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Bumpers College Oral History Centennial Project

Interview with

Lionel Barton
Fayetteville, Arkansas
16 May 2006

Interviewers: Teddy Morelock
[Also present: Randy Luttrell]

Teddy Morelock: Today we're visiting with Dr. Lionel Barton, who is a retired extension poultry man with the University of Arkansas. Lionel, where were you born and where did you attend public school?

LB: I grew up on a farm ten miles south of Magnolia, which is in Columbia County. In fact, during my career, making talks over the state, I told people I grew up on a two-mule cotton farm. I said, "If you don't know what that is, it's a farm that was never big enough to afford a tractor."

TM: Well, that answers my next question. It was a cotton farm, then. Did you grow other things?

LB: Yes. We were a little different than the fellow that had forty acres and grew corn. They said, "What do you do with the corn?" And he said, "Well, I feed it to the mule." We had twenty-five acres of cleared land out of the eighty-acre farm. We

would grow anywhere from eight to twelve acres of cotton and eight to twelve acres of corn. We had pea patches. My dad grew both sorghum and ribbon cane, or sugar cane. I asked him one year why he grew both, and he said, “Well, some years one would fail, but you never had both of them fail the same year.” We always had both kinds of syrup. We harvested syrup [with the?] cane—take it to the mill and get it made. In fact, my dad cleared his farm in 1935, and the going—he didn’t have cash, so people worked six days a week, and he paid them fifty cents a day, three days a week. And the other days they got a gallon of sorghum syrup. So syrup was a tradable commodity back in the 1930s. Ours was a subsistence farm. We had a sharecropper on the farm, and my dad worked in town. Once school was out, the sharecropper and I made the crop.

TM: Well, I know you’re interested in vegetables. Did you grow things other than peas or just pretty much grew a large garden?

LB: Yes, it was mostly a large garden. In fact, we didn’t really grow the peas to sell. You may not remember, but back then about the only peas we had were what was called whippoorwills—purple-hull whippoorwills was a variety that I guess had been a longtime variety. It was not a very good pea for eating, but it was resistant and would stand up in drought. In fact, we planted peas in the corn meadows when we laid by [meaning, “harvested”] the corn. Back then, Dad grew open pollinated corn so we could take some of the corn to the grist mill to grind for corn meal. We planted six-foot rows, and when we laid by the corn, we planted the middles with peas. And then we harvested some of the peas, and the others were for the cows to winter on. So all those kinds of things are long gone. But,

you know, you saved all your seed. You didn't order new seed from the catalog. Most of the other vegetables that we grew were just for our own use, but some years you would sell peas. In the fall we'd pick dry peas in cotton sacks, and a pea thrasher would usually come around once in the fall and shell all the peas you had. You might have a few hundred pounds of dry peas to sell.

TM: I know that you've personally grown collards for sale. Did you grow collards in those days?

LB: My mother didn't like collards, so we didn't grow those for our use. We grew turnip greens. She liked turnip greens and radishes. Now, my dad grew collards after he retired and had a garden. He picked those and sold them in town. He had a pretty good line of customers that he would sell collards to, really starting about now and going all the way through the end of the year because, you know, in south Arkansas collards will over-winter. But he picked them every other day, and at the end of the season he'd have a collard stalk about three foot tall and half a dozen leaves up on top.

TM: Looked like a palm tree.

LB: Looked like a palm tree. [Laughs]

TM: Were you the first in your family to attend college, Lionel?

LB: Yes, the first on either side of my family—either the Barton or the Dyson side, except after I retired and got into genealogy, I found out that there was a Dyson in the 1850s—graduated from Mercer College in Georgia with a college degree. So I just *thought* I was the first on either side.

TM: [Laughs] First in Arkansas, anyway.

LB: First in Arkansas. Yes. My ancestors came from Georgia on the Barton side and Alabama on the Dyson side and the [Mayna?] side. Arkansas was pretty well settled. The southern part of the state was settled by people mostly from Georgia, Alabama, and South Carolina. Northern Arkansas was mostly settled by people from Tennessee and Kentucky. In fact, the joke about northwest Arkansas is that most of the people from northwest Arkansas came from Tennessee and Kentucky. Most of them were in some degree of trouble, either financially or criminally. And those who weren't in a lot of trouble stayed in northwest Arkansas. And if they were in a *lot* of trouble, they went on to Texas.

TM: I think Dr. Luttrell is from Texas. [Laughs] I know that you graduated from the University of Arkansas, but was that the first college that you went or did you go to Southern State College?

LB: I graduated from high school in 1954, and had saved enough money growing hogs and I had a steer—a few things like that in 4-H and FFA [Future Farmers of America]. I had about \$700, and I thought I could go to college a year on that. I went to what was then Southern State College. Working part-time, at the end of the year I still had about \$600 or \$700. So I went a second year. I thought that would be it, and after two years I still had about that much money. I thought, “Well, that’ll be good for one year at the university in Fayetteville.” So I and two of my fellow classmates from Magnolia moved to Fayetteville in September of 1956 in one of the fellows’ 1949 International truck. We broke down in Y City, and he hitchhiked back into Mena, and bought parts and worked on that old truck until about midnight and got it fixed. He started it up and it sounded really good.

We took off the next morning and got all the way around the curve to that restaurant there at Y City, and it started knocking again. We came all the way to Fayetteville about twenty-five or thirty miles an hour. So that's how I moved to Fayetteville as a junior in the fall of 1956.

TM: Well, what did it look like in the big city in 1956?

LB: You know, northwest Arkansas was a lot different than it is now. I think Fayetteville was, I don't know, maybe about 10,000 people. The university had, I think, 5,000, 6,000, or 7,000 students. I do remember that tuition was \$60 a semester the first year I was here. In my senior year, it went up to \$75, which was a twenty-five-percent increase. Most students didn't have cars. If you could find someone that had a car, they would take you out to the south side of town near the railroad tracks, and you could hitchhike. Back then, people would pick up college students and servicemen. It was not hard to hitchhike from here all the way to south Arkansas. In fact, a few times we'd gotten rides that we'd get on in Fayetteville and the fellow would put us out in Texarkana. But Fayetteville was much smaller. There weren't near as many things to do. Of course, we had movie theaters and that sort of thing. I can remember these hills seemed mighty steep for someone who grew up in south Arkansas on relatively flat land.

TM: Well, not having a college in your family, why did you decide to go to college? Did your parents want you to?

LB: My mother pushed us to go to college. My mother had a ninth-grade education, and my dad had an eighth-grade education. When they grew up the only high school was in Magnolia, and you had to board in town. There wasn't

transportation to get to town. So with her ninth-grade education—if Mother had had an education, she could've been anything she wanted to be. She was a very sharp person—had a lot of talents—could do a lot of things. So she pushed myself and my two sisters to go to college. In fact, when I graduated in 1958 with a B.S. [Bachelor of Science degree], Mother and Dad came to Fayetteville—saw the graduation. My sister graduated here in 1959 with a degree in library science. I came back again that year, and I graduated with a Master's [degree] in 1960. They were back to see the graduation again. That was a high priority in my mother's timetable. So education-wise, she was a strong influence on me to do well in school.

TM: Well, now, your mother was obviously an influence on the idea to go to college. Who would you say was the most influential person in your career choice—what you went into?

LB: Well, probably Mr. Orville Childs at Southern State College. My vo-ed [vocational education] teacher was Cameron Dotson at Magnolia [High School]. He was a strong influence on me. I was the president of the FFA my junior year and had showed pigs and steers and a dairy heifer at the county fair and at the state fair. But I guess my career in poultry nutrition occurred when I took “Feeds and Feeding” under Mr. Childs. I was interested in nutrition, and at that point I didn't know whether it would be poultry or swine or whatever. I guess what narrowed it down to poultry—when I came to the university here and got a part-time job working for Dr. Stephenson, one of his graduate students was Dr. James Tollett, who is now the head of the ag [agriculture] department at SAU [Southern

Arkansas University]. He was doing his research on [sounds like: gosupall?] in baby pigs. My job as a student laborer was to clean up after those baby pigs.

With the odor associated with baby pigs and bigger pigs, that probably made the decision to go to poultry nutrition rather than to swine or beef cattle.

TM: Well, now, was he a brother to Leland Tollett?

LB: Yes, he was. He was the oldest child. In fact, the really impressive thing about that family—there were four boys and four girls in the family, and all eight of the children got a college degree. Of course, James and Leland supported most of the younger ones getting through college.

TM: Who were some of the instructors here at the university when you came?

LB: Well, being interested in nutrition, I needed to get a part-time job under Dr. E. [Edward] L. Stephenson, who was the poultry nutritionist on the faculty here. Others on the faculty at that time—in fact, the department head, which was a combined animal science department, was Dr. Warren Gifford. Dr. Stephenson was in poultry nutrition. Professor Robert M. Smith was still working. He had been the original poultry faculty person starting in the 1920s. In fact, during the war [reference to World War II], it was just he and Dr. Gifford. The story is that Dr. Gifford milked the cows and Prof Smith took care of the chickens because they didn't have any farm help during the war. But Paul Noland was in swine nutrition. He's been a longtime friend of mine, and I had courses under him. Ken Scott was also in nutrition—worked mostly in swine, but a little bit in—Maurice Ray was in beef cattle. Dr. Connell Brown was in beef cattle genetics. The two of them mostly utilized the beef herd on the Savoy farm out west of town. Harry

Colvin was a lab nutritionist. I wouldn't say nutritionist—I guess just a lab person, and I had “Laboratory Methods” under him. He didn't stay. He left. The ones that stayed until retirement, of course, was Dr. Stephenson, Dr. Ray, Dr. Brown, Dr. Noland. Dr. Giles was in genetics and came here from—I guess Cuba or the Dominican Republic—Haiti—one of the islands off the coast. He had an accent all his career—still has an accent.

TM: [Laughs]

LB: There were a few others. Mr. Marshall [Haig?] coached the livestock-judging team. I had “Livestock Judging” under him. J. C. Gilbraith was in poultry, and he coached the poultry-judging team. He later left and went back to Oklahoma State University, where he had originally been.

TM: Was Dr. Odie Stallcup here?

LB: Dr. Stallcup was in dairy. Dr. Earl Garrison was in dairy products. [Hosey Fincher?] was the dairy plant manager, which was in the basement of the old dairy building. In fact, all the faculty were in the old dairy building, which is where, I guess, the new students come. It used to be a swimming pool there, but they tore it down. It's at the corner of Maple and Garland now.

TM: I know exactly where it was. I had classes there.

LB: Okay. It was a three-story building with a basement. I think it was built in 1908 or something like that. When I came here in the fall of 1956, the A and B wings of the animal sciences building had just been completed, and there were five of the faculty over there in offices. There were offices between the A and B wings as you go down that hall. Dr. Stephenson, Dr. Connell Brown, Dr. Collvin, and I

don't remember the other two. David Andrews came on the faculty while I was a student—maybe a graduate student, and there are others that I don't think of at the moment.

TM: Your Bachelor's degree was probably in just general agriculture, wasn't it?

LB: No, it was in animal nutrition.

TM: Really?

LB: Yes.

TM: Okay.

LB: They had a degree program, and there weren't too many degrees. There was an animal science degree. There was an animal nutrition degree. There was a poultry science degree. And I don't know what on this side of the campus. I don't know whether each department had several degrees or not. My B.S. was in animal nutrition and my Master's was in poultry nutrition. The difference in animal nutrition and a poultry science degree was primarily the biochemistry. In fact, one of my classmates that wanted to be in poultry nutrition that just couldn't cut the chemistry and went on to a very successful business life was Ken Bowen, who started and ran Bowen's restaurants all over the state for many years.

TM: What got you interested in poultry nutrition—working for Dr. Stephenson?

LB: No, I was just interested in nutrition. You know, swine and poultry, both being monogastrics, the nutrition is very similar, so I was interested in one of those. Just the fact that there was so much less odor with the poultry than the swine—see, I had grown pigs all the way through high school until I got into college, and really liked swine. In fact, my first project was swine. My dad worked for the

city at that time in Magnolia and was a parking meter policeman. The mayor [sounds like: had a Durock Allen?], and he gave me a pig at eight weeks old.

That's how I got my start. Then I got a got a [Poland China?] that was a chain pig deal where you got the pig free and when you raised it up and grew the first litter, you gave back a gilt to some other deserving student. So that's how I got started.

It turned out that my [Durock?] gilt that the mayor had given me—she had seven pigs, and you could fill all the classes with those seven pigs. We castrated three of the boars, so that was a [Pinto Barrows?]. We had one boar and three gilts, and that [] a sire [] was a boar and three gilts. So it filled all the classes.

And I wound up finding out that the sow couldn't be registered, so I sold her along in May or June, and that fall I had the grand champion [Pinto Barrows?] out of that group.

TM: [Laughs]

LB: That was a big way of how I went to college was having that grand champion [Pinto Barrows?]. But unfortunately I couldn't get the sow back to—so I bought another sow, another [Durock?] and later had a Hampshire and something else, but never got to the top like that. Just the one time and that's it.

TM: [Laughs] After you finished your Master's here, you went to Michigan State [University]?

LB: Well, actually, I was in the service in the meantime. Of course, I was eligible for the draft, and, you know, I had that hanging over me, so I decided to get into the service. So I decided to go in the air force. I applied for the air force and took the physical and made the mistake of telling them I had hay fever, so that failed a

flight physical. They weren't taking pilots, they were taking navigators. So I turned around and applied for the navy. They were taking pilots. I wasn't really sure I wanted to land on one of those postage stamps [reference to landing on an aircraft carrier] out there in the ocean. Anyway, I applied. I knew the lady down at the draft board, and she told me she'd let me know if I was going to be drafted. So one day she called me and said that if I didn't get into something this week, I was going to be drafted next week. So I went downtown and joined the army reserve. I went to Fort Leonard Wood, Missouri, and was about halfway through basic [training] when a letter came from the navy saying, "Report to Newport News, Virginia," on some such day in July, that I had been accepted for pilot training in the navy. And there I was, big as life, in the army. So my six months' active duty ended up—during the Cuban Missile Crisis my unit got activated in October or November of 1961. So then instead of six months, I did fifteen months. When I got out on the eighth of August, I got married on the tenth of August—came back here for two years and thought I'd get a Ph.D. here. We tried to work out a deal where I could go to the med[ical] school in Little Rock and take some courses, but it didn't work out. After 1964 I went back to Michigan State, and three years later got a Ph.D. and came back on staff here in 1967.

TM: How did you wind up back here? Was it a job that just happened to open or was there one sort of waiting for you?

LB: In the 1960s there were a lot of jobs in poultry—particularly, poultry nutrition. I talked to Ralston-Purina [Company]. I never did interview, but they were hiring in St. Louis [Missouri] really big. One of our graduates was Dr. [Daryl?] Green.

He was vice president of research at the time. There was a job in Saskatchewan, Canada. There was a job with Frank Purdue on the [shore?]. Leland Tollett tried to hire me at Tyson [Foods]. I debated between Tyson and the university, and I took the university job. I had people ask me many times since, “Do you ever think, ‘What if you had gone to work for Tyson?’” I said, “Well, yes, I think about that every now and then.” They said, “What do you think?” And I said, “Well, I’d either have a lot of money or be dead.” [Laughs] But the job here at the university was with the extension [service] in Little Rock. The previous holder of the job was Dr. James Minor, who had left and gone to work for Pilgrim Industries in Pittsburg, Texas. So they offered me the job. They said, “We’re thinking about moving it to Fayetteville,” and I said, “I’d be more interested if you *were* in Fayetteville.” So they made the decision to move it to Fayetteville. I was the first one in that position to hold the job in Fayetteville.

TM: And you were one hundred percent extension when you came back?

LB: Yes. Later on from about 1971 to about 1976, I had a joint research extension appointment. But then I think it was 1978 or 1979; I went back to full-time extension and worked the rest of my career—even though I was housed here. Of course, I was still administered in Little Rock, but housed in the animal science building. But when the new poultry center was completed—well, before it was completed—when the poultry science department was created, then my boss became Dr. James Denton—the poultry science head.

TM: What was the poultry industry like when you came back?

LB: We were growing—during that time was just—in 1967 we were second to the

state of Georgia in broiler production, and we passed them in 1971. We became the number one broiler producer and stayed that way until after I retired. And since that time Georgia has passed Arkansas back, partly because northwest Arkansas is growing in people so rapidly that the poultry industry is kind of being pushed over into Oklahoma and up in Missouri and other locations. A lot of broiler farmers are deciding that they like that \$15,000, \$20,000, or \$30,000 an acre for the land. They'd rather do that and sell that land off than to grow chickens. But the poultry industry was rapidly growing. We were getting into computer technology. We were one of the first extension groups in the nation to get involved in feed formulation for poultry. Of course, that's what I got involved in. Later—I guess it was in about 1980—we got our first Radio Shack computer. They called them TRS-80, I think. It was a four megahertz machine that—we could do a poultry ration on it, but it would sit there and crank and grind for about three minutes before it would start spitting it out. A few years later, I got an IBM [International Business Machines] Model 80, which was all the way up to a twenty-seven megahertz machine. With it, as soon as you punched in your data and hit enter, it started printing out the ration. So I did not only poultry rations but because I was trained in nutrition, I did beef rations and swine rations and dairy rations and such odd rations as rabbits and a few things like that.

TM: That was sort of my next question. Did you work with primarily broilers or just all across the spectrum?

LB: I worked pretty much across the whole poultry spectrum until we got into this feed formulation thing with computers. Then I was in demand to furnish rations

for—the county [extension] agent had a producer out here that had rabbits that—he was trying to get big enough to mix his own feed. It was pretty easy to save him money over what he was paying out at the local feed store, so that was a popular item. The county agent could make some points with his clientele out there by saying, “I can get Dr. Barton in Fayetteville to do your rations. All you give me is what you can buy the ingredients for.” So we did that. Then I got into beef cattle in the mid-1970s. We had a drought in 1977. The university extension service in conjunction with the [Forest?] Grassland Council had a series of three meetings in Fayetteville, Conway, and Hope. I got the job of talking to that group of people about feeding poultry litter to beef cattle, and consequently became the “expert” on feeding poultry litter to cattle. So from then until mostly the end of my career, I was the person they came to for advice on feeding litter to cattle. I got into a few raised eyebrows a few times. I was on a program out at Lubbock, Texas, one year talking about feed mill safety. That Lubbock program was the West Texas Cattle Feeders Association. It was an association of about 120 cattle feedlots in Texas, New Mexico, and Colorado. I was well received on the program except a few of the people wondered why a chicken man was out there talking to a group of cattle feedlot people. We had done some work on preventing dust exposure in feed mills, and that was why I was invited out there. So sometimes you get into some of those kinds of things and you’re the “expert.”

There’s kind of a dividing line between chickens and cattle, you know?

TM: Sometimes a pretty *major* dividing line. [Laughter]

LB: Yes.

TM: Who were some of the [poultry] industry leaders? How did you as a university person interact with these people?

LB: You know, I was really fortunate in that regard because some of my classmates in college became leaders in the industry. For example, I mentioned Leland Tollett trying to hire me when I got out of school with a Ph.D. He was a classmate of mine at both SAU and here at the university. He got a Master's in 1959 and went to work for Tyson. When I got out of school in 1967, he was vice president for production, and he later moved up in the company. Bob Hendricks, who was a classmate of mine, is now the vice president at Pilgrim in Texas. [Garv?] Green was the vice president of research at Ralston Purina. In fact, there was a time there that Arkansas probably had more influence in academia and industry across the nation in poultry than any other school. Bob [Harms?] was head of the poultry department at the University of Florida. Bill Barnett was the head of Clemson's [ClemsonUniversity] poultry department. Tom Sullivan was a nutritionist on staff at [the University of] Nebraska. Robert [Robertson?] at [the University of] New Mexico. Keith [Rinehart?] was vice president of research for Purdue Farms in Maryland. So all these people had these degrees from Arkansas—not Ph.D.s, because we didn't have a Ph.D. program until 1960. In fact, the first Ph.D. in ag school was a poultry nutrition major. It was [Daryl?] Bragg, who graduated in 1960 with a degree in 1960 in the college of ag. And he later went on to be the department head at [the University of] British Columbia. He's retired now and living in Idaho, I think. But to answer your question, the people that I had an opportunity to work with in the poultry—many of them had

become decision-makers, and they were earlier classmates of mine. So I kind of had an inside track in a lot of those cases.

TM: Never hurts.

LB: That's right.

TM: How did the industry change during your career? I'm sure that there must have been *some* change that occurred.

LB: A lot of the changes that occurred—you know, in the 1930s, 1940s, 1950s, and even the 1960s, most of the progress made in the poultry industry was nutrition. Better rations, pelleted feeds—these sort of things. But since that time, very little nutrition progress has been made. We know very little more than we did then. In fact, for the last fifty to seventy-five years, we've known more about poultry nutrition than we have about *human* nutrition. But the recent progress from, say, the 1960s on has been largely genetic. When they had the "Chicken of Tomorrow" contest here in 1951, it took about twelve weeks to grow a three-pound bird [chicken]. By the time I was working on a master's here, we could do a four-pound bird in about nine or ten weeks. Today we can grow a six-pound bird in six or seven weeks. The feed conversion has just been steadily a decrease because the less you put into maintenance and the more you put into growth, you're going to have a better conversion. So when you can take two, three, and four weeks off the market time, then you're going to have a much better feed conversion. That's part of the success of the poultry consumption in the marketplace is the fact that the efficiency of producing that meat is so much greater than the competing meats. They've always been able to compete in the

marketplace.

TM: What was feed efficiency when you first started working with poultry? Is it close to what it is now?

LB: Probably about 2.3 pounds of feed per pound of meat. When I retired, it was down to 2.0 or 1.95 on a four-pound bird on a really hot ration. Today you see some five-pound birds going out at 1.70 or 1.75. It's in the pipeline that these three or four generations out are going to be 1.5 pounds of feed per pound of gain, which is amazing.

TM: But there has to be an end somewhere.

LB: Yes. You know, otherwise we'd take them out of the hatchery and haul them to the processing plant. [Laughs] So we're already in diminishing returns, and I don't know when it's going to occur. You know, across all of agriculture we've seen this tremendous progress. But the advantage of poultry has had is a short generation time as compared to beef cattle. You get one calf a year, and swine, you get two litters a year, maybe. But in poultry you can get several generations in a year, and so many numbers off of that same parentage to select from.

TM: But if you look at the poultry industry—and it was more or less getting started when I was a kid—there were certainly chickens around here—why do you suppose the poultry industry has reached the point that it has here? If you start looking, we don't grow grain. We didn't necessarily have good transportation.

LB: I think a lot of it is due to a lack of alternate opportunities. If you think of northwest Arkansas and the terrain, and for many years it was just subsistence farming that you could barely make enough to eat and live—but then we got into

apples and strawberries primarily, and maybe some others. I'm told that at the turn of the [twentieth] century, Washington County was the number-one apple county in the U.S. You read in the paper about how many carloads of strawberries were shipped out of northwest Arkansas. Apparently, the apple industry began to fail in the 1910s due to both diseases and insects that they couldn't control. As people began to get out of that, they looked at trying a 500-broiler house. They could buy the chicks, buy the feed, ship them to Chicago [Illinois], and in some cases make a dollar a bird—\$500. That was what they made in a whole year off the apple crop after they spent all the money on insecticides and trying to control the diseases. Well, you know how too much of a good thing—everybody started getting into it, and they busted the bubble. Then you couldn't *give* them away. You had these ups and downs. The people in the hatchery business needed to sell chicks. The people in the feed mill business needed to sell feed. The processors needed a steady supply of chickens. So they began to see, "Well, some way or another, we've got to coordinate all this." So in the 1950s we began to integrate the industry. The lead person would be primarily a feed mill or a processor. And by the 1960s, the industry was pretty well integrated. There was a contract industry, there were contract growers, and contract hatching egg producers. This was met with a lot of resistance because a farmer is an independent sort of a person. He didn't like someone else telling him what he can and can't do, you know? But the economics of it—a steady supply, and that's why the industry became integrated. Poultry for a long time has been on the cutting edge of technology—probably more so than any other phase of

animal agriculture. And it's not because we were so smart, it was because we *had to* to survive.

TM: If you look at the poultry products that are out there today, you go to a fast food restaurant and there's a chicken something. When I was a kid growing up, you didn't see *chicken* in the restaurants the way you do today.

LB: You know, when I was a kid Mom ordered baby chicks from Sears and Roebuck [Company] every spring. It would take from early in the spring until about the first of July to get them big enough to fry. It seemed like we had the preacher after church more than most folks, but once we had fried chicken, a lot of people liked to come to our house. You'd eat them until along in August and September, and those that were just barely big enough to eat the first of July were getting big enough that it took an art to know just how to steam them to get them good and tender. Mother was a good cook. But we always had chicken. Growing up on a small farm like that, we didn't have electricity until a couple of years before I moved to town. You didn't have a way to keep beef. You had no way to store it. We milked two cows. Mother milked one and I milked one. The calves that came off those cows were sold as a cash crop because we didn't have any way to process that and keep the beef. So we ate chicken. We fished in the summer. We always killed three or four or five hogs. Back then, you measured a hog by how much lard it would cook out, so hog-killing day was a big day on every farm. We ate pork through the winter, and hunted and fished. But chicken and pork were the two main meats that we survived on. Of course, we ate a lot of peas. Mother canned peas. She probably canned 100 quarts of peas every summer. We ate

well. We didn't know how poor we were, and we probably ate better then than we do now.

TM: You didn't know how poor you were, but you never went hungry.

LB: That's right. [Laughs]

TM: Lionel, during your career did you ever deal with graduate students much or did you ever have [access to ag kids?]?

LB: Not very much. I had one graduate student while I was on a joint appointment, a young man named Mike [Beauchamp?]. He went to work for Cobb and still works for them. Mike was a sickly sort of person. He'd had a lot of health problems. When he first came to work for me, he said, "Dr. Barton, you need to know that I get sick every winter, and I'm usually off three or four weeks—sometimes a couple months." I said, "Mike, we don't have time to get sick in this job. You just can't get sick."

TM: [Laughs]

LB: You know, he told me the next summer, "Dr. Barton, I don't know whether it's because you told me that or whether I've enjoyed the job or what, but this is the first winter that I ever know of that I didn't get sick." He wasn't sick the whole winter because he—I guess partly because I had told him we didn't have time, and he thoroughly enjoyed the work that he was doing. But he was the only graduate student I ever had. He got a Master's. You know, an extension job doesn't fit very well with graduate students. There are probably some things you could really train a person in because of your field experience out there, but the travel makes it really hard to do that sort of thing.

TM: I know that you've had some opportunities to leave during your career. Why did you stay at the university?

LB: Well, you never know, looking back on it [in] hindsight—back then, when you're considering going somewhere else you were thinking about more money, a chance to advance—that sort of thing. Probably the reason that you don't leave is that you enjoy what you're doing. In extension [work], you've got to enjoy the success that you see people have based on the advice that you give them. And the fact is that you're a source of information for them. You need to enjoy being able to help people with their problems. The longer you're in a career in a university setting—you begin to depend on that job security. You think, "I've been in this twenty years building a retirement. I hate to leave now and start over on that sort of thing." I had a number of opportunities to leave, and some of them I considered really seriously. In hindsight, I guess I'm glad that I stayed at Arkansas. If you work at a faculty position at the University of Arkansas you're going to have a reasonable retirement—a comfortable retirement, good health care. But you need to think on the front end—well, you're not going to make a whole lot of money—not going to get rich as a college professor or extension specialist.

TM: That's certainly true. [Laughs] Let's be a little philosophical, Lionel. What would you consider your major contribution to the university and to the state of Arkansas during your career here?

LB: Well, I've made a lot of friends, both in the poultry industry and out. Several things that I guess I could write my name on. Somebody might take it off the next

day, but in 1979 the poultry industry had been pushing for a separate poultry department [at the university] for a number of years. In 1979 the vice president created sections in the animal science department. There was a livestock section, a poultry section, a dairy section, and a veterinary section. I was named the section leader for the poultry section. The Poultry Federation had a committee of influential people that looked down the line at things they needed. They came to me and said, “Lionel, put together what you need in the way of what you need in upgrades in the poultry farm. We’ll go to the [state] legislature, and we can get you \$1.5 million. Keep it under \$1.5 million.” So we put together a plan for what buildings we needed, and we got the \$1.5 million. In 1979, 1980, and 1981, we built most of the current facilities that are at the poultry farm. We got a lot out of \$1.5 million. We got a new hatchery office building, a breeder hen building, a pullet-growing building, two ninety-six pen broiler houses, a ninety-six pen turkey house, and a genetics building that Dr. Giles used. Then in 1988 we had an opportunity to apply for a grant through the federal energy office. We applied for a grant to build four state-of-the-art broiler houses, and we were successful in getting this \$900,000 grant. We built the four units that are out at Savoy. Computer technology—we could measure feed, water, [natural] gas, electricity—all on a ten-minute cycle. I was the project leader for that project and was state project leader until I retired in 1995. So the upgrade to the poultry farm, the broiler unit, the success that I had with people in ration formulation and water quality—we got a water quality grant from the Southeastern Poultry and Egg Association and did a water quality study in broilers. As I mentioned earlier, out

of that I became “the water quality expert,” really, around the country because we had done the first work, and I had trotted all over the U.S. making talks on water quality and poultry. Sometimes it doesn’t take much to be an expert.

TM: Just know more than the other people.

LB: That’s right. [Laughs] [Unintelligible] be more than fifty miles away from home [unintelligible] a briefcase sometimes.

TM: Thinking back on all that you’ve done, Lionel—any regrets? Anything you wish you’d done differently?

LB: No. I guess I would’ve liked an opportunity to do a little more work on what I did my Ph.D. thesis on. I worked on fatty liver in laying hens while I was at Michigan State. We did some preliminary work just before I graduated. I was the last Ph.D. student for Dr. Philip [Shivell?], and he wanted me to stay on and keep working on this project another two or three years. Some of the faculty at Michigan State said, “Lionel, you write this thing up and get out of here. Get you a job. That’s what you’re here for is to get a job.” So I did. But I think there were some implications in some of the work that we did that maybe had some possibilities in terms of human nutrition, heart disease, and some of these kinds of things. I may get back into that one of these days and get somebody to write up an National Institute of Health grant with me, and we might pursue that—some proteins that are in some of these feedstuffs that I think have implications on heart disease. So, you know, that’s maybe one regret. As far as coming back to Arkansas, I don’t have any regrets. I was a native Arkansan. I did think that I’d play more golf when I came back. I thought we had nice golf course at Michigan

State. A fellow named [Forrest Akers?] had given the school \$1 million in about 1950, when that was a lot of money. [They] built this fabulous golf course on campus. Graduate students could play for \$1 during the week and \$1.50 on weekends, so I played quite a bit of golf while I was there. And I thought when I came back to Arkansas that I'd go to Hope and we'd work with the people down there until about 3:00 [p.m.], and go out and play a round a golf, and I'd spend the night and come back the next day. In a couple weeks, I'd go to Batesville and work with the people over there, and we'd go out at about 3:00 and play a round of golf. The way it worked out, you worked until their quitting time—5:00. They'd say, "Oh, you've got to go back to Fayetteville tonight?" And I'd say, "Yes, I've got an 8:00 meeting in the morning. I played two rounds of golf in thirty years. [Laughter]

[Tape Stopped – fast forward to next segment of interview]

LB: . . . since 1995, I've been trying to catch up.

TM: You're trying to catch up. Randy, it's about time for you to ask a question.

Randy Luttrell: Dr. Barton, I'm from Bowie County, Texas, right down the road from . . .

[Tape Stopped?]

RL: What advice would you give to a kid coming from southwest Arkansas who was interested in the animal industry today? What sort of advice would you give?

LB: Well, I think there's a lot of opportunity with the companies like Pilgrim down in Pittsburg, Texas, with Tyson in Springdale—George's and Simmons—Goldkist over in Georgia—Purdue over on the coast—probably less opportunities

academically than there was when I went through. When I went through, a college professor was a more elevated position than it is today. It was somebody that was just—he was well educated, he was well respected, and today we're kind of a dime a dozen. In fact, I guess in some situations people working in the grade schools and high schools make more than we do as college professors. But I think depending on the area that they're in, there's a lot of opportunities in the poultry industry, and I'm sure some in swine and beef cattle and even dairy, but probably more in poultry than in those other areas in terms of numbers. Depending on the area of interest, if you're interested in nutrition, we're still doing some things trying to learn more about poultry. The disease area is a good area. Biology is a really good area that some of the implications from viruses in humans and poultry. If the young person had really good skills—good ACT scores and that sort of thing—I might say, “Well, you're going to do better as an M.D. [medical doctor] or as a lawyer.” I might agree with that, unless you really turn that way. You can have a lot of satisfaction out of a career in the poultry industry.

RL: Would you have any specific recommendations for anyone interested in animal agriculture down at Magnolia now—at the University of Southern Arkansas?

BL: I went to school there two years. I think they did an excellent job. They had probably the best staff then that they've ever had. I don't think the students get the same four-year degree that they do here. They get a degree that's under a person that's taught a poultry course, but he doesn't have a background in poultry.

TM: Right.

BL: I liked it when there was a two-year program there and they had to come here or

Oklahoma State [University] or take [unintelligible] somewhere. And I would still encourage them [unintelligible] in poultry to come here not necessarily as a freshman—but I think we've got the best poultry school anywhere in the nation. With the Center for Excellence facility we have there, I feel very strongly that we've got the best facility in the country. Anybody that's interested in any phase of the poultry—say, "I'd like to get a Master's or Ph.D.," I'd say, "You can't do any better than the University of Arkansas." And, you know, I'm retired, and I'm out of it, so, you know . . .

RL: Well, I have a nephew that's at Southern State now, and he's a sophomore, so I'm kind of telling him "You've got a good education. Now you need to go . . ."

LB: He's going to be hard pressed to get away from there because they're going to do their best to keep him.

RL: Right.

LB: And I say this, knowing—I've known Dr. James Tollett since he was a sophomore in college, and he's good at what he does at recruiting students and retaining students. He'll talk to your nephew into staying down there if you're not careful.

RL: Yes.

LB: But point out to him, if he's interested in poultry, Fayetteville is one of the best places he can go.

RL: Of course, there's always the problem of having Uncle Randy watching you, too.

[Laughter]

TM: Thank you for visiting with us today, Lionel.

LB: I enjoyed it.

[End of Interview]

[Transcribed by Cheri Pearce]