YOUNGSTOWN STATE UNIVERSITY

ORAL HISTORY PROGRAM

CCC in Parsons, West Virginia

Personal Experience

O.H. 1051

ALVIN C. ALLISON

Interviewed

by

Rebecca Rogers

on

July 23, 1989

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INTERVIEWEE: ALVIN C. ALLISON

INTERVIEWER: Rebecca Rogers

SUBJECT: Lesage Nursery, Parsons Nursery, Sandy Oliver, planting season, nursery life

DATE: July 23, 1989

R: This is an interview with Al Allison for the Youngstown State University Oral History Program, on CCC in Parsons, West Virginia, by Rebecca Rogers, on July 23, 1989.

I don't know your legal name, what is your legal name?

A: My legal name is Alvin.

R: Alvin! So, it really is Al Allison.

A: A lot of my brothers they get called Al even though their name isn't. I get an Al out of both of them though.

R: Oh, I know, I figured it was some other name. That it was David or something like that.

A: No, it is Alvin. I don't know where it came from, but I never heard of it. Not a family name.

R: It is not a family name?

A: No. My middle name is a family name.

R: Which is?

A: Clark, because it came from my grandfather on my mother's side. He was a Carnahan but he was a Clark Carnahan.

R: Clark Carnahan?

A: Carnahan.

R: Are you from around here?

A: Well, I was raised north of Pittsburgh, Pennsylvania a little ways, between Pittsburgh and Butler.

R: Oh, where?

A: At the Gibsonia area.

R: I don't know it. My husband's college roommate is from Tarentum and he teaches in Butler.

A: In Butler, yes. I have a brother, my oldest brother, who lives out towards Tarentum. Is he from that part of the country?

R: Sadom his name is, you ever heard of that.

A: No.

R: I don't know what his . . . Yes, he is from around there.

A: He was raised in Tarentum area?

R: Yes. My mother's college roommate her name was . . . I don't know what her maiden name was. Anyway her married name was Dixon, and she was from over there too. We don't circulate that way very much.

A: We lived in what they call a Gibsonia area, it covered a big area there. They had a post office over by the railroad and they operate out of there, took a lot of rural routes out of there.

R: So, you were a rural boy all along?

A: I was raised on a farm there. There is a stretch between Harmony, where the old trolley line went from Pittsburgh to Butler. The other part of the township, then the coal town, started there in that area.

R: Your family weren't related to the Harmonites? That sect that lived over there, then they moved down to Ambridge. I mean those Germans, as a German.

A: No, they are Scotch-Irish.

R: Really?

A: Yes, you find them down in this part of the world up the hollows the same name, MacIntyres and those people that got on the river and came down. They came in through Philadelphia I think.

R: That is my family too, the Rogers are the same way.

A: We have some Rogers in this area.

R: We were from Wheeling, my father's family. So tell me how you got into the nursery business, when you went to school.

A: I went to Penn State and, of course, we had our weekly work days. The first nursery I ever worked in was during college days at Mont Alto, Pennsylvania, then you went to school. You had one day was all field work and we ended up doing shipping season (jobs), and helping lift trees, and taking the shades off of the trees, and doing work like that. Maybe we would go out in the woods sometimes to rake needles to winter mulch them. This is the first work I ever did in a nursery or ever saw one, was in Mont Alto.

R: How did it get you to Parsons? Give me your route to Parsons.

A: Oh, I have a long route to Parsons. When I graduated from college I came and worked out of Morgantown, West Virginia for one summer, then I went into Summersville. Whenever the West Virginia Conservation commission got refinanced again after World War II why, they were hiring additional people. I went up to Clarksburg in district forestry work and was there for a year.

R: This was all for the state of West Virginia?

A: Yes. I worked for the West Virginia Extension Service while I was in Summersville.

R: That is actually university isn't it?

A: Yes. So we went up to Clarksburg and was there a year and they were moving people out of the state nursery. Ralph Quick was at the nursery at that time. He was moving into the Charleston office and they called me from Charleston; wanted to know if I was interested in taking a nursery job. At that time both were the same qualifications more or less as a district forester, the same pay skills, so forth. So, we went down and looked it over and went and decided to go down there.

R: Down there being Parsons?

A: At Lesage, West Viginia, which is along the Ohio River

north of Huntington. That was the Lesage State Forest Nursery, they called it then. It was just being reactivated after the CCC splurge had gone on back in the 1930's and early 1940's. It had been pretty well abandoned. It was just a token production during the war years. We went down there and put in a drainage system, and surveyed it, and drained it, and this sort of thing. It had never been fully developed. It was originally a combination game farm to raise quail and to raise trees. Right after, I guess, in the mid 1940's--by 1946 or something--they got money to build a cold storage and a packing shed down there. Which are things they didn't have before and so we were there then and worked on that. We also, because of the demand for the trees, were contracting with the United States Forest Service at Parsons, West Virginia.

R: To get trees from Parsons or to send trees to Parsons?

A: No, we would send by the seed and they would plant it and we would finance the production of them; the state would. That was already going on in the 1940's when I went down there to the nursery in the spring of 1949, it was. They were always in tree production up at Parsons.

R: They were still in production of trees at Parsons in 1949?

A: Oh yes.

R: Was Sandy Oliver still around then?

A: Yes, Sandy was there until we moved up later in February 1952. He left there just before we got there but he was still in charge of the nursery. He would plant the seed and take care of it and then we would ship our trees from there. I don't know how many seasons we shipped trees from there before 1952. It wasn't too many because we didn't have that much time before the Forest Service closed the Parsons nursery. I remember going up there in 1949 to see our trees because that was my first trip into Parsons to see the nursery. I had been there earlier many years before that but I had never been to the nursery. He took us around, showed us some trees.

One of the problems I had then, with government financing, was we didn't start a fiscal year until July 1--the state--and then there would be about a month and a half before they got any money up to the Forest Service, to weed the trees. They never did work that out exactly; how to get money in there to have it, you know, and spend it in time to keep the trees from getting weedy. You would go up there and Sandy would

have to take the shades off our seed beds and leave the trees down in there till they had money to weed. So, this was the only thing that impressed me at that time was how many of those trees should have been weeded in June. That was the last money he had to spend was in June, he had to wait until August to get more money. So, he had about six weeks to eight weeks there that he wasn't able to hire people to keep the trees clean. We had the same problem down at the Lesage nursery; was always running out of money, and this sort of thing, but you run into hiring freezes and all this sort of thing. It still happens.

R: Nurseries keep growing whether or not.

A: Well, I was over to visit a nursery here in New Jersey a couple weeks ago and they were having the same thing. They had had a freeze on their labor and they weren't able to do anything until that changed.

R: Was Sandy Oliver using women in the nursery?

A: Yes.

R: Mostly?

A: Yes.

R: Did you do that too as far as weeding and things?

A: Yes, we did that at Lesage. I think Sandy and the majority of his weeders were women, I mean his crew there. At Lesage most of the weeders were men but we did have women. Jobs got more plentiful and men were getting better jobs. These few people would stay with us, you know, because they worked there for years. The other ones would drift off to better jobs and we would replace them with women. We didn't have nearly the number that Parsons had. In fact, I noticed in their Parsons washhouse--what they called a washhouse building--they have two sections there; one was for women, one for men. So, they have always planned on having large crews, men and women. Then they use women to count, you know, too.

R: What were they counting, you mean counting trees?

A: Trees, yes. Women usually can count trees faster than men. They are more agile with their fingers that way.

R: Oh, in bundling them up or whatever.

A: Yes, we used to count them.

R: You counted them in the seed beds?

A: No, it was when they were lifted, brought them into the packing shed. We would inventory in the seed bed and then you would use that inventory to lift beds and sell trees to the estimated number you would have.

R: Did the men actually do the packing, usually?

A: Yes, the men would roll them up in the bundles for shipping. Then they would pull the trees and bring them in, of course, in the evening. Nowadays they use women for a little bit of everything depending on the situation. They can pull trees as well as men. Well, they could before too, you know. It is one of those things.

R: They also know how to count.

A: Yes. You wouldn't differentiate between men and women.

R: No, but there was a lot of differentiation then. We interviewed one of the women who worked there and we were talking about clothing--she had started working there in the 1930's--and she said she always wore pants. I said, "Wasn't that unusual?" She said, "Oh, yes! If they saw you walking through town wearing pants they knew you were working at the nursery."

A: That could have been because we would hire some in the summer. A lot of those younger girls would wear shorts. Not at Parsons because they had an old crew up there, we used to hire young kids for bird watching down at Lesage nursery. At Parsons they used women to do that.

R: So, you went into Parsons to actually work there in 1952?

A: West Virginia arranged a lease with the Forest Service in 1951.

We had fewer men at Lesage up to that time, Parsons would work larger crews. They apparently had more women that were depending on that so they didn't have to work them steady. We had fewer women and we worked more days, you know, fewer men there. They had a crew you could bring in, that would be twenty, thirty women or something when you wanted them all in there. They would send the message out and they would come in so you could weed out trees faster than if you just had a few people. We ended up with fewer. Of course the state provided full time employment to those people, instead of using part-time labor they would be part-time. If they worked so many hours a month they got their insurance and this sort of thing, which was an

advantage to them. So, we tried not to get a lot of people except on shipping season when you would have to do lifting and shipping and everything. We would hire a bunch of people that might only work for two, three weeks, or something like that.

R: As you saw it in Parsons what was a work cycle? When did you start in the Spring, I would presume, and what were you doing and then how did it sort of run through a calender?

A: Usually you would start about the same. Between the Ohio River nurseries and Parsons nursery there is not too much difference because the Ohio River doesn't get the snow cover. Each time you have cold weather, why, Parsons will have snow. You may have a week and a half difference. Sometimes Parsons you would lift trees before you could Lesage, for instance, because we had a wetter site down there. Clements has sandier soil. Still they are pretty close together because of the fact that Parsons doesn't freeze down deep when it would be freezing.

R: Start the year, where do we go?

A: If you are starting the year you are probably starting to lift trees the latter part of February, sometimes in the middle of February if we can get in and that was true in Parsons. Then you would lift into April generally, mid April. We shipped out of both nurseries at Clements and Parsons. In Parsons we had a basement storage, we didn't have refrigerated storage for trees and we still don't have at Clements. We are going to build one someday but they haven't built one yet. We have to store there in a small storage room in the basement of the office.

We have shipped; generally, all the years our major effort of putting out trees was by parcel post. That seemed to work fairly good with most of our deliveries and it didn't tie up field people for delivering trees. Although, the last few years when we have been getting trees from out of state we have used personnel from the state organization to pick the trees up at the nursery and deliver them to the individuals.

R: You only shipped in the spring?

A: Some in the fall but our fall was a limited amount. Years ago when we raised quite a bit for the game management division, why, we would lift their trees for them in the fall. They would pick them up and distribute trees around to the different areas.

R: When in the fall, like September?

A: No, we would start usually in October, in that area. In September usually the trees are still growing along that area. We shipped in mid October into November.

R: Then when in the world did they plant the trees?

A: At the nursery the trees are planted, some trees are planted in the fall; some of your white pine seed and some of your hard wood trees.

R: When they are dormant, you plant when they are dormant?

A: In the field right, some trees seem to do better if you plant in the fall, like white pine.

R: We are getting confused here, I'm talking about seedlings, you are talking about seeds.

A: Oh, seeds! You want to know when you plant . . . I'm at the nursery and you are out in the field.

R: Well no, I thought you were shipping plants.

A: Yes, we are.

R: No, I mean in our conversation.

A: Yes.

R: If you ship in the spring then you are going to be shipping still, dormant plants, right?

A: Right, they are planted shortly after they are shipped. The majority of them are planted within a week, or ten days, or two weeks, or something. Some people with larger plantings would order what you call a split order, part of the trees would come out on, say, March 1 and part of them on March 20, or something like that. We preferred that they wouldn't stay in our cold storage or in their cold storage facilities if we were up on top of our shipping season.

R: So, the plants are shipped dormant and then what happens when April comes, just in the nursery life?

A: The nursery life right in the latter part of March and the first part of April is usually the heaviest, part of your shipping season. That is when people in the field are ready to plant. Of course you have quite a variance between northern and southern West Virginia in planting seasons. We had trees that were held over in cold storage that we would maybe ship clear into the latter part of April. We usually finished lifting at the nursery by mid April. We didn't lift everything if

we didn't have orders for it. You were better off if you didn't invest in pulling the trees if we didn't have them sold.

R: How long normally was it between lifting the tree and getting it in the UPS, or whatever kind of parcel post?

A: We would lift the trees and put them in storage. At Parsons the mail went parcel post but the post office took the trees over to the station there where the mail was picked up by the railroad. They would go out of there that evening.

R: All in one day, you would pull them in the morning and ship them in the afternoon?

A: Or the day before or something. One time there were two shipments, one would go one way in the morning and one would go the other way in the afternoon. That was after they started trucking.

R: The north road and the south road, or something like that.

A: More east and west.

R: Not to many ways to get in and out of Parsons.

A: The truck would come through after they quit sending them by train. The train took the mail for awhile when we first went up there, they went out on the train. Then they went directly into the post office. The people in the post office would know we were coming in and they would have the stamps ready. They would pre-cancel our stamps for us where we could put them on there and they would put them in the post office waiting on the truck. I guess that truck, I don't know whether it went into Elkins or where, but anyway they had it also. One went east towards Romney, West Virginia. So, we could ship trees twice. One time we shipped the ones going east and the other time ones that go to the west. Got double work out of the same day's mail and that worked fairly well.

While you were doing that the planting season for the coming year also started more or less the same time. You had to get your soil pretty well worked up before then. You would have to do your spring fumigation on the soil to protect the ground that we used for germinating. So, that was done in April and May when you did your reseeding for the next crop of trees.

R: Was that hardwood or was that all things?

A: Well, it was all things. We had several hardwoods but

our main trees were conifers. Hardwoods were black locust and black walnut, then we started raising European Black Alder and Autumn Olive. Of course, one time we were big producers of multiflora rose.

R: People still cursing you for that one?(laughter)

A: Well, I don't think we ever got blamed for that in particular because we were producing what people were wanting to plant at that time.

R: That was for hedge rows right?

A: Well, for wildlife cover and so forth. They had planted multiflora rose. Back in the 1930's they raised these in the nursery at Reedy, West Virginia. The Soil Conservation Service put out quite a bit of multiflora rose then. In that country it hadn't spread too badly, it was in land that had eroded. I remember going down there one time in Gilmer County someplace and looking at a hedge row. It was supposed to be a fence, you know, it would hold everything! In the valleys, in the wilderness, then maybe forty feet across would be a gully way, it would be pretty good there. You go up over that dry ridge and maybe eighteen inches tall in the rows. So, it was doing all right in spots but you would still have to have a fence.

Then they really had a fence at the Chief Cornstalk Public Hunting Area. They had a demonstration area there where they bought the land, you know, and they moved the people into Eleanor, West Virginia; got those people off those farms. They had some multiflora rose hedges out there but they have got them all out of there now. They kept those mowed back by putting a mowing machine up on a wagon and letting it operate. Kept the top smoothed back. It was promoted quite a bit before it got state wide research.

R: Ohio did the same thing, Ohio got into that kind of trouble.

A: Well, everybody got into the same kind of trouble because they should have tested the thing for fifty, sixty years before you planted it.

R: Well, it turns out that wonderful cover those birds ate it and then every seed that dropped started . . .

A: Yes, Autumn Olive has the same problem. In West Virginia they were supposed to be good and it has gotten the same problem. So, we don't produce it now. In fact, Autumn Olive is now a noxious weed in West Virginia as well as multiflora rose. A lot of those things that survive severe conditions are hard to

control afterwards. Japanese Honeysuckle is another one, a lot of it was imported into this country.

R: Foreign plants, same with birds and all that sort of stuff.

A: We had probably around fifteen to twenty species in the earlier days and then we increased those when wildlife food and cover reclamation species came along because they were planting wildlife species on surface spoil areas. We probably had around thirty to forty species I think, in the latter years.

R: And almost all of those you seeded in the spring?

A: Some of them were seeded in the fall, but the majority of it was spring seeding.

R: Tell me how you seed, what did you do in Parsons after you fumigated the soil?

A: The first person I ever heard of fumigating nursery ground was Sandy Oliver. Now, I don't know whether he was the first one to use it or not but he was one of the early users at Parsons. I didn't see the outfit that he used but I think they tell me that he had a roller, or something that went off the back end of a manure spreader. They had some canisters or something that fumigated with methyl bromide, that he released under the spreader as it went up the bed.

R: So, it actually was a gas?

A: Yes, and we put it on at Lesage, the first we used was down there. We bought, I think it was about, six or eight feet wide heavy craft paper for covering. It wasn't crinkled or anything. We put that down over the beds on little horses--like saw horses--and put those in there and put the cans that released the gas outside the cover. A pound can under pressure, like you would use when you fill tires up. You would puncture that thing and the gas went into a hose under the cover. We used either a glass, china plate or a tin pan I believe it was--we used like pie pans--that kept what gas first hit from blowing into the ground. It would hit that and spread around. Those went in every so many feet up and down the bed. We had those hose in there and then after we got it covered with dirt by shovel, we released the cans. That was the way we fumigated seed beds.

R: What was it fuming with?

A: MC2, methyl bromide.

R: And that is what Sandy Oliver, you think, used at Parsons as well?

A: Yes, I'm pretty sure it must have been.

R: With his manure spreader did he have some kind of a flap or something?

A: I don't know. He wasn't there when I went up there but I think he had tried it that way.

R: This would be in the late 1930's?

A: No, it would be in the 1940's probably. It would have been in the late 1940's because I don't think methyl bromide was around being used for that until in the late 1940's, or mid 1940's somewhere at the earliest. I don't know when he tried it or when he used it but he did work on it there.

R: Okay, now we have got it fumigated, now what do we do?

A: Well, after it is fumigated the covers have to be removed. When we went to Parsons we did that type of fumigation work. In those days then we had large six, seven foot wide pieces of plastic to unroll, similar to what they use now.

R: Black plastic?

A: No, just plain plastic. We used to salvage them by taking them out in the river and washing them off. Which you wouldn't do nowadays.

R: This is for the Black Fork?

A: Yes, that was pretty clean but then you wouldn't be able to do that now. We didn't think much about it because it cleaned the covers. Nowadays you find out about that stuff; probably wouldn't want it out there. I don't imagine it would put much in the river because plastic wouldn't absorb it. We would just get the mud and that washed off so we could use them again. Nowadays we put covers down once, you know, these bigger machines and throw it away. You have trouble disposing of it now too.

So then after that we would put the seed in. We used the Gandy Seeder.

R: Excuse me, you left the plastic on after you fumigated to keep the fumigant in?

A: Yes, it was left on for at least thirty hours. We usually left it on an extra period because it didn't

cost anything to leave it on, needed a little time. That was to kill the weeds on top of the seedbed; some weeds it wouldn't get. Got most of them. It did cut down a lot of them. Problem of grasses and stuff coming up immediately before your seeds was controlled. Then we used stratified seed which had been kept in cold storage or else soaked in cold water for twenty-four to thirty hours or something like that. Or else we put them in cold storage stratification during late winter and had them ready to take outside. We already had our irrigation lines ready to go. So, whenever they came up we could water.

R: Was the seed storage in that building that went behind the old nursery office? Is that what you used that for? The one that has the sort of concrete tank in it, refrigerator kind of doors?

A: Yes. In fact we made that into a refrigeration room. It didn't have that when we went up there. That was the first building we remodeled. We put some accordion type insulation in the walls there and covered up the windows. It was still used as cold storage when the flood went through here.

R: I measured it yesterday.

A: Yes, it wasn't a very large building but we used that back portion where the doors kept you inside. We used that for stratifying, we had big boxes and racks for storing jugs of seed.

R: How long when you were stratifying something? What was it, about three or four weeks? What was your time?

A: We had longer periods than that.

R: You put it in in the fall?

A: No, no it went in in the spring.

R: No, I mean into storage.

A: No, the seeds were stored in jugs; dry cold storage. Then we took it out of the jugs and put it into moist storage, cold. We used plastic screen, made sort of eighteen inch square or eighteen by twenty-four by tacking their ends together to hold seeds. Then seed wouldn't mold that way. You could bring it out and check it. Every once in awhile we would go in and check it, lift it all out of there and then put it back in to stir the seed around in the bag. That way when anything started to mold you could find it.

R: Then you mixed peat or something in with it?

A: No, it was stratified in this peat. It was in a bigger container so you dig it out, just reach down and get what you wanted out of there. Once in awhile you get caught when you need more seed or something. You could also use water. When we were at Lesage we bought distilled water and you would find out you didn't have the distilled water and you just used regular water. So, after we got to Parsons we never used distilled water. There we used spring water.

R: That you sprayed on the peat to keep it moist?

A: That we stratified seed in, that was a quicker way.

R: You didn't use peat at all, you just used distilled water?

A: Yes.

R: You never used that sort of felt stuff that you . . . You know like kleenex?

A: No, we didn't use those fibers that would hold water. No, we used the other. It is a little easier to handle, I guess you could have used those. They used that other for germinating, germination tests.

R: Yes, I know.

A: It is a slow test. We also had the germinating flask, they had a round--Oh, about twelve inches round--then a lid that went down over that and put in a hundred seeds in there and you could do that test too. We never depended on that too much. For years we sent our seed up to the West Virginia University Forestry School and they would make tests for a project in the class, different seeds. They would always come down and get our seed. They would at least tell you whether it was any good or not. You wouldn't have the exactness that when we started sending it to the Eastern Tree Seed Laboratory, then we would come back with more exact information. Really, when you have that type of facility available you are usually better off than it you don't get your seed tested there. You almost always are.

R: Good, so you stratified the seed for . . . Was it varying lengths of time?

A: Probably I think around thirty days or something like that. It seemed like, it was in the winter time, it seemed like you do in the winter and get them out in the spring. You usually had seeds stratified by the early part of February if you were going to seed that

spring.

R: How did you get the seeds into the ground?

A: Those days we brought it out and put it out and sort of dried it. Then we would coat it with fungus repellent for fungi. Really what we were using it for was as a bird repellent because the birds wouldn't eat it. Otherwise, we used to have what we call "bird watchers." They used them at Parsons and we used them down in Lesage. Have somebody come in about 4:00 in the morning because that is when the birds were active and chase them off.

R: With a .22 or something?

A: No, in Parsons they used sticks and pounded the irrigation lines and yelled and this sort of thing.

R: The irrigation lines before you came were above ground?

A: Yes, well they were there when were there too. They were permanent Skinner system is what they were called. It is Skinner irrigation guns which rolled a pipe that started at an inch and a half pipe then go down to three quarter inch at the end of the line where it got out there. At Parsons they were doing that.

When we went up there we had already started using this seed coating. The Forest Service had to approve anything we used at Parsons, chemicals or anything, we had to get permission from the Forest Service to use. So, we used that as a fungicide because it is not listed for bird control but it works. The birds just didn't eat it and it didn't seem to kill. I never saw any birds that were killed by it, but they just didn't eat it. Of course, you couldn't shoot birds. They had birds shot at Lesage. In Parsons they had people living there, plus at Lesage, nobody liked to see you shooting birds. So we did carry what was called some "bird shot" at Lesage that was used on some that were just stubborn. Keep coming back scare them off. Mostly this other was a really cheap solution for it.

R: Did Sandy Oliver use this stuff, do you know?

A: I don't think so, I don't know, because it came in later than that. I think we used it to at Lesage. Pretty sure we were using it down at Lesage a little bit before. I know we used it when we went to Parsons. The Forest Service out of Elkins would approve chemicals, et cetera. In our agreement we had to get clearance on anything we used on the ground or in the nursery. As the years went by that gets more stringent. Now if you use anything, it is regulated. In

fact now the nurseries up in New York have to go around and tell their neighbors what they are going to be putting on and when. That is the law in New York state now and when you have nurseries up there like Saratoga Springs nursery is surrounded by residential areas, you know, so I don't know how they are going to exist in that area, on that particular site, with the regulations they are putting on them there.

We didn't have any problems with it and we used it on all our seeds. Well, we didn't use it on multiflora rose, and the hardwood seed but on little conifer seeds that come up. When they would come up the seed is right on the top of it; you know, comes up with it. Then the birds go along and pick that thing off and there is nothing left except a stem there, so you just end up with no tree. The waxwing cedars once went through Parsons one time recently, in the last ten years or so I guess it was, I think they were waxwing Cedars but they had been through late in the season and most of that had been washed off but just a whole flock of them went through and stopped. They cleaned out some white pine, took about a third or half the seed. It was just one of those things that the seed just wasn't well coated when they got there. They were hungry I guess and they found that seed. Birds for some reason like white pine, I mean even anything that has got a different taste. It must have some vitamins they need. You would have Virginia pine, and scotch pine, and red pine and they would clean the white pine bed off; cut it right back down.

I think the first year, or second year, I was down at Lesage, a real rainy spring and they had sparrows in a barn. It was about fifteen, or twenty feet from the nursery, a big barn there. We would go in at night and close those things off and eliminate the sparrows because they were coming back and forth and you couldn't keep them off with bird watchers. Beds next to that barn wasn't even going to produce a seedling. We got permission from Mr. Clutts to go over there at night and close his barn because then the birds were inside and we got rid of a lot of birds. It was just one of those years when it was so wet that those birds couldn't go very farther than just fly out there and get some seed and go back in. I think that must have been about 1950 or something along there.

R: How do you seed a bed?

A: Well, we used a broadcast, what they call, Gandy Seeder, which is still in production as far as I know, and used that to put it on. When I first went down to Lesage they seeded by hand and they did at Parsons here. Put your seed out and people, who knew how,

broadcast it.

R: You mean broadcast for management?

A: Right. Sandy had some drilled beds, I think, up at Parsons but I don't remember seeing them there. Most of his were broadcast but I don't know how.

R: Now, that must have been a fairly skilled job. Would someone like he do that?

A: No, we usually had workers that could do it. There are some people that would be able to do it.

One time a bed was four feet wide and twelve feet long or twenty-five feet long, one or the other, then they had a path along each one and every twenty-five feet you had a cross path. We got a "bed-former" in Lesage. One of the side effects of multiflora rose was that when we first ordered wild multiflora rose, we didn't have it production at the nursery, and they came in from Indiana, or somewhere like that. This fellow came in and was telling us about a "bed-former" that he had made out there. So, we ordered one and got it in and we are still using that bed former, or similar variations of it. It was a forty-eight inch wide and it had, I guess, about eight or ten inch pieces of steel up the side and then bent out a little bit to pull the dirt in. We used that. They shipped it in there and tossed it off the railroad and I know one of the things that the older nursery supervisor at the nursery was concerned about was there were no "cross-paths" to get across. Here was a three hundred foot bed or a five hundred foot bed and not a path cut anywhere. It took a while to convince him that you didn't really need that path because it had been used for rolling shades off and putting shades on.

R: You mean the shade got rolled up in the path?

A: No, no they used the paths to work the shades off. They would also have individual beds every fifty feet; then have a "cross-path." If you were running a bed you know you have a "cross-path" coming across it to prepare. With this mechanical way of making beds we "roto-tilled" the ground ahead of the beds. Later on when we got surveys made of both the Lesage nursery and later at Parsons we used land levelers to take out the low spots in the bed and used a survey level on each section to get it fixed up to start with. So, you had shade frames from one end of a bed the other, either from the middle of the section to each end or else clear through. The sections at Parsons were changed some. Turned some beds into different sections. We used Soil Conservation Service engineers for consult-

ants who recommended that. We used those. They worked for Lesage nursery and Parsons nursery and Clements nursery, using Soil Conservation plans.

R: So, you eliminate the cross paths pretty much?

A: Well, they weren't any more. I don't think Parsons ever had the number they had at Lesage. Lesage was a much smaller nursery. In fact we only had around a little over eighteen acres of seed bed and that was using every little piece of ground you could get out of it.

R: Now, how big was Parsons for seed bed?

A: Well, they had around sixty some acres of seed beds.

R: Now that is not just seeding bed that is for seedlings as well? That is not just for little sprouts?

A: Yes, I mean if you have them, yes.

R: The little white pine?

A: The little white pine.

R: Were sixty acres of them?

A: At Parsons. They call it a hundred acre nursery but you lost some in the river edge and some in building sites and this sort of thing. So, it seemed to me it was around sixty when this was all developed. I think we were at maximum production at Lesage, I think it was eighteen point two acres. That includes some seed beds that are only about thirty feet long because we were a very limited acreage down there.

R: Is white pine seed really, really, teeny, weeny?

A: No, it is a larger seed.

R: Like corn? How big?

A: Oh no, it would be more narrow. You know what buck-wheat seed is?

R: No, grain seeds I don't know at all. I just know vege tables or flower seeds.

A: It is bigger than that.

R: Is it like a nasturtium?

A: No, they are little smooth seeds, look a little like sunflower. Sort of smaller than a soy bean but they

are not round, they are oblong seeds. We had seed of the white pine, which is a native to this part of the country. They were our one tree that we collected native seed from a lot of times. We used local collectors for white pine. We would usually plant that in the fall. Then we found out sometimes we could plant some for three year old stock and some for two year old. Some people like larger stock, we could plant two year old. In fact, in the spring we could raise smaller stock in two years. Where we planted in the fall for two years we would have it be too large. So you usually could gain a little bit if you waited and planted in the spring. This doesn't always work, mother nature makes sure nothing ever works always.

R: So, you plant your seeds and then you shaded them, is that it?

A: Yes, in the older days . . .

R: The photographs I see have lots of slats over these seed beds.

A: Yes, that is what we called shading.

R: Yes, right.

A: That was pretty well done away with anymore. We don't use that shading too much. We still use it to get European Black Alder started, it seems to do better.

R: When Sandy Oliver used it was it on a long time? Do you know how long it was on the bed?

A: Yes, some of it stayed on two years I think.

R: Oh, it did?

A: Yes, we kept it on down at Lesage for up to two years.

R: There seemed to be different kinds; some of them were raised and some of them were real close to the plant.

A: Well, we had some of them lower. We used shade to unroll and keep the straw mulch on over-winter. When the seeds were cold and dormant , that was what we used then. Sometimes we just used slats, we call slats the side parts of the shading system. Then we got to using wire, this big, heavy wire that was stretched from one end of the bed to the other.

R: To keep the mulch on.

A: Well, to keep the shading up off the ground. We had a whole stack of four inch wide boards cut out of rough

lumber and we had those down at Lesage and at Parsons. We just laid them out along each side of the bed and that would keep the wind from whipping off your straw. Don't have as much trouble with Parsons as you do at Clements because Clements is more exposed. Then with no snow you would have the straw leave on some of those areas. We have even used some plastic netting to hold them down just for winter coverage.

R: So, when you shaded the plants in the bed it looked to me as if it was almost eighteen inches.

A: Yes and no, they don't use that very much anymore.

R: Was that something that Sandy Oliver was partial to or was that just a standard convention?

A: No, that was a conventional way of raising trees. They have better watering systems now and they can monitor the soil moisture. Some trees just need protection when they are coming up, for two, three weeks, four or maybe half a year or something like that. If you are raising a tree that requires shading like Fraser fir and Douglas fir, sometimes they do better if they are shaded. They grow better and survive better. A lot of it is sort of experimental work because every season is different, like this year. For two years we didn't have any rain. Two years ago they had to water trees to keep them alive and this year everybody had trouble even getting seed beds made in nurseries.

R: Now everybody is worrying about bugs and mold.

A: Yes. Nothing seems to be for sure. Sandy Oliver told me one time, "The more you worked at the nursery, the less you knew for sure," which is pretty well true. You can go back and look but it doesn't always work that way. We kept our seeding records over a period of years and always used those for reference, plus getting seed checked to give us viability. We have had some problems on seed extraction because when we would be handling one large collection. We got over stocked one year and we had some problems at Parsons because we were drying seed outside; our cone drying shed was full. Then weather came along that wasn't favorable to our seed, using that system. We got through alright but later the seed germination wasn't the same quality. So, we find that anything in the whole chain of operations affects the final result.

R: Of course!

A: If you have poor seed then you get poor trees to start with. They just don't come up evenly or else they are not good quality. You can increase your seeding rate

and it counter acts some of that, if you have real good seed. Sometimes we would have to double our seeding rates just to get a stand of trees.

R: So, when do you start weeding after these little critters come up out of the ground?

A: As soon as they are up and fumigation worked; you aren't going to have to weed them for a little bit then. It protects them there. Then there are weeds that are resistant to the fumigant and you have to start pulling those out as soon as possible. You can soon see them if you can get in there and keep them down. Then we would also mulch with sawdust as soon as possible. They would have sawdust on top of the bed. When you seeded you put on a fine sand and sawdust mixture and then we put some sawdust on trees after they came up, just on the surface.

R: Does that sound like something Sandy Oliver did too?

A: No, I don't think they were using sawdust, I think I would remember. We were using sawdust down at Lesage because we couldn't keep ahead of the weeds even when we were picking up local sawdust piles. It worked real well because you could cover up quite a bit of grass, solid grass, around some of your shrubs. You could cover with a couple inches of sawdust and you could kill an awful lot of grass. That worked pretty well when it worked. The only thing we ran into was that we were working out of sawdust piles out of little saw mills around in Cabell County there, and as we got back into the middle of a pile you came up with "silage" sawdust. You are familiar with silage from corn?

R: Yes, it actually made sort of a sour mash of the . . .

A: It formed an acid there, acidic, which was killing the trees.

R: That is not too nice.

A: It got so we could go for a load of sawdust, come in with a Ford dump truck with side boards on it, and we could pick out a handfull of that and tell whether you could use it on the trees or put it of in the paths, or else you had to lay it off in the field. Then we went to Parsons where we got our sawdust from over in the Fernow, at a sawmill there. I think it cost $1 a load or something but they brought it in there and dumped it at the nursery. We never had any of that problem.

Dave McCurdy just in recent years he had problems because the Fernow sawdust wasn't available and he went out to a pile somewhere and brought it in and killed a

whole bed of trees putting it on. We found after we were putting it on by hand, using a shaker with two men, one on each side moving down that way. While we were back to lunch one day we went back and there were little seedlings that were dead. Killed them you know. McCurdy had a manure spreader to spread it and he spread that stuff down a couple of beds--I think it was scotch pine or something like that--and he took care of about two-thirds of the trees. He had heard about but it is one of the things where if you don't see it you just don't think about it.

When we went to Parsons none of our crew from Lesage nursery went to Parsons with us, because the Lesage nursery was opperating for about three years or so. After we went to Parsons we still operated the Lesage nursery. Those people didn't come up to Parsons and the people that were at the nursery in Parsons stayed with the Forest Service, the majority of them other than the laborers. The foreman and all those people, Dorsy Knight, and the other people, equipment opperators, went to work either for the Experiment Station or else for the Forest Service. So, we didn't have anybody that had experience in that. We really started a new crew primarily there. Paul Parsons was our Nurseryman there and he had worked for Sandy Oliver when the Forest Service had it. If it wasn't for working when we went there they elected to stay with the Forest Service. Most of the people at Parsons that we used for supervisors were new. Well, we didn't have any crew leaders, as we call them, at first. We just hired people there and we did pick up the weeding crew that Sandy had, Sandy Oliver. Whenever we were lifting then you could get more help at Parsons. You had a back log of people all the time. You didn't really have to worry about if you needed to get ten more people. You just had to let people know that you needed ten more people and you get applications in. We usually kept applications year long and we would go through them if we would need more additional people. Tried to keep a skeleton crew. A base crew was employed more or less for that type of work. They would be employed maybe full time nine months a year, different jobs.

R: Did the skeleton crew stay on nine months?

A: Well, on average. We would be off, by that I mean that they had been employed enough days to qualify for their paycheck sometime during the month.

R: Oh, okay. After you got these little guys planted and they are growing along what do you do as the late spring, early summer comes along?

A: We used to have an oil spray we put on them. Which you could put on them to kill the little grasses, varosol, an aeromatic oil, and that sort of thing was what it was. We would put those on in, I would say, in eight to fifteen gallon per acre. That would not effect the evergreen trees but it would take out the little grasses.

R: Sounds to me like weeds are your major problem with growing trees, is that so?

A: Well, it is one of the major ones yes. Once you get them up then you always have the weed competition coming in there. The fumigants took care of a lot of things but there are some weeds that would come regardless; that the fumigant didn't seem to affect. They are just resistant to a lot of things, some of your worst weeds. The grasses down at Clements were the same way. We used an oil spray there at Clements for awhile. As you get more fumigants and different things they don't use the oil spray anymore. The price of oil kept going up too.

R: That is true. Do you know if Sandy Oliver used a . . . You said it was varosol that you used?

A: It was what they call varosol, it was a mineral spirit. It made a difference where you got the refinery was using oil from. An oil well in the northern part of the range or one from down in Louisiana. You would get a different reaction but you would also get a diffence in the type of weather it was. If you put it on early in the morning when it was cool and the air wasn't moving you got a much better kill than if you put it on out there in the heat of the day. So, that is how we try to do our oil spraying. I liked the oil spray. Now they use a lot of this other stuff, different trade names that will take out selective grasses, and your broad leaf things like this. The oil spray, once you got to using it, it seemed to me it was about as good as some of these other ones. I was sort of partial to oil spray because it didn't leave a lot of other residues, like you might be getting with these chemicals they are using now. Nobody really knows what a lot of this stuff is doing in the long run. If you can get away without using them you should do it if you can.

R: Do you know if the Forest Service before you came were they using oil sprays as well or was that pretty heavy dependence on just weeding?

A: I don't think they used oil sprays. I imagine Sandy tried it, he usually kept everything that was going around he tried somewhere.

R: He was pretty innovative, wasn't he?

A: Well, you had to be. The only nursery in that part of the country and I don't know whether the Forest Service got their nursery men together every once in a while or not. I don't know, you didn't worry about those things. Worked with what you wanted to work with. They advertised the largest the nursery east of the Mississippi for years at Parsons. They took that 100 acres but when you took down the actual nursery ground, nursery seed bed area, it is a lot different. You have a lot but you don't have much in a lot if you have it all covered with houses. Sandy was young. He came in there before the trees on top of the mountain. He told me when he came in there, and I guess he was driving a Ford or something--he drove in and you could look over at both sides of the road and not see anything. Couldn't see through, nothing growing when he come over Canaan Mountain road to get there. I don't know which direction he came, never asked him.

R: He must have come down 219.

A: Could have cut through.

R: Unless he walked.

A: A lot of that Blackwater country is logged and burnt.

R: There are a lot of CCC photographs of seeding Canaan Mountain.

A: Well, they planted a lot of that. When they planted it they raised those trees down at the nursery and then took them up there on the mountain and planted them. A lot of those time I guess their big problem was finding enough soil to plant them in.

R: After you oil spray and you are getting into early summer when you start . . .

A: The oil spraying was something you could do all year long.

R: All year long.

A: Yes, the big advantage to it was you could get things early. One of your losses with trees, when you have a lot of weeds, is that people lose them pulling the weeds.

R: Pull the trees with the weeds you mean?

A: Trees with the weeds or else break the little tree off. Once Dr. True came down; we had trouble with white pine

down at Lesage, and he came down. Remember he spent July 4 down there looking at every little tree. He found out a lot of trees were damaged just where they were pulling the tree over. The tree would be about that high and the weed about that high, so they would pull them over to find the tree and have a lot of damage to it. Plus when we first started using oil spray at Lesage we used what you would call a big garbage can. It had a pump down in there, a little gasoline driven pump. It had a motor on it and you would fire that up and then we would put that on the back of the little trailer that had some nozzles on it. We killed some trees as well as some weeds. So, the people at the nursery are weeding fine.

One time I remember going down after they weeded. I went down through the grass and made little bunches out of the trees they pulled. Nursery weeders pull a lot of trees, you just don't know you are pulling them there with those weeds and stuff. It wasn't an enormous number of trees but you looked down a bed and see three, four trees every foot or two. You know people were just killing a lot of trees which it showed you know. If you get the wrong amount of oil spray on, you kill trees. We didn't have the controls you need then. You had this hand sort of operated gadget that was sort of a "do what ever type it was doing." You had a tractor that wasn't controllable like. You can set them there and then go a steady pace. So, we finally got where we took that oil spray and the tractor and so forth and you could check it out ahead of time on concrete or you could measure it. Know how much you were putting on, set the pressure, and all this. This makes it a lot more exact.

Of course now they use the same principle with the new herbicides they got. They still have to put on the right amount or you do damage one way or the other, generally speaking. Sandy used those, I'm pretty sure he was working with some of that. I didn't go up there then. I just remembered going in there one time looking at the trees we had there. Never worked on some seeding plans they had for a year or two. I went down to Lesage in spring of 1949, then in 1952 we went to Parsons, and that is not very many years when you think about it. So, we didn't grow too many seedings at Parsons with the Forest Service while I was at Lesage. It had been started right around 1946 or something like that, 1947?

R: You mean the state started having the Forest Service seed for them?

A: Yes. I know that they shipped some out of there, out of Parsons, must have been in 1950 or somewhere like

that. They had been there, the trees that I saw were already a year old whenever I first remember seeing them up at Parsons. I think we had others. I'm trying to remember. Most all the trees that they raised for us were evergreens in Parsons. I know they used to have inventories. Parsons would inventory their seedlings for shipping. Then they had more trees to ship but they used a different system of inventory at Parsons than we did at Lesage. We usually ended up with about the same production per square foot as Parsons when you figured out "shipping" trees. It didn't matter how many trees you had, it was how many you were able to ship.

R: Right.

A: You may have 100 pieces of something, if only seventy-five of them or fifty of them are shippable. We usually based our costs on our total shipped, based on our shipping season. I always felt that in the nursery if you had, for example: If we were over supplied of trees we wouldn't ship sixty percent of them. So your cost would be based on the number of trees you shipped rather than the number you raised. I believe the Forest Service used another system. If you had the trees raised it was, whether you shipped them or not, figured cost based on how many you produced, could produce, or something.

R: Was there a time at which it was less profitable? For instance if you had to keep the trees another season then surely your cost per tree went up.

A: It wouldn't go up near as much the third year. Then we used to raise three year old stock.

R: Did people like three year trees?

A: Well, made it more hand planting. We were planting in old fields. They liked older trees. The first trees were planted in the ASCS, for forest tree planting.

R: What is the ASCS?

A: Agricultural Stabilization, it is a cost sharing agency.

R: Was that a state or federal?

A: It is a federal. They would underwrite the cost of doing conservation measures for land.

R: We are talking post CCC era here?

A: Yes, right, post CCC. The CCC's weren't operating you

know in the 1950's and so forth.

R: Right, okay.

A: They would specify because Christmas tree production was coming in and selling in too--and they were specifying that you had to plant so many white pine in with you other trees. So, if you were planting scotch pine and white you had to mix white in there. That was maybe a God-send in a way because white pine became Christmas trees. Nobody figured on them being Christmas trees, now they make as good a Christmas tree as a scotch pine. In fact there is probably more of them then scotch, a lot in this country. So, those were three year old white pine, a lot of people liked them. Nowadays a three year old is usually too big. We try to get rid of them before then. If we have a few left over, that would be 50,000 or something, rather than plowing them under we leave them for three year old stock. Sometimes though if your density is low they are going to be too large, why then, you are better off just to get rid of them. You could leave them grow but they aren't going to be any better, or nobody wants them. Anything you can get out of your way in the nursery you are better off to remove then to try and hold them if they are not going to be merchantable the next year. There are trees, Fraser for instance, usually takes three years if you are raising that. I don't know if they are in that production now anymore. One time we were in it.

R: That was a big Christmas tree product right?

A: Yes, it was. There was that and then there was, of course you have, balsam fir at the end of Canaan valley and that area that they produce too, some of those. It is debatable whether they are the balsam fir from the northern part of the ranges or the Fraser fir, which is a central tree. Some people claim that they are getting better trees out of the northern balsam then they do out the Fraser fir in planting sights that we have here in West Virginia.

R: Both of them are pretty northern trees for West Virginia, aren't they?

A: Yes, but the Fraser is more of a southern.

R: Oh, it is?

A: More seed sources are in the Roan Mountain area and the Carolina area.

R: I didn't know that. I don't know, actually, much about that.

A: The scotch pine has been brought in from other European seed sources primarily. We had three strains of scotch at one time. I think Dr. Brown out at Ohio, who used to be a professor here at West Virginia, he had plantings throughout the state. He also went out there and did research on trees for seed sources. The Spanish Guadarrma, for instance, they were having trouble with some scotch pine turning gold. Gold color they called it, golden scotch pine. Then they had the diseases hit it here about fifteen, twenty years ago. Wiped out some Christmas tree plantations. He said, "Well, no matter what you do you are going to have to manage your Christmas tree stand and pray for it, a lot of this stuff." We tried I think five or six different strains and his prediction was that we would probably do the best with their Spanish Guadarrma. Then we had to French Auvergne for timber production. We don't produce that anymore because nobody was planning on making timber out of it. I think it is probably primarily now still Spanish Guadarrama and the French Auvergne. You go through all these, and everybody has ideas and you suddenly find you maybe had four or five different strains of one species. We did try to fill those and still do if people want a certain strain. Our seeding records are kept so we can lift and do that. Which make shipping season a little more complicated because it is hard to tell them apart after they have been bundled up. So, you have to have a stack of certain strains of scotch pine, and by bringing them out of the bed you can keep track of it. Know which bed you are lifting out of. It doesn't limit itself to lifting whole seeding bed at one time.

R: Oh, so one bed would have three or four different kinds in it perhaps?

A: No, not necessarily. One bed usually had one kind in it but you would have to lift part of the bed because you couldn't handle them all at once. So, we have tried to cater to, for I always felt that you are really producing trees for the people that are out in the field. You have to cater to that type of planting. That made a difference whenever you were putting out a lot of reclamation stock. I think one year we got to using around 7,000,000, 8,000,000 trees on reclamation projects.

R: Out of Parsons?

A: Out of the Parsons and Clements nurseries.

R: Somewhere I read that the most that Sandy Oliver ever shipped was 7,000,000 trees out of Parsons in a year. Does that make sense to you?

A: It probably would because their big years were back in the 1930's.

R: Yes, 1936, 1937 I think were the . . .

A: Had been their big years.

R: They produced a lot of trees for other forests.

A: Yes, they supplied the Allegheny National Forest and I don't know whether they sent any south but I'm pretty sure that George Washington would get trees from him.

R: P-I-S-G-A-H I think, I don't know how it is pronounced.

A: Pisgah.

R: Pisgah? Okay. Then they even sent some to Vermont.

A: The Pisgah Forest produced white pine seed. There still is a Pisgah Forest it seems to me down in the Carolinas somewhere, small one. Some of the white pine over in Clover Run came from the Pisgah National Fores--"I think"--seed source. They were planted in Clover Run there. Sandy Oliver, they had, of course, big CCC crews and the state nursery at Lesage used to produce trees. I think they produced a good many hardwoods but I don't know what their production was back in the 1930's when they started it. That nursery was started under Governor Conley, which was in 1932. He went out and Governor Kump came in.

R: So, Clements started in 1932?

A: No, Lesage.

R: Oh sorry, Lesage.

A: Lesage was the first . . . No, the first tree nursery in West Virginia was up at Seneca State Forest. They had a little nursery there that they operated out of. They also had a CCC camp there.

R: So, this is like 1930's maybe?

A: Somewhere in the early 1930's. They moved that nursery down to Lesage. They must have moved that down around 1930 or something. Whenever we went to collect seed we used to go up to Seneca State Forest. There is a fellow that lived in back in the 1940's, late 1940's and early 1950's, that had moved the nursery down there. He is dead now. He was operating the one there when they moved it down to Lesage. I think he just stayed there a little while, then they had some forest-

ers that worked. They kept a forester at the nursery, and he also was fire control and other work there. It seems to me that the nursery here must have started probably about 1928. Down at Lesage, probably started around 1930 or something like that.

C.R. McKim lives in New Mexico with his son but he kept track of all the Forest Service equipment. He knew how much it cost to operate a tractor per hour, how much it would rent for, and all this sort of thing. You had an awful time with that fellow because you had to keep track of all the little tools. In those days you kept track of all the little pipe wrenches, and things, and the state did the same thing. Nowadays under $100, or $200, they don't even inventory.

R: So, once a year they come around and count up all of the screw drivers?

A: Yes, you could do that. (laughter) That is what it was! I took over the Lesage Nursery and had to inventory. There were screw drivers and all this sort of stuff. The Forest Service had the same thing except they didn't have it organized the same way. So, we had one wall in the tool shed there we painted.

R: That was you who painted the things on the wall?

A: Yes. I didn't paint them personally.

R: Yes, I know but it was yours. That is one of things that I really like about all of that.

A: Well, we had used that down at the Lesage Nursery because that way we knew were things were. If one was missing you knew somebody hadn't put it back or something else. So, we did the same thing up there. It was a winter time job. They could paint the thing and put those designs on it. It wasn't too hard to draw. You could run them around with a lead pencil and put them on.

R: In fact some of them had the pencil lines still there and they hadn't been filled in.

A: That wasn't there when we went there. I don't know how they kept track of things but anyway we found out it was a good way to keep things lined up. You could go get them and if they weren't there you knew somebody had them off somewhere, but it kept track of them. Then we had other stuff that was in the tractor tool boxes for the individual tractors which you kept there. This is the one with pipe fitters and wrenches.

R: Did you inherit all the equipment from the Oliver

operation? Did you use the same planting boards and all that sort of stuff?

A: No, we didn't use any of that old stuff. I never used planting boards even down at Lesage. There were some down there at one time and when they closed Lesage we took that stuff up to Clements Nursery. That was closed later. In the stuff at Clements some of those were Lesage boards, maybe came down from Parsons. We might have taken them up to Parsons first, some of the old planting boards.

R: How did you transplant at Parsons, after you got the little guys up and weeded?

A: We didn't transplant.

R: Oh, you never transplanted.

A: They used to transplant years ago. You waited two years and then transplanted them.

R: For another year?

A: One or two years. Certain sections of Parsons were transplant beds.

R: That is why I was misunderstanding. When you said there were sixty acres of seedlings I was thinking that there would be this much in beds and this much in transplants.

A: No, the Forest Service transplanted a lot.

R: And you didn't transplant? So, you didn't have the canvas shed, those canvas sheds that Sandy Oliver had?

A: No, no.

R: Did you use the same tools that he . . . Any of the stuff that he did. There is a wonderful piece of equipment in one of these buildings that we were looking at. That we thought lifted the seedlings sort of up and out. It has kind of a flat platform where the seedlings would have fallen on to it.

A: We had what we called a seedling lifter.

R: How did you get the seedlings out of the ground?

A: At Parsons?

R: Yes.

A: We had three pieces of equipment that Parsons for lift

ing. At Lesage when I first went down there they had a crawler tractor. The next time I got a tractor I got rid of the crawler tractor because the crawler tractor, in one day, can do more soil damage than you can repair in five years. Because they would run it through wet ground and dig holes with the tracts. Then we had a draw bar behind the crawler tractor down at Lesage and then it had two big long pipes come back and a bar went under the beds. You put two to four men on those pipes would hold the lifter down while the tractor pulled them. You could go under stuff that you couldn't lift with regular nursery lifters because it cut heavy roots and things like that. We still had that up at Parsons, I don't know whether it come back down to Clements or not. It may be down at Clements.

R: So, that would sort of knock them over?

A: No, undercut them, roots in the ground. You could lift trees later.

R: But it didn't pick them up, it just left a cut underneath?

A: Yes, loosened it as it went through.

R: Then someone had to go back and lift the plants out?

A: Right. Then what we got at Parsons was a lifter. We still did that type of work down at Lesage. When we got to Parsons we got a John Deere, two row, potato digger. It had one big blade across it and you run that under a bed of trees, which were four feet wide. Then you come up and jiggle on the chain.

R: Then it would actually jiggle the trees like a potato on to the chain.

A: Yes, except the bed of trees would fall back behind it. Then we had a piece of iron steel behind it that slid off the back rather than dropped them right on the ground.

R: Because they are a little more delicate then a potato.

A: Yes. Then the big machine you probably saw was an old Greco lifter.

R: This thing was wood actually.

A: Wood?

R: Yes.

A: Well, they may have junked the Greco. The Greco got

turned over on its side and so forth up there when the flood went through.

R: This thing was hanging on the ceiling, it was wood.

A: Oh, no.

R: We thought it might be even from soil preparation.

A: Did it have points sticking out of it?

R: Yes.

A: Oh, that is an old straw stacking rake.

R: Did the points go forward or backward?

A: They sat on the front of tractor.

R: Okay.

A: They rammed it into a pile of straw or something and then stacked it over.

R: Oh, that is not what I thought it did at all!

A: It was over in one of those barns with the doors open?

R: Yes.

A: We never used it but that is where it was hanging.

R: It is still there.

A: Yes.

R: The one with the chestnut truss ceiling?

A: Probably, yes. It has several doors on front.

R: Yes, three.

A: Three doors. Yes, that was one of the equipment buildings. They used to use those to go along on the ground in front of the tractor and pick up straw. They raised their own straw at Parsons. We always raised our own straw mulch.

R: Where was that, even farther out?

A: In some of the other fields you didn't have plants in. The reason for that is you don't bring in any strange weeds. You know, you go out to the average farm and you get all kinds of weed seed coming in.

R: Sure, of course.

A: Now we used to get straw from among some of the Amish up and around and over towards Maryland, Oakland, in that area, from . . .

R: What from Amish men or something?

A: Yes, they had pretty nice clean straw. Most the time we raised our own straw. In fact the first straw we sent up to Parsons we had grown for Lesage up at Point Pleasant, in the old ammunition center there. In World War II they had a TNT plant.

R: Where is Point Pleasant?

A: Well, this is up the river a little bit at the McClintic Wildlife Station. That is named after Dr. McClintic who was a dentist in Ohio at one time, then he was in charge of the Moundsville state prison. Whenever he got to be Commissioner, Conservation Commissioner, and whenever Smith--I believe it was Smith or somebody came in as Governor. No, it was earlier then that. Dr. McClintic came in and was in here in 1947, or 1946 and he was in charge of the Conservation Commission. They named that place for him. He was a big wildlife man and he started the wildlife management program here in West Virginia. I mean was promoting it. He had a farm up in Greenbrier County and he was sold on soil management. He was on the right track and all but he was one of the people with definite ideas. He maintained that if you went out to a mans farm you should take a forester, a soils man, and a finance person, and three or four different organizations all at once to talk to the farmer. You would probably scare the farmer. (laughter)

R: A West Virginia farmer anyway, definitely would scare him.

A: Scare him out of the way. Anyway that was his philosophy. If the farmer didn't have all of his equipment set in; out of the field you probably shouldn't even deal with him. He wasn't taking care of things. We raised rye straw, which is considered better for mulch in winter protection and this sort of stuff. Keep it covered your beds while it is germinating. Put mulch, put that on and we raised that up at Point Pleasant. We had it all growing up there; so we harvested up there and put it into box cars and sent it up to Parsons to use up there. The only thing we got was heating on the way. Somebody told us salt. I think we put salt or something in with it or something to absorb the moisture. I don't know what it was. We have used salt hay. We raised what you would call your own winter

mulch and still do at the nurseries.

R: Can you tell me about collecting seeds? One of the things that I read somewhere about the nursery was that it was particularly desirable to have it there, because the plants that were germinated and grown there were going to be in that same kind of a climate. So, I presume that seed collection was . . . Did you guys collect your own seeds or was that the Forest Service? Where did your seeds come from?

A: A lot of stuff you read it seems, if you think about, it is correct. A lot of things you read and hear about are at the moment politically or socially acceptable. When we went to Parsons to take over that one we either had--if we were going to expand the nursery--we either had to get more land at Lesage or else we had a chance to go up there. We got a lease on that land. So, we went up there and were told that for the trees; we could grow better if they were raised there instead of down at Lesage. Then they found this good land down at Point Pleasant. My theory is they know now that is it more important on your seed source, than where it is raised, if you have similar soil.

R: But when the Parsons Nursery was started, and same with the Gladwin Nursery, didn't that have something to do with the climate in that particular valley at that elevation? Was there some correlation between . . .

A: I don't know why they picked that particular spot for the forest nursery. That would have been 1928.

R: Well, Gladwin would have been in 1919 actually.

A: Well, the Forest Service was in charge of that to start with, with the Gladwin they did.

R: Yes, then they moved it down to Parsons and it is only three miles or something.

A: Not very far but I don't know when they would start to move it. The Monongahela National Forest was started, you know, after the floods; the Johnstown flood in the Pittsburgh area. They were really watershed protection areas, that and the Allegheny National Forest. Whenever they came into to Parsons the soil there is Sequatchie sandy loam a lot of that soil. Which is a little bit higher than what they call Pope. I think Pope is floods move often there. This is alluvial soil . . . They may have renamed those soils recently because they have gone back and found out that soils in Pennsylvania would be the same as soils in West Virginia. They have had a committee that decides.

R: That changed the name. Okay.

A: Well, combine them saying they are just because different states were mapping. So, our soil there that soil is considered ideal nursery soil.

R: Why? What was its asset?

A: Well, it was above flood level for one thing.

R: Theoretically, yes.

A: I mean in actuality ninety-nine years out of a thousand it is above 1985. It doesn't flood that often. They have always had some flood problems there because even in the old sluice it went by. They used to have somebody up there who live on that house over there. When the water was high he would get up there and move rocks, you know, into the sluice area to divert it out of the sluice.

R: Okay.

A: That was beyond the Forest Service boundary there. He would get up there and move that over and that would make the water bypass, or not go down the sluice. He had to come out in the nursery road. This was considered good nursery soil, it was good texture and so forth. It wasn't like some soils you get into that cake over real hard and this sort of thing. Generally speaking it is a fairly loose soil. The upper end of the nursery, from the Experiment Station on up. That land was cleared later and we went in with--when we went up there--we went in with dozers and took rock out. After the first flood that we went through in 1957 we were all ready to seed that upper end with multiflora rose. Then were the experiment station is we were planting one and two year old trees, shippable trees. It just took the top soil off that upper end of the thing and dumped it down in those trees. Then we were using geese to weed at that time. We had a fence across the thing and that really stopped a lot of mud and dirt there from flooding through the end. We had to dig that soil out and work there one whole Fall. That was in October, I guess the flood was, and we worked into the end of November getting dirt. We borrowed a hose from the fire department and they brought their pumper out. They would blow the mud and stuff out of the trees and salvage the trees.

R: Salvage the trees?

A: Most of the trees. That was one reason we were selected as a nursery site. Plus it is pretty hard to find that much flat land in Tucker County that is low eleva-

tion. Compare Canaan Valley, you would have a hard time raising trees up there.

R: Why because the winter is too severe?

A: Well, your seasons there would be a lot shorter. It would be a little bit out of the range. This valley is sort of protected from cold. Well, you can get to Mackeyville and you change climates half-way up the mountain, if you are familiar. You can have sunny day here. In fact I first went to Parsons they told me where to gather moss. We used to gather moss from the Forest Service land up around the top of the mountain near, Canaan.

R: Why? What were you using the moss for?

A: The nursery used the moss to ship seedlings.

R: Oh, to ship with. Okay.

A: Yes, when collecting the moss, my crew would go up there. Once we went up there two days, two times, and they came back down and told me it was frozen. Well, they didn't tell me it would be frozen before. You know you go somewhere and they don't tell you all that stuff. You suddenly realize you can do something and they will agree. Well you can do that and they will tell you . . . Even at Lesage you would do something. So and so would try it and it didn't work, something like this, and they would let you know about it. They wouldn't ever argue with you to start with, you know, so I sent them up there. Then I found out that it is a different climate up there. It dawned on me that I was being taken. Anytime it had been cold you needed a week or two before it was the same weather up there as it was down below. I never wasted anymore money sending them up to get moss and having them get up there and turn around and come back and tell me it was frozen. They probably knew that when they left but . . . You know when the crew left.

R: Did you have to do any improvement on the soil when you are there? You were talking about keeping it . . . That the Forest Service kept it acid. Did you bring in sand or bring in top soil or bring in humus or compost?

A: No, the only thing we did was to put in the drainage system. We had a survey made of the whole bottom with the side ditches and so forth. Now the experiment station came in and fowled up one section because they have to go by looks. They don't consider any except looks, you know.

R: And it was all above grade, right?

A: What?

R: The irrigation system. It was on the ground?

A: No, ours was in the ground.

R: Oh, in the ground. Okay.

A: Our distribution, then the overhead irrigation lines they had every fifty feet or fifty-two feet. Every fifty feet you had risers that came up out of the ground, and then you put your other pipes on, and they brought your overhead line down. So, they were put down from the length of the section, which would run parallel to the river. Then you fed that through the pumping system. In the upper land you used the upper pump, which is run by a gasoline engine up there.

R: Now the pump, that was an Oliver era, building that pump house that has the two housings with the . . .

A: Yes. That was electric motors they had in there.

R: That was there when you came right?

A: Yes, that was our pump irrigation system.

R: That building was always used by the nursery?

A: Yes. In the upper building, which is a foundation left there now, was a pumping system they had in there, which they never operated. It didn't have lines out of it but they did have an intake there for the pump. I think they used a pumping system but they didn't set it down over the nursery. I don't know because the engine was there, an old Chrysler engine I think was there, and they got parts over there. Locally or right near the nursery there is some people who own a junk yard and they kept parts for most anything they could find. That was a gasoline engine there that is gone. They had a trough out to the river with different types of screens in it. Then the water would come in to a sort of a cistern near where they pumped out of that into the lines. We used a sister to put our portable systems in, or portable pumps. We had a portable pump that we bought and put up there. It pumped the water out of the river.

R: Into a cistern?

A: Into the irrigation system up there. That was used later and then we lost that in a flood earlier. Just one that came up . . . One of the first one we lost in the flood was . . . McCurdy was up there and he forgot

it. He was out there by the river and he went out and remember it was out but it was gone.

R: That is too bad.

A: He looked all over the river and finally found it when it got real low water. They found it not to far down the river but they looked clear down below Parsons for it. Floating got taken down there, that was their high water that went out. Anyway, whenever we switched from underground system then we went entirely to an overhead, portable lines which we laid out across the rows, and along the rows and went both ways. That was a much more efficient system so far as you didn't have to unplug lines.

R: About when did you do that?

A: That was back in the late 1950's. I think then Beckman, a fellow named Beckman, came out of Pittsburgh and designed our irrigation system there. We lost the joints of pipes left in the flood though because they floated down river for miles, that aluminum pipe. Ones that didn't float got filled with dirt and twisted and so forth. So, that system is gone. We used that one there and that was the one we were using when we quit up there, when we moved out. So, the portable lines were washed away, the underground lines are still in that nursery bottom.

R: Are they then all sealed shut you think?

A: No.

R: They are probably okay?

A: Yes, they are probably still because they would be closed and covered up. No, this was . . . There is a big gas line that goes through the nursery too, in a place or two; you know, two lines. We didn't use the original underground system after we bought our overhead visers and pumps and so forth. The old CCC camp, the actual location of it was mapped. The row of buildings you had were just the buildings. I don't know whether they really sat there originally or not. I think they were moved, some of them off to the side there.

R: There are only two of the buildings left.

A: Yes. One the flood moved, I think they tore it down; a bigger one, a storage one.

R: No, that is there.

A: The storage one?

R: Well, somebody told me the thought it "Shop" stenciled on one door. They thought it was an oil house or a . . .

A: But that is right along the sluice. If you move over there is none.

R: Then there is a very small, it can't be any bigger than this room, one. I don't know what it was and nobody had been able to tell me. I am hoping John King will know.

A: The Forest Service still has a building up there right on the road. As you go up the road.

R: By the CCC?

A: Yes.

R: Yes, but that is the new building.

A: Right. Then the game and management people had a little one there. Then there was another one that we used that I think is gone. It was more or less like the old CCC. It is a longer building.

R: Yes, right, with vertical sides.

A: Yes, but I think it is not there.

R: Okay, could be.

A: You didn't see it. Just the ones on your map is all that is there. There is one sits out in front and you sit in front of those and it got twisted around.

R: Okay and it is gone.

A: Yes, they must have torn it down. Because they were debating and I think they decided it was just an old building.

R: What did you use the nursery office for when you were there?

A: That was where our office was.

R: Then did you . . . In the drawing that I have seen it was a bathroom but anyway it had a little room in the corner.

A: Yes, it is still there.

R: Yes, still there. What was it for?

A: The corner room?

R: Yes.

A: That was the bathroom.

R: Oh, it was.

A: Yes.

R: Then part of it was an office and part was a lab, is that what you were telling me?

A: Well originally the people told me that office was in the front part and they had a Forest Service lab there. A soils man, or something, a pathologist or somebody like that worked there.

R: Now we are talking about the Sandy Oliver office building, the little square one?

A: Yes. It had a bathroom in it.

R: It had a bathtub in it.

A: No.

R: Well, on the drawing I saw a bathtub. That is why I was surprised.

A: I don't know if he had a bathtub in it.

R: The drawing I saw had a bathtub. Seemed funny to me to.

A: I don't know if any of them ever had a bathtub in it.

R: Maybe they didn't build it that way.

A: Well, Sandy didn't go by the plan. He was supposed to have a chimney. Sandy had his own ideas of how to build a house.

R: It has a chimney.

A: What? Not, in Sandy's house. It is supposed to have been the same as the ranger's house over there. He eliminated the chimney. They said nobody could get by with that except Sandy. I don't know whether that was right or wrong, but anyway he didn't go exactly according to the plans that the Forest Service had.

R: What was the building used, the one that was behind the

nursery office that you turned into seed storage, do you know what it was for? The place where you did stratification.

A: As far as I know it was part of the lab, they called that lab building. Wasn't it Forest Service lab? I think the old label on that was the lab.

R: Okay.

A: Because it had a sink in it, still does. It is where they did a lot of work but before they built that, then this fellow worked right in the same office as the nursery office. I don't if the nursery had a desk. I don't know whether the nursery had a secretary or not.

R: It has that opaque, translucent like bathroom glass in the window. I wondered if you had any . . . You don't know why. Like it was a washhouse or something like that.

A: No, I don't know. It could have been a bathtub in there at one time but it wasn't there when we went there. If it was I don't remember ever throwing a bathtub out.

R: Okay, it didn't have a partition in it where you put in the refrigerator room.

A: No, we put that partition across there.

R: Oh, you did? It was all just one single room before that?

A: I think. Because, see, we put a double wall on that thing; put insulation, accordion type insulation. It was aluminum paper of some sort. So we just made dead air space in there.

R: Okay, how about that equipment building that was next to those two buildings? Was it just used for storage? It had a tool room on the south side toward your house.

A: The other side was used for storing fertilizer and stuff.

R: Oh, okay, it has a wooden floor. That is why I wondered why it had the wooden floor.

A: That was the reason, so it wouldn't draw dampness.

R: Then what did you use the upstairs for? It has knee wall and a little room in it.

A: We put some dividers in there for parts.

R: Oh, you put up that partition and stuff.

A: I don't know. There was walls there but the stuff on the floor. Was there dividers on the floor, about this high?

R: They are not there anymore.

A: They may be gone.

R: In the attic you mean?

A: Yes, in the attic part. We kept stuff up there. That is in the tool shed?

R: Yes.

A: But we kept parts for irrigation there, some of them. Then there was the basement of the washhouse was full of irrigation parts.

R: The washhouse, on one of the reports I read said that it had a recreation room and a something else around it. How was the washhouse used?

A: It had women on one side and men on the other side.

R: What were the front rooms for?

A: They ate in there.

R: Oh, okay.

A: In other words they could eat there.

R: Did they also have lockers and things? Did they come and change their clothes when they got there?

A: No, they had some lockers in there but not that many.

R: But they wore the clothes that they worked in the field in, they wore back home again?

A: Yes, as far as I know. I think maybe the Forest Service men had some special clothes. They didn't have special clothes.

R: No, Londa Bennett said she didn't have special clothes either. Now tell me about the packing shed, how did it work?

A: The packing shed, in some of the original pictures showed you were up in the upper story there. When we went in there the back part that was built on was a

storage area that they kept supplies in. Then they kept some supplies over head there.

R: Was there a stair in it to get to the second floor? Now there is no way to get to the second floor up.

A: Yes, it was up the inside of the building.

R: A ladder?

A: Yes, it was built on a wall.

R: Doesn't have a trap door or anything about it.

A: No, it just had a hole you went up through on the end.

R: It is not there.

A: . . . your north side?

R: I measured it yesterday, you couldn't get to the second floor.

A: Were you in the basement down there?

R: No, I'm on the first floor.

A: You are on the first?

R: . . . first floor. There are windows at both ends and I want to go up and measure them and I can't get through the ceiling.

A: Up there at the top?

R: Yes.

A: You can get up there.

R: With a ladder on the wall?

A: Yes. It is built right across two by fours.

R: I will look again when I go tomorrow.

A: Well, you should be able to get up on that upper end. There is a chimney there right?

R: Yes, at one end. That is the south end and then at the other end is where . . .

A: The doors are in the south end, or the end towards Parsons, right down river.

R: No, the doors face the river and the chimney is on

what I call the south end.

A: Are you talking about the packing shed?

R: Yes.

A: Where is it on your map? You sure you are talking about the packing shed?

R: Yes, and it lost its wing.

A: The one part was washed off.

R: Yes, right. (Looking at map)This thing here.

A: Yes.

R: The door is here.

A: Right.

R: The chimney is here.

A: Yes.

R: I go up here? The ladder was here?

A: No, you are on this floor, you can get in this door right?

R: Yes.

A: And this is a long extension this way.

R: Well, that is all knocked off. This is all gone.

A: That going the wrong way though. It doesn't go this way, it went out this way. They built that wrong.

R: This is my sketch. These are the front steps here and this is the packing line with the belt.

A: Right the belt, and different tables here.

R: Then there is a roller.

A: This is an old Coca-Cola factory rollers.

R: Belt.

A: Rollers.

R: Right. Did you put that in or was that there from Sandy Oliver?

A: No, Woody Woodrum put that in when we remodeled up there. He put that in there, the state put that in. This goes clear around there.

R: Then the trees came on here?

A: The trees come in to this part that was ripped off here.

R: Okay.

A: This building went out this way. You drove back in there, drove around here . . . Had to bring our trailer load of trees and they had those big aluminum tubs they brought in too. Sandy Oliver had some that was about half this wide.

R: Say how many inches since we are putting it on the tape.

A: I don't remember.

R: (laughter) What twenty-four inches?

A: I would say about fourteen inches wide. Then they were maybe twelve inches deep. You could set seedlings in there. They had handles on each hand and they would pick them up and put them on the trailer.

R: They were almost like wash tubs?

A: No, they weren't round. They were rectangular. They would come out rectangular and they set those on this rollers outfit there and it would bring them on here. Then they would send them around here, and bring them around and unload them onto these tables. (Looking at Rebecca's sketch.)

R: What was the rollers? There is a conveyer belt that runs down between the tables, what was it used for?

A: You have a person here and person on each side of these tables.

R: On each side of each table?

A: They would go up over the belt so you could clean the dirt out of it in the evening, and clean it up. Then you would have a counter here and a counter there. They would put your trees over here--twenty-five in a bunch--and then they would go down to this end and be tied.

R: Oh, okay! Hanging on the table still are little twines to tie them.

A: Yes, and they would tie those there.

R: Then they put them onto the conveyer?

A: On the conveyer, then they would drop through a hole in the floor.

R: Yes, and that is a beautiful maple, or something, chute that goes down into the basement.

A: Yes, and that drops you into another room off to the right under the big door . . . Where is the door in the front of your building here? (Looking at Rebecca's sketch.)

R: Here.

A: No, here.

R: Oh, okay. See this end of the building is damaged. On the first floor there was apparently a double door.

A: Right here. Had a door here and then this extension, that is gone, had a door. Here they had a chute come down from here, at the end of this table, and went over this way into this extension that is gone.

R: The wing that is gone, okay.

A: The wing that is gone, they call it a wing. Anyway that is where we put that and that had a door in, because we loaded trees out of it and also out of here.

R: Now, on the basement level there are two sort of chute openings that are on the Parsons end. Is that where the trees came out? No. What came out of those?

A: On this end?

R: Yes.

A: We just shoved dirt out of those. That was to unload the top. Now those were in there before I think.

R: Those are from Sandy Oliver.

A: I think that the doors were there, those little trap doors; side doors.

R: Yes, they are like trap doors.

A: Sandy had already built that extension on there. That was on there when we went there but we knocked a hole in it until we get in and out of it with a vehicle.

R: Yes, I have a photograph of it. I can't remember, I think it was added in 1936.

A: So, that was added. He had stationary counting places.

R: Tables.

A: Tables, nothing like this. We had something similar to this.

R: Did he have a conveyer belt in this?

A: No, don't think so.

R: So, there was a lot more hand carrying of stuff?

A: Yes, but this was handling greater volumes of different trees. Then we would clean up afterwards, either they could throw their trash and stuff on the floor . . . You could shovel that back out and put in on a manure spreader or something and they could spread it around the fields. That was that there.

I'm thinking on above here. This is called a basement level, this level, and the chimney is over in here. (Looking at Rebecca's sketch)

R: This little thing here is the chimney.

A: Right, we used to heat that with it there. Now we have a gas blower.

R: You have a stove, yes.

A: We have a gas blower up there now. Right up here there is ladder. Some two by fours there is a ladder.

R: Right in here there is a ladder?

A: That gets you upstairs.

R: No trap above it but I will go look again.

A: You can get up there.

R: I will, I would like to.

A: They kept some old rope up there.

R: For?

A: Tying.

R: Oh, the little twine for tying.

A: Well, they bought rolls of rope. Was all that string together. It was about that big around and then they chopped it in two with an axe.

R: Oh, then untwist it. They would buy it all rope twisted together and then they would untwisted it.

A: We never bought it that way but that was the way they bought it, the Forest Service. It just looked like a big, heavy . . .

R: . . . Cable?

A: Cable of things, except they were this soft twine. Otherwise you use this kind. Some of this twine is so heavy it will cut the stems.

R: That is right, the stems on the seedlings?

A: Seedlings, yes.

R: Okay. The oil house, was that part of the forest serv ice? Did you guys ever use that?

A: It was divided.

R: Yes, what two sides?

A: One was Forest Service, one was the nursery. The nurs ery operates separately from the United States Forest Service. In fact the ranger lived on the nursery and Sandy Oliver lived on the nursery. That is about as close as they ever got.

R: Which side did the nursery get to use at that oil house?

A: We used the one "up-river" side. The Forest Service used the other half.

R: . . . The down river?

A: The down river.

R: What is an oil house used for?

A: For gas and oil.

R: There is some chestnut things that look like they hold barrels. There is a chestnut frame and then it has a cut out in it that is the shape of crescent, so that is holds a barrel. Is that the kind of oil that you would use for your oiling equipment and so forth.

A: For tractors.

R: Tractor?

A: For operations, and tractors, and cars, trucks, and things.

R: Did you ever have gas pumps and that kind of stuff they do?

A: Yes.

R: Did you have buried tanks of gasoline and so forth.

A: Yes, both outfits had tanks in there.

R: That was all in, related to, that oil house?

A: Yes.

R: Okay.

A: See the Forest Service owned that building at first. As you are going down from the oil house there is a barn there. The Forest Service owned it.

R: Now the barn that is there now is fairly new. Wasn't there once an old barn that was there as well?

A: I don't know if they have replaced one or not.

R: Well, the one that is there now isn't shingled and it doesn't look like the other nursery building. Wasn't there one that was . . .

A: That one there had been replaced. Now the one behind that one went down.

R: Flooded out?

A: It collapsed. It has been taken out of there. We had the one behind it. I don't think that other one has. That other one is probably still there. There is a long one there right?

R: Yes.

A: There was only one?

R: There is only one, and there were two?

A: Were two, and the nursery had the one behind. We stored equipment. Up above we stored straw.

R: Was it a CCC era building?

A: Yes.

R: Okay.

A: Well, back in the 1930's and somewhere in there. The one that the Forest Service was their equipment building there. They operated a road crew out of there. The road crew later moved up to the new building on up there that they still have up there.

R: You mean over by the Fernow stuff?

A: No, on over towards the sluice.

R: Oh, okay.

A: The road crew moved there stuff up there.

R: Now the building that you had, did it look like your equipment building with double sliding doors?

A: It had front doors on it, four, three doors sets of doors.

R: But they were sliding doors or something?

A: No, they swung in and out.

R: Then next to it, or sort of behind it, was the pump house?

A: No, the pump house is north, or up river.

R: Okay, yes. This building we are talking about was sort of in here? The equipment building you were talking about. This is called the oil house, this is the building I'm saying is new.

A: This is the pump house.

R: And that is the pump house?

A: This one is it.

R: Is the newish building that the Forest Service . . .

A: Well, they may have built that one. They may have one they were building. I can't recall one sitting there. They had one here. What is this one called?

R: The ranger office.

A: Somewhere in here there was one set right in this way. Maybe it is gone?

R: It is gone.

A: Then there was one behind it.

R: Oh, okay, I have them running the other direction. Yes, there were supposed to be two in there.

A: I don't know where exactly. This one just doesn't look like it is in the right place.

R: Okay, well then that is new because there is a building there. This is an original nursery building.

A: Yes, that was the cone shed.

R: Oh, excuse me, I'm sorry, thirteen I am talking about. It is a maintenance building that has the three sliding doors on it. Did you use that as well, and it had that piece of equipment we were talking about hanging from the ceiling?

A: Yes, we used that building.

R: Then did you use the seed separator and the cone drying, trays on second floor.

A: Yes, and this was the cone shed here.

R: Did you collect cones?

A: Yes, we collected and dried cones in that and then we separate them in here; drying.

R: Where did the cones come from? Did you send the crew out in the summer?

A: No, no, they collected in the fall; the cones. The white pine was collected throughout Greenbrier County and Pocahontas and Randolph and all those areas. We would collect oak seed and things like that. Our biggest collection was white pine because we would buy cones through the farmers market. In Greenbrier County we had old Forest Service employees that would go out. A fellow down there had retired and he would go out and up and down the hollows and bring seed in. Then he would sell it to the state on contract.

R: He would actually sell you the cones and you would bring the cones and dry them.

A: Yes, we would bring the cones up and store them in the cone shed to dry, air dry. Then we would take them over in the winter time there and extract the seed.

R: So, you only used the seed separating equipment for a short period of time. I mean out of each year.

A: Yes, right. They had a cone tumbler.

R: Still there.

A: And a little old separate seed separator and one to de-wing it there. There are probably still sitting in there.

R: That is the only building I haven't measured yet.

A: Those things are all measured up and reports on them.

R: On the equipment you mean.

A: No, on the building locations. They should have those down at Clements.

R: You mean on the condition of building after the flood or whatever.

A: Yes, and their dimensions of them and all.

R: They actually measured them?

A: Yes, well I mean that the Forest Service did. I mean we have a detailed report on the dimensions and the windows and things around and that sort of thing. The damage to each building.

R: It would be interesting after I do my measured drawings to see what differs.

A: Well, there will be some of them gone. See, they had another one that was in here. Which is interesting but you wouldn't have seen it here, I don't believe. Somewhere in here, this looks to me like that would more likely be a sand house.

R: S-A-N-D, sand house?

A: Yes.

R: No, there isn't one. What did you do with a sand house?

A: What did you call it?

R: That building you are pointing at is called the "pole shed," but I presume because it is a pole building. You know, it is a pole construction. What did you do with a sand house?

A: Well, Sandy Oliver, the Forest Service had a sand house in there. They took sand in there and dried it. Then they would use that sand to cover the seed beds.

R: Oh, where did the sand come from? From a sand and gravel pit?

A: Off the river bank probably.

R: Why did they . . . You mean the way you put sawdust on your beds they put sand?

A: Yes. Well, we mixed sand and sawdust.

R: It's 3:00 p.m., I thought I was going to leave at 3:00 p.m.

A: Okay. Now the sand house, they had a system. I never saw it operating, but it is my understanding they would put a fire under that sand house somehow, and dry this sand. Then you would move the sands out. They used the sand, was stored dry. You had a place underneath it, but they kept sand in there where it would dry. Now whether they put fire under there or not, I just don't know why.

R: They fired it to burn up the seeds?

A: No, I mean what they could heat it. So whether they did know or not, I don't know that that was possible. We never operated the sand house because we got dirt off the river bank here for covering seed for the first time we went up there. That didn't work too well because we had trouble getting into it. The first thing that happened, last time we were getting sand in there the tractor broke in two. One of those things, I never asked how things happened or anything because it didn't make much difference.

R: It was done.

A: It's like we had a little Allis Chalmers G tractor. When we went buying tools for Lesage nursery, their state contract was with McCormick Deering. You know, International stuff. You couldn't buy anything but that. That was the only people who had a state contract. So we had to buy everything International. We never did get an Allis G tractor until we went to Parsons. Then we bought one up there because as they were still available at that time, they didn't have the clincher on everything. So anyway, we ended up buying an Allis G tractor. This fellow came up to the packing shed here one day, from the packing shed, stopped and said he had a flat tire. It ended up the whole tire was ruined. He said, "It was only flat on the

bottom." There wasn't much he would say about it. I knew if he had run it that far, it would ruin the whole tire. Because I did that once years ago when I had had a car out. I found out if you didn't stop it right away, you ruined the tire. That was back in the 1930's. I remember my Dad telling me he could tell that I "had run that thing flat, because there wasn't any other way of ruining a tire like that." But that is what happened there. Anyway, we used it for storage and that is the only thing I can think of. You are calling it a pole shed.

R: Well, there must be another building that was there, because I think it's a new building and it's made out of. . .

A: Yes. Well, this had a concrete floor on it. It wasn't a very large building. We just called it a sand house because that is what it had been for years. We never used it because we bought sand.

R: Did it have two floors so that the sand sifted down through it some where?

A: I don't know.

R: You don't know.

A: It had a solid concrete floor.

R: You don't know how the heating worked, or however they warmed it up?

A: No, I don't. I just assumed they heated sand in there, but somebody like Dorsey Knight would tell you what they did in there.

R: Okay. Maybe I should talk to Dorsey Knight. . .

A: Yes, Dorsey was the Nursery Foreman.

R: Because he worked for the Fernow too.

A: Well, he worked for the Forest Service Road Crew; but after he was in charge of the nursery field work, whenever Sandy was there.

R: That is the difference between the two of them?

A: Yes.

R: Now, did you have much to do with the Fernow, except knowing the people who worked there?

A: Well, of course, you knew the Trimbles, Fernow, were

there then. Ballantyne's, John Ballantyne was a Forest Service Ranger there and they both still live in Elkins.

R: George Trimble is ailing and wouldn't talk to me.

A: Well, he has a problem talking. He doesn't want to be heard that way, do you know what I mean?

R: Yes. Oh, I am sure.

A: So I can understand that.

R: Because I asked him and he said, "No thanks."

A: I remember one time we had a big wind come through there the first time we were up there. I was out there on a weekend trying to put tarps down. Dick Trimble we called and Dick came out, and I guess John too, and helped tie those tarps back down again. We had to put more dirt on them. They lived, of course, right across from us and so forth. So we had real good community or family relationships there. We were all about the same age. The Trimbles were a little older, but not that much. They had kids about our's age. The Valentines were a younger couple. So we worked a lot with them. Now they had, in here, below this building here, they had some open pits which were stratifying. Or just pits where they put stuff to decay and use for mulching beds.

R: You mean you did?

A: No.

R: The nursery had them, Fernow had them?

A: No, the nursery had them.

R: Okay. Sandy Oliver had had them.

A: Yes. Sandy Oliver's generation had those. We used them some for stratifying, but not very much because they had a solid concrete floor in them. You couldn't stratify. . . Like tulip poplar, you can stratify for up to seven years in just the sand pits. They were over next to the CCC buildings. What you have on here is over in this area, we had those pits.

R: Oh, the CCC area.

A: Yes. We used that area to stratify seeds. You could put those pits in, and they were lined so they wouldn't fall in, but still they had an open drainage below them. So we never used these (pits between building

and Fernow). I think one time too they used that to mix chicken manure or something like that in with the stuff there.

R: Oh, they made their own fertilizers?

A: I think they did. Dorsey would know more about that. I never saw them in use. We had them there for years, but then we never really used them. They were torn out when this part of the Fernow was extended.

R: Yes. In fact, where you are pointing, building eleven, is actually a new. . . That building was built in the 1950's. It is not actually part of my survey.

A: So we used to dump sawdust in there for awhile because we used a lot of sawdust from the Fernow, brought in there. We dumped it, and we would carry it and put sand in there. Then they got it so built up we had to move out of those areas, because we were squeezed out of that. I think we were on Fernow property when we were doing that.

R: But you didn't feel uncomfortable about being on Fernow property?

A: Oh no, that didn't matter to me. We were all in there.

R: Oh, okay. I thought maybe there was some sort of territorial. . .

A: Well, they had their area marked off. On the other hand, they also used the nursery ground when we weren't using it to do things that groups would want to do or something like that. We had a really good relationship. Everybody there was sort of new, so far as being on that particular location, so you didn't have any past to worry about.

R: Oh, okay. Did things kind of start over after World War II? When I read George Trimble's history of the Fernow, I got the feeling that, the same as you following Sandy Oliver and all the crews not staying completely together. I had the feeling that the Fernow did the same, that it kind of shut down during the war. The new people who came. . .

A: Of course, I never even heard of the Fernow much before I went up to Parsons. I mean it was started after the war. The Research Center was opened up after that; because it started when Sid Weitzman was in Elkins. The Fernow was a branch of the Elkins office. Sid worked on statewide research of forest growth and aspect and this sort of thing. The influence of different areas. The Fernow was just a demonstration area

for actual logging operations, for water management and stuff like that.

R: It was, you mean until the actual research station started there?

A: I don't know when the Fernow was really designated as a research area.

R: Well, those buildings were built between 1934 and 1936, it says on the history.

A: Yes, so I don't know where that was. I think they had a bunk house here they used to stay in. The people would go down there to work or visit or something.

R: It is still there.

A: It is still there, but they don't stay there?

R: Then they have an office in that building too, for when the manager was there as well.

A: Yes. Dick worked there, and Sid Weitzman worked out of Elkins. Then they moved this new building over, and then they moved the Elkins office over there. But then I think Dick Trimble; well, Dick was up in New Hampshire for awhile, Dick Trimbles, they left the nursery and went to New Hampshire either before we left or after.

R: Oh, then he came back to Fernow after that?

A: Yes.

R: I think he started out in water resource stuff.

A: Yes, of course, they had a lot of years and stuff they have in the Fernow and this area there. Parsons, West Virginia have their water source or did have up there. One of the times when the first flood went through, it wiped out the river crossing for the water to the nursery. So we had water pumped back around from Parsons, West Virginia, to there somehow. Then they replaced that. Then Parsons used that and they put in a new river crossing. One of the things that happened one time shortly after the flood was they went up there, they were putting in something, and the bulldozer operator ran out of a job, and he went up, took the thing up the stream up above their pond up there, Parsons, West Virginia water supply, got it all muddy. You had to wash clothes, you put them in a washer. They just streaked out. So the people finally got that straightened out, but they just got caught. They never thought of somebody doing that.

R: He just got mad you mean?

A: No, it was just the quickest way to get to the next job.

R: Oh, oh.

A: He went up the stream above there sort of. I think they still get water out of there.

R: Yes, they do.

A: So they are real careful not to stir up water into any of that soil because it stays in suspension. We cooperated with those agencies. All the agencies were in there because road crew worked out of there too. They would come down and report in there. A lot of times if we needed something, a piece of equipment that they had, we could maybe manage to get it.

R: Share?

A: Yes. We had the same system.

R: How many skilled people worked for you in the nursery that had some sort of horticulture background or that kind of thing? Were they mostly trained on the job?

A: Most of the people in the nurseries were trained on the job, including myself. When I went down to Lesage I had never been to a nursery, other than worked there. You take a course in college, covers nurseries, but that doesn't cover all the little details of it. You usually find that people are still there. When the Nursery Superintendent that I replaced at Lesage, he still had the crew Foreman and the people that worked the nursery there for years.

R: So, they taught you?

A: Yes, you learned what they did.

R: You were the boss, but they taught you.

A: Yes, right. You usually find out that the people that are in the nursery; they can tell you the individual details of what you are going to do next. You know, that sort of thing. You know generally what you ought to do or should do. There is a lot of difference between that and just starting in with a whole new crew that didn't know anything. If you think new people knew how to lift tree. . .

R: Sure, but when they needed people to do things, you

always got them pretty much locally. You didn't have people sent in from the state?

A: No, the state didn't have anybody else that knew anything about nurseries really.

R: You were it?

A: The people that ran the nurseries were usually it.

R: Were it?

A: They would bring people through. I know when we went down to Lesage we had a fellow come in. They brought a nursery person from down in the southern Forest Service district. But the trouble with those fellows are, they already know how to run a nursery but they don't know how to run one in the particular area you are in. They prescribe stuff that worked there.

R: Then did you guys go to nursery association meetings so that you would share know how?

A: Yes, they started those in 1949.

R: Where did Sandy Oliver get his background and how did he share it, for instance?

A: I don't know.

R: When you were talking about fumigating and that kind of thing, was that a word-of-mouth information exchange? How did you know to try fumigating?

A: Well, it is just one of those things you pick up.

R: You are being evasive.

A: You get things in flyers now that tell you how to do things, right?

R: Yes.

A: Well, if you have got problems, then you work on that basis. I didn't see Sandy ever putting on any fumigation, because I wouldn't be up there at those times in that area. I know that he used fumigation.

R: You heard?

A: Yes, I heard. Well, I talked to him and I knew that he had used it. Someone told me that he tried putting them off the manure spreader there. So you had all those things that you sort of remembered, but it is just how do you know that you do certain things. How

do you know how to run a microwave? You know how to run one now, but you just didn't know who told you, did you?

R: I read the directions.

A: Yes. So we worked on fumigation on that sort of basis. You went into the nursery with Cecil Scarberry down at Lesage and the work out there and that stuff. We had weeds all over that nursery. That was before "fumigation" days. We had also ran out of money for labor and so forth. He said that somebody is complaining that they never get any work. He said, "Al, there isn't nothing if you work at it long enough, you can't get the weeds out of." That is pretty well true. If you have got enough people to work on it.

R: Sure.

A: So their philosophy was even though it was growing up, you could still get it weeded if you worked on that basis. The only thing that I think was one of the things we put in the nurseries was seeing that we had flats with water holes that we bought near the railroad down at Lesage; we drained the nursery. I finally got more questions out of draining the nursery, because here we were watering and irrigating and then draining at the same time. They had what they called, in the nursery at Lesage, "dry hole basins" where they had rocks where the thing would drain in. Then they would fill up. In heavy rains your water would accumulate in your lower part of the nursery, maybe a foot deep or so, back up down there with no where to go to. The water was draining into it. So we used the Soil Conservation Service to design irrigation. First when we designed at Lesage they had a big road the CCC put in down through the middle of this twenty-five acre plot. We dug through that rock and so forth, and put side drains leading into the other drains. The first time we got by. It was supposed to be for ten year rain or something like that.

The first summer we had it built we flooded the whole nursery, because the culvert wasn't big enough. They weren't allowing for the fact that water would run off. They were using "agricultural farming" on us, which you can do, and they can figure out how many acres, and how fast your time of concentration was from the first drop that fell on your higher ground accumulating, you have got a lot of volume. So you can use that and not be right. So after that, one of the reasons they got such big culverts at Parsons. The Forest Service, somebody asked me why in the world anybody would build a culvert that big for that little bit of ground. I said, "Well, I figure it is cheaper to increase the size more than

that needed for farming than digging the thing up again." You get a heavy rain, and it just sits on ten or fifteen acres, and it is going to plug up a lot faster. We went into that type of nursery management, which, I think, was one of the biggest things that was changed. Because people didn't have that type of equipment to do that.

R: I know. When I read the early reports, the things that Oliver was doing, there aren't very many of them. But they just get absolutely euphoric about a new piece of equipment. I mean the technology was very limited.

A: Yes. Sandy had an old Oliver tractor which we got where you could lift things. They bought one down at Lesage an International crawler. I have seen it come through mud as deep as this desk, twelve inches of mud coming out. You just don't work soil when it is that wet. You are better off not to be able to do it. That is one way to quit doing them was get rid of them, because people get out and work it you know.

R: Yes, they want to do something.

A: Yes. So I was never a big promoter of crawler type tractors. Although I think they had their place if you use them correctly. Like I said, they got a piece of equipment to use. A lot of the equipment they would design themselves too.

R: It seemed from some of the stuff I have looked at that he actually even drew it.

A: Yes.

R: One drawing I was looking at looked like he had done the drawings. He was really the only person, again. . . He was the only guy there who had any kind of background. So did they learn from each other, but he was the. . . Isn't that right?

A: Yes, as far as I know. I think they had a Forest Service pathologist or something that worked there for awhile.

R: Oh, they did?

A: Yes. He didn't work with the lab as I understand. They had another individual in that lab position there that used different things to work on, seeds and field treatments. Because they had a whole bunch of stuff in that poison building. The little shed was down here. It disappeared during the flood, it had chemicals in it. Some of them have been there since back in the 1930's, barrels of stuff.

R: That wasn't the shed that was once out in the middle of the fields, was it?

A: No, it is that there.(Looking at Rebecca's map)

R: Near the packing house?

A: Yes, it was down in here. But it was washed off its foundation, which solved a lot of problems.

R: Then did it contaminate the soil?

A: Yes, see one of the things that happened in the flood; a lot of that stuff that was in there, they had inventoried trying to find what it was. We were obligated by the Forest Service and our own regulations to get rid of it. We didn't know what to do with it because we didn't know what we had. The old office was full of that stuff. That is the reason they put a 'Contaminated. No Entry' sign on that office.

R: But now it's not there anymore. Did they get all the junk out of it?

A: I don't know. You were there last.

R: It's empty, but I mean was I getting contaminated?

A: I guess not. It didn't have a sign on did it?

R: No.

A: Well, the State came and put a big sign on it, 'Danger' so nobody could get in there. So I don't know how they got rid of the stuff.

R: I don't either, because I went in there and they didn't announce to me that it had been contaminated.

A: Was the floor clean, or was it full of stuff?

R: The floor was pretty darn dirty.

A: Was stuff piled in there?

R: No, it was just old drawings and junk like that. It had the venetian blinds on the floor, that sort of stuff. It looked like stuff from the flood, but it was not chemical.

A: It wasn't this deep?

R: Nope.

A: Then someone dug it out of there then. They must have gotten rid of it.

R: Well, I think we talked about all the different buildings. I was going to ask you about cold storage, but then I realized that building was for seed storage. So you didn't really need any cold storage?

A: We used the basement of this building.

R: The packing house?

A: The packing house, it was wiped out.

R: It had a cooler or something in it so you could store plants?

A: No, we didn't have a long time storage. When Woody Woodrum was up there, and that was back when I was in Washington, he got equipment. Or else before we left them, I just don't remember whether we had that yet or not. They had that Coca-cola plant in Elkins remodeled or something. He got the old parts.

R: The rollers?

A: The rollers, and the jack roller you put under the carriers in the basement, you saw those.

R: No, they're not there anymore.

A: Anyway, he got the whole works. He put that down in the basement and worked in the basement there. When we remodeled the upstairs, he had a better way for getting it around. Otherwise we came down and we had to pick them up and carry them over to different packing stands. They had the different platforms you could put the jack under and move the whole thing.

R: Okay. Now when do you think that happened? That was in the 1950's?

A: Yes, it had to begin in the 1950's.

R: Okay. We talked about Sandy Oliver and the things he might or might not have developed. We talked about what the buildings were used for, and we talked about the irrigation system. We talked about collecting seeds. Did you buy acorns and walnut seeds and all that kind of stuff?

A: In West Virginia we have a farm market program, Farmers' Markets. One of our problems, in Virginia when they buy seed, their District Forest has cash to give them. They work out of a cash box up there. In this

state you have to have an invoice that will take you about six weeks to get paid. We just couldn't get people to collect seed.

You didn't like that still. We worked with, at that time, Farmers' Markets. They still have them. We have one at Parkersburg, and one in Charleston, one in Beckley.

R: You mean like a city market? We have a farmers' market in Youngstown. That kind of farmers' market?

A: No, these farmer markets buy stuff from the farmer and resell it.

R: Resell it like a wholesaler?

A: Yes. Well, no they retail a lot of it. Anyway, we would arrange for cones. Like we had this one fellow in Greenbrier County who would take a contract, bid for it. He would arrange ahead of time for maybe 1,000 bushels of white pine or 1,500 or something like that. He would go out and buy them maybe for $4 a bushel, and then he would sell them to the state for $5 or something, just as an example. He would already know what he was going to get out of them. So we used him because he could get more cones than we could because of his connections. We would scout the area, and they would keep the cones from Greenbrier County separate from those in Pocahontas County. Then we had another collection area in Raleigh County. Their they went into the Beckley Farmers' Market. They would go in there, and as soon as they took the cones in, the Beckley Farmers' Market would make them out a check. Then if they wanted to cash the check, they would cash it for them.

R: But they could also take it to the bank and get it cashed as well?

A: Yes, or they would mail you a check. So then we got where they let us help. The Nursery Superintendent would operate as an unofficial representative for the Farmers' Market. He would approve the invoice and send it into the farmers' market, and they would pay the man directly with money. It wouldn't be that long until he would get his money. This worked really well.

R: Now did you do the same thing. . . Did you do much hardwood production?

A: Yes, we raised red oak and black walnut.

R: So you would buy acorns and walnuts?

A: We would buy the walnut locally. We had some people at Parsons area that had been bringing seed in for years.

R: Oh, so Sandy Oliver bought seeds in the same way?

A: I don't know.

R: Oh, okay.

A: I mean we would buy walnut from local people there, and they would bring them in the nursery. But what we would do with those, we got the Hammond's Walnut Company or something out in Missouri, they sent walnut hullers in to the farmers' market and they would spot them. They would spot one in Parkersburg and Weston, and then they would also have Beckley. Like down in some counties, like in Monroe County the local F.F.A. would get a huller in. They would haul the walnuts there. We would buy from the different sections, so many. So we would get walnuts that would go back to the southern part of the state, we would get them out of Beckley and Monroe County areas. They would keep the seeds separate. Then from the northern part of the state area, we would get them from Parkersburg and Weston, and that area there.

R: And when you would have little baby trees you would send them back to Parkersburg?

A: We try to get them in the different areas back home. We weren't collecting from the best trees, formwise, which would have been another refinement we could have done perhaps. If you had time to spot the trees beforehand.

R: But you thought you got a better product by. . .

A: We were getting better products. We used to get, from Lesage days, they used to have American Walnut Manufacturers Association. They would send you so many walnuts. Lord, you didn't know where they came from. They came from Illinois or Ohio or somewhere, and they came in a big batch at a time. So we finally just quit. We told them we didn't want any of those. They didn't reimburse us for it, but we were getting walnuts closer to home and already hulled. What we would do with the ones that came into Parsons that would be unhulled, we would keep local seed suppliers giving us seeds. We would take those, put them on our truck, take them over to Weston, and put them through the huller. Then we would pay them on the basis of how much they got.

R: And give them back to the guys from Missouri?

A: No, they would give money to the people who collected it.

R: Oh, okay.

A: That way they would check the bags of walnuts they hand in. Then we would have to prorate what they produced for Tucker County. We also used local collection for tulip poplar that way, when tulip poplar was brought through. We arranged this with the Farmers' Markets where they would take Dave McCurdy's or Woody Woodrum's word. Those fellows who have been there. I didn't have those arrangements worked out at the time when I was there, I don't think. But they would take those invoices though. We would send them in, and they would send a check back to the individual.

R: Were things like tulip poplar. . . Did you have to do any kind of drying, or was that only for conifers that you had to do drying?

A: Well, you air dried the conifers and then put them through a kiln area to open the cones.

R: The drying shed was just for getting them to open up and drop the seed?

A: Right. Yes, they would open, but not drop the seed.

R: Oh, so when I go into the cone separating, the seed separating, does it also have a heating system?

A: It has a furnace down at the bottom. If you are looking from roadside, it would be on your right. There would be a furnace which was an old coal furnace, which was converted to gas. Then that took the air up through two sets of trays up overhead, and the cones were laid out there and dried. Tulip poplar I had put up on the barn floor and let it dry. We would send it through sort of a hammer mill like thing to break it apart. Then it would be either directly seeded or else put in stratification pits. We would use local seed for that. Some of the local people were used to waiting awhile for this money, but when you are buying from every Tom, Dick, and Harry to cut trees or seed, but the sooner they got paid, the happier your collectors.

R: Yes, they like it. They come back again.

A: Well, they didn't want to wait for six months to get paid. So the Farmers' Market would, after they got through seeding, bill us for all the cones that they had paid for.

R: I see. So the long term contract went with it, Farm-

ers' Market?

A: Yes. They would charge us ten percent for handling. They would accept it, measure it, and send it on out. We were so efficient on that that we would even, real good crop years, I think we spent around $7,000 or $8,000 worth of seed. We would send trucks from Kentucky to get seed cones.

R: Oh, so you produced seed that you didn't plant in the nursery as well?

A: No, we would arrange for the other state to get it.

R: The production of it?

A: To buy the seed, using our Farmers' Markets.

R: Good.

A: So it worked out very nicely. We still use that system if we get back into seed collection. I don't think they have collected any local seed recently. We just haven't had a good crop, plus they have to have enough financing to do it.

R: You were talking about converting that building for seed stratification. Where did Sandy Oliver do the seed stratification? In those concrete tanks that were down on that one end?

A: They were open above ground, those. I think they had a big chicken factory in that vicinity then. They would take that stuff out of the chicken houses, and put it in there and compost it.

R: You mean to make fertilizer?

A: Yes.

R: Where do you think he did the seed stratifying?

A: I don't know whether he did; I never asked him.

R: Where did he go? Whatever happened to him?

A: He went out to Nebraska, the nursery there. He ended up in California. I guess he must be living with his daughter or his son or somebody.

R: Is he still living?

A: No, he died not too many years ago.

R: But his daughter lives in Oregon. In Milwaukee, Ore-

gon.

A: I don't know. He has a son.

R: They both went to forestry school, I think, the two kids.

A: Well, there are two daughters and a son. The son went to forestry school. I don't know about his daughter. His daughter married a local fellow.

R: Maybe she married somebody that was in the Forest Serv ice.

A: I think he was a game management person. A fellow by the name of Ward from over around Elkins somewhere, I think. Then he was somewhere else. His wife died, I think while they were out in Nebraska at that nursery he transferred from. Then last time we were in California. We went by the town he lived in.

R: You didn't stop and say hi?

A: No, we were on a train, but we weren't that far from it. I think we went through to this forest we went to see at the same time, somewhere in there? I don't know.

R: I have to get going.

A: I agree!

END OF INTERVIEW