

## Citrus Hall of Fame Oral History Interview

### Florida Southern College

<b>Interviewee:</b>	John Attaway, FSC Class of 1951
<b>Interviewers:</b>	Richard Soash and James M. Denham, Project Supervisor
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<b>Camera Tech:</b>	LuAnn Mims, College Archivist
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**Soash:** *Okay Dr. Attaway, my first question I wanted to ask about your hometown and find out a little bit of background information about where you grew up. So could I ask where you, what you consider your hometown and when your family moved to Haines City?*

**Attaway:** Well, let me read you what I have here. I think I've already read you this about: graduated from Hapeville in '47, my father had a 500 acre farm. Okay. In 1947 Georgia schools had only 11 grades so we graduated at age 16. My father sold the 500 acre farm and we moved to Haines City, Florida to buy citrus groves. I didn't put that in here but the reason this happened my mother went to the University of Georgia and she had a friend at the University of Georgia and they lived in Haines City and they got to be friends and so Dad came down and looked at the oranges and decided to sell, to sell the 500 acre farm in Georgia and come down here and do oranges.

**Soash:** *Okay.*

**Attaway:** Then I went to Florida Southern and graduated in '51 with a degree in chemistry, you've got that. ... Now you want me to go on time-wise?

**Soash:** *Where did you get your masters and doctorate degrees and what were those degrees in?*

**Attaway:** Okay, I went to the University of Florida in 1951, received a masters degree in organic chemistry in 1953. My research was funded by the Quartermaster General and I also studied entomology. In 1953, I moved to Duke University and did research on organic fluorine chemistry and also took courses in horticultural science and finished in '57. I know I'm going fast and it may be not what you want.

My research at Duke was funded by the Office of Ordnance Research in 1954 and 1955, and the Office of Naval Research in 1955-56, and Allied Chemical and Dye Corporation in 1956 and 1957. You probably don't want all that.

**Soash:** *You're doing great, this is absolutely fine.*

**Attaway:** I'll leave this with you so if you want to use it you can. In 1947 my father sold his farm in Georgia and we moved to Haines City where my father bought several citrus groves. I've already said that.

**Soash:** *How old were you when you moved to Haines City, or when your family moved to Haines City?*

**Attaway:** Ok, I graduated in Georgia at 16, and when I moved down here, when I was 17 I started going to Florida Southern. I did not live over there, I lived at home and drove back and forth. I lived over there in my senior year and that was the only one.

**Soash:** *That's good; thank you! According to your Citrus Hall of Fame biography, you joined the Citrus Research and Education Center in Lake Alfred in 1959 as a research chemist for the Department of Citrus.*

**Attaway:** Yes.

**Soash:** *Uh, coming out of Duke, how did you discover this job? ... Or when you graduated, how did you discover this?*

**Attaway:** Well, as I mentioned the first year I went to work for Monsanto in West Virginia.

**Soash:** *What was that name?*

**Attaway:** Monsanto. M-O-N-S-A-N-T-O. It's one of the biggest ... biggest companies of that nature. And we were only there for a year, and we didn't particularly like it, as I mentioned to [James M. Denham]. [makes statement that he asks to be off the record]

**Soash:** *Lovely.*

**Attaway:** Don't put that in there or anything, but that did happen. And the way it was in the valley there in West Virginia the smoke and everything was just unbelievable. And we had a, we had our first son and at 2:00 in the morning and he couldn't stop coughing and coughing and coughing so we finally wrapped him up and we got in the car and we drove up to the top of the mountain and he quit coughing.

**Soash:** *Wow.*

**Attaway:** It was just no place you wanted to live. It's better now, they've kind of cleaned the place up. But back in the '50s that was, it was a rough place to live. That's not what you want but you get me talking and I'll talk about it.

**Soash:** *Any background information, anytime you want to elaborate on the questions, is absolutely fine with us.*

**Attaway:** Okay, alright.

**Soash:** *This is your interview and it only covers a limited extent of your life, so please elaborate.*

**Attaway:** Alright.

**Soash:** *How did you discover the job in Lake Alfred?*

**Attaway:** Okay, we moved down here and I was looking around and the fact that my father was in citrus, they needed somebody here. In fact they called me up and I couldn't have been any more delighted. They said, "Would you come out and be interviewed," so I came out here and they interviewed me here even though at the time this was the Department of Citrus job and I got the job, just like that. It couldn't have been better.

**Soash:** *What were your basic responsibilities as a research chemist?*

**Attaway:** Of course, we were working on the fruit juice, mainly, for awhile. And I kept trying to write something here that would sound a little better. Let me see what I said. ... Okay, there were several things on here that were on your other questions that don't fit now, let's see. Okay, from '59 to 1968 I worked in the laboratory daily five days a week and it was mainly on juice, juice research, and I've got some material here on juice research if you ever wanted it. It's a bunch of ... international conferences that we used to go to.

So what did I say here? As director of research began in 1968. I had two offices in Lakeland and Lake Alfred. Two days in Lakeland and three days in Lake Alfred, except for when the Florida Citrus Commission had its monthly meeting; it was on Wednesday and I'd be in Lakeland. My average day in Lake Alfred included telephone, handling letters, writing, and meeting with the 19 or so Ph.Ds that worked with the Department of Citrus. And our research included laboratory fresh fruit harvesting and harvesting research in the field. That's not what you asked me but it's what I had written down.

**Soash:** *No, that's fine.*

**Attaway:** I can go on. So in the laboratory ... some accomplishments during the '60s included identification of some of the volatile components of orange essence, identification of alcohols and volatile organic acids of natural orange essence. There's about three more, and I don't know whether you want that in that detail or not.

**Soash:** *Yes, please tell me some of the things that you're proud of from the '60s.*

**Attaway:** Okay, I've written them out here so I'll just give them to you. No point in me reading them again. Let's see ... I became very active in attending the meetings of Florida Citrus Mutual, Florida Citrus Canners Association, Florida Citrus Packers, Indian River Citrus League, and the USDA laboratory when I ...

**Soash:** *That's great.*

**Attaway:** All of this stuff, I'll just leave it with you and maybe you can dig out what you want.

**Soash:** *For the purposes of the camera, I would actually prefer you reading off some of those technical accomplishments, in terms of even some of those scientific details that I wouldn't understand in terms of you telling me. I'm sure there are people who would watch the interview who would get a lot of that material.*

**Attaway:** That was what I started reading; I only had about five or six of them. You, you, you can't do them all because there's a darn many of them. [laughter]

**Soash:** *That speaks to your career.*

**Attaway:** I thought you asked me about patents; I got the stuff about patents. [holds up a packet of papers] And this was, I thought would be helpful, these are articles in refereed journals. And this starts in 1952 and goes around until, diddle diddle diddle diddle ... 1980. Now these are ... these are all technical publications.

**Soash:** *Well ...*

**Attaway:** My name is on them, you can use whatever you want.

**Soash:** *Speaking of your patents, that was one of the questions that I was eager to have you elaborate a lot on in this interview, it mentioned, according to your Hall of Fame biography, it mentions a lot of your work with Seedy Atkins ...*

**Attaway:** Yep, Seedy Atkins.

**Soash:** *... to develop the patents regarding the enhancement of citrus juices. Could you elaborate on your work with what you did with Mr. Atkins?*

**Attaway:** This, this, this is what ... improved essence ... what, there's four things here [points to paper in his hands] ... Atkins and myself, and there were three separate patents for that one. Four-flavored citrus juice and energy, Atkins and myself, and there was a patent here and also a patent in Canada. And there's one here, another one here, there was two patents, and two patents here [referring to his

papers]. Yeah, these was all far long enough that these patents, you know, have all [expired]. Several of them were used for a time. We were very proud of it, but that was back in, about, the late '70s early '80s. 'Course they got, that's all history. You could, this is for you.

**Soash:** *We're very interested in the history. For example, you improved the essence for enhancing the flavor of citrus juice. Could you talk a little bit about how you guys accomplished that?*

**Attaway:** Well it was all done in the laboratory right over here. We could walk over there if you ever wanted to. And, and I'll have to say that Atkins was the one that really ... who was best at that. Because if you remember, McDowell, Moore, and Atkins were the three who patented the, the ... well you know what he patented in 1948.

**Soash:** *So could you talk about like the high-protein citrus food, for example what that entailed, how much work it took, some of the scientific ...*

**Attaway:** I'm, honestly, to be perfectly honest that was so long ago that I, I, I can't really tell you much about it.

**Soash:** *That's fine.*

**Attaway:** We're talking about 1975, 1980.

**Soash:** *I know, way before I was even born ...*

**Attaway:** Were you? Okay.

**Soash:** *At your early years at the research center were there any people in particular that you really respected and looked up to?*

**Attaway:** Yeah, once again it was McDowell, Moore, Dr. Ed Moore, and another person, Dr. Jim Griffiths. I don't know whether you've ever met him. You, [gestures to James M. Denham] you I'm sure have met Jim Griffiths over the years.

**Denham:** *Well, is he related to John Griffiths?*

**Attaway:** No.

**Denham:** *Okay, okay, well ...*

**Attaway:** Jim, Jim died about two years ago.

**Denham:** *Okay, okay.*

**Attaway:** He was about 90. Yeah, he had, he had a son that lived in Atlanta with Coca-Cola. And he, he would go up there to see his son. I just told him, "Jim, you've got no business going out on that highway and driving to Atlanta," and he just smiled and said, "John, they all come by doing about 75 and I just get right in there with them." [laughter] That's the way he was.

**Soash:** *What were some of the significant accomplishments of your mentors? In the, at Lake Alfred?*

**Attaway:** Mentors ...

**Soash:** *Like McDowell and the people you already mentioned.*

**Attaway:** Okay, well McDowell and Moore of course had to do with the patenting, and there's a lot of stuff in here I believe [begins to look through his papers] ...

**Soash:** *Whatever the key things are we would love you to just summarize them for us.*

**Attaway:** ... Oh, what have I got around here anyway? So many of these things was just good research, but I'm just trying to find something that really ... [reads through papers] ... well this is one I presented at Los Angeles in '63.

**Soash:** *Even if we wouldn't necessarily understand it you can just read a couple of them off or whatever ...*

**Attaway:** What I'd like to do is just make checks on the ones that I think you could use. [takes out his pen] So much of this is strictly being good chemists, and not necessarily ... oh golly. Here's one of the orange and citrus components [referring to his papers] ... I don't want to be ... "Methods for the determination of oxygenated turpene, aldehyde, and ester concentrations in aqueous citrus essences." [title of a publication read from his papers] You could go read that. [laughter] That was in 1967.

**Soash:** *Can I ask you, what qualities make a good chemist?*

**Attaway:** Well I guess somebody that went to a good school and worked ...

**Soash:** *Worked hard and devoted their careers to ...*

**Attaway:** [nods head in agreement] ... I don't know what to tell you about stuff like that.

**Soash:** *No that's fine.*

**Attaway:** Okay, what are we going to do now?

**Soash:** *Can I ask you about another one of your specific accomplishments?*

**Attaway:** If I had any. [laughter]

**Soash:** *In the 1970s I was really curious about your negotiations with Japan over the admittance of millions of dollars worth of grapefruit into their country. Could you describe that experience? That sounds like a very interesting ...*

**Attaway:** It was very interesting. We went over to Japan, oh, half a dozen times I guess. And what I was doing really was talking to their people who were the same sort of thing as I was, and I got to know these Japanese guys, and we used to stay in touch, but as you saw how long ago that was. But that was mainly, that was just grapefruit. The, Japan would not let in, let oranges in, they wouldn't let tangerines in. But they didn't grow any grapefruit so that's really how we broke getting into Japan. Okay, you don't have any grapefruit; we've got grapefruit.

**Soash:** *That's interesting.*

**Attaway:** And that went on for a long time.

**Soash:** *Why did they not want oranges and tangerines?*

**Attaway:** Because they grew oranges and tangerines and they didn't want the competition. Yet they couldn't do anything about competition with grapefruit; they didn't have any. That was very interesting. That went on for about 10 years that I was involved in it.

**Soash:** *How did you finally get them to admit the grapefruit? Just because you helped them see that there was not any competition that they had domestically?*

**Attaway:** Well the main thing we had to do when I was in with the chemical-type people over there, they were looking as hard as they could to find something they didn't want in the grapefruit, and we had to do a lot of grapefruit research and so forth to get to the point that they really could not say no without being, I'd have to give bad words. [smiles] But their people at my level were all very nice about it, but you got up into some of the other people in government, they were hard to work with.

**Soash:** *So did this run contrary to what many of the people in Japan may have wanted with more of a variety of fresh produce?*

**Attaway:** I think they liked to have a, have a grapefruit.

**Soash:** *Who doesn't?*

**Attaway:** Well a lot of people don't. You know it went down to only about 19,000 each year?

**Soash:** *What's the reasoning behind that?*

**Attaway:** Well, so much, so much of the grapefruit is grown over on the east coast, and so many of those groves, that area over there is development, development, development. It's like [St.] Lucie County would have a lot more grapefruit than the other places in Polk County is probably true.

**Soash:** *So Polk County is a big area for growing grapefruit?*

**Attaway:** Yep. Polk County is still the largest county in terms of how much, how much citrus is grown here. But if you look at the map Polk County is by far the largest county.

**Soash:** *Right.*

**Attaway:** Which helps.

**Soash:** *Could you tell us about your interaction with citrus growers themselves? Obviously as a chemist you would have to interact with many of the high-level or even middle-level, low-level growers.*

**Attaway:** Well back up a little bit. See my father got into it and he became on the board of directors for Haines City Citrus Growers' Association ... and after he died I got on that, and the CGA. But as a grower myself I knew a lot of growers personally ... around the state, everywhere, where a lot of people that worked here, in situ and so forth did not have the, were not able to know as many growers as I did just because I was a grower.

**Soash:** *Right. It makes sense.*

**Attaway:** And the same thing in California. We used to go over there; I'd go out to California about twice a year and go to Riverside and all these various places out that way. Riverside, I did a lot of research down at Riverside. And there were several other places that we'd go to every year. And we got to ... some very nice friends over there. I still send e-mails to California even though I, I'm not here ... well you know. Whatever.

**Soash:** *But you'd say that was a big part of your job interacting with the various growers around the state?*

**Attaway:** Yes, and to, to, to a less extent to Texas. We didn't go to Texas very often because they're kind of small. And one time we went to Louisiana. I don't know whether you knew or not but if you go on down the river from Louisiana to platinium ... [Plaquemines Parish] ... I'm trying to get the name of it, that part, but they do grow citrus down there. Now they, whenever the big hurricane came through, Katrina, what, whatever it was called it just about wiped them out but they're slowly coming back.

**Soash:** *I've read that you've established the medical and nutritional research program in the early 1970s. What were some of the goals of this program that you established?*

**Attaway:** That's a good question. What it kind of amounts to is ... we had to have our chemistry of what we were making because there are always people out there, who are competitive to citrus, and so we got through, we put together this group, wish I could give you a bunch of names ... and people from Harvard and other places that, that worked with us and for us.

And the same thing up in Canada because we shipped in Canada. So we had to have a good scientific person in Canada who, who was with us. That's what it really came down to. It's sort of a competition thing. There was always somebody out there that would say that a Florida this and that was no good, and it was usually somebody who didn't know nothing!

**Soash:** *And you had to prove them wrong.*

**Attaway:** [nods head in agreement] We had to prove them wrong, yeah. That's been going on for years, in fact there's a, there's a group now, and I had brought something on that and I may have left it at home because I grabbed everything at the last minute ... I'll have to look around ... no, I don't think I brought it. But Health and Human Services is one that, I'm still president of that over in Lakeland.

**Soash:** *That's really cool.*

**Attaway:** Yeah, but we don't meet very often. Anyway ...

**Soash:** *How did you go about accomplishing this research? Like was this an ongoing aspect of your job here at Lake Alfred, or ...*

**Attaway:** Yeah, it got to the point where I was no longer doing very much in the lab anymore with my own hands. But we did have 19 Ph.Ds here at that time. Today they've got five, tell me that. They started backing off ... who was the guy who used to be up at Tallahassee? [looks at camera] Say something.

**Mims:** *In what capacity?*

**Attaway:** Okay, okay, well they brought him ... director of ... he was the Agriculture Director in Tallahassee.

**Denham:** *Doyle Connor?*

**Attaway:** No, Doyle Connor was good.

**Denham:** *Okay.*

**Attaway:** He was one of the best. This guy came along later.

**Denham:** *Later, hmmm ...*

**Attaway:** And they got him over at the Citrus Commission and, I don't know, once he got there the whole thing, as far as we were concerned ... things began to go down, down in a hurry.

**Denham:** *Not Ken Keck?*

**Attaway:** No, Keck, Keck is alright. Oh ...

**Denham:** *Now were these people in that capacity? In say, Keck's position?*

**Attaway:** Keck ... as I remember ... it was after I retired I think Keck came in and then, then later on he came, they got rid of this guy that I'm telling you wasn't any good and then they put Keck into that job.

**Denham:** *Okay, I think I, I think I know who you're talking about but I can't remember.*

**Attaway:** Yeah, he lives down in Bartow ...

**Mims:** *He's not in the Citrus Hall of Fame, is he?*

**Attaway:** [smiles] No, never will be. [laughter]

**Mims:** *I was just checking that.* [laughter]

**Soash:** *Was there anything else on that topic you wanted to ...*

**Attaway:** I don't think so.

**Soash:** *Okay, this is on more personal, from a more personal point, but I wanted to ask you details about your farm and your work with citrus as a grower, not necessarily as a chemist.*

**Attaway:** Okay, the groves are in Haines City CGA so they do the field work. But mostly what I have are tangerines. I mean I've got some oranges and I've got some grapefruit but the thing that's, that I ... if I make any money it's usually on, on tangerines. In fact there's, all four of my children went to Duke and I paid for it out of that tangerine grove.

**Soash:** *Oh, that's interesting.*

**Attaway:** I couldn't today, because you know the things that are coming from ...

**Soash:** *Brazil?*

**Attaway:** No, from the other side ... Spain ... they don't have the ... see here, we get, we get things in the fruit that they don't have in fruit. Now I'm getting into having a hard time talking.

**Mims:** *What variety of tangerines?*

**Attaway:** Mine are the ones that mature in the front, Murcotts. Yeah.

**Soash:** *You're the president of your own company, correct? Or the Florida Citrus Consultants International in Winter Haven?*

**Attaway:** I, I was. We have closed but I was president of it. But we, we, we're not, we just put it down because we're not getting any work.

**Soash:** *What, during the best times of that company what was the purpose or the goals?*

**Attaway:** Okay, we were just furnishing experts in different areas. Like we had one guy who was an expert at harvesting. Somebody else, Bill Grierson, was an expert at handling fresh fruit, that sort of thing.

**Soash:** *Okay, we're going to take a break for now and then come back.*

[break in taping, then taping resumes]

**Mims:** *And we're on.*

**Soash:** *Okay, it sounds like you've had a lot of extensive travel experience outside of the United States. Could you detail your experiences in Brazil, for example, as one of the places you've gone, or what the citrus industry is like in Brazil?*

**Attaway:** Well the citrus industry in Brazil is larger than it is here. And what has happened here, remember, is that Florida does not produce near as much citrus as it used to. Fact is I think we only have about a hundred and fifty thousand boxes this year of oranges, 19,000 of grapefruit. It's never been that small. You see what's happened now, I used to love to drive from Haines City up [US Highway] 27 all the way up to all the beautiful groves. Well of course the freezes in the '80s did so much damage there and then now the development that the, you get up into Lake County which used to be about the second largest county in Florida for citrus, it's one of the small counties because it's all developed.

**Soash:** *So that's one of the big changes you've seen over your time in the citrus industry.*

**Attaway:** [nods in agreement] Yeah.

**Soash:** *Would you talk a little bit about some of the other big changes you've seen over the course of your career?*

**Attaway:** Yeah, in fact as I had written up something here on it [gestures toward his papers] is ... at one time citrus was growing all the way up to Gainesville. What, what's the, I'm trying to say the name of the county, I've got it somewhere. What, what, what ... do you guys know the name of the county?

**Denham:** *Well Alachua County ...*

**Attaway:** Alachua. Alachua County, and then you get on down into Lake County and some of the others. The first thing that started that was an enormous freeze in 1962.

**Soash:** *Okay.*

**Attaway:** I mean it was bad. And it did so much damage from here north that a lot of the growers here went down to south of Lake Okeechobee and, whatever was that name of the town down there and started planting. That was in '63, '64, along there.

**Soash:** *So that was a big shift from the north, northern areas of Florida down to the southern ...*

**Attaway:** There, then that. And of course it really went after we had freezes in '81, '82, '83, '85, and '89; we thought it never would quit freezing. So then they started, like a tremendous change down there. What's, what's the county ... come on you guys know some of the counties ...

**Mims:** *South of us?*

**Attaway:** Yeah, all the way down, all the way down there.

**Denham:** *Collier County? Hendry County?*

**Attaway:** Hendry, yes, I was trying to think of Hendry ... and then, then on south of there even, all the way down to Naples, you know. What county is that? I mean, I should know ...

**Denham:** *Collier, that's Collier I'm pretty sure.*

**Attaway:** Like I told you ... [finds the paper he was looking for] okay let's see ... a major change in the industry follows the 1962 freeze which is a serious setback to groves in Alachua, Marion, Putnam, and other northern counties. As a result, the first major citrus production began in Hendry and adjacent counties. The five major freezes ... I've named them, resulted in additional movement of groves to Hendry County which is now one of the three largest producing counties. Groves also increased in Lee, Collier, Glades, and Charlotte counties in the south. That was a page.

**Soash:** *Right, so a lot of shifts occurred with freezes obviously. What shifts in technology did you see during your career?*

**Attaway:** Okay, here in Polk County we tended to ... used to start it off with, we would only have 60 trees to the acre or something like that. And of course we'd have more than that. But down there they started off and a lot of them have as many as a hundred trees to the acre down there.

**Soash:** *Okay. Were there any changes that you've seen at the Lake Alfred Center here over the years? In terms of number of employees, or the type of employees?*

**Attaway:** Okay, as you know Gainesville, down here, this is the University of Florida and they were always nice about letting the Department of Citrus be here. And they still, they may have a slightly fewer people with the University of Florida, with, I told you, what the Department of Citrus has gone down into. But they have some very good people here, believe me. It's a very good size.

**Soash:** *Going back a little bit to your work in Brazil, what could you tell me about the citrus industry down there? What was it like, what were the people that controlled the citrus industry like?*

**Attaway:** Well most of the ones, I didn't see the really, really rich people, but I met a lot of their employees, and down there water is a problem. They don't have very much water.

**Soash:** *I didn't know that.*

**Attaway:** I only went to one grove that had a little bit of a lake and they would water from out of the lake. But mostly they, one reason that they grow so many trees per acre is that they won't have as many oranges because of the lack of water. But they have more trees.

**Soash:** *So how do they deal with that lack of water?*

**Attaway:** Just how you deal when you don't have any water. And ... I had a lot of pictures that I took down there but I don't even know where they are anymore or I'd let you have them. But they have enormous processing plants down there, that processing plant is much larger than processing plants up here.

**Soash:** *Why is that?*

**Attaway:** Because they have so, so much fruit to process. See they're producing twice as much fruit as we are now. I'm guessing, something like that.

**Soash:** *Is that a threat to the Florida citrus industry?*

**Attaway:** Well it has all along. Now, one the things that I enjoyed the most in the '70s and early '80s, we were selling a lot of juice in Europe, and then we had some, a deal with them that they had to handle it the way we wanted it handled. So I got to go over there at least twice a year, and most of it was out of Iceland, Norway, Sweden, Finland, and the other one ... Denmark, was where most of it went. And I really enjoyed going over there; I got to know a lot of people and they were doing everything well. Then all those freezes hit in the '80s, and we couldn't possibly have enough juice to give them, to give to them. So the Brazilians came right in and took it over and they've had it ever since.

**Soash:** *That's really interesting because in your biography for the Florida Citrus Hall of Fame it didn't mention your work in Europe, for example, so that's a great aspect of this interview that you're letting us know what you've done in other parts of the world besides just Japan.*

**Attaway:** Well mainly ... I would just go in and go into that plant and just make sure they were doing it like they were supposed to do. And it started off that ... I was supposed to let them know I was coming. Well that didn't really make sense to me. I got where I would just turn up when I wanted to turn up. There was never any, there was never anything, little things would happen.

**Soash:** *What were some of those little things that came up that were unexpected or that weren't so great?*

**Attaway:** Maybe the juice was not as strong as it was supposed to be. Maybe somebody had added a little too much water or something like that.

**Soash:** *So you made sure that regulations were ...*

**Attaway:** That regulations were being ... yeah.

**Soash:** *And making sure that it was the same quality or the same amount that it needed to be.*

**Attaway:** Yeah. And that was, mainly just in the '70s. By the time we got to the '80s and all the freezes hit ... So that's been now, most of '80s, and '90s, and up to now ... so that was, say 25 years ago that I was doing that.

**Soash:** *I know Florida obviously had to deal with freezes; did Brazil ever have any kinds of weather problems that hurt their production?*

**Attaway:** Well in Brazil it's ... further south you go the colder it gets. And the area of Brazil with, where the groves are, they might have it a little bit cold but nothing like we would. Now there were some other people that I never got to meet down further south that maybe had some cold. And it goes on into Argentina; all the citrus grows in Argentina.

**Soash:** *Okay, I didn't know that.*

**Attaway:** Yeah.

**Soash:** *That's interesting. Did you ever work with the United States federal government or have to testify before any of those committees?*

**Attaway:** I mean, we worked with them. I, I, I don't know that ... testified. I try to think I probably have. Now, but of course we work with the USDA people from year to year, and the USDA people have a lab over in Winter Haven.

**Soash:** *Tell me more about that. What was your interaction with the USDA ... people? Officials?*

**Attaway:** Well, there was, there was a lot of competition to some extent. They'd be working on the same thing that we'd be working on.

**Soash:** *Interesting.*

**Attaway:** But I don't know. I had friends over there and we always got along.

**Soash:** *So why were you guys working on similar things? For the good of the industry, or ... ?*

**Attaway:** More or less.

**Soash:** *What were some of the things that you guys competed on?*

**Attaway:** Ahh, I don't remember, I'm getting a little tired, frankly.

Now we didn't get into the foundation farm up in Lake County did we? We have about 250 acres up there. And ... gee ... it was planted in '59, '60. Bought the property and it was bought, bought by people. It's not part of the state or anything. And I was the, I was secretary for about 20 years and I was the president of the darn thing from 1995 until, until, until this year. I just wanted to get out of it.

**Soash:** *I'm very interested to have us talk about the freezes and hurricanes that you detailed so wonderfully in your books. What motivated you to write on freezes, in particular? Because they had had such a huge effect on the industry, or ...*

**Attaway:** That and it was always very interesting to me. It was, we moved down here when I was just 17 and, and I went out and fired groves and, and, and ... this sort of thing. I've just been interested in freezes ever since. You know in that book I found ... went a little bit ... it went all the way back into South Carolina when the, when the British came over. And they were making a little bit, just a few oranges around Charleston I guess, as I recall. And then shipping them back over because that didn't last long when it got cold. And then a little bit was brought along the Georgia course too ... it's all in the book.

**Soash:** *Right. Tell me some about your hurricane book. What's the main focus of that work?*

**Attaway:** Well the main focus of that of course is the water, water ... with the ... with the, with the freezes we could fire, not very many people do it anymore but we have ways to blow the wind and everything, but with hurricanes, no, there's not much you can do.

**Soash:** *You're at the mercy of ...*

**Attaway:** You're at the mercy of it, yeah.

**Soash:** *I read in your bio that as a little kid you used to track hurricanes by radio. That sounds like a neat experience.*

**Attaway:** Yeah. [laughter] I've been ham radio operator since 1959. You can see it on my car; it says K-4-I-I-F which is my car. Yeah for years and years the state has always allowed the people that are ham radio to put it on their tanks. Way on back; before I even started it.

**Soash:** *What motivated you as a young boy to want to track hurricanes?*

**Attaway:** [shrugs] I don't know. It's interesting. [smiles] You say as a boy, as a boy I still lived in Atlanta.

**Soash:** *Right.*

**Attaway:** And we were, we were not as interested in hurricanes, really until we moved down here.

**Soash:** *Yeah, obviously every Floridian has to deal with hurricanes as a big facet of life.*

**Attaway:** Yeah. Atlanta doesn't get hurricanes. Maybe get some wind up there, but ...

**Soash:** *I assume citrus growers really dread hurricanes.*

**Attaway:** Of course.

**Soash:** *What are some of the effects hurricanes have on citrus groves?*

**Attaway:** Well, any number of things. They ... if you ... some groves are exposed area where they really get you. Other groves they don't get quite as much damage, but obviously it, it, it's the wind, or whatever what it is. And they, it can come in, it's, maybe it'll just blow off a little bit of fruit, maybe it'll blow off a little bit of ... some leaves and stuff like that. But then when you get the hurricane come through with the 18 to 20 ... and, and it just blows the trees over.

**Soash:** *Wow. Can it like uproot them out of the ground ... in some cases?*

**Attaway:** A lot of people have, many times have gone in and were able to, to push a tree back up and make it grow.

**Soash:** *Wow, I'm surprised.*

**Attaway:** Yeah, that, that was done. Not, and that was done ... along the sand Ridge or places like that. Now you get further south, south of Lake Okeechobee in that area, they really catch it down there.

**Soash:** *Do you remember any particularly destructive hurricanes during your life that really made a huge impact on the citrus industry?*

**Attaway:** I'd have to get my book and look it up.

**Soash:** *As a student of Florida Southern College I'm really interested to hear your memories about what Florida Southern was like during your time as a professor there.*

**Mims:** *He was a student.*

**Attaway:** Now I was not a professor there.

**Soash:** *Oh.*

**Mims:** *Student. He's a graduate there.*

**Attaway:** I was a student.

**Soash:** *Oh. That's my fault. What years ... '47 ...*

**Attaway:** When I came in '47 ... and, what's the man that really developed Florida Southern?

**Denham:** *Ludd Spivey.*

**Attaway:** Ludd Spivey. You know, he really went up, now I thought I was going to see, when we moved here just Florida people. He went up to ... New Jersey and places like that and brought in a total number of people. And they were brought in, people who'd been in the war. And it was interesting. They were all people that probably would not have been able to go to college if, if, if this hadn't been so they would come back and go to college.

**Soash:** *The GI Bill and all of that.*

**Attaway:** The GI Bill and all those things. And here I was, 17 years old, most of these guys are in their 20s, and they were having a lot of trouble with chemistry and things like that and I used to go over and help them with it. So here I am a kid trying to help these people out.

**Soash:** *That's really cool. Did you, were you there when different buildings were being worked on or anything like that? Do you remember the formation of any of the ...*

**Attaway:** Well when I was there the ... trying to think of the name ... we used to go there to have meetings and so forth ... give me the names.

**Mims:** *Polk Science?*

**Attaway:** Pardon?

**Mims:** *The science building?*

**Attaway:** No that was later.

**Mims:** *Ordway? Ordway, the industrial arts building?*

**Attaway:** No, go back further. When I, I got there some of the buildings were already there. The name of the library.

**Mims:** *The [E. T.] Roux Library.*

**Attaway:** [E. T.] Roux Library was there. And the other library of course was years later. And then the one that was close to the library. The one that what's his name designed? You know the ...

**Soash, Denham, and Mims in unison:** *Frank Lloyd Wright.*

**Attaway:** Frank Lloyd Wright, yeah.

**Soash:** *Did you ever see Frank Lloyd Wright on campus ever?*

**Attaway:** Oh yeah, he, he was there. In fact is, I was walking about as far as from here to that side. He was walking with Ludd Spivey, and he was upset because he thought Ludd Spivey was, was making it cheaper by putting more sand ... sand in the thing and he was really fussing at Spivey, and Spivey was, Spivey was just, Spivey was taking it.

**Soash:** *So Mr. Spivey didn't want to antagonize Frank Lloyd Wright?*

**Attaway:** Oh heavens no, no. Another funny thing with Spivey, [makes statement that he asks to be off the record] ... [laughter] ... we didn't want to laugh or say anything. But he did that. I was there; I saw it. [laughter]

**Soash:** *That's a great story. Do you remember what Frank Lloyd Wright's personality was like?*

**Attaway:** I didn't get to know him.

**Soash:** *Was he a rushed person going from ...*

**Attaway:** No, I don't think he was rushed. Not to me.

**Soash:** *Right.*

**Attaway:** But then, I, I didn't really have that much contact with him. I just happened to be walking behind him that day. I knew who he was, and I knew he was fussing at Spivey.

**Soash:** *Were the Esplanades up while you were ... ?*

**Attaway:** They were. They were up. They were going along between the Esplanades and that's what they were fussing about.

**Soash:** *Okay.*

**Attaway:** Because he [Frank Lloyd Wright] thought that he, that they were beginning to crumble or something. And it was Spivey's fault.

**Soash:** *Of course it wasn't Frank Lloyd Wright's fault. It could never be Frank Lloyd Wright's fault.*

**Attaway:** You don't have to, if you put anything, quote me on any of this stuff I'll mark it out because it shouldn't be.

**Soash:** *That's fine. The Water Dome ... was the Water Dome there while you were at Florida Southern? Or was there talk of forming a Water Dome?*

**Attaway:** The Water Dome was, was, was after I left. Yeah.

**Soash:** *Okay.*

**Denham:** *What were the buildings when you were on campus that were recognizable? That were either almost constructed or ...*

**Attaway:** I just don't remember. You're getting a lot out of me that I didn't think you can because there's so much that I can't remember.

**Denham:** *Okay. Like the Annie Pfeiffer Chapel, for example, was that constructed or was it on its way?*

**Attaway:** No, the Annie Pfeiffer Chapel was the one where he did that. [making a reference to his previous off-the-record statement]

**Denham:** *Oh, okay, okay, okay.*

**Attaway:** Yeah, Annie Pfeiffer Chapel.

**Denham:** *That was the, [Mims joins in] that was the first one.*

**Attaway:** And after I left ... down there ... was when they put in the one that ... I would call it the chemistry building, and so forth. I don't remember ...

**Mims:** *Polk Science.*

**Attaway:** Yeah, Polk Science.

**Soash:** *Finally ...*

**Denham:** *Are there professors that you had at Florida Southern that you remember? Were there professors there that you remembered as being ... inspirational, or ... made an impact on you?*

**Attaway:** The one in chemistry, and I know him so well but I can't remember the name.

**Denham:** *Was it Professor Bly?*

**Attaway:** Bly, yes. Bly, we were, I was very close to Bly, even after I left Florida Southern.

**Denham:** *Can you talk a little bit about him and what, what kind of work that he was working on, and what you might have assisted him in? And also your collaboration after you left.*

**Attaway:** Dr. Bly was really not doing a lot of research. He was just a good teacher. And he was showing us how to do all these different things in the lab, that's what I remember him for. They weren't, they weren't doing very much anyway. And the one that, the one in ...

**Mims:** *The one that did the research with vitamin P? The vitamin P research.*

**Attaway:** Yeah.

**Denham:** *Sokoloff?*

**Mims:** *Sokoloff?*

**Attaway:** Sokoloff, and there was another guy that I got to know really, very well, but I don't think that I remember his name. He's been dead several years. But the one that ... oh what's his name ... because Bly was chemistry and somebody else was physics, and this one was, was the regular math. His name's escaped me; he was very good, but it was a long time ago.

**Soash:** *It's okay. But it's fascinating to hear your memories of Florida Southern ... what the campus was like, what the professors were like, so that's very interesting as a student there.*

**Attaway:** And then a lot of those buildings that they built for people to live in though were not there at that time either. A lot of that was done, was doing during that time.

**Denham:** *You mean the dormitories?*

**Attaway:** The dormitories, yeah. And of course the old dorms that were, they've been there forever I guess. There's a big brick building.

**Soash:** *Um ...*

**Denham:** *What was in your decision to go to Florida Southern, obviously other than it was close by, was there any other draw that you had?*

**Attaway:** At the time that was, that was about it. We had moved down to Haines City and it was very convenient.

**Soash:** *Just to wrap up, is there anything about your involvement in Florida citrus that you'd like to talk about before we end? Have any final thoughts on your own career?*

**Attaway:** In that area I put down about the, the ... what did I give you a while ago? [searching for papers] Anyway ... no, no, no ...

**Soash:** *I don't have anything else over here.*

**Attaway:** Well I'm trying to say the one where ... the patents, the patents. And I've already given you that. I've written about the patents here but I think you've already got it.

**Soash:** *Oh, I'm sorry I didn't ask you this earlier; I got a little bit off track with the Florida Southern stuff, but the box tax that you worked with J. D. Alexander and Norman Todd, what is the box tax? I haven't been able to find any information on that.*

**Attaway:** Oh, we were really involved in that. And what it was trying to get money that could be used to do research in certain important areas in citrus is what it amounts to, yeah.

**Soash:** *What, obviously it was a tax on boxes, but shipping boxes, I'm assuming, or just the amount?*

**Attaway:** Amount of boxes.

**Soash:** *Okay.*

**Attaway:** A 90 pound box would be citrus.

**Soash:** *And it was levied on the growers of ... ?*

**Attaway:** On the growers, yeah.

**Soash:** *How did the growers take to having a tax on them?*

**Attaway:** Well the growers, the growers were actually, were very much in favor it because they knew that it was going to allow work being done that would otherwise not be done.

**Soash:** *That's great.*

**Attaway:** Yeah.

**Soash:** *Well, I think that about wraps it up.*

**Attaway:** Larry did a lot in the box tax.

**Mims:** *Jackson?*

**Attaway:** Yeah, Larry Jackson did, and I did it for a while, and then the one who is ... the very first guy with one in ... Lake Wales, he's in the legislature, tell me ...

**Mims:** *Time period?*

**Denham:** *Oh. Rick Dantzler.*

**Attaway:** No.

**Denham:** *No, not Rick Dantzler, I'm sorry, Lake Wales.*

**Attaway:** Lake Wales.

**Denham:** *He would be Winter Haven.*

**Attaway:** He's in the legislature right now. He, he's a senator. From here.

**Denham:** *Baxter Troutman?*

**Attaway:** No. I mean, I, I, I, I know the guy ...

**Mims:** *State level?*

**Denham:** *No, not Adam Putnam of course?*

**Attaway:** No, no, no, no ... they ... he, he's from the family that owns hundreds of, hundreds of groves. He's been in the legislature for ...

**Denham:** *We, we'll find out, we'll find out.*

**Mims:** *We'll find out.*

**Soash:** *Yeah we'll add it to the ...*

**Denham:** *We can, we can insert that in.*

**Attaway:** Yeah, he was ...

**Denham:** *Now when you say you were involved in the box tax, one more thing on that, did that entail going out and ... and talking to growers, giving presentations, trying to get their support, almost like lobbying them and trying to educate them to the need of it?*

**Attaway:** To some extent. I didn't, I didn't do as much of it ... I didn't do too much of it myself. So these other people did.

**Soash:** *What was your role within the box tax?*

**Attaway:** Pardon?

**Soash:** *What was your role within the formation of the tax?*

**Attaway:** I was in favor of it. [smiles]

**Soash:** *Using, helping to develop the money that was brought in by the tax for educational programs, that kind of thing?*

**Attaway:** Yeah.

**Soash:** *Well thank you very much. We really appreciate having this opportunity.*

**Attaway:** Well I hope I didn't, I hope I didn't tell you anything that was wrong.

[END]