American Entomologist • Spring 2014

Perry L. Adkisson: An Entomologist is a Biologist with a Job

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Perry L. Adkisson was born on a small cotton farm in Arkansas on 11 March 1929. He is chancellor emeritus and distinguished professor emeritus of The Texas A&M University System. After serving in the Army during the Korean War, he enrolled in graduate studies and received an M.S. in agronomy from the University of Arkansas and a Ph.D. in entomology from Kansas State University (1956). In 1958, he joined the faculty of Texas A&M University’s entomology department, later serving as department head (1967-1978), deputy chancellor, and vice president for agriculture and renewable resources before being named Chancellor of the Texas A&M University System (1986-1990). Adkisson is the first person to be honored with all three of the world’s major prizes in agriculture—the Alexander von Humboldt Award, the Wolf Prize, and the World Food Prize. Along with Ray Smith, Harold Reynolds, Robert Van den Bosch, and others, he developed what is now known as integrated pest management (IPM). Perry is a past President (1974) and Fellow of the Entomological Society of America, and an elected member of the National Academy of Sciences.

This interview was conducted 8 August 2013; Adkisson was 84 years old.

Rice: Who was the person or the occasion that initiated your interest in entomology?

Adkisson: I graduated from the University of Arkansas with a B.S. in agriculture, but that summer, we got into the war with North Korea and I was drafted into the Army in March, 1951. I was discharged in January, 1953, to re-enter the university and study for a master’s degree in agronomy with a minor in entomology, having every intention of returning to the farm and becoming a plant breeder. After the first semester, I needed to supplement my income, and Dr. Lincoln, one of my entomology professors, found a summer job for me scouting cotton. During that period, I became very interested in entomology. I received a master’s degree in the spring of ‘54 in agronomy with a major in plant breeding and a minor in entomology. At that time, I decided I was more interested in entomology. I had taken some courses under Professor Dwight Isley; he was a great teacher who guided me into crop protection and he took a special interest in me. He was one of the original entomologists that was interested in integrated control.

Rice: What was your passion in entomology—the thing that most motivated you?

Adkisson: I did a fair amount of basic research that was well received on insect diapause.

Rice: What do you consider to be your most significant achievement?

Adkisson: Well, I had several significant achievements. The most important was preventing the spread of the boll weevil in the High Plains of Texas. The weevil was discovered there in 1962 and the farmers on the High Plains became very concerned. With Don Rummel, Dale Bottrell, Charlie Cole, and Winfield Sterling, we developed a diapause control program that not only prevented the spread of the weevil, but virtually eliminated it from the High Plains. The success of this program led to the development of an eradication program. The boll weevil has now been declared eradicated from the U.S. Who would have ever dreamed that? These programs were responsible for an increase in cotton yields and they prevented the use of millions of pounds of insecticide, so you can’t imagine how many pounds of insecticide would have been applied if the boll weevil had become
established in the High Plains, as farmers in other parts of Texas were applying as many as 15 to 20 applications per year to control the pest. This was a big success for cotton producers, and it also was probably my biggest success in terms of economic benefit.

Legend has it that you once had a rather heated discussion with Edward F. Knipling over the possibility of eradicating boll weevil in the U.S.

It was not a heated discussion—it was a learned discussion. I’m sure it might have been described that way. He got aggravated at me a few times. He had eradicated the screwworm and was trying to push weevil eradication in Texas that was dependent on using the sterile male technique. I did not believe this technique was perfected for the boll weevil and I advised our growers not to enter into such a program. I got a lot of heat for it from the National Cotton Council and some from Dr. Knipling, who was a very good friend. Fortunately, some Texas growers had confidence in me and believed what I said and knew I was honest. They elected not to enter into it [eradication], and when Texas didn’t enter, it pretty much set the program back. But they later started over in Virginia and the Carolinas and it succeeded in working, but with procedures other than the sterile male technique.

What was one of the most unusual things you did as a graduate student? [Laughs.] Worked all the time. I can tell you one of the most unusual things I did was I completed my M.S. and Ph.D. in three years. I worked like a slave. I was single, and it really did affect my social life. I went to Kansas [State University] in the fall of 1954 and I left there in the spring of 1956 with my Ph.D. Several said, “You can’t do that.” I said, “Well, watch me, I’m going to.”

How long was a typical day for you as a graduate student?

Oh, I’d get up to the lab about 7:30 in the morning and I’d leave about 9:30 or so at night.

You don’t see that behavior very much in students today.

[Laughs.] Well, they weren’t as hungry as I was. I just wanted to get out of there. A Ph.D. was a license to get a good job and to get into a career you liked, so I was working to get into a job.

Did you have much of a social life?

Very little. A few graduate students and I drank a little beer and that was it. A good friend was getting a Ph.D. in chemistry. He was a veteran like me and we’d meet around 9:30 at the Blue Goose and eat an onion sandwich and drink a beer.

An onion sandwich does not sound appealing.

They put them on rye bread with a little mustard, and it happens that I like onions, and for a quarter, they were pretty good. I learned later on that if you added a little peanut butter to them, they were quite good. [Laughs.]

Everyone has a favorite story to tell. What is a favorite memory of your career?

What I enjoyed most was going to Harvard and working with Carroll Williams. He and Wiggleworth were the two most outstanding insect physiologists in the world. Carroll heard a paper I gave on pink bollworm diapause at the Entomological Society Meeting in Phoenix. He came up and introduced himself. I knew him by reputation, as I had read all those Time-Life articles during World War II where he was cutting silkworm pupae in half and putting microscope slide covers on them. He could make one end of the pupa develop into a moth and the other end remain indefinitely as a pupa. I thought that was one of the most unusual and interesting research. I never dreamed of going to Harvard and working with the person who was doing this research. He later invited me to come to Harvard. We did some really interesting research and everything we tried turned out as planned. The publications we authored were well received and we developed a lifetime friendship. As a result of some of that work, I was elected to the National Academy of Sciences, which is one of the highest honors you can ever hope to receive as a scientist—short of the Nobel Prize—and I never dreamed of such a thing. I was the first faculty member at Texas A&M to be elected to the Academy. So that’s a favorite memory of my career, to be able to work with Williams at Harvard, and later on, we maintained collaboration up until he died.

Did you do any international travel during your career?

I’ve been to every continent and the South Pole. It was 34 degrees below zero. I was chairman of the Polar Committee for the National Science Board—for some reason—under National Science Foundation sponsorship. So the Polar Committee went to Murdo Bay to review the program and get a feel for how we were spending a lot of money in Antarctica. They were drilling a lot of ice cores, going down deep, at the South Pole. I had the pleasure of drinking some Scotch whisky that had ice in it that was 2,000 years old—they cracked open one of those ice cores and gave us all a drink.

Do you remember the brand of Scotch?

No. It was good, though. When the day was 34 below zero, any kind of drink would have been good.

If you come to the ESA Annual Meeting, several past Presidents get together and drink Scotch.

Aww, I wouldn’t fit in. When Ray Smith and I were ESA Presidents, we drank Jack Daniels.

You are purported to have answered the question, “Why would anybody study entomology instead of biology?”
Do you have any final comments about your career in entomology?
Let me say a little bit under “significant achievements.” In the 1960s through the
1990s, I was on the U.N. FAO [United Nations Food and Agricultural Organization]
scientific advisory panel, headquartered in Rome, which was called Experts
on Integrated Pest Control. That panel was chaired by Ray Smith [UC-Berke-
ley], with members such as Hal Reynolds [UC-Riverside], Sebastian Barbosa [Bra-
zil], and Doug Waterhouse [head, CSIRO Australia]. It issued several important
publications on integrated pest man-
agement and guidelines for crops. This
panel was very instrumental in popular-
izing integrated pest management on a
global basis.

My last question is about your legacy.
It covers a wealth of entomology, but
how would you like to be remembered
by others?
I've had the good fortune of working with
some really good people. I'd like to be
remembered as a good researcher, as a
person who worked hard in his career,
who was respected for his vision, lead-
ership, and accomplishments, but most
of all, I would like to be remembered as
being an honest person of integrity and
fairness and as simply being a good per-
son. I've tried to be that kind of person
and I believe I am.

Dr. Adkisson, I have found this inter-
view to be very enlightening and enter-
taining. I appreciate your candidness
and hope I didn't dredge up anything
you would regret.
Well, I don't have too many skeletons in
my closet.

Acknowledgment
Thanks to Ray Frisbie for assisting with
information regarding Perry L. Adkisson.

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