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# Mr. Donald MacCreary

[00:00:00]

Interviewer: This is an interview with Donald McCreary in Newark on July 14<sup>th</sup> 1976. Donald McCreary is a former professor of entomology at the University of Delaware who retired in 1968. Mr. McCreary what have you been doing since your retirement?

Mr. MacCreary: As little as possible. I have been taking care of my own place, I have helped the boys a little bit out of the building and I've followed my favorite pastime of fishing down at Delaware Bay. That is just about the extent of my activities since I retired.

Interviewer: What kind of fish are you catching? Are they having problems in the bay about the fish catch?

Mr. MacCreary: It's not quite as good this year as it has been. And we've been catching trout down there. I have a friend who has a boat and I am first mate and we've had a lot of fun.

Interviewer: How did you happen to come to the university?

Mr. MacCreary: Very interestingly I graduated from Iowa Wesleyan College in Iowa and I got a fellowship at the university of Maryland and following, obtaining a masters degree I was fortunate to get a fellowship supplied by California **[inaudible] [0:01:47]** Company for a year at the University of Delaware. The year extended into two years and in 1932 I was taken on by the department of entomology of which there were three of us in the department at that time. And I went on to the usual regime of assistant professor, associate professor and ultimately a full professor. I was at the university all of that time except for early 1942 until late 1945 when I was in the Navy.

Interviewer: What did you do in the navy? I heard you've been *royad* in the first war?

Mr. MacCreary: No, I was too young for that fortunately. I was very fortunate and did the entomological work. I was a malaria control specialist and did general insect control at the basis where I was established. I was in Norfolk in early 1942 and under the instruction **[inaudible] [0:03:17]** and a lot of part of that year and then in early '43 to Brazil at the Freed air wing where we had 12 or 14 bases and I was the man responsible for insect control and malaria control at those bases for about 19 months.

Interviewer: What did that involve?

Mr. MacCreary: That involved checking the areas immediately around bases for mosquito breeding and seeing that it was taken care of. I also had charge of taking care, other than say problems that we had in the bases such as well screening and type of thing and flies were a big problem which we had to take care off. And strangely enough bedbugs were another big problem down there. We have a bedbug up here that's different from down in Brazil or South American bedbug which in some places it gave us quite a lot of trouble. So I took care of all the insect problems and also did work on health problems regarding sanitation around the galas so that we tried to keep the natives who worked for us in a healthy condition and eliminate the ones who might be carrying parasites that they could transfer to our men.

**[00:05:09]**

Interviewer: How did you handle the bedbug problem?

Mr. MacCreary: That was before DDT and I had a gang of men working for me and we used pyrethrum and sprayed the beds thoroughly and then go back on them in a week or two and did the same thing. And we were able to keep them very well under control but...

Interviewer: A daughter of mine worked in Bedford Sterilizer in the early 60s in what was called a Hoonerstone project which was to live with the people in the depressed areas in New York city and to be part of their lives, it was part of their 60s civil rights efforts. And she found that to control cockroaches they were putting toothpaste on the bottom of bedsteads. Why would that work?

Mr. MacCreary: You've got me, I don't know why toothpaste would work. There's a lot of weird things done for roaches and bedbugs if they work it's okay but I don't know why that would be effective, I haven't any idea and I've never heard of it before.

Interviewer: It must be that the bedbug liked the taste of the toothpaste, only it won't be on a commercial for the toothpaste.

Mr. MacCreary: No, I couldn't say, possibly it had a repellant effect I don't know.

Interviewer: Did you have particular research during your career as a person in entomology that still retained your interest?

Mr. MacCreary: Yes I try to keep up in publications on numerous things; I was a bit of a jack of all trades as you have to be in a smaller institution. We did the first mosquito survey in the States back in 1932 from which all mosquito control work has taken place after that and I worked with that until well into the 50s as part of my job of working with mosquitoes and was on the old mosquito control commission prior to it's being dismantled by governor Burke and transferred to the State Highway Department. So I've retained an interest in that, I also was much interested in horseflies and I've written a bulletin on the first published on horseflies in Delaware and I also published a bulletin on the ticks of Delaware. Both of these were back before the war.

Interviewer: You were here during the Japanese beetle epidemics so what did the university do in Japanese beetle control?

Mr. MacCreary: That is a very interesting program we collected tremendous numbers of Beetle Arvey and brought them into the lab and infected them with bacterial disease, milken white disease and then the US department of agriculture took over from there, ground these up into powder and mixed it with talc or something and we spread this material. I tried to get it in every square mile of state. We used what very few people know today an old hand corn planter which you just stick in the ground and it releases a certain amount of the stuff. So we tried to get that in every square mile in the state and all one summer that operation took place. Apparently it was very effective because our beetle population following the next few years was way down. It has gone up lately.

Interviewer: The number of people involved to infect every square mile must have been fantastic or did you just have one shot per square mile with the corn planter?

Mr. MacCreary: We had very few people involved. One of the persons involved was a man who you undoubtedly know, former Dean Dorody worked for us in summer time at that time. We didn't have but a few people involved but we mapped the state and the square areas and they went to them and I found and it was not put into a ploughed field it was put into a **[inaudible] [0:10:31]** or something like that. So it didn't take too many people, because they worked all day long and...

**[00:10:39]**

Interviewer: How effective would it be, I mean wouldn't you have to almost cover all that square area?

Mr. MacCreary: No there was a spread, a beetle would get it and when it died the material was in the soil and other beetles crawling through that same area Beetle Arvey would pick it up. So you gradually infected the whole bunch like that. Recent years they have prepared more in the State for some time you could hardly find one. I have scribed it to the fact that we see it more in new developments where they have scraped all the top soil off and gone ahead and it's been my theory, and it hasn't been proved, but it's been my theory that they removed all the bacterial material and as a result beetles can come back in and live in these new lawns that they've put in because the stuff has been removed.

That's a theory but at least that's where we see most of the beetles in the new developments, a few years after the development. Brookside for instance shortly after that got going had heavy beetle problems and they also interestingly enough had a lot of black widows out there for several years because of the lumber that laid around and made attractive places for it. You know there was one doctor here in town that sent automatic he was a pediatrician and he got lots of calls on these black widows from young mothers out there and he automatically referred them to me because he was sick of talking about black widows.

Interviewer: You've just brought up children and insects together, today in the New York Times there is a very interesting story about a government project to grow fireflies so that Tokyo children may see them one night of the year. They announce the night when the fireflies are going to be released only a couple of days ahead of time and the children go home after having had the excitement of watching the firefly and according to the paper the firefly is no longer in Tokyo or most other urban areas in Japan because of the chemical waste in their streams and the pollution in the area. And I'm wondering, well first of all they said that each firefly costs 25\$ but nobody minds because they really are happy about the government people who work on the firefly project, they want to pay for it so their children can see fireflies. 30 years ago in Delaware on a summer night anyone could sit on a poach and watch the fireflies over the lawn. Now we can't see them and what do you foresee about this?

Mr. MacCreary: Well I have an argument with that because on my lawn here I see them, I have fireflies down here in considerable numbers and have had for some time. I can't see how they cost \$25 a piece because recently I read an article about scientists are working on that firefly light. It's a very interesting and they pay kids to collect them and the owner pays two or three cents apiece for the kids who pick them up.

Interviewer: They meant that for the number of fireflies they were able to release on a summer night like a fireworks display that it'd cost about \$25 a bug.

**[00:15:02]**

Mr. MacCreary: I see. But to repeat I still have a lot of fireflies around here of course I have a large lawn here that hasn't been disturbed for many, many years from could up or anything like that nor treated with an insecticide. So I have plenty of fireflies here.

Interviewer: Well what about the stage generally we must have a reduction the number. We used to see many more.

Mr. MacCreary: I would suspect so because the developments have changed conditions completely. Every new development gets in with bull dozers and push the top soil off which much destroy most of them so I would suspect particularly in this county the lower counties not so much affected. Although I don't know the population of them in the lower counties because I never noticed that but at least right around here we have them.

Interviewer: What about the department in terms of its size and diversity, what about the people that you might have brought into the department.

Mr. MacCreary: When I came here as I said there were three people in the department and we were located in what was known as South Hall which was a temporary building built during World War I close to Wolf Hall and we had large somewhat in a few years and a latter part of the 40s and 50s and since then there's been quite an exposure in the number of people involved and it is now the department of anemology and applied ecology. So we have two or three people in there that are ecologists.

It's headed by Dale Bray who worked here prior to becoming head of the department, left and came back again as head of the department. There must be about a dozen of people working in there now and most phases of anemology, mosquito control work and crop work with corn board and numerous strengths of that nature so it's a very well known department now and graduate get masters degrees and our boy seem to do very well when they go away to either work or to take advanced degrees.

Interviewer: When did you become chairman and how did the growth develop?

Mr. MacCreary: Well let's get something straight here, I was temporary chairman. I was full professor but I was temporary chairman for a year I guess while we

were waiting for to get one and then after we got a new chairman I was pulled into Dean Wallow's office as an assistant to him for a year and a half. So I sort of a jack of all trades as I mentioned before, I can't exactly say how we got into some of these other things, the ecological end of it, it seemed to be unnatural growth and Dr. Bray he is an excellent man in organizing and getting things done and getting into more, the things that we should have been in.

Interviewer: Oh I see, when he returned to the campus he became the chairman? Was that quite a while ago?

Mr. MacCreary: As I remember that was about 1957 or '58, Dr Sterns who had been the chairman and the fact that he was the man that hired me, when he retired then there was this gap while we were getting a new chairman then Dr. Bray took over.

**[00:20:14]**

Interviewer: Did your budget continue to go up each year? Did you have money from the state, from the federal government that came to you and did you work with the DuPont Company experimental people?

Mr. MacCreary: I should say the budget continually went up for quite a number of years, I don't believe it is now although I'm not sure. But we had fellowships for some years with the DuPont company prior to Gracelle Company that they took over was located out in a higher some place. While they were building some new insect establishment in Wilmington two of their men were with us here working on their materials.

We also had fellowships with Hercules for several years on fly control and a toxicin a material that is still used was first experimented with us out here at the university. We've had a lot of small grants and fellowships from \$200 to 5000 perhaps that have put in to test a particular material. For instance one of the trustees now, Henry Canon of Ridgeville has been very much interested in control of cornball in peppers and that's one of their big products of his cannery and he's been much interested in that and has supplied considerable money to work on. I rather think he's still doing it although I've been away from it for some time. So we've had support from outside and in fact back in the beginning that had enabled us to grow to get materials, to get equipment, things of that nature. Without that there wasn't the money to buy equipment, so we were able to get all the things like microscopes and other things of that nature through these grants from different companies.

Interviewer: What are you now reading about the problem of insect control over the country Time Magazine one week ago had a huge insect on its front cover and the headline said the bugs are coming.

Mr. MacCreary: Well I read a considerable amount of stuff. I would say that the bugs aren't going to catch up with us for a while I wouldn't be too concerned but if EPA and some of these other organizations get too tough on their control with cutting off the use of materials we could get into serious trouble. Some of these people talk about controls that are completely impractical on a large scale and in your home garden you can pick the bugs off but if you have 200 acres of beans you can't pick the bugs off.

Interviewer: What about worldwide health problems and insect control?

Mr. MacCreary: Apparently from what I read the health problems are getting into bad shape again particularly in regards Malaria in India and the far east because I presume that we must have supplied a great deal of insecticide particularly VET to control mosquitoes and since at least we're not doing it now and Malaria has jumped way, way up so the health problems from that standing point are, I'm very much concerned about them. So I suppose that it will continue to be like that I can't see some of these poor countries buying this stuff and probably us not supplying so unless we come up with some other kind of material or some other method of control of mosquitoes we're going to have to continue to have heavy Malaria cases.

**[00:25:41]**

Interviewer: What about the problem of Petra chemicals and their high cost, are they involved in the production of insecticide as they are in fertilizer?

Mr. MacCreary: Oh yes. Petra Chemicals supply I think practically all of the insecticides except the pyrethrums and Rotenone which are plant materials. But the rest of them have to come from Petra Chemical.

Interviewer: Well Pyrethrum and the other thing that you mentioned.

Mr. MacCreary: Rotenone.

Interviewer: Rotenone are the plant derivatives are the old fashion kind, right?

Mr. MacCreary: Yes they've been known for great many years and are quite effective against certain insects and pyrethrum still knocks flies down when you spray it on them and Rotenone will kill bean beetles and other things.

Neither of them are long lasting which from one standpoint is excellent, but from another it doesn't protect very long it kills what it hits.

Interviewer: Well then the problem that the EPA people have with things like DDT is because of their long range of that.

Mr. MacCreary: Yes they stick around for a great many years, for a lot I wouldn't say a great many years but they last for a long time and that is the big problem with DDT it's long lasting, DDT and some of the others. So they are too long in the environment.

Interviewer: When you look back at your long residence here in Newark from 1932.

Mr. MacCreary: 1930.

Interviewer: From 1930 when you first came what are your thoughts so when you think of some of the personalities you've known, for example you mentioned Dean Wallow, people you've worked with and neighbors what do you think about it as the town gown place where you've lived?

Mr. MacCreary: First I would say that a lot of the people that I worked with and knew were much more attached to the university that a lot of the people that are working for the university today. I regret to say that but I'm convinced because I see the new boys are using it as a stepping stone in a great many cases and they are not getting away from that. Whereas people like Mike Dorody, Wallow, and great many of those people this was their home, their job and they liked it and they were not looking for something else bigger and better as many are today. I suspect that the town gown situation was a little more quiet back in the 30s because the university was not spreading out at that time, maybe it was riding along on the same size campus and they were not banged properly I think that is one of the things that caused the difficulty between the town and gown.

Interviewer: Could you talk a little bit about George Wallow and your work with him as an assistant?

Mr. MacCreary: We were friends from the time I came to town he was already here and we were both unmarried and played around together a lot. I worked with him at that time when he was a 4H Club agent and then I worked with him when he was a county agent and then I had more working time with him until he selected me to work while that job was vacant as assistant director. So we were old friends and got along very well, enjoyed each other's company I think.

**[00:30:31]**

Interviewer: Did you work with him in terms of his work with the legislature when you were an assistant admin?

Mr. MacCreary: No, I was not involved in that end at all. I was involved in the mechanics of running the school and the department.

Interviewer: Do you remember what the total budget for the agricultural school was when you worked there?

Mr. MacCreary: Sorry I can't. It was a long time ago and I didn't pay a lot of attention to the fiscal end of it that was largely his baby.

Interviewer: I was wondering if you had any kind of estimate because as of last year I believe it was a four and a half Million Dollar operation including federal grants for experimentation down state.

Mr. MacCreary: I would suspect it wasn't very far from that and in fact I believe in the past couple of years they have lost some money. So it was probably about the same amount when I was there in the late 50s.

Interviewer: Most people in the arc school and different from other parts of the university use their first initials rather than a first name. Do you know any reason for this?

Mr. MacCreary: Haven't the slightest idea. I've always signed my name Donald MacCreary and why these other guys do these things I haven't the faintest.

Interviewer: That is a tradition almost in the arc school, or at least there were many of them.

Mr. MacCreary: You have me, I haven't the faintest idea why they do that. Possibly I am about the only one, looking back on it that uses the full name. I would like to mention one other individual, old Dean McQuee who was dean when I came here he was a tough old Scotsman. He was hardboiled and took no nonsense from anybody, the farm and the arc school was his baby and he allowed no one to mess with it. he was a horticulturist and had a great following as the older people downstate back in I suppose probably from 1912 on and when fruit growing was a big deal here in the state, apples and peaches. And some of the people down there were very fond of him, he had excellent relations with large fruit growers.

Interviewer: When did the peach plight hit?

Mr. MacCreary: Before I came, but the peaches started going out in the 30s for two reasons I believe. One the price was terribly low in the 30s, they just couldn't make any money and two the Oreno fruit moth and brown rot they would ship Carlota peaches to New York and they looked fine when they left here and they were a mass of brown rot when they arrived and Delaware peaches that had originally had an excellent reputation got a very bad reputation. And Brown rot I think practically ran them out of the state so there are very few peach arches left rather small ones and now they can control brown rot but they don't have the market they once had.

Interviewer: There are some orchids though and they can control the brown rot. Would you expect them ever to recover? I guess the orchid industry is a long time coming with the land you would not expect it to go into orchids again?

**[00:35:04]**

Mr. MacCreary: I would doubt it. It takes a while for an orchid to develop, you plant it today and you're not going to get anything out of it, you are going to spend money on it for several years before you get anything and your market are always uncertain. When Georgia has many great peaches they get in before Delaware does and ruins the market pretty much. And Jersey competes with you. So that I would doubt that the valuable land downstate would be used for orchids from now on except rather small ones that have local markets. Somewhat like Milburn up here in the edge of Maryland that gets rid of a lot of this stuff right there. And I don't foresee that it will come back to any extent because the caning peaches will have to come from California where they can control everything, the weather, practically the market and everything else.

Interviewer: One problem they are going to have I think is the problem of the phosphates which gets down into possibly into their water table. Isn't that a long range problem in California and that great Yosemite is it the Yosemite Valley? The valley that grows everything, that's not the name of it. Sam Wakeen?

Mr. MacCreary: I don't know exactly but possibly you have something there that you build up and of course continual irrigation causes a leaching out of the salts in the soil, that's outside my field. But there is something to that effect that long range irrigation gives you trouble out there and I suspect that the use of some of these things will build up to cause some trouble.

But I'm unfamiliar with it and shouldn't say very much about it, not knowing about it.

Interviewer: What about the future in terms of the control of organisms insects in Delaware is everything pretty well organized now and pretty well controllable?

Mr. MacCreary: I would say that yes, most things are or can be controlled to certain extent not complete you rarely get complete elimination, you scarcely ever do. But I would say that as of right now there is no immediate. The only thing is Gypsy Moth which is coming in, now that's another story and requires thus far the only thing that controls it is Ariel spring and it defoliates for us and I would say it is not exactly under control. They are working on various lures and things of that nature but it is one of the big problems and it hits forest and all your local trees. It strips them and trees can't be stripped very often and continue to live.

Interviewer: What about the Dutch Elm problem on the campus?

Mr. MacCreary: They've handled that pretty well over the years they are sprayed with up until the last year or two they have been spraying with methochlor to kill the beetle that carries it.

Interviewer: You better spell that for the person who transcribes this.

Mr. MacCreary: M-E-T-H-O-C-H-L-O-R.

Interviewer: This treatment then you think will probably mean that the main elms on the central campus won't be able to survive?

**[00:39:45]**

Mr. MacCreary: I don't believe they used the Ariel spray last year or possibly the year before. They were trying an injection method with a new a name which escapes me. But they've tried that some this year and careful pruning of dead stuff in the trees and I believe they've reduced or lost to one or two percent a year. You're going to lose a few gradually but it appears that this new material can be injected into trees may solve the problem. But it's where you have a solid planting of one tree you generally are in trouble if anything hits. And that's the case with our elms which are very beautiful trees and which I remember is quite small trees.

I should like to mention the origin of work on mosquito control. Back in 1932 prior to that time the Rehoboth has lost the entire group of people

that were enjoying Labor Day due to mosquitoes and people down there were very much exercised about this and something had to be done. Mrs. Henry D Thompson who was at power at that time in the state and had been for a long time was much interested and W.S. Cocron who developed *[inaudible]* **[0:41:31]** was much interested. And between the two in the City of Rehoboth they put up money for a survey of mosquitoes. And Governor Burke out of contingency fund he had put up a little money and we went ahead and made this mosquito survey of the state and published a bulletin which has long since been out of print.

Then there was nothing done, there was no money available until I believe about 1933 the WPA and the Civilian Conservation Corps got started and a camp was made at Louis and another one further up state and a great deal of ditching was done. And a commission was set up which included the senator engineer of the state board of health and a representative of the egg school which at that time, at first it was Dr. Sterns and later myself, that administered the work of the CCC. And this carried on for a number of years, two or three and a lot of ditching was done in the marshes and people became aware of where the mosquitoes were coming from that were hitting the resort areas and the towns inland. That particular mosquito, the salt marsh mosquito has a long flight range so it gets into way back inland.

Following that there was a difficulty between Mr. Cocron who was the executive running the thing, Governor Burke dismantled the commission and shifted the whole thing to the state highway department. We at the university became their consultants and we ran their traps for them and we got a little money from them to do this work and advise them on insecticides or other materials. And this has continued at that rate and under those conditions up until just a few years ago in the reorganization of the state government. Now it is under another section of the government and we at the university still maintain the same type of consulting for them and still get some money to do research which leads to better insecticides and more safe insecticides and other methods of control.

**[00:45:00] End of Audio**