry. That’s something that, whether it’s real or not, the perception was there. And that’s something we worked very hard, in the last several years, to both try to overcome and to try to correct the perception, where it was wrong.

I commented on the work groups. In addition to work groups, there had been some funds that would be in the division from year to year, that had been used for support of research, for support of campus programs, that had been used from the federal government, in support of ongoing things that were happening or might be happening—crises. We pulled those decisions largely from my office, and set up competitive grants in those arenas—or with those funds, for a relatively small amount of money for start-up grants, for addressing new issues. We had to decide then where we were going to put those monies. We had a program in place when I arrived that had complete participation of all of our people who wished to participate, setting up their issues, setting up their priorities. They would have long wish lists.
And I told them, “Okay, let’s have priority here now.” “Well, we’ll get it down to ten, but we don’t really want to prioritize.” One year I said, “All right. All of these funds that have been given on this basis of negotiation between the vice president and the deans are going to go into a competitive grants program. And we’re going to put them into those things that you have identified as major priority.” The response was, “Well, wait a minute, those aren’t necessarily where the money should go.” And I said, “Well, then next year, make sure you have your priority list the way you think it should be funded, because that’s where we’ll be spending these monies.” So we developed a competitive grant major issue program. As those change now, we’re putting our money into making certain that we’re on the edge of issues. Now, we’re cycling back to what I said originally about issues and opportunities. Instead of saying, we’re going to put some money into entomology, it means one of the issues is insects, invasive species; and these are the pilot grants that we want to fund, or that you’ve sent in that we can fund, to help you get money elsewhere, to build a program, to try out a new idea.

Geraci: We’re just about done with this tape, so I’m going to end right here for right now.

[End Audio File 10]

Begin Audio File 05-19-2008.mp3

Geraci: This is tape number two. Today’s date is May 19, 2008. Victor W. Geraci interviewing Reg Gomes. Okay, Reg, when we left off we were talking more about the reorganization and all these things. I think where I would like to pick up at this point is with the New Millennium publications. The ANR made a commitment; these are the directions we think we’re going to be going in the future. I think one of the things that struck me was the theme of precision agriculture. I guess first of all, we need to define, what is it? Then we will get into how well we are poised, at this point, to really accomplish this? And are we addressing, in an appropriate manner, our future issues?

11-00:00:56

Gomes: Well, it’s very difficult to be precise about the definition. [Geraci laughs] Pun intended. But precision agriculture is conceptually having a big view of the big picture, i.e., satellite level, and the ability to make adjustments, to make evaluations, to make decisions at the minute level. So for example, the work that was done very early in the field included a satellite that would image a specific field. Data from that field might be collected when planting or harvesting. For example, if a harvester went through, data might be collected on yield of different pieces of the field, as it went through, so one could compare the
topography of the field. If there were a low area, was that a higher yielding area because it retained water? It might be a measure of the soil type, which could be measured in that field in different places. A whole array of information might come out of that field. And then the next year, when one were applying fertilizers or something else to the field, then the satellite could direct the application rate meter by meter, area by area, block by block, as one chose to. That’s the very early, and almost crude level of doing it. The next idea would be to have the technology as one went through the field, to actually measure and send up to the satellite in an instantaneous manner, the nitrogen levels in the field, for example. So those might be adjusted foot by foot or larger area, to be able to know what was going on at the level of the root, if you have plants there and you were able to put an indicator on their transpiration rate, and have those data collect centrally. It doesn’t have to be a satellite, but that’s a wonderful example. So the precision agriculture concept is that you have data on all aspects of your field, in this example, of your crop, and that you’re able to make adjustments parcel by parcel, piece by piece, subunit by subunit, perhaps plant by plant, depending on what the conditions were at that time.

Geraci: I know in my own readings, with the wine industry, that Mondavi Vineyards had used NASA imaging from space. We are talking about the Australians doing a lot of work on individual vines and setting up computerized probes of where to water and fertilize, at the vine level.

11-00:04:30
Gomes: Absolutely. The irrigation level, the fertigation level of things like Mondavi’s grapes is done with buried tubes. And one can control what goes to each area, or if you want to put the right kind of technology in those tubes, to each plant. The data from NASA are good. The ability to get what you want from them isn’t always—You can’t direct NASA to do certain things for you. Data today from Google are phenomenal. You can go on the web today and look at your backyard from satellite. Well, if the right information is fed in and out, those are remarkably valuable images. How they can be put together, how they can be controlled will vary from plant to plant, from crop to crop, from area to area, and from value of the commodity. Before ethanol, if you had $4 corn, which was a good price, there’s simply no way you could afford to do plant by plant. You might do part of a field, in those cases. The input expense is too high. If you’re a very, very small farmer, you probably can’t afford the technology to do that. But the information that comes from that sort of study could be applied locally, and you might be able to do it through individual labor. Those are all issues that have to be sorted out.

Geraci: It seems to me that there is a tremendous cost issue here. We are talking about a satellite system, we are talking about computers at the
farm level, we are talking about farmers either having to have advanced degrees or having people in their farms with advanced degrees, to be able to decipher this vast amount of information.

11-00:06:58
Gomes: Well, and that’s part of the plus and the minus of it, the information overload. The data overload can be huge. One of the problems with collecting data on computers is you end up with tons of data, when you only wanted ounces of information. What can happen—and this, again, is in some cases, where the university is left out and industry is put in—is that combines can be built, tractors can be built so that the information that gets fed in from the GPS system now, which is pretty well available, is in the computer on the tractor. And if there were developed instantaneous measures of nitrates, for example, nitrogen, that tractor going through the field putting fertilizer, instead of in tubes, if it’s an annual crop, could be making adjustments as it went along, without the farmer knowing anything about it, understanding anything about it.

Geraci: Those tractors are in wide use now. In places like Monterey and Salinas, we are already using those to tailor fields for irrigation purposes—

11-00:08:24
Gomes: That’s correct. That’s right.

Geraci: —to make water runs, so the equipment’s already there.

11-00:08:27
Gomes: The equipment’s there. It’s the computers on it, the adjustments to it that are still being developed. I was at the John Deere plant in Kansas a couple years ago. And they have equipment now on their tractors that if you are plowing, if you are harvesting, you don’t drive the tractor; you set up the computer—Let me say, for the sake of argument, that you’re harvesting a field of corn. It goes through the field, turns around, and lines up so that the overlap in passes is two inches. You don’t want to have any waste beyond that, and you’re not missing any. And it’s automatic. All the driver does at the end of the row is punches a button to turn it around and has to line it up in the general direction, so it knows where it’s going. That’s equipment you can have on your home lawn mower. If you want to mow your lawn, you want it to be efficient and effective and you’ve got room at the end to turn around, you can buy your rider mower that you ride, but you don’t drive.

Geraci: So this is the science fiction of where agriculture is going, I guess.
Gomes: It’s science reality, at that level. But the science fiction, if you will, is where one can go on the analysis of the soils, where one can go on the crunching of the data. As we mentioned when you were changing tapes, the whole field of nanotechnology could now lead to almost instantaneous decisions at the smallest, most finite of levels in the field. We had talked in one of our earlier discussions about the automation with animals. Well, we are reaching the stage where it’s going to be expected that there is identification on every animal. We use the term barcode, but it is an electronic signature. And those can be put now in small subcutaneous implants. I would guess we’re going to reach the stage with nanotechnology where it’s in there at a level subcellular. Yet you should be able, with that kind of technology, to have traceability of any chicken back to the egg, assuming the egg came first, [Geraci laughs] of any animal; and you can actually build in information systems to keep the animals’ complete history with the animal. These are all feasible. Many of them have the technologies now.

Geraci: And it would also make food safety easier and we could identify, hopefully, to the exact acre where something like this took place?

Gomes: Oh, or the exact square foot.

Geraci: Yeah. Within a meter.

Gomes: Yeah. The issue now is application of these technologies, almost more than the early development of some of them. For example, there are now films of plastic that can be put over a meat package. They are close to developing, or have developed—proprietary knowledge—nanotechnologies in those that will detect E. coli. Now, if you have this package over ground meat, and spots start showing up on your packaging, large spots, you’re going to throw it away. If the level of sensitivity is there that one E. coli organism would set it off, then you’d throw away almost everything. So the use of this, the time in which it’s used, the whole issue of liability and politics will be such that we don’t know when it’ll show up; but it’s very easy to envision packaging that comes in that no longer has a use by date, but the use by date is built into the film, and it reaches a throw it out category. This is almost here.

Geraci: How is all of this going to affect agriculture? Especially now that we’ve just gone through the battle of the Farm Bill and we’re looking at the resurgence of slow food. People in America are looking at the small farm again as being sustainable and local and possibly they cannot be part of that. Or can they?
Gomes: They could be part of it. They can be part of it; they can’t be at the forefront of it. As I commented early on substitution, nanotechnologies will allow decisions to be made at the smallest of levels. And in many cases, if the sustainable, developing, small specialty farmers adopt it, are willing to say—if they’re willing to avoid the Luddite point of view—we’re not going to use anything new—then some of these things may be specific and finite enough that they’ll have an advantage with them, rather than the big plant trying to apply them. That remains to be seen.

Geraci: Well, especially if we’re moving towards food safety and you are talking like with the meat, and you have this technology that has this ability to detect problems. They are going to have to adapt to that also because the consumers—

Gomes: Will demand it.

Geraci: —will demand it.

Gomes: Yeah, yeah. This could very easily take us from the point of saying, well, that at the farmers market is fresher and better and healthier and safer, to saying, look, if it doesn’t have this film on it, I’m not going to buy it.

Geraci: Because I can’t be sure.

Gomes: Because I can’t be sure. Now I have a measure, rather than something that looks good.

Geraci: There is a whole industry out there waiting to happen, just in food safety matters.

Gomes: There are phenomenal changes that are going to happen. The issues that are interesting, with things like nanotechnologies—There’s great concern, as there ought to be, about what happens when a particle gets very, very, very small. Is it the same thing as it was when it was very, very large, only with much more surface area? Or does it change properties? There are products now that could be put into laundry detergents, for example, minute particles of silver in them, which would serve as an antimicrobial agent, and would sterilize the wash. Wonderful. But what happens when all of these little silver particles go into the sewage treatment plant and can’t be taken out by filtration? They’re too small.
Geraci: And what also happens—

11-00:16:50

Gomes: And then they get in drinking water.

Geraci: Right. And then with human consumption, this could have catastrophic results.

11-00:16:58

Gomes: So the whole issue then of who regulates it and how, and how do we know? And do we avoid all new technologies because we don’t know what they’re going to do? [This] becomes more and more an issue. But the science, the ability to do things with these—The concept, for example, that we all probably consume too much salt in this country. If you put salt in a nanoscale, sodium chloride, and that surface area is related to your ability to taste salt, can I reduce your salt down to 1/100\textsuperscript{th} of what you’re using now, with exactly the same taste satisfaction, and make your diet a whole lot healthier? I don’t know, but certainly, that’s a possibility. If that doesn’t work, can I give you a nanotech product that will block your taste receptors to anything but salt, or enhance your salt receptors? All of these things are not very far out in the science. In some cases, they’re almost frightening. Other cases, wouldn’t that be miraculous, if we could reduce salt without any of the consequences of reducing salt?

Geraci: I do not know, it seems to kind of take some of the fun out of it all. [Gomes laughs] I know also within a New Millennium document, they were talking about agricultural industrial cluster centers.

11-00:18:58

Gomes: This, again, is what transpired after that in the whole Syngentia issue. It’s what’s transpiring now with the British Petroleum. That there are centers in here, there are physical clusters in here, part of which might have proprietary research being done by industry. The relationship to that might only be those industry people coming in and talking in seminars, and learning and working in those areas that were open to both. It might also be that there were university people who were working in there, and that part of the research was under a confidentiality agreement, as happens when university people work on certain government projects. So there could be physical areas that had this interface, where we’re both doing lots of wonderful things together; it has this area over here that’s strictly proprietary, and it has an area over here that the university is working on its long term theoretical, supported by the whole. Certainly, a possibility. If we can get away from the idea that they’re buying us, and we can maintain our independence and our integrity, and yet cooperate and collaborate, I think it’s the best of both worlds. There’s some ifs in there.
Geraci: Now it seems like a fine line. There could be some people that disagree?

Gomes: Well, but there are always fine lines. We talk about development. I have had circumstances where relatively large sums—in a previous life—of money were offered, for example, for student scholarships—a million dollar endowment, in one case—that I had to turn down because the person wanted to have restrictions on ethnicity, on gender, and on marital status. And I said no. Thank you, but no thank you. And we simply have to say, this is what we will do; this is where we will go; these are the things we can do, maintaining our independence and our integrity, while working with you. If we have that level of comfort with who we are and what we do, then I think we can get along very well.

Geraci: So by saying that, this agricultural industrial cluster center concept, is a commitment to move forward with this cooperative relationship?

Gomes: Well, the concept is based on the belief that we can do those things, and do them well. We in ANR, for example, have worked very closely with industry for our whole lives. And if you say, well, working with Robert Mondavi—the late Robert Mondavi now, I’m sorry to say—in his field, right next to our experimental field in Oakville, somehow contaminates us, then okay, we don’t work with British Petroleum at all. If we say, this is a learning process, and he’s doing what wants to be doing, and he’s telling us nothing about his propriety decision on what blend he’s going to make in his wine this year, but we’re able to work together at this level of cooperation, then why can’t we do that with another organization? We have to police ourselves first. That means we have to know what our limits are, we have to have no doubt of our own level of integrity, from the first.

Geraci: Because you were creative, from the onset, with this whole idea of agricultural extension in what you are doing, this was a cooperative agreement with business, government, and the university. So what you are really doing is just following it.

Gomes: We’re following it. It has to evolve into a different world. And the conspiracy theorists, no matter what you do, will have a heyday with it. But it doesn’t matter where the money’s coming from; if we don’t have integrity, we can be driven by it. We can be driven by government.

Geraci: Which has its own sets of issues.
Has its own sets of issues. Many times, that politicians who have their own set of outcomes that they want. And the question is, do we provide outcomes that somebody else wants because they pay the bills? Whether they’re politicians, the public or industry, then we have given up our own level of integrity.

Within the same document—just throw them out there, and if you wish to talk, we can talk about them—things such as transgenic versus organic and biologically integrated farming systems or BIFs.

Okay. The transgenic versus organic is a very interesting discussion. The earliest definition of organic—about three or four years ago, when USDA decided to put an official definition of organic, so that organic farming could be certified—the earliest suggested definition included the use of transgenic species. They said, “This is genetics, which certainly are a part of organic. It’s selection, which is certainly a part of organic. And it allows us to avoid many pesticides, many levels of fertilizers. It allows us to avoid many of the things that differentiate organic and conventional, and the organic people have said, “We want to stay away from.”” The organic community went ballistic. They just simply said, “No. We’re not going to do that.” So the political decision was made to separate the transgenic genetic system from the organic system. What we have ended up with is the thinking—and you alluded to it earlier—amongst a lot of people, that we’re working towards sustainable systems that have a much lower input of pesticides, herbicides, chemical fertilizers, if you will. Many people are saying, one of the tools, one of the arrows in the quiver to be used for that purpose, is genetic modification, transgenesis. So I think we’re probably to the point where organic will continue to avoid that; but I think that the growth, outside of certain areas, is going to be in this larger world of sustainable, of eco-friendly, of green, if you will, as opposed to certified organic.

Can there be a transgenic green?

Oh, certainly, there can. Certainly, there can. Why not? If I move the gene in the test tube, as opposed to moving the gene through twelve generations of cross breeding—From the point of view of the scientist, there’s no difference.

We’re looking at GMO [genetically modified organisms] corns now. Look at the public rejection problems. Look what it cost in Mexico, with the tortilla wars and all that’s happened, and the Europeans refusing to take American corn.
Gomes: Look at it realistically now. 80 percent of the corn grown and used in this country is genetically modified. The Europeans are now working very, very hard to find ways of using that corn without looking foolish. The reality is that once you get by the politics of some of these things, where there are real and distinct advantages to the product, the product’s going to win.

Geraci: The fact that so much of that product is being grown now, look at just the pollen factor in Mother Nature. Are there any of those old species that they’re going to even hybridize with that corn?

Gomes: Yeah, but they always have.

Geraci: That is what I mean. There is the natural process of hybridization.

Gomes: Yeah. Maize, Zia Mays, in its original form, corn, is absolutely nothing like the organic corn grown now.

Geraci: Thank God. [laughs]

Gomes: Yeah. There is an interesting demonstration-slash-experiment at the University of Illinois. Their first real dean went to Europe, went to Rothamstad fields in England, where they had begun a long term experiment of planting different kinds of treatments of crops, rotations of crops, and yield measures. And he thought this was such a wonderful idea that he set up such a plot back in Illinois, sixty-four different treatments in this matrix, which included rotations and a number of other things. Up in one corner. Corn. Nothing but corn, year after year after year. No fertilizer, no nothing. It was a control. And then all of these other plots would move over years. And every ninth year, as I recall, they’re all corn. And so the Morrow plots were formed in 1878, and they still exist. As does the field that he modeled it after. And there’s a younger one in Missouri that’s done much of the same thing. But this one plot, now largely demonstration, at University of Illinois, has had nothing but corn grown on it for now 140 years or thereabouts. And the yield today of that corn is almost identical to the yield of that corn when they started. But it’s about twenty bushels to the acre, whereas other plots might be 300. The genetic improvement that has taken place—it’s the only difference—the genetic improvement that has taken place in corn over the last 150 years has been such that we can maintain what we had then, without doing anything for it. It’s planted, it gets rain. But the other improvements that have taken place in fertilizer, in handling, in growing, in doing all of these other things, have increased that yield now fifteen-fold. And
the organic people clearly want to have that improved genetics. You
don’t blame them.

Geraci: Well, it is a business, after all.

Gomes: Yeah. Well, if it isn’t, you’re not going to stay in very long.

Geraci: Right. It is a business. So the farmer needs to increase his efficiency in
any way he can?

Gomes: So heirloom gets defined as thirty or forty or fifty years ago, not a
hundred years ago or 150 years ago.

Geraci: Well, I guess the next question is, poised with these types of goals, is
the University of California in a good position to start addressing these
issues for the future?

Gomes: Oh, I think so. I think what the university has done is to maintain
knowledge, questioning the variety of farming systems. So BIFs, you
mentioned, is a subset of the program that the division has called the
Sustainable Agricultural Research and Education Program. That
program has existed for thirty years, give or take. About the time it
was started, the university also started a program called the Integrated
Pest Management program, IPM. Both of those programs were started
because the public wanted them and the legislature mandated them.
Neither of them was something that the university particularly
embraced. Over the next twenty-five years, the IPM program, the
Integrated Pest Management program, said, “Look, we’re going to find
ways, within the systems that we have, to adjust the systems we have
so we reduce the input of herbicides, pesticides, insecticides.” And
became so successful in addressing that noble goal that IPM now is an
integral part of everybody’s farming system.

Geraci: It’s mainstream.

Gomes: It is mainstream. Yet it’s still forward thinking. The sustainable ag
program more took the attitude, we’re going to stay away from all the
things that are done now, and we’re going to show the way over here.
And they tended to thumb their noses at each other for twenty or
twenty-five years. That program did things, it did some very good
things, but it never became mainstream. Some of the people associated
with it and supporting it applauded that. What we did a few years
ago—it’s been two or three years ago now—was say, “Look, the
sustainable agriculture program has to be more than an island, more
than an entity into itself. It has to take the best components of sustainability and make them mainstream. The Davis campus, about the same time, was starting a new sustainability institute. And to have the advantages of that which was done on the Davis campus available across the whole system, we have the two housed together. We got one internationally known director, who will handle both of those. They both have their own individual programs, but there is a complete interaction. And the idea again is, how can we develop sustainability for agriculture? Not over here, not over there, but for agriculture. And are there sustainability concepts, then, as there were IPM, that can be used, perhaps to different degrees, in all components of agriculture? That’s the sort of question that the university is best suited to ask. And I think the university can have the greatest influence of anybody. The university doesn’t have a position to preserve. We don’t have to protect ourselves against the bad guys. So I think the university is the ideal place to ask those questions.

Geraci: It seems that inherent within what you have just said, there’s an absolute faith on your part, in good science?

11-00:36:57
Gomes: There is an absolute faith in my part that good science should inform our decisions. I don’t necessarily want to suggest that we should use the outcome of science in everything that we do. We may decide we don’t want to. But to make decisions, often with scientific claims, without good science to inform them, is a waste. I think it’s a terrible disservice to ourselves.

Geraci: Let me make a statement that you can respond to. It would seem that a second part to this formula would be faith that a good market based economy, that’s not overly structured, will eventually produce the best quality food in the most sustainable manner, efficiently, given enough time. Does this imply that large agribusinesses are researching and developing new tools for themselves and that once they really get it going and moving the technology and methods will become cheaper and available for small farmers. It’s just like the first DVRs that came out, no one could afford. Now everyone is starting to get them.

11-00:38:24
Gomes: The first cell phones.

Geraci: Right, cell phones. Exactly.

11-00:38:27
Gomes: They were big, they were bulky, they were expensive. The first television.
Geraci: So if the big businesses have to take that risk they have to make the money to develop that technology.

11-00:38:40
Gomes: Sure. Sure. And whether big business, in every case, is the place the technology is developed remains to be seen. The computer companies of the world, the Goggles, all of these people started on a shoestring. Many started, quote, “in garages.” A new big business was formed. Sometimes that’ll happen because the existing big businesses are not adaptable enough. Because they’ll say, as too many did for too long, we’ll decide what’s good for the consumer. In reality, we’re in a time now where the consumer is deciding what the consumer wants and what the consumer will accept. Big business has to adapt to that. If they do, then the scenario you laid out, I think, fits very nicely.

Geraci: Okay. I think it’s important for the story we have been talking about to realize, there again, that agriculture is business and that your part of this business has been heavily invested in the science to make all this happen.

11-00:39:59
Gomes: I think that’s a fair statement, going back to our very roots. We were formed to try to develop the best scientific information that could be used by producers. Had science shown that the phase of the moon significantly affected X, Y or Z, then we would’ve embraced it. There were those who for years, and even today, insisted that it’s real. Well, I have no quarrel with—if you want to make decisions based on the phase of the moon, that’s great. There are scientific reasons to think that the moon might have an effect; but there are not data to support the fact that it has a significant effect. So I’m not here to question your beliefs; I am here to say, let’s make our decisions informed by the best science that we have.

Geraci: So it seems to me yours is a very hopeful story.

11-00:41:14
Gomes: Oh, I’m an optimist. I am a realist, also. I believe in the doable. I believe in working towards the possible. But I certainly believe that there is a whole lot out there that’s possible. And to chase it, to work towards it, to understand it, to appreciate it, to marvel at it is a great thing.

Geraci: I think I’d like to end today with just kind of a fun question. If we had a time machine, where would you see agriculture, American agriculture, in fifty or a hundred years? And we could even make it more specific. California.
Well, that’s a really, really interesting question because we’ve all undergone these exercises, the millennium proposals, involving such an exercise going out twenty-five years. And reality has said that no matter where we were when we did that projection, and no matter what we projected, we had no idea of reality. The sorts of things we’ve been talking about this morning in nanotechnologies, for example, if you had asked me five years ago to project five years, I wouldn’t have come up with any of those. If you had asked me in ’75—and we did some of those things—to predict the use of the computer, not just by you and me, but the use of the computer in our everyday lives, I would’ve been woefully short of and off the mark. If agriculture looks like agriculture fifty from now, a hundred years from now, anything like what we do now, I think I would be totally surprised. The growth of people—and I’m talking about numbers. We have basically decided we’re not going to stop until we reach whatever maximum carrying capacity there is. The ability to feed those people with existing technologies, or even the very best of our technologies, and existing land and soil and weather conditions, is so iffy that we would continue to have mass starvation followed by times of plenty, followed by drought and plagues. I think in fifty or a hundred years, we’re going to be well beyond those. The expectation of food safety is going to be such that we may not be willing to grow spinach in a field where the birds can fly over. In the last fifteen years, we have seen the virtual disappearance—that’s an overstatement, but the relative disappearance of full grown spinach and the total use of baby spinach, once they started putting it in packages. Well, are we now going to go to the stage where it’s going to be micro-spinach, because we want a salad, but we really don’t need that many calories? We’ve discovered we can live to be 137, if we restrict our intake to a thousand calories a day, and we really want them to tasty and flavorful, and have variety and—So I’ve pretty well given up on projections because—

[laughs] The crystal ball is broken.

Yeah. What always happens, in my experience, is that we extrapolate the present. If there is anything that’s wrong about predicting the future, it’s extrapolating the present. That’s the only thing I’m sure isn’t going to happen. At least based on experience.

Well, I think we did pretty well for today, so thank you very much and we will stop there.

[End of Interview]
Interviewed by Vic Geraci, ROHO

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Geraci: Today is Monday, August 25, 2008, and we are in the Oakland, California home of Dr. Reg Gomes. This is the seventh interview, tape number twelve, with Dr. Gomes, and is being conducted by Victor Geraci, Associate Director of UC Berkeley’s Regional Oral History Office. Well, Reg, back again. Today I would like to talk about ANR and Extension in more general terms, as an organization; not so much about your personal background and what we are doing. I guess one of the things I would like to start off with is what is ANR’s role today in California?

Gomes: You might get a variety of answers to that question—

Geraci: That is what I am hoping.

Gomes: —from different people. ANR, let me give a little bit of its evolution to the role where we are now. ANR started out as the College of Agriculture at the University of California, on what was the only campus then, Berkeley. As the campus grew, as the outlying stations grew, as increased autonomy of the individual campuses took place, ANR was something of an anomaly in the fifties. Many things had been decentralized to the campuses; but agriculture was still run out of the Berkeley campus at that time, through the predecessor to Agriculture and Natural Resources. Over the years, we have worked to find the right balance between decentralization to the campuses and centralized statewide planning organization and development. Probably the place where most people have been concerned that we’ve cut the baby in half has been in the Cooperative Extension role of ANR, because we have the specialists selected, housed, rewarded on the campuses, and the advisors selected, reporting administratively, and rewarded on a statewide basis. This, then, puts a slightly different perspective, from the point of view particularly of the outside people. So ANR’s role today is still to do what can be done in the very most productive way, to provide statewide perspective and statewide responses in the service of our clientele.

Geraci: Clientele being the agriculture?

Gomes: Clientele being agriculture, broadly defined. The latest versions of the Smith-Lever Act, which was the enabling legislation for Cooperative Extension in the first place, have added things like renewable energy
to the charge; and in one year, as I recall, five or six years ago, specifically mentioned solar energy. So a number of the things that we’re charged with working with go beyond agriculture, in the sense of growing crops and food.

Geraci: So it seems that the change has been the terminology of agriculture that has now grown to be more of an environmental issue.

Gomes: It includes the environmental. There has been very extensive work in Cooperative Extension over the last two or three decades in family nutrition. Because the original charge to Cooperative Extension included agriculture and home economics.

Geraci: Well, the farm community was so depressed.

Gomes: Precisely.

Geraci: And it was designed to help raise them up the economic ladder.

Gomes: But at that point, everybody was a farmer. Everybody was in the rural environment. That’s a bit of an exaggeration, but not very much of one, nearly a hundred years ago. So the relationship between rural and urban has changed, nowhere more so than in California; and the approach to working with people, to providing the kinds of assistance and direction that we should provide, extends beyond, quote, “farming.”

Geraci: So it seems that the organization is very flexible. It’s almost organic. It does evolve and it does grow with the needs of the state?

Gomes: I’m not certain how flexible it is, but yes, we evolve and we grow. In one case, perhaps in a different context, but I was talking with someone about the way in which we change. Moving universities, moving Cooperative Extension to a new path, is much like steering the Queen Mary. It’s not a PT Boat. It doesn’t buzz around and go back and forth very well. But we do make change. And over the course of years, we make significant change. We have to evolve. If we existed now in the same form, with the same expertise and doing the same things that we did a hundred years ago, we wouldn’t be here.

Geraci: You’ve already mentioned some of them, but what would be some of the other factors that forced this change?
Well, the improved and increased education of the rural community, first. The Cooperative Extension program was established to take the university to the people who had no university training; to take the education and the results of the research that were done on Land Grant university campuses to the users who had no access to that information. Well, now if you go to our farms, these are our graduates. These are people with advanced degrees. These are professionals. These are people who have computer systems like you and I would like to have, who have information, data, futures, selections, decisions, economic information that no single advisor has at his fingertips.

That seems to be a monumental change. Your first audience, you were trying to bring them a certain level of education. So obviously, that was successful?

It was extremely successful. I don’t know that Cooperative Extension can take full credit for that, simply because the entire educational level of the American population has improved and increased. And so Extension can and has evolved to meet this new clientele, to be able to take results from the laboratory, sometimes—and particularly in California—with some adaptation to local conditions, and make those usable to people who know how. Now, we added a new dimension, starting more than half a century ago, but particularly in the last two decades or so, in that we have immigration of an entirely new population into the state and country, of people who haven’t the education and the background, frequently, even the language skills, to take advantage of the university knowledge. And that is almost going full cycle. So we have, on any given day, advisors working with extremely highly educated, technologically advanced growers, who want to know the latest on GPS systems and laser driven tractors, to people who are trying to select and plant by hand.

Has that almost, in some ways, doubled the job that you have?

Yeah, it splits the job. It is the sort of thing that some would say you need two Cooperative Extension programs: one for the small, beginning immigrant or rural, and another for the modern farmers. I would hate to see us reach the point where the organization was going in two directions at once, as opposed to understanding the needs of the people and doing our best to address those in the right way. One of the problems—and I’ve seen this internationally—of such a program would be to say, well, these immigrants are at the most rudimentary; and therefore, we’re going to teach them, and unfortunately, keep them rudimentary. We don’t want that. So what our Extension people have done, for example, in the San Joaquin Valley is to work with some
immigrants, Asian immigrants, to help them introduce some vegetables and fruits from their native lands, to take those through farmers markets, to take those through specialty shops, as a new and unique product. After a while, when that product becomes widely accepted, then the large growers will begin to take it over, and we start the process over again. Because the small farmer—immigrant, American, someone returning to the farm—simply can not make a living on a commodity based product on a small farm. So you have to have a niche. You have to have something unique. And that brought in bok choy, which is widespread now; it brought in all sorts of eggplants, other than the big, old, pear-shaped eggplant that all of us grew up with; it brought in lemongrass, which is now increasingly used in Asian foods and Asian influenced fusion restaurants. So it brought in a remarkable number of new and different things that have changed the diet of many Americans.

Geraci: In some ways, going back to an old, or at least an older method or process that had always gone on in California. By the time the Gold Rush gets here, the introduction of new fruits and vegetables, especially in Northern California, is amazing. Each of these groups coming in brought these very, very different foods.

Gomes: The foodstuffs of the United States all came from somewhere else. And nowhere did more of them come into the country than the coasts, where the immigrants are coming. The European immigrants brought in many, many trees and fruits, in particular, but many other plants, through the East Coast, a number of them through the West Coast, and found where those could be grown in the appropriate environment. Well, the environment of California allows the growth of many, many, many Mediterranean crops—our grape industry largely came from that part of Europe—and many Asian crops. And so we can grow things here, we can produce things here, we can develop things here that you couldn’t in Montana or Nebraska or some other places.

Geraci: So geography always has its role in agriculture.

Gomes: Geography has its role in agriculture, environment has its role in agriculture, and opportunity has its role. All of those things came in here first. I can only imagine, if I were on a sailing vessel for six weeks and I were nurturing some small plants, as opposed to some seeds, the first thing I’d want to do is get them in the ground. And I’d do that where I land. Were it seeds—The first soybeans came in from China, and ended up being grown near Cincinnati, Ohio. Because they were transported. But things have come here, things have been tried here. Starting now with the mature product, people develop a taste for
them and grow them. Kiwi. Kiwi was imported into the United States by a wonderful lady in San Diego twenty-five or thirty years ago now. She named them. And people decided they like them. Well, now we grow half the world’s kiwi.

Geraci: One half!

12-00:14:25
Gomes: Roughly. Basically—

Geraci: That’s an amazing story.

12-00:14:27
Gomes: Basically, down under, New Zealand grows them in the season that we don’t. Because the seasons are reversed. So we grow them in our summer and they grow them in their summer.

Geraci: There was a move, at least twenty or more years go, to get a lot of grape growers to also include kiwi, because the growing conditions seem to be very similar.

12-00:14:50
Gomes: That’s right. If you’re driving along the highway and you see a field of kiwi and you don’t know what it is, if it isn’t producing, you might mistake it for grapes. They are grown in much the same way, they are trellised in very similar ways. And so yes, people who had the land conditions, some of the cultural practices, and an understanding went very strongly to kiwi, particularly when the grape market was down. We have a habit, as nearly everybody does, of over planting when prices are good, so that we drive prices down and then have to pull things back out. Very typical human reaction. You jump into the housing market when it’s high, and then it crashes.

Geraci: But agriculture, like the rest of the American economy, has that same problem, adapting to the boom and the bust cycles. We over produce—

12-00:15:51
Gomes: Of course. Of course.

Geraci: —we consolidate and we merge. Agricultural economics is no different than any of the other part of the market economy.

12-00:16:00
Gomes: Agricultural economics is economics. If you boil it down, once you remove the government from it and you remove some other little circumstances—if that ever happens—it’s a supply and demand business. And the fact that agricultural products are produced by numerous small business producers, if you will, doesn’t change the
fact that it’s supply and demand. Agriculture, like the grocery story, has gone to the Wal-Mart model. Many of our commodities are simply the low cost producer, high volume, produce a uniform commodity at the lowest possible price format. Many people dislike the Wal-Mart format, and many people dislike the corporate farm, if you will. But both are supplying the demands of the American people.

Geraci: Now, that leads to probably a very obvious question. The tensions between the large and the small clients and the fact that you serve both clients.

Gomes: We serve both clients.

Geraci: How do you ease that tension?

Gomes: Well, again, I think, as I indicated earlier, we attempt to work with people to find the role that they can do best. We don’t grow corn, for example, in California, to any great extent, for grain, for feed grains. So let me use that as an example. If we had a farmer in Iowa, where the average farm is a thousand acres producing corn, and they refer to it as fence row to fence row, but they removed the fences—The fields are corn and soybeans. If one is coming in with forty acres, there is simply no way that person can produce corn, number two feed corn, in that market and compete with somebody who’s growing a thousand acres. And so if one has forty acres, you have to find alternatives. You have to find things you can do on forty acres. If we were doing corn in California, it would require thousands of acres. That’s one reason we don’t do corn. Land is too dear. We do strawberries. And forty acres of intensive strawberry growing, on the one hand, is a big farm. If one goes into the San Joaquin Valley, up and down the San Joaquin Valley, there are many Asian immigrants now raising strawberries with their own family labor. They are selling those strawberries through farmers markets or roadside stands, where they can command a price and reduce the overhead to have a profit margin that is much greater per basket than the large strawberry growers. But it would be insufficient to maintain the large strawberry farm. So there’s a different niche in the same crop, through different marketing schemes, through different growing schemes, and through different pricing schemes. You can do that on the small scale.

Geraci: Isn’t that one of the few examples of survival of the mom and pop store?

Gomes: Sure. Mom and pop store, the little boutique. Boutiques can exist. But if the small boutique is down the road from Wal-Mart, selling the same
products in the same way, at a much higher price, that small boutique won’t be there very long.

Geraci: So it becomes the organization’s job, then, to find them—

Gomes: To help them find—

Geraci: —something that is different.

Gomes: —what’s best for them, yes. And again, when bok choy came in, that was something that was done. Small areas, small producers. We have an explosion in California of the use of herbs in cooking, and fresh herbs, in particular, in cooking. Herbs don’t take acres and acres, they don’t take great mechanization. They take tender care and small, careful people, with knowledge of the best herbs and those that are adapted to the area, and how they can be harvested, and how they can be marketed. And we have a number of small business producers producing herbs.

Geraci: What happens when these items become popular and they’re picked up by the large corporations?

Gomes: Well, then you find something else.

Geraci: So what I am saying is that you really have to have an input into these smaller or boutique or niche farms, and that is an important clientele. You are always on the outlook for them to find a new crop, a different crop which they have to do in order to survive.

Gomes: That’s right, that’s right.

Geraci: Because once the corporate people figure out a way to make this large scale, they can’t compete with it.

Gomes: We have an advisor out of Tulare County who has been doing research on our Fresno County based research center, on tomatoes and peppers. He had, when I was there a very few years ago, approximately 300 varieties of each. And that’s a long way from developing yellow and orange and red bell peppers from green ones. It is a huge opportunity for people to look at what’s available. Instead of only the heirloom tomatoes we now see coming back, one now has grape tomatoes and cherry tomatoes and tomatoes for salads—We have a huge variety, even in the supermarket, of different tomatoes. And there are many more one can work with. They, on that same station, our Kearney
Research and Extension Center, are growing capers. The only place in the United States where capers are being grown. It isn’t going to become a huge, major commodity, but will it become something that can be grown in California? Fifteen years ago, the accepted wisdom was that blueberries had to be grown in acid, preferably peat, high organic soils. Well, our people developed varieties and conditions and circumstances where we now have a sizeable blueberry industry in the San Joaquin Valley of California, which is anything but acidic, peat, organic soil.

Geraci: It’s alkaline.

12-00:23:40

Gomes: It’s alkaline, it’s hot, it is dry. And the blueberries are doing very well.

Geraci: Are corporations like Driscoll really having a lot of input into something like this?

12-00:23:49

Gomes: Well, they have input into it, but usually as it begins to develop. One of the roles that the university can fill very, very well is, to quote Star Trek, “to go where no man has gone before.”

Geraci: That’s a great quote.

12-00:24:07

Gomes: A business really has to be able to see something for the bottom line, for much of what they do. So for them to start in and simply search for something new, as opposed to a new variety of what they already do, some being better, is a little bit unusual. Some do. But for the most part, the original thinking, the tinkering, the changing from something that was growing in Indonesia is the role of the university. I don’t know that we can afford to make mistakes, but we are expected to make mistakes. That’s why we—

Geraci: Trial and error has a large part in this?

12-00:24:55

Gomes: We call it research. And the object of research is to test a hypothesis. And just like your prayers are always answered, frequently, the answer’s no. So we try something that doesn’t work. We treat animals or plants in a certain way, and we find that it was not efficacious. That’s what we have to do. Farmers, producers, growers, big companies, unless they have research units, can’t afford to do that until they’re pretty sure that this thing has a good chance of working for them.
Geraci: In a way, though, doesn’t all of this make California somewhat exceptional? Maybe not just California but at least the coasts. We have foodies who are always interested in different foods from around the world. So there is a market here. There is a demand here that I would not find in South Dakota, maybe?

12-00:26:01
Gomes: I think that’s accurate. I was in South Dakota last week, and they actually have some interesting things there, [Geraci laughs] but I think you’re right. I think the metropolitan areas, in general, that have to have cutting edge restaurants; the urban markets that have to have something new to grab a pretty jaded consumer audience; and the immigrant mix with the native, if I can use that term, mix of people, who are interested in trying something new all provide a ripe environment for bringing such things.

Geraci: They also have the socioeconomic wherewithal to be able to be able to afford and participate with this.

12-00:26:59
Gomes: Yes. I think that’s part of it. When I say a little bit of a jaded audience, if you’ve been in a circumstance where you can buy steak every day, you don’t want steak every day. You want variety. You want to try something new. You want to become adventurous. And the adventurous spirit includes cuisine. There are many places in this country and in much of the world where the evening meal looks very, very much like the evening meal did last year, ten years ago, and even more. Less in this country because of people traveling. But the movement of something new begins in the culturally rich areas. And by culture, in that respect, I mean a variety of people, a variety of circumstances, often a variety of restaurants.

Geraci: Interesting in just what we have talked about thus far, we are talking about ways in which California—and I hesitate to use this word—could be considered exceptional. It always comes down, in agricultural discussions, to geography, to climate. We obviously have talked about the economic demand; the immigrant situation that we have and that we have so many people from many regions of the world, who have their own cuisines; the urban-ness of our community; and then, also we have a great university system coming in helping the development of all this. Can you think of any other factors that might play into this?

12-00:28:52
Gomes: Yes. Well, unique. California is not like anybody else. We are unique. The word unique doesn’t necessarily connote better, but certainly different. And we are different. One of the components of that uniqueness that I think does help to make us better is that for whatever
reason, whether led by the university system that produced people from that system or whatever, the people of California are innovators. They are risk takers. More fortunes get made and lost here. They are those who will go out into that unknown area much, much more than anywhere else I’ve lived—and as we’ve discussed, I’ve lived a number of places. So the fruits of research, the fruits of successful research, accrue to the early adopters. If we were to develop a new product, a new crop that would have an edge in the market, eventually it jumps ahead. As we discussed with some specialty crops, others then will join on, and pretty soon we’ll overproduce it, and it’ll be a loser. The benefits accrue to those who were there at the start. In much of the United States, and certainly, much of the world, people are reluctant to try something new. They’ll wait till their neighbor tried it and proved it, and then they’ll jump on, perhaps too late. They might get the tail end of the benefits, but inevitably, they then become a commodity user. In California, we have a population that will jump in early, that will give it the try, that will know that on occasion, they’ll lose a fortune.

Geraci: How do we explain that to the naysayers that sit out there? Because Californians always talk about their innovative spirit—in some ways you have almost described venture capitalism.

12-00:31:34
Gomes: Sure. Sure.

Geraci: Only in an agricultural sense.

12-00:31:37
Gomes: Well, or in any other sense. The entire state has been a state of risk takers.

Geraci: What makes us risk takers?

12-00:31:46
Gomes: That’s what I don’t know. As I say, I suspect that the nature of our university system, which has affected a lot of things in this state, is part of it. I don’t know that our history as a state necessarily brings that. But people come in after long distances. After you’ve traveled on that sailing vessel, windblown, tossed for all those miles, and you get here, do you—After you’ve made the decision to leave home forever, when you get there, is it something new and different? Maybe. When the nation was started, if you think of the people who developed this nation, they were risk takers.

Geraci: Well, considering that California’s such an immigrant state, they’ve already taken the biggest risk already.
Yes. And we constantly are, in terms of longevity of population, we’re always a young state. There is always a new mix of our people. And historically, they’ve wanted to make themselves better. They have not tried to hang onto what they had, because they didn’t have anything. So we’ve seen each wave of immigrants—with the Latinos now trying to move into that next group—come in, develop its roots, and grow and prosper.

And they took risks to do that?

And the only way they did that was by taking risks. Some of them working harder. Now, we have immigrants now who are still putting in twenty hours a day, seven days a week, and the whole family’s doing it. And much of the population of this country that’s been here two or three generations just doesn’t accept that.

Doesn’t understand it?

They aren’t interested. I read in a novel last week that many Europeans today—and I don’t mean this as a denigration of Europeans, so much as the observation—many Europeans want to maintain their thirty-five hour work week and their month off. When that becomes your goal in life, whether it is or not, somebody else will pass you. And we constantly have people coming into California who will say, I’m going for something better. I’m going to shoot the whole wad here. May not be much, but I’m going to give it everything I have.

This is interesting because many of the naysayers, as they look at what ANR has been doing, complain that you are doing things that are not necessarily geared towards agriculture; but, geared towards making the immigrant community successful.

Sure. Of course.

You just told me a story, why that is so important?

They are Californians. They are here. They’re part, an important part of our future. And frankly, I want to educate the California people to function in their future, not in our past. And I think the key there is to educate. We’re not training, we’re not gearing—We’re advising. But we’re trying to help them find a better way to improve their lives and the lives of all the rest of us. They are Californians. And if they are Californians, they’re our people. The other component to risk taking that is absolutely essential—and again, I think one finds this
historically in national leaders, in heroes of every culture—you have to learn how to fail. Fear of failure is probably a greater deterrent to taking risks than fear of loss of money. I love the story of Abraham Lincoln, who had a series of life failures, one right after the other. If you stopped describing his life in 1858, you’d say, boy, what a loser. But every time he had a setback, he came back and did it over again. Most successful people have been there.

Geraci: Learning how to fail is probably one of the greater lessons?

Gomes: Learning how to fail, I think, is an essential lesson in life if you want to succeed. You can exist without failing. But if you want to grow and succeed—whether you’re an individual, whether you’re an organization, whether you’re Cooperative Extension—you have to be willing to stick your neck out, to try things, and understand that periodically, it won’t work.

Geraci: Well, even businesses have to respond in that same way. A business that is no longer growing or venturing out is on its way down.

Gomes: Of course, of course. If you look at the successful businesses of the last twenty and thirty years, they’ve been little start-ups. They started with people who risked everything they had. And in many cases, failed and started another one. I genuinely think that the people who built the Microsofts and the Googles and all of these didn’t start out with a big business—I know they didn’t. They didn’t start with a big business that never had a setback. These are people who laid everything on the line. And when you don’t always succeed, and you come back from failure, you have built a basis for the ultimate successes.

Geraci: That means California has the potential, in agriculture in particular, to succeed? We have a group of people and this is their arena to be able to succeed through their failures?

Gomes: Oh, I don’t think there’s any question about it. One of the things that makes California unique is not only the environment to grow a variety of products, but the willingness to do so. Again, not to pick on anybody in particular, but the upper Midwest, Wisconsin, prior to 1900, raised red wheat, winter red wheat. The market went under. And they decided they had to try something else, so they went into the dairy industry. And they became the dairy state, America’s dairyland. Well, they’ve been surpassed by California, overwhelmingly, a long time ago. And their industry is in decline, by any reasonable economic measure. But now they are saying, well, we are dairy people; that’s the only thing we can do. And they haven’t yet decided, we’ve got to
venture out and try something different. A few have. There are some very successful mint farmers, for example, in an area that grows mint very well, and they’re trying a few new things. But unless you have a culture of not only waiting until the product fails or is surpassed by somebody else, but staying at the forefront of it and then finding a new alternative—

Geraci: Wisconsin, in the late 1800s, in building its dairy industry, was also being adventurous?

Gomes: It was adventurous on their part; but in part, it was driven by the failure of the red wheat. They couldn’t grow that; they had to try something else.

Geraci: But there again, it’s a story of failure driving you to the next success.

Gomes: That’s right. That’s right. If you accept that failing doesn’t make you a failure.

Geraci: That’s a good point. So in some ways, when people call us the land of the fruits and nuts—

Gomes: We are. We are. And the flakes.

Geraci: Right.

Gomes: We are the granola state, if you will, in that we raise all those products, we use all those products, we eat all those products, and we can be as flaky as any of them. And you have to be a little bit nuts to work here.

Geraci: But it sure makes for an exciting place to be, doesn’t it?

Gomes: It’s never dull.

Geraci: [laughs] We have just been talking about a really great story here. Are there any downsides to all of this?

Gomes: Oh, there are always downsides. There’s never enough money. There is the reality that because we can’t fiscally plan ahead as well as we would like to, because we can’t address all of the phenomenal needs that exist out there in a state that has such diversity, we suddenly find ourselves in a crisis mode. And so we spend a good deal of our time reacting, we hope responding, to crisis situations, but woefully
inadequate amount of time preventing them. And in many cases, they would be preventable. In some cases, that’s not entirely our fault because we were out there preaching the message—the wolves are coming, the sky is falling, or whatever the case may be—and people weren’t willing to accept that. We actually were out putting the warning out about Pierce’s Disease about four or five years before it became an evident problem in the southern part of the state.

Geraci: And finally started generating at least federal and state money for research?

Gomes: Well, it generated federal and state money, after the crisis was evident because we were losing 30 percent of our grapevines in the Temecula area. And because the people from the north who said, “Oh, we’ve been working with Pierce Disease for a hundred years”—and they had, at about the 10 percent level—they went down and saw the devastation. Then suddenly people mobilized, and the federal and state governments and the industry—The industry has put a phenomenal amount of energy and money into that research program. It’s been one of the real success stories of university/government/industry cooperation and collaboration—and state. State and federal government. And I simply can’t praise that industry enough for the approach, once the wakeup call came. But the wolf was coming in pretty hard at that point.

Geraci: Wakeup call. California has developed an amazing olive industry. In fact UC Davis has opened its Olive Institute that is relatively new. What about the new olive worms issues? I don’t know exactly how to describe them. It has a major implication to olive oil success.

Gomes: Well, we had a study done by some of our ag-economists. We have lots of studies done by our ag-economists. [Geraci laughs] One in particular, perhaps fifteen years ago, in Riverside, looked at the history, the growth reported, the introduction, the appearance of a new pest, agricultural pest, in California. At that point, there was one coming in about every sixty days, on average. I’m certain it’s much higher now because they come everywhere, from everywhere. So whatever we grow, inevitably, we are going to face a pest in it. In many cases—and this is part of the planning that I was talking about—they are a pest that exists somewhere else, that we knew about, or should have known about, and might have been able to begin work on if we had the planning funds and those sort of things. If you’re facing crises—Henry Kissinger said, “The urgent takes all the time from the important.” And so health maintenance is much more important than treating disease; but our entire health system is based on treatment of diseases.
We face some of that, too. It’s reality. There is never enough to do everything we should do. Part of our role is to be smart enough to make good guesses about where we ought to be.

Geraci: We should also be accepting and remember that we may have to look outside ourselves?

Gomes: If we don’t, we’re foolish.

Geraci: In just mentioning the case of Pierce’s Disease, I believe it was the country of Brazil who had been doing tremendous amounts of research on Pierce’s Disease.

Gomes: Brazil had a variety of the same organism, that was causing a citrus disease that was devastating their industry. They had already done the genome work. And a number of our people didn’t want to accept that, as you might guess. They did the work. They had it. We would be foolish to ignore it.

Geraci: Yeah. Why reinvent the wheel?

Gomes: We have a problem in the United States—everybody, I suppose, has this problem. But there is this widely held belief that we do all of the innovative science, and everybody else is stealing it from us. One of the greatest boons to California agriculture over the last thirty or forty years has been drip irrigation. We didn’t invent drip irrigation. We imported drip irrigation from Israel. And frankly, the Israelis today are doing things with irrigation and drip irrigation that we ought to be stealing, too. The mechanization of things like the dairy industry are almost entirely European. There are some remarkable things going on in Holland, in Germany, and in France and we’re using them. The equipment that we’re buying is largely coming from there. But we ought to be over there studying them. And they will, in turn, work with us. So people have complained at the numbers of international programs that the university conducts and works in. In the world we live in, and the world we’re going to live in, I think we need more, rather than fewer of those things. Wherever we are building competitors for California or American, agriculture, we are also building customers.

Geraci: It is really interesting. Along that line, that’s one of the things that I know in an interview that I had done with John De Luca, he was vehement about the fact that a successful wine grape industry could only be successful in a global marketplace by accepting and embracing
competition. And also embracing what’s being done in their science, in their research, bringing it to our universities, and adapting it.

12-00:49:14
Gomes: Absolutely.

Geraci: So the role of the ANR now could be adaptation of things already developed outside us?

12-00:49:21
Gomes: Well, in many cases, it always has been. But certainly, not to the extent that I think it should be. There is no question there is remarkable research going on in Australia. They’re doing some phenomenal things down there. And simply talking with them, having one of our faculty members spend a year’s sabbatical in Australia—I was in China a couple years ago, and one of our faculty members was there on sabbatical. To see the changes that they are going through, from the time of the change from Mao and the very strict Communist regime to opening up some, they are now developing, redeveloping their educational system, and doing some remarkable growth. The results aren’t necessarily there yet. But if we can work with them and take from them and help them to develop that which will work in China—Sure, they’re going to be a huge competitor. But would we have preferred to go to the Olympics two weeks ago if the Chinese weren’t allowed to compete and the Japanese weren’t allowed to compete and the Jamaicans—

Geraci: [laughs]

12-00:50:43
Gomes: —weren’t allowed to compete? Of course not. We want to be able—The way we improve, the way our athletes continue to set world records is to be pushed. We have to push ourselves economically, intellectually and agriculturally.

Geraci: Going back to an earlier point in this conversation, it’s been that innovation that has helped us push California agriculture.

12-00:51:08
Gomes: That’s why we’re unique. To the extent we are excellent-slash-exceptional, that’s why. We are ahead of the curve. And if you aren’t ahead of the curve, if you’re producing a regular commodity, you’re there. You’re part of the herd.

Geraci: One of the ideas that you’ve just brought up in looking at this is the idea of the blessing and the curse of funding. How does one plan for the future, when one can’t plan budgets?
Gomes: I think the way one plans for the future is to understand that there will be budgetary fluctuations. In the seven years of plenty, don’t go out and borrow everything you possibly can, but try to determine where your greatest benefits, your greatest strengths and your greatest needs will be, and—the word I used during my term here—your greatest opportunities, and work towards those. When we hire an advisor or a faculty member, when they’ve gone through the early stages and reached tenure or whatever, we’re hiring those people for forty years. If we’re hiring them to solve a very short term today problem, and they aren’t the sorts of people who can adapt and grow and develop and anticipate, we’re out of business. So one has to invest in people who have skills and training and education, but also have the right kind of spirit. Because the world’s going to change, and they have to either lead that change, adapt to that change, or if they’re with you for a very, very long time, be a drag on your organization.

Geraci: That is quite a challenge being able to select people that are, I guess, naturally inquisitive and curious their entire life?

Gomes: That are naturally inquisitive and curious their entire life, but willing to address that curiosity and try to find some answers. There’re lots of people who are willing to ask questions, “Why don’t you?” We have to find people who say, “Why don’t we?” How can we address that? It goes beyond, what’s the problem? It really is pretty easy to find problems.

Geraci: Risk takers.

Gomes: And people who are willing to say, all right, let’s go do this.

Geraci: Especially in a university, it’s sometimes very difficult to be an intellectual risk taker.

Gomes: That’s right. That’s right.

Geraci: Because that means you open yourself up to all sorts of criticism.

Gomes: Unfortunately, sometimes the university atmosphere encourages being happy where you are, working through teaching a wonderful class, interacting with students who haven’t quite reached your level of experience, and depend upon you to be the fountain of knowledge. One of the hardest things to do—and a number of teachers find great difficulty accepting this—is to be able to say not only, I don’t know, but we don’t know. I’ve heard many teachers praised by their students
because they say, on the first [day] of class, “If you ask me a question, I won’t always know the answer, but I’ll find it for you.” I think that’s a very, very short-sighted answer. It implies that somebody knows the answer. I had a major professor, on his first day of his first class, told us, “Half of what I tell you this semester will be wrong. But I don’t know which half.” [Geraci laughs] I think one of the things that the university doesn’t encourage, for a number of reasons, is the willingness to admit that we don’t know a lot of things. Now, yes, we always hear that with research. But we don’t often hear it in the classroom. Frankly, if a faculty member, if a teacher says, “I don’t know,” the students think he’s dumb. Because the general student attitude is there has to be an answer. It has to be one that can be answered on a true/false or multiple guess test, and there has to be only one right answer.

Geraci: Could that not be, going back down to this risk taking factor, teaching students to be intellectual risk takers? It’s much easier for you to tell me what the truth is that I have to know. I memorize it, I give it back to you, and we are both happy.

Gomes: Well, also it takes out of my hands the requirement to judge the quality of your thinking. And I don’t want that requirement, often. And you don’t want me judging the nebulous. Whereas as I see it, as a student is learning to develop ideas, questions, hypotheses, you can’t just simply say, no, that’s wrong, because they ought to be in an arena where you don’t know right from wrong. But you can measure how they developed the idea, what they did with it once it came. When the light came on, what did they do with the light? And those things can be measured. It’s hard, it’s difficult, and it means you have to put yourself into it. So it’s risk taking on the teacher’s part there, too. And frankly, it’s awfully hard for students to accept, if they’re in the mode of the objective and the final, the authority. And you can have negative feedback, if you will, in that system.

Geraci: We are going to stop on this tape right now, and pick up again in a minute.

[End Audio File 12]

Begin Audio File 13 08-25-2008.mp3

Geraci: Today is Monday, August 25, 2008. This is the seventh interview with Dr. Reg Gomes. This is tape number thirteen. I am Victor Geraci, Associate Director of UC Berkeley’s Regional Oral History Office. Reg, let’s continue kind of where we left off, but kind of move in a little bit different direction. I want to talk about the restructuring and
reorganizational things that you’ve done within ANR, or that you’ve seen done, that are responses or reactions to both internal and external stimuli.

13-00:00:39
Gomes: The structure of the organization—and let me be initially a little more specific to Cooperative Extension—when it started, as we discussed, these were advisors going out to work with farmers on general farms, usually with some animals and some plants, and perhaps some hay and a variety of crops. We had to have generalists who understood agriculture and who understood the soil, and who understood irrigation in this state, a number of other factors. Through the first half of the century, that was probably the mode of our existence. On campuses and elsewhere, there became, driven by scientific discovery, a need for more specialization. The generalist couldn’t know enough about plant pathology or insects or certain agronomic practices in detail, to meet the increasing needs of more and more educated farmers. So we began to develop specialties, disciplines. And our advisors became teams of disciplinary specialists, who had broader knowledge, we hope, who had broader perspective, but who had the level of skill needed to provide the level of advice needed at that time. Well, we have come back now to the point where the issues facing individual producers are no longer defined only by agronomy or soils or plant pathology, entomology or animal sciences; but they involves issues of environment; they involve issues of erosion; they involve issues of air quality; a number of other factors that have a greater and greater impact on the environment of the farm and the producer, and that our people have to have the ability to understand and put in perspective. So while we haven’t gone back to generalists in the original term, we have gone more and more to people who can look at the broader issue and the component parts, and we hope, put them together in their best fashion. So as we reorganized into disciplines in the fifties, we began to reorganize, largely during my time, into issue oriented people. So we have been hiring people for the last ten years or so who could address air quality issues and work with people, as agronomists, to understand the interface. We’ve hired people who work on water quality, waste management issues. Now, that started in the dairy industry, but obviously, has needs for that expertise far beyond it. So these people now can address the broader issues, if we can anticipate the issues that are necessary, rather than simply react to them, and if we can hire the kind of expertise that can put that in perspective.

Geraci: So these people would work with interdisciplinary teams to try and—

13-00:04:19
Gomes: That’s correct.
Geraci: —make it more a holistic approach.

13-00:04:24
Gomes: Yes. Yes. And my mantra for my years here was issues and opportunities. We respond or react to crises. If we can anticipate the broader issue first, we might be able to lessen those crises, or at the very least, have a better response to it.

Geraci: Or at least the ability to effectively respond.

13-00:04:49
Gomes: Correct. We hope. And so the nature of the advisor has changed, the nature of the advisor’s interaction with other advisors has changed. And to a degree, the nature of the advisor’s interaction with the producer has changed because they may now work with four or five different people in trying to accomplish something. This leads to better advice, it leads to less one on one personal friendship, less development of the long-term personal relationship that we used to have. Instead of one advisor who knows all the farmers and stops by to see them, and they call him up when they have a particular problem, now it may be several advisors, and she’s going to come in and look at the lagoon behind your dairy farm to determine waste there. But there may be a circumstance here where we can do a methane generator off that waste, and so we need an energy expert to come in and figure out what’s going to happen with the waste water, and what it’s going to do to the air. So we may need a team of people to address a much broader, bigger issue, but one that is life or death to that producer.

Geraci: This is a trend that is going on in general American society overall, specializing of our workforce, professionalizing of the workforce.

13-00:06:25
Gomes: Very much.

Geraci: In doing that, it changes the workforce, in that, especially at the advisor level in the past, you didn’t necessarily need a college degree.

13-00:06:39
Gomes: Well, all of our advisors early, the goal was to have them all with college degrees. Because again, they were affiliated with a Land Grant university. Cooperative Extension was made a child of the Land Grant university by the Smith-Lever Act of 1914. But the bachelors degree, for many years, was very, very acceptable. About the time I started my professional years, a masters degree was pretty much becoming required. It wasn’t always required, but pretty much becoming required and Extension specialists increasingly had PhDs. Now a very large proportion of California advisors have PhDs, because it is necessary for them to have the level of expertise that allows them not
only to understand today’s research, but actually to do some adaptive research that allows them to carry it, in a usable form, to the producers. Often, that research is done on the farm, because it has moved out of the risk level that we insist on retaining in our units.

Geraci: And it’s also heavier duty scientific research.

Gomes: Very, very much so. So the generalist of today is a generalist in perspective. The generalist that we had a hundred years ago, today would be superficial. And we simply require depth, in order to be able to address very critical, important problems, huge economic problems, and problems that simply aren’t going to yield to textbook answers.

Geraci: Did that create any dynamics of tension in the workforce. As you said, we are moving to where a master’s degree is needed; now all of a sudden, the doctorate is needed. What about the people that have been there thirty, forty, more years, and remember the good old days? Is there a tension that seemed to develop—And, also the fact that we now, with equity issues for both women and minorities, and affirmative action that resulted in an influx of women and people of color.

Gomes: All of them. You said, “Was that an issue?” Why past tense?

Geraci: [laughs] Still an issue.

Gomes: These are issues. There is no question the Cooperative Extension workforce in the fifties was white male. Cooperative Extension workforce in California today isn’t. Yes, there are white males. But there are many, many women, and women not in traditional home economics, nutrition roles only. There are men in these programs, as well. The description I made of waste management in dairy and the lagoon has been spearheaded in this state by a woman. We have women specialists, we have minorities. If one is to work with the Hmong farmers, with the Vietnamese farmers, with the Cambodian farmers of the Central Valley, if one is to work with Punjabi farmers of the northern Sacramento, or the Russian farmers—and these immigrants are just coming to this country—you at least had better be able to find somebody who does a good job of translating and builds some rapport. The last thing in the world many of these immigrants want to hear is, I’m from the government; I’m here to help you.

Geraci: That is probably the reason they left where they came from?
That’s exactly right. So to be able to build this requires that we have in our workforce bilingual, multi-lingual, multi-cultural people. And in order to do our job, we have to do that well. Was there pushback? Of course. Were there people who said, I grew up in this organization, and fifty years ago this is the way it was, and it was wonderful, and we were on top of the world, and you’re ruining it! Of course. In California, I’m pleased to say, there were more people who said, this is where we have to go. The question, for example, of PhDs and advisors is one that we have addressed routinely over the last several years. The question I had with my advisory councils of Extension advisors was, should we make it mandatory? And that becomes a real issue. Some will say, well, there are areas that we ought to be providing expertise out here that really don’t have good PhD level programs yet. Do we have exceptions, or do we say it’s preferable? And we wrestle with those every day. I think in twenty years, that won’t be a question.

Give it an opportunity to catch up.

Or find a different way to address those kinds of issues. The other thing that happened—

How has the agricultural community accepted this change in the diversity of the workforce?

There are two components to it. Again, the old time farmers who really loved the Extension advisor, who had coffee with him in the morning, was a member of the Rotary Club, worked with their kids at the fair every year, they miss that. This was Uncle Bill. It was a member of the family, it was somebody who was always there when they needed him. In many cases, it was somebody who was—Uncle Bill doesn’t do very good, but he’s a nice guy. As much as I want that relationship with the advisor and the community, we can’t afford a lot of nice guys sitting around out there that aren’t very productive. We didn’t have many. But that was the role that too many producers were happy with. Where we have advisors, PhD level or not, who are coming in and helping farmers address issues that are very, very important, and find solutions to those issues, the farmers are delighted. What they will tend to do is say, well, the people I have working with me are really great, but the rest of the organization’s gone to pot. Or, I don’t have enough people working with me, and that must be because you’re putting it all in nutrition programs. When the budget gets cut and I lose somebody, there’s a problem. If there was an advisor who was doing diseases of asparagus for years and years and years, and that advisor retires, we need another one just like that person, is always the mentality. Often pushed by the person himself or herself.
Geraci: Considering now that asparagus is still there, but we also have broccolini and a world of other things that we need.

13-00:14:41 Gomes: Of course. Of course. And if indeed we had one advisor for each of 280 commodities, plus the rest of them, we would have to have a budget a little larger than we have. So the reaction to change is mixed. The cry that we have routinely when we ask the producers about change in Cooperative Extension is, change anything you want, but leave my county based advisors alone. And so when one has an air quality specialist that’s supposed to cover five or six counties, you lose that personal thing. Those growers all want one of their own, but understand that some regionalization is necessary. So we’re constantly juggling between those people who say, look, close all the county offices and open ten regional offices; put them at the Research and Extension centers, which are relatively dispersed across the state; and they can work with email with the farmers. Well, if indeed, the advisor has no personal relationship with the producer and works by email, that advisor’s no better than Google. Why should I go to you? I can go right to the campus. Which many producers do. They graduated from that campus, they know the faculty at that campus, they know the researchers, and they say, I don’t need to talk to the advisor, I can—Wonderful! Except that the researchers can’t carry a clientele base, if you will, a huge base of people they interact with on a regular basis; they haven’t the time.

Geraci: Or the research suffers.

13-00:16:34 Gomes: Well, certainly. They won’t be researchers, if they do that.

Geraci: Right. They’ll spend more time answering their daily email than they will doing the actual research—So I guess what we’re saying is that there still is this role within that relationship, for the county, for the local for a much more specialized and educated agriculture workforce?

13-00:16:59 Gomes: Yes. There is a need for the local.

Geraci: Especially with the small farmer.

13-00:17:05 Gomes: Yes. We discussed earlier the question of a split personality in Cooperative Extension, with one group almost going back to where we started. With that kind of relationship, yes, the one-on-one, the developing of rapport, the understanding by the grower that we’re not government agents, but we are really there in their best interests and to
help where we can and get out of the way where we can’t, has to be built. You just simply can’t walk in and do it any other way.

Geraci: Well, one thing in looking at this particular issue and then remembering our past interviews—

13-00:17:51
Gomes: I’ll try. [laughs] Really try.

Geraci: You’ve been the type of personality that—and it’s a very admirable trait—able to go in and say, sometimes we have to be able to look at what we are doing and prioritize and that means some things will change. Politically, that is a hard [Gomes laughs] row to hoe.

13-00:18:18
Gomes: Yeah. There is an old saying that that which it takes to do the job is not always that which it takes to keep the job. [Geraci laughs] I would go one step further in what you just said. You described the need for change in response to changing needs. I think we almost have a need to get ahead of that. And that’s my point. Anticipate where we are going to have the most bang for our buck, where we are going to have our greatest role, our greatest ability to give in the future. And that may be very different from what we have now. To stop doing what you’re doing now is an extremely difficult, politically risk-ridden area. That is the only benefit of economic downturn. When you are forced to cut back, you frequently—there are exceptions to this—but you frequently can cut back selectively. Much of the time, you can’t, because your cutbacks simply come by retirements; you lose the senior-est or the junior-est people, and you can’t make very many programmatic decisions. But when you replace, refill, or recover, you can.

Geraci: So in some ways, there’s a silver lining to the receding budgets.

13-00:20:04
Gomes: It’s a huge black cloud; but yes, there’s a little silver lining around it, and you have to take advantage of that. So we came out of the downturn of the late eighties, early nineties, and that recovery was coming as I arrived here. It gave me the opportunity to help plan, map out the way in which we were going to begin that recovery. We had the next downturn that’s still with us. And I had hoped I wouldn’t have to turn that over to my successor, [Geraci laughs] but my successor now, as that begins to turn around—and I’m sure it will—will have the opportunity again to look at ways of growing in a somewhat new direction.
Geraci: How often do you need to, at least within this area, be looking for revising the future? Is it kind of like the old Russian system, where we had five-year plans?

Gomes: Every five years a new plan?

Geraci: [laughs] Yeah.

Gomes: Well, what we did, actually, was attempt to put criteria for doing some of these things. The executive council—essentially, the deans and the vice-president, the associate vice-president—sat down and said, all right, what are the major issues that we see as being important in the distant foreseeable future. And we had four or five. We said, okay, let’s keep these in mind as we plan, as we work towards our goals. Those major issues were things like water quality, environment, air quality. The issues you might have. One that wasn’t on the list—we wrestled with it; I kept pushing it and they kept pushing back, until about three years ago—was alternative energy. For some reason, that didn’t seem, ten years ago, to be something they thought was going to be very important.

Geraci: Well, I don’t know. Would it be fair to say that is important?

Gomes: Very important is the wrong word, but—

Geraci: Yeah, maybe ten or more years ago, we did not realize that we were going to be using biofuels.

Gomes: Yeah. Yeah. And that’s the time you want to anticipate it. What alternatives are there, and how can we build them in? Nonetheless, that level was there. We then developed, within that, some relatively specific criteria that the group still uses—or did; I think may still use—when it came time to hire new people. If we’re talking about an area, we would ask, is this an area where we can make a difference? Is it an area where we have the appropriate kinds of expertise surrounding or building forward? Or if not, is this a new niche that we have to be carving out, and we want to put some resources towards? Is it an area that we have a competitive advantage? That is, is it something that somebody else can do better than we do? And if so, should we just say, have at it? So the perspective on how we develop people and how we develop programs for a five- or ten-year period is one that’s regularly done. Those criteria and those issues are looked at annually. About every five years, there’s some real depth of discussion. But the concept, again, is one that will last as long as you wish to use it.
Geraci: Well, in some ways, maybe some of the concepts, the broader ones at least, have not really changed?

Gomes: No. As of now, no. Now, it may be that—

Geraci: It seems to me that a common theme to all of American agriculture has always been agricultural economics and making farming a profitable capitalist adventure.

Gomes: There has been quite a discussion, again in my career, of sustainability. And it’s a very important word that’s being applied to a lot of different areas, in addition to agriculture. There’ve been lots of definitions of sustainability. But I think for any agricultural pursuit, or perhaps any pursuit at all, if it is going to be sustained, it has to be economically sustainable. And that has to be a component of what we do. So how can you do environmentally friendly, or at worst, environmentally neutral agriculture? How can you do agriculture that is as free of potentially dangerous—potential contaminants as possible? How can you do all of this and stay in business? Has to be part of the formula. We ask those questions. We ask them on a regular basis.

Geraci: Just out of general interest—You mentioned the many, many different definitions of sustainability. How would you define it?

Gomes: Oh, something that will last a long time. [they laugh]

Geraci: At its simplest level.

Gomes: At its base, it does have that connotation of something that can last for a long time in an appropriate environment, and not disrupt the ecological system around it.

Geraci: Ecological system being probably the parameters or the margins that you have to define?

Gomes: Yes. We talk of global warming and global warming is real. I think the science is overwhelming that a component of the increase, a significant component of the increase is human caused, caused by human activity. But there is a huge natural global warming component, and there is, in my mind, no doubt that over the next ten-million years, we’re going to go through a very, very warm and a very, very cold age. That we’re going to change. Now, that doesn’t mean we accept what we do now and say, the devil with it. It means that the ecological parameters we’re using now have to be the ones that we work with;
but the overall understanding is that they may not be the same ecological parameters in the future. If Mother Nature says we’re going to change—not human activity but Mother Nature says we’re going to change—we have to understand that the ecology may change. The native plants and animals in California are not the same as the native plants and animals 20,000 years ago. So sustainability—Get through my grandkids and I’m okay.

Geraci: Mother Nature has the trump card.

13-00:28:16
Gomes: Mother Nature has the whole deck. [Geraci laughs] We are around the fringe of a deuce that we think is wild. [they laugh]

Geraci: And it is not very wild at all.

13-00:28:26
Gomes: It’s not very wild at all.

Geraci: One of the things, especially in longer interviews like this, that I like to somewhat wrap up in is that we’ve talked about a lot of different things over these six, seven interviews. Is there something that you feel maybe we have missed, or something that you would like to include? I personally always have those moments in my life where I finish a conversation and I walk away from it and go, “Dang! I should’ve said that.”

13-00:28:55
Gomes: I don’t know that there is something we’ve missed. An overriding component of what we’ve talked about that perhaps hasn’t been said is that the University of California, in its well over a hundred years, with its College of Agriculture now broadly defined, has played an intimate and critical role in the development of California. California agriculture, yes; but California as a place, as a place we live and work in. That role is as great as or greater than any other single component in the state and we should be celebrating that.

Geraci: I think we are losing track of that as a state, in that as our urban centers have expanded, and you have the megapoles of San Diego, Los Angeles and San Francisco almost blending into each other, we forgot that we still have this huge agricultural base.

13-00:30:17
Gomes: We have the number one agricultural state, and most people don’t know that. We also have a system that, given a degree of nurture, given a degree of respect, works. There have been hundreds, if not thousands of attempts around the world, and frankly, other places in the university, to duplicate what we do. The lines have never come in
context as they did in the late 1800s, early 1900s, to produce the same thing, free of many of the constraints that allowed us to grow and develop a personality. So we may never be able to do it again. It would be, in my mind, a real shame to continue to lose the one we have now.

Geraci: Because it may be the only one we have.

13-00:31:28
Gomes: I think it will be. People say, well, we’ll replace it with and this. We won’t. Our history says that we aren’t going to build something like this again.

Geraci: Could it be, back to my statement just a moment ago, that we have lost our mentality as a culture of agriculture. We don’t think of ourselves agriculturally any longer?

13-00:31:56
Gomes: Oh, no.

Geraci: As human beings do we think of ourselves in that urban experience?

13-00:31:59
Gomes: Yeah, I don’t think there’s any question about that. Most Californians would be absolutely shocked to learn that we’re an agricultural state. They just simply—They’ve heard it, but come on. Fruits and vegetables come from the store. They don’t come from California.

Geraci: And apples are grown year round.

13-00:32:20
Gomes: Yeah. If they aren’t on the shelves—I’ve told the story, I may have told it to you earlier. When I lived in Illinois, usually in February, we would have an alumni dinner at our home. And my wife would put on this great table with all kinds of hors d’oeuvres. She would make a list—in February, in Illinois. The ground was frozen, the air is frozen, there’s snow. Not a whole lot of things growing. She would make a list that included kiwi, a little caviar on top of another dish, and fruits and vegetables and all of these wonderful things, and she would go to the store with her list in hand. If she didn’t find something she wanted on the shelf that day, that moment, her first conclusion would be that the stock boy hadn’t done his job. It does not dawn on the consumer anywhere in this country that you may not have a product out of season, out of country, out of time, out of your shelf on any given day. That’s the expectation. And we’ve fulfilled it.

Geraci: Which means it is a self-fulfilling prophesy when we were talking earlier about global competition and being part of this global community. The consumer has grown to expect. And—
13-00:33:55
Gomes: Precisely.

13-00:33:59
Gomes:
No, you can’t. Indeed, if you do, you lose. Some years ago, one of our really advanced grape growers in the San Joaquin Valley noticed that when they put grapes in the market, they got their shelf space, which is really what farmers are after in the grocery store, shelf space. It’s the priceless commodity. They would get their shelf space after the season was going. So they missed the very, very early season, which frankly, was where the money was. If you go through a whole winter when the grapes show up, oh, we’ve got to get grapes; they’re a little expensive, but I want some grapes. They would miss it towards the end of the season, as it was tapering off. And then they’d have to fight again next spring to get the shelf space. Well, they said, “Look, we can import grapes from Chile in our off season, and we can export grapes to Chile during the season. Which means we’ll increase the market for our grapes and we’ll have some for our customers. And more importantly, we’ll have year round shelf space.” That concept is so widely used now. We mentioned kiwi. They provide it when we can’t, to us, we provide it when we can, to us and them. And it works. But it’s a global market. It’s a global marketplace. The farmers market of the world is so huge, the demand is so great that we aren’t going to find a way to replace that and stay in business.

13-00:36:06
Geraci: It also makes the case for why, within your system, you need to always be responsive to the large corporate structure. Because that accounts for, I would say, probably what, over 90 percent of all the food produced?

13-00:36:06
Gomes: Well over. Well over 90 percent. Every state has one; there’s a huge market in Chicago that everybody—everybody being the grocery stores and the restaurants, too—goes to in the morning to buy produce. If one wants to supply that marketplace, if one wants to supply Wal-Mart, those places and people are talking of carloads—that’s railroad carloads—of individual products every day. Your forty acres is going to run out very, very quickly.

13-00:36:52
Gomes: It won’t even make the first day.

13-00:38:52
Gomes: It won’t even make a little bit of the first day. So at the level that the American consumer consumes foodstuffs, the demand for production is so great and so high it has to be of uniform—It’s not just carloads, it
is of uniform quality, a certain level of ripeness. If you go to the lettuce fields in Salinas, they are separating out heads of lettuce in the field for different markets. If it’s off shaped, it’s going to be chopped up and put in a salad. If it’s this size, that will go to the Chinese market because they like that size. If it’s this size, that’ll go here because we prefer that size. All of that is known in the field. Decisions are made initially into which box those heads of lettuce go, because they’re going to come out in the grocery store. They aren’t going to be repacked and redone. They go from there to the store. The lettuce product that’s used for Caesar salad—

Geraci: Romaine.

Gomes: Romaine. Romaine is picked—if the market is low, they really will go for quality because there’s not much weight there. They’ll pull off the outer leaves in the field, they’ll package them six or three to a package in the field, they will be shrink wrapped in the field, they will go in and be cooled and on their way to Costco in New York in two days. You have to have planning and knowledge and market and transportation and systems. We have people growing flowers that have to be cut, cooled and put in the market within hours. They are growing flowers in Kenya, loading them on 747s at midnight so that they can be in the Dutch flower market the next morning at four o’clock. Every night.

Geraci: And then the Dutch flower market is selling and distributing those worldwide.

Gomes: Absolutely. Absolutely, that’s where they’re going. If you can’t produce it, somebody else will.

Geraci: Well, is this a resurgence? Have you done any work with farmer cooperatives? Because it would seem that the small—not necessarily the small farmers, but the medium sized farmers who cannot supply the big quantities suffer?

Gomes: The farmers cooperative ranges phenomenally. Brands, Sunkist was a cooperative, Sunsweet was a cooperative, Diamond Walnut. A couple of them have gone corporate. But these all were cooperatives. The milk production in this country is still largely cooperative driven. Milk marketing, not production. So the cooperatives still exist. But instead of being a general farmer cooperative, they became more and more and more specialized marketing cooperatives, and are run like a business. But the individual members still send all their walnuts, and they get sorted, and it is a cooperative kind of arrangement. To start a
cooperative for a new commodity, if there were a number of farmers out there, might work today, but the need for it in marketing is probably less than it was then. The very small people are starting, as we’ve indicated, in specialty markets, in farmers markets, in some of these places.

**Geraci:** Farmers are terrible marketers.

**Gomes:** Farmers historically didn’t believe that was part of farming. The mentality of the farmer during the days when we instituted great price supports for a lot of commodities, the mentality of the farmer was, it’s my job to grow it, it’s your job to buy it. And the buyers didn’t always believe that that was their job.

**Geraci:** Every city has its local produce markets with those serving as the middleman in a three-tiered system. Which has disappeared because, as you said, because of places like Wal-Mart that buy field direct.

**Gomes:** That’s right. That’s right. Not only field direct, they buy it pre-planting. They buy it on the futures market. They buy it delivered to them on either their pallets or pallets that match the exact measurements that they demand, of certain quality, any time. The nurseries are supplying the Long’s, grocery stores, all of these places that have plants—OSH supply. You see them, you go, you buy your plants. Those are coming from the nurseries on a consignment basis sometimes, on a “We are going to order nationwide, forty-seven carloads of tomato plants, and they have to be in our stores on this date” basis.

**Geraci:** Contract farming. Has that type of contract farming helped stabilize the market as far as boom and bust or having gluts?

**Gomes:** In some fields, where the contract marketing controls it. The poultry field. Almost all broilers are grown under contract. The birds are supplied by Tyson, if you will. The feed is supplied by Tyson, the regimen, the buildings are built by Tyson. The farmer is under contract X-number of bucks a year to grow X-number of birds a year. If you get your ten-million birds out of here, why, you make a good living. Yeah, that controls it. And the poultry market has not had busts and booms. In part, because more than almost any other commodity, the poultry market’s grown. It has continued to grow steadily over the years, and hasn’t reached the bust yet. Maybe it won’t. Maybe they can control supply at the final end, only to where they grow the market. In the last couple of decades, we’ve seen poultry go from something you might get at KFC, if you went out of your way to do it, to something that is in *every* fast food store. It is in every grocery story,
in forty-seven different varieties. Now, if you’re looking for chicken feet, [laughs] that’s another story. Those, we have shipped off. But chicken breast has become just a—

Geraci: The boneless, skinless chicken breast is a common commodity of fast food.

Gomes: Yeah. The only problem is, there are only two of those per bird, and there’s a lot of other bird.

Geraci: That is what Chicken McNuggets are for.

Gomes: That’s what Chicken McNuggets are for, that’s what the new ground chicken and turkey meats are being used for, because they fill a different need. So there’s a pretty good level of marketing, but those are largely controlled production markets.

Geraci: So what is the state—

Gomes: That’s true of Orville Redenbacher popping corn. The only people who produce Orville Redenbacher popping corn are people who are under contract to Orville Redenbacher. He provides the genetic line of corn, the circumstances, the whole bit. Lay’s Fritos has specific growers for specific corn to go into their product, because they want some specific characteristics to the corn, as opposed to just number two corn.

Geraci: Right. So this has become a very scientific process. Or a very market-driven process, in that I need to control all the parts of my production. I need to control the distribution. But I also need to control the natural resources that I’m using.

Gomes: Absolutely.

Geraci: And farming produces that natural resource, so—

Gomes: It’s an extremely interesting world, one that our predecessors—

Geraci: Would never have dreamed of.

Gomes: —just simply could not have dreamed of. You couldn’t say, well, gee, I produce Orville Redenbacher popcorn. What?
Geraci: It’s an ear of corn, right?

Gomes: Well, popcorn is different from regular corn, but it’s an ear of popcorn. Well, it isn’t. The market for bulk popcorn, outside of movie theaters, is gone. If you do popcorn at home, you do it in a microwave, individually bagged. You don’t have a sack of popcorn at home anymore, I’ll bet you. So the processing, the bagging, the marketing, the selection specifically of popcorn that will do in the microwave, dry, are all changes that have to take place. Then everything else—the packaging so you can open it without killing yourself, and yet without spilling popcorn all over the floor—are all there. You have the choice of getting one with low fat, one with artificial butter. I think you can get one now with Tabasco in it.

Geraci: Yeah, they have it all.

Gomes: They have it all.

Geraci: The kettle corns now, they call them.

Gomes: Yeah. They even have hot Spam in Guam and Hawaii. Bet that excites you, doesn’t it? [laughs]

Geraci: Yeah, right. Spam has never been what I consider to be a food source. [laughs]

Gomes: Those two places—

Geraci: Oh, it’s huge.

Gomes: —they’ll argue with you.

Geraci: Yeah. Spam in Hawaii is just an amazing phenomenon.

Gomes: Guam is the same way. For some reason, the island people seem to think Spam is good.

Geraci: What is the state, to finish up, then, of American agriculture today? California agriculture, maybe, to be more specific.

Gomes: California agriculture is not American agriculture. The state of California agriculture is healthy. It is under stress, it is under duress. It is dealing with issues of market and demands of retailers and issues of
environment and water and air and pesticides. It is dealing with the pressures of urban incursion. It’s dealing with huge land costs. It’s dealing with terrible shortages of water. But it is a healthy, vibrant industry, because it’s led by innovative, bright, capable, knowledgeable people.

Geraci: That follows through for the rest of the story you have told us.

Gomes: That’s why I’m here.

Geraci: [laughs] Well, is there anything else you would like to add, then?

Gomes: I think not. I think it’s been a great experience.

Geraci: Reg, thank you very much. This has been fun.

Gomes: It has.

Geraci: It’s been fun. Thank you very much.

[End of Interview]
Agricultural Sciences and Education in the 21st Century

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ABSTRACT: Rapid, ever-accelerating changes in science and technology will make current educational knowledge and systems obsolete as quickly as we reinvent them. Changes in demographics in our nation and changes in international trade will require us to encourage participation by all Americans, regardless of race or gender. Historically, change in higher education has faced strong resistance, but the establishment of the Land-Grant University system, the G.I. Bill, and other changes have encouraged participation by new groups of Americans. In order to take full advantage of all of the talent necessary to address the needs of a changing world, animal science departments and agricultural colleges must seek new partnerships to enhance recruitment of people from diverse groups, ensure that courses and curricula address the future, and encourage and promote women and minority faculty. Members of the American Society of Animal Science should continue to lead such changes.

Key Words: Agricultural Sciences, Agricultural Education

Introduction

As agriculture and higher education enter the next millennium, several critical factors will influence their direction and the changes that they undergo. Changes in science and technology, involving most notably the electronic and biotechnology arenas, will be more rapid than ever in history. These rapid, ever-accelerating changes could make our technologies and our educational systems obsolete as quickly as we reinvent them; they will alter our approaches to education and science, our political structures, and our very lives. Because of the speed and the magnitude of these impending changes, we are no longer dealing with evolutionary adjustments, but now face revolutionary alterations in the way we do things. We can be the architects of that revolution, or the victims of its outcome. I submit that we should be the former.

When Professor M. T. Yokoyama, on behalf of the Women’s and Minorities’ Issues Committees, asked me to prepare these remarks, he suggested that I should emphasize one of the more important arenas of change, an area that will be critical to all of us: changes in human resources, in people, and the ways that those changes will affect agricultural science and higher education.

If we are to have a guiding hand in ensuring the utilization of all people who can be important to our system, it seems imperative that we know who they are and where we are. It may also be instructive for us to examine where we’ve been: not to maintain the status quo, or to revere the past, but to help us plan where we’re going.

It has been said that “tradition without revolution is empty; but revolution without tradition is blind.” If agricultural science and education are to be meaningful, we must lead that revolution, but we must do so mindful of our traditions.

The Development of Agricultural Education

The Beginnings of Agriculture. About 10,000 yr ago, people fit fairly generally into two categories: the hunters and the gatherers. Then, at the edge of a spring-filled oasis about 20 km from what is now Jericho, people began to domesticate animals and plants, and the first farming village was formed. Agriculture was born. From this village and others appearing over the next 5,000 to 6,000 yr in the Nile Valley of Egypt, the Yangtze River of China, and a dozen other places (Smith, 1985), people were freed from the virtual daily toil of hunting and gathering food to become teachers, artists, healers, all leading to an efflorescence of culture, and the real birth of civilization.
History hasn't recorded information about the people who first domesticated animals or planted seeds, but somehow I don't think they were the best hunters or the most proficient gatherers. I think they may have included the thinkers and the dreamers. Many years later, George Bernard Shaw (1921) wrote, "You see things and you say 'why'? I dream things that never were, and I say, 'why not?' I think the founders of agriculture were men and women who asked "why not?", who suggested that there might be new ways, different from the old ways, to make life better. I suspect that they faced derision and contempt, that they were ridiculed for their ideas and reviled for trying to destroy a successful system. But they started a revolution that changed the face of the earth.

The Land-Grant University System. A century and a half ago, a group of people in this country argued—not for the first time—that colleges should be established to offer practical education for youth in the agricultural and industrial classes. At that time, universities encompassed four competing educational ideologies, all seeking prominence, even dominance, in this country (Ross, 1976).

The "mental discipline" school assumed that enforced contact with Greek and Latin grammar and mathematics sharpened mental faculties, enhanced strength of character, and was conducive to disciplined work habits. This school of thought came primarily from the religious college mold, and even though it has largely disappeared today, it still has strong remnants in our educational philosophy.

A second educational philosophy was the cultural school, originating in Paris and London, with emphasis on the need to develop aesthetically sensitive, "all-around gentlemen," with learning based in the liberal arts, of which there were then seven: grammar, dialectic, rhetoric, geometry, arithmetic, astronomy, and music. In some institutions today, this philosophy, properly updated, of course, is still dominant; in others, it has waxed and waned with time.

The third ideology was based on the German concept of the research university, a concept central to the formation of Johns Hopkins University and the University of Chicago (where Robert Maynard Hutchins noted that "the University exists only to find and to communicate the truth").

Fourth was the philosophy of utility, which sought to make education useful, practical, and of public service. With roots in Italy, this philosophy led people such as Jonathon Baldwin Turner to champion the land-grant university movement (Moore, 1970; Campbell, 1995). He and others convinced the General Assembly of Illinois to request in 1853 that Congress form a nationwide system of practical colleges. In 1859, Justin Smith Morrill, Congressman from Vermont, saw his Land-Grant Act passed by Congress, only to be vetoed by President Buchanan. In 1862, Abraham Lincoln signed the Morrill Act, and an entirely new system of universities was formed.

The new Land Grant system was to emphasize utility, over the outrage of the existing educational community. Indeed, it may have been this outcry that caused Morrill to write a liberal education component in combination with utility as the driving forces for the land-grant institutions. The new university also included the concept that practical learning ought to be based on science, a German idea, leading directly to the later formation of the agricultural experiment station system (Kerr, 1987).

But, as much as this was to be an institution for the people, leading half a century later to the nationwide cooperative extension service, there was an even more revolutionary component to the American Land-Grant University. It was a component that horrified the establishment: This was also to be a university of the people. It was to admit farm kids. Common folk. Clearly, it would destroy the quality of the university, they argued. It would undermine the independence of the faculty. It would lead to the downfall of the nation.

It didn’t. It led instead to an infusion of new people with new ideas, new questions, and new vigor. It led to unprecedented growth in education and national literacy and the development of the world's largest middle class. A revolution had taken place in higher education.

As Campbell wrote in his 1995 book, Reclaiming a Lost Heritage, "Land-grant universities truly created a new social force in world history. Never before had universities been so closely linked with the daily lives of their clients and constituents. The university campus came to be recognized as one of the most heavily traveled crossroads in America...the cloister and the ivory tower, largely male-dominated, were replaced by academic and practical opportunities open to all." Even though that is largely true, I’m going to risk amending the words of my good friend to read "...open to most." In 1890, Senator Justin Morrill, noting that land-grant institutions in the south were segregated, authored a new act creating land-grant university opportunities for people of color—but those people were still segregated by color. People of color didn’t believe that full and complete opportunity at land-grant universities in the south, or the rest of the nation, was open to them. Many still don’t. As well, while the sons and the daughters of farmers and businessmen went to the new universities, their hired hands and factory workers didn’t think the universities were open to their sons and daughters and, perhaps in part because they didn’t think they were open, they weren’t open.

The G.I. Bill. When my grandparents immigrated to this country a hundred years ago, and thousands of Mediterranean nation immigrants joined them, they didn’t think education for all included their children—so it didn’t. And the children of the dust bowl described so accurately in Steinbeck’s Grapes of Wrath
FUTURE OF AGRICULTURAL SCIENCES AND EDUCATION

didn’t think higher education was an option, nor did the children of the newly-arrived Dutch, Chinese, Japanese, Filipino, or Mexican immigrants. They were told, and too often they told themselves, that they couldn’t compete. So they didn’t. They were told they weren’t smart enough, or persistent enough, or that they wouldn’t “fit.” And we believed it, and it was so. Then, Johnny came marching home again. This time, from World War II. This time, with a newborn confidence in his ability to succeed at anything he tried. This time, unwilling—and unable—to return to the life he left. And Congress was convinced, again, to make sure the university was of the people. So, President Franklin D. Roosevelt, in 1944, signed the G.I. Bill.

The establishment was horrified. The Washington Post, in 1994, reported: “At the time of its creation, some educators despised this bill and fretted that university standards would slip” (Brady, 1996). There was concern that this would destroy the quality of the university. It would undermine the independence of the faculty. It would lead to the downfall of the nation.

It didn’t. It led instead to an infusion of new people with new ideas, new questions, and new vigor (Brady, 1996). It led to unprecedented growth in education and a stronger, more vigorous economy. Another revolution had taken place in higher education.

Government Intervention. But the opportunities were not yet open to everyone. When Johnny came marching home, “Juanita” was supposed to return to “her place.” If it was in higher education, she could major in education, home economics or nursing, but she should not intrude into “men’s” fields. When I was a young faculty member, I advised hundreds of undergraduate women in the animal sciences, most with a goal of getting admitted into veterinary school. Their grades were as good as the men’s, or better, even though they might have faced greater obstacles (Thomas, 1989; Rosser, 1993). Yet my recollection is that women consistently constituted only 7% of the students admitted, and virtually all of those admitted were interested in small animal medicine. When I asked why, I was told that women were not strong enough to handle large animals; that women were not durable enough to handle the schedule of a farm animal veterinarian; and, even if they were strong enough, durable enough, and good enough, the farmers wouldn’t accept a female veterinarian. Besides, women would get married and raise children and quit their practices.

But the veterinary schools were told, finally, that they could not use such biased stereotypes in admitting students, in training veterinarians, or in placing professionals. Many complained that this would destroy the profession.

It didn’t. It led instead to an infusion of new people with new ideas, new questions, and new vigor.

About the same time, I asked a contemporary of mine, at another school, how he was progressing in filling an open position. “We hired a person,” he told me. “That’s good,” I replied, “who was it?” “No, it’s not good,” he replied. “They hired a person—a woman—just to show how liberal they are.” I won’t tell you the name of the person hired back then, but most of you would recognize it instantly. She has had a remarkable career. The man is now an Associate Professor Emeritus. Most of you wouldn’t recognize his name.

Because of these and other real and perceived problems, the government, in the 1960s, instituted widespread programs with immense bureaucracies that were to correct all of the ills that exist in our society and our institutions. So, where are we today?

Current Demographics. Women now make up 45% of the undergraduate student body in agriculture (57% in animal sciences) (FAES, 1996) and 63% of the nation’s veterinary students (Anonymous, 1996c), and they receive 39% of the M.S. degrees and 23% of the Ph.D. degrees in agriculture (Anonymous, 1996a,b). We see increasing numbers of women in faculty positions in the animal sciences, reaching 20% of the total departmental faculty at one institution (Michigan State). The 1996–1997 president of the American Society of Animal Science was a woman, Barbara Glenn. Before 1993, no Land-Grant College of Agriculture had, or to my knowledge had ever had, a permanent dean who was a woman. Now there are four. However, I know of no animal science department or no agricultural experiment station that is administered by a woman. Obviously, we have increased representation by women in many arenas. Just as obviously, we have room to improve, especially at the top.

Total minority enrollment in agricultural B.S. programs is 14% nationwide, and just under 12% in animal sciences. In both cases, enrollments have more than tripled in the last decade. Five percent of our graduate students in animal sciences and 7.7% of veterinary students are minorities. That’s better than it was. Is it good enough?

The Future

Where do we go from here? Several things seem obvious.

Agriculture is increasingly global. Our markets are increasingly international. Jobs for our graduates will

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be worldwide, and competition for those jobs will be worldwide.

The world is not made up of white men. One of five people in the world lives in China. One of three lives in China or India. The fastest-growing populations of the world are in Africa and South America.

The United States is decreasingly made up of white men. About 72% of U.S. citizens are non-Hispanic whites. According to the USA Today of July 23, 1996, 51% of Americans under 20 yr of age are non-Hispanic whites. This group is growing at the rate of 3.1% annually; the Hispanic population of Americans under 20 is growing at the rate of 22.5%/yr; and the Black population at 5%. The Asian population is increasing at a 33% rate, and Native Americans at 7% (Anonymous, 1996d).

Ninety percent of the growth of the workforce over the next 5 yr will be made up of women and minorities (Thomas, 1989). What can we do in the animal sciences? We can show these potential students that there are interesting, exciting career opportunities open to them in our field. Most don’t believe there are careers open to them, or that they are interesting or exciting. We have to work with people much earlier than we have—where they are rather than where we are—and for much longer than we have in the past.

How many of our 1862 Land-Grant Institutions have set up true partnerships with 1890 Land-Grant Institutions? With 1994 Land Grant Institutions? How many of us have worked with high schools or in communities largely populated by African Americans or Latinos?

We can make sure that our courses and our curricula prepare all of our students to function in their future—and not in our past. We can work to make women’s and minority committees an integral part of our organizations, not an afterthought.

When Professor Yokoyama asked me to prepare this talk, he asked me to address the question, “Why should we bother promoting women and minorities?” Should we do it because they were subjected to bias and discrimination in the past? Perhaps. But not all of us feel personal guilt, including some who should. Should we do it because it’s the right thing to do? Perhaps. But altruism is not a driving force for much of our group: most professionals worked hard for what they have and many want to keep it.

I am convinced that we should promote women and minorities in our society because it’s good for all of us: for African Americans, for Latinos, for Asian Americans, for women. But mostly I am convinced that it’s good for the society, including the white middle class men in it who truly want to be a part of the system in the next century (see Rudenstine, 1996).

Implications

We live in a diverse world. We live in an increasingly diverse society. To repeat my introductory remarks, we live in a changing world, a time of rapid accelerating change that will dramatically alter agriculture, our educational institutions, our political structures, our very lives. Because of the speed of those impending changes, we will be faced with not only evolutionary adjustments, but revolutionary alterations in the way we do things. We can be architects of that revolution or the victims of its outcome. I submit that we in the American Society of Animal Science should be the architects of that revolution.

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Reg giving speech in Redding, California
Reg in a Napa vineyard
Reg in a demonstration garden
Reg and UC President Dynes on a dairy visit
Reg cruising through a Ventura citrus orchard
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