Elmer: Well, I don't remember all them dates, but I can remember when my grandfather first came here and settled down the road here about 1/2 mile. It was in 1832.

Laurie: That was when the original settlers came into LaPorte County.

Elmer: That was my great grandfather. My grandfather was 10 years old when they came here.

Laurie: Garwoods?

Elmer: Garwoods. That farm up there is still in the Garwood family. It was settled in 1832.

Laurie: Did you come with the skills to develop an apple orchard, or was that something -

Elmer: Well, no, this was all timber around here. They had to clear it off so they could farm it. And of course, he liked trees, and he liked fruit, and he liked to fish, too. We used to go down to Lake Michigan with a big net. We'd go out on a row boat, you know, and stretch that net on the lake and they'd pull it up to the shore, and they'd probably get a couple of barrels full of fish and they'd take it home in a wagon.

Laurie: Where did they come from? What area?

Elmer: Well, they came from Ohio. Pennsylvania and Ohio. I don't know where the original Garwoods settled in the first place, but that's way, way back. Well, interestingly enough, one of my distant cousins, Norman Garwood, was in England last month and visited the area where relatives came from. It's near the town of Ipswich, which is, as I recall, about 75 miles Northwest of London, and there's a small town named Mecton, and it's just off the river Stours, very close to the English Channel, and my wife and I, as a matter of fact, took a ferry from there for Denmark, and then we visited Sweden two years ago, so we were in sight of the village at that time, and I think my wife and I will visit that village on one of our future trips to the British Isles. Norman said that there must be at least 75 Garwood graves that he saw in that cemetery.

Laurie: Oh.

Elmer: I noticed two years ago, I looked in the London phone book, and there are 39 listed in the London phone book, and it does go back, we don't know the full history, but it does go back to England.
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They came into New Jersey from there, and I have visited the town of Garwood, New Jersey. It's named after the family. I went from there to Pennsylvania, from there to Ohio, and they did come from Ohio to here.

Laurie: Did they buy the land from the Indians, or the government, or what?

Elmer: Well, I think it was the government - state. Because, there wasn't much developed around here. They started the city of La Porte up there, about that time. It was even, well, his name was Andrew, A.P. Andrew, he was one of the originals in the city of LaPorte.

Laurie: Mm hmm.

Elmer: And his son, he had a bank in LaPorte there for several years, his name was the same, A.P. Andrew.

Laurie: then, who started the apple industry, your great grandfather or your grandfather?

Elmer: Well, my grandfather started it.

Laurie: There's a story that Johnny Appleseed gave some of the seeds - is that true?

Elmer: Well, I don't know. that'd be down around Fort Wayne - Appleseed - he's buried down there some place.

Laurie: Yeah. He dies in Fort Wayne. Never heard any validity to the story that came through here?

Elmer: No, I never heard anything about that around here.

Laurie: How did your grandfather get the seeds then, or the cuttings? How did he start an orchard?

Elmer: Well, I imagine he must have got 'em from the seeds. Because I don't think there were any trees around. He's probably buy 'em. Because, he started to have one little orchard up there, 6 acres, and then the winter killed almost all the trees up there because it didn't have no ventilation to there - there was woods all the way around. Then he set out another orchard up there further north, and there was plenty of ventilation there, and he had 15 acres of apple trees there, and that was his biggest orchard.

Laurie: Did he do anything else besides orchard, or -

Elmer: Oh, yes, he farmed, he had a large farm. He raised cattle, and he had a lot of hogs. Oh, he had around 200 cows they raised the calves from.
Laurie: Mm. Were people, um, where was he selling his orchards. I mean, I know now, people come in and buy the apples, but was there that big of a demand?

Elmer: Well, there were just people around here, I guess, that just came and got apples. Some of 'em payed for 'em, some of 'em didn't. He liked to have fruit for everybody. He wasn't so much into making the money off of it, he loved to have trees. The same way with fir trees, all kinds of tree's he set out. And even, like maple trees, around the houses and evergreen trees. He used to keep 'em trimmed up, up to a point like that, all beautiful. at that old hog place up there. Of course, they're all gone now.

Laurie: The Garwood home up there, it's being re-modeled now, or -

Elmer: Yes, I think it's mostly done. I think it's mostly done.

Laurie: What was your grandfather's name?

Elmer: John.

Laurie: John?

Elmer: My great grandfather's name was John, too.

Laurie: Oh - What year did the second John start the orchard then?

Elmer: Well, let's see, that must have been around 1850, '45 or '50. 'Cause he was ten years old when he came here, and that was in 1832. And he was born 1822. So, that must be about the right time, close as I can remember,

Unknown: When that orchard was handed down, didn't it go to a daughter?

Elmer: Daughter, yes.

Unknown: And her name became -

Elmer: Mrs. Small.

Unknown: And this is what the Small River in the area is named after now. And then what was his, uh, occupation? What did he do with that ground?

Elmer: Well, the trees gradually died out, and he done general farming. He did raise alfalfa quite a bit, and he raised quite a bit of potatoes.

Laurie: Who started up the orchard again, then?
Laurie: He did have an orchard, right?

Elmer: Yeah, he set out an orchard. He intended to have it for his grandson. But his grandson, when he came back from the army in World War II, I guess he took care of it for about 2 years, and then one year it didn't pan out so could, and he kind of got disgusted, so he quit.

Unknown: Well we, my Dad and I, leased that orchard out for two years. this was in -

Elmer : During the depression, maybe -

Unknown: No, no, this was before that. Anyway, we did lease the orchard one time. we had it for one of the ___ operations, I guess, they're worse around, we had some problems with it. But it looked like it was impossible for it to be profitable, so it wasn't more than a year or two that the orchard was taken out and was converted to a general ___ ground. However, by that time, Jefferson Garwood, in land adjoining, planted an orchard of apples and peaches and some pears. This is just half a mile East of where we're at right now.

Ant at the same, time, Elmer's father here, which would be my grandfather, Joseph Garwood, had an apple orchard directly across from the Carmel Chapel -

Laurie: The what chapel:

Unknown: The Carmel - C-A-R-M-E-L. It's the Carmel cemetery. And then my Dad and Elmer planted an orchard, I guess that was in 1914?

Elmer : '21.

Unknown: '21. And then another orchard was planted - we're sitting right at the edge of where another one was got took out, oh, I guess in 1965, that was planted in 1929, the year after I was born. In fact I can remember driving and old Lincoln '28 truck sprayer for my Dad when I was 7 years old, and the trees were still small enough so I could run over and -. But the orchard became just too old. the standard tree is about 30 years old, because, oh you just shouldn't let 'em become really much older than that. Anyway, it was removed because it became unprofitable. Actually the orchard we just spoke of was 5 acres, and there's another 10 acre orchard that was planted in 1921, then that little park, in front of Pete Nelson, that was planted a little before that, wasn't it?

Elmer: You mean where -

Unknown: Where one of the Nanas are.

Elmer: Oh, than was planted in 1919, I think.
Unknown: 1919. Then, what we called the old orchard across, directly across from the Carmel Chapel, I understand that was planted in the last 1800's? 1897?

Elmer: 1893.

Unknown: 1893. That was a long lived orchard. 'Cause I remember cutting that orchard down and burning the stumps the year I came back from the army in 1954. So that orchard lasted, what, 61 years. It was just way longer than most orchards can last. But there were old varieties in there that a lot of people still desired.

Laurie: I was going to ask you how varieties of apples have changed. Like, when you and your father were planting them, what were the type of apples?

Unknown: Well, what was in that 1893 orchard? We just talked about that a short time ago.

Elmer: Well, there was __ and Baldwins, then David, Maiden Blush, Snow apples, and there were some early apples there, one or two to transplant, early apples. And on tree __ Golden, and there was two old fashioned Russet trees, you call them marlin Russets, I guess, oh there was another apple there, it was a large apple and it got ripe quite early in the fall, but we didn't really know what the name of it was.

Unknown: Wasn't there one called Alexander?

Elmer: Yeah-. But we always use to call them pie apples 'cause they were good for making pie.

Unknown: Yeah, they made good pie, but they tasted horrible.

Elmer, Yeah, when you'd eat 'em.

Unknown: There was one sheep mills there too.

Laurie: A what:

Unknown: Sheep mills. Long with long points on it like a Red Delicious, but it didn't bear well, about every other year, and it didn't produce well. Now the Russets were an apple that were practically worthless when first picked in the fall, and those apples were traditionally buried in the ground. What was the method of burying those?

Elmer: Well, we used to lay boards down. You'd dig a trench about 6 or 8 inches deep and lay boards down on the bottom. You'd put your apples in there and cover it with billing paper, we used to called it, we used it for billing, and then lay straw on top of it,
about 8 or 9 inches deep, and then you'd lay your dirt. Then another layer of straw on top of that, and then another layer of dirt on that, and they'd never freeze.

Laurie: Is that how you'd store your apples?

Elmer: The Russets, yeah. That's the way we stored them.

Laurie: Did you store any other apples besides Russets like that?

Elmer: No, no. We sold all the apples in the fall of the year, only kept what we wanted to use ourselves.

Laurie: So why did you decide to store Russets?

Elmer: Well they were better quality, better eating quality, when you took 'em out of the ground in the spring.

Unknown: You've probably never eaten an apple as deep tasting and honey like in flavor as a Russet that's been buried in the ground. There's just absolutely delicious. You could sell 'em for $15 a bushel if you had 'em. But like I say it was worthless when it was first picked, and after that kind of storing it was absolutely delightful. Some of out other apples were this way too, uh, especially the late apples, say, a __, a ___, are not as good tasting when first picked and after they've been stored for a while. And even the most popular, a Red Delicious, when properly picked, needs at least one week at room temperature or 30 days of cold storage or tempering to develop its right flavor. It doesn't have proper flavor when it's first picked. If you would pick it, and it was very sweet tasting when you first picked it, it wouldn't keep, it would just degenerate very rapidly.

Laurie: When did you begin the long term cold storage that they had so you could sell apples into January?

Unknown: Well, see, in the times we've been talking about now, the orchard was always a side line, like as a sideline to Elmer's grandfather John, and it was a sideline to his daughter's husband, Mr. Small. They were principally agricultural crops, hogs and potatoes, and apples as a sideline. Now, my Dad and Elmer, they planted an orchard as a sideline. My father, Carl Garwood, was a mechanic, owned and operative a country repair shop for automobiles, trucks and farm equipment, and he did that from, he got in the business, what, just after World War II is it? Or World War I?

Elmer: Well it was about 1922 or 3 is when he started in a small way.
Unknown: And before that he worked in Gary, he would drive cars out of Detroit Michigan, Elmer and my Dad both got into the automotive business. When did you first start driving cars out of Detroit?

Elmer: Well, it was in, first ones I drove was in 1920.

Laurie: What do you mean drive cars out of Detroit?

Unknown: That's how cars are transported up here for a large part. The model T's came in railroad cars. The larger cars. But they worked out of a 5th Avenue Buick garage in Gary, and that's how car came through - on U.S. 12, which was mostly a dirt road at that time, they had some real experiences. Uh - before I digressed, we were saying that the orchards had always been a sideline, and it remained this way until I decided to go to college and study the business in 1945. My parents didn't want me to go, but I finally wound up I did get started just after VJ Day in 1945, and left Purdue in '49 with a bachelor's degree in horticulture. I studied tomology, which is the science of growing deciduous fruits. We studied principally apples but also stone fruits and small fruits too. But my intent was to get into the commercial apple shipping and packing business, which we did, and I had to wait, so, Elmer and I farmed together after a while after I got out of college, 'cause I was up for the draft in the Korean War, so I never knew when I might be drafted, so we farmed in partnership raising agriculture crops and livestock for a couple of years, and then I got drafted and worked in the army for a couple of years as an electronic technician, and then bought my Dad out in 1955, and that's when I started out in the commercial business.

Laurie: Before you started, like you said, in the commercial business, were there any other orchards around that were just totally an orchard commercial business?

Unknown: Yes, yes. In this area, and maybe Elmer you could help me out, there's the Stenton of Beltz orchard, then the Miller family and the Radke family, and yeah, Frank LeRoy who was quite a large side grower. Well I don't know what old orchards are - Williams.

Laurie: These were commercial business though?

Unknown: Yeah. And Basset and Scherer, just north of us here about 4 miles. As a matter of fact for a while I hauled for them, from 1950 until, well until they quit business in the late '50's I used to truck their apples and peaches into Chicago, in their truck, usually. They had a large operation, I guess maybe 125 acres. It was more peaches than apples. Apples were in the minority. So yes, there were other orchards around them. As a matter a fact, La Porte County and Knox County is two leading fruit counties in Indiana,, and the thing that really got me interested in it was the extension and education meetings

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from Purdue to help growers in their fruit growing operations. So from the time when I went to these meetings. They'd change from one orchard to another. They were called twilight meetings. We'd meet in the early evening. There were 4-5 of these meetings each summer and there still are today. In fact, I'm president of the organization now. And I thought if I knew as much about fruit growing as these experts from Purdue, that there was no way you could help but becoming rich. It turned out that we did learn these things, but didn't become rich. Started in 1955, and that was only 14 acres that my father had, that was a start. In the meantime, when I first got out of college in 1949, we built the first cold storage, it was a 7000 bushel capacity and had a 5 horse power refrigeration system, which means it made the equivalent of 5 tons of ice a day. And in 1955, got started, by 1957 built the first addition to the building, and after that we built additions about every 3 years until the present time. The building sort of grew like --, and in 1957 my first brother Jim came in partnership, and at that time we were into maybe 140 acres of apples. We leased orchards all the way around the area here up to 4 miles a way. We had 14 different blocks or different orchards, and it was a difficult thing to manage. So may orchards, so may kinds of apples. So many sizes of trees, and so many kinds of soil, and so forth. But we did produce a lot of apples. By 1958 we were into maybe 40,000 bushels of apples per year, and this continued. I remember we had in 1958 or '59, we had, well by 1958 we had built another cold storage which was 16,000 bushel capacity and enlarged the original one to 9000, so we had 25,000 bushel cold storage capacity. At that same time we shifted from the use of the small one bushel wooden crate and the bushel baskets as containers for the fruit, we switched from that to a mechanically handled bin, say a wooden bin holding about 17 bushels of apples, and these are handled by industrial forklift tricks on the inside of the buildings and packing rooms, and by extending your farm tractors with special lifts either on the rear end or front end to handle the boxes in the orchards, this eliminated all the back work to handle all the bushel crates and stacking them in the trucks and unloading and loading, and the difficult problems they had in stacking them in the storage rooms. The storage room is around a little over 15 feet high where we stacked, and that was a time consuming problem, and actually dangerous too, and very hard work. But now we just stack 6 bins high and go up 15 feet and it's absolutely no problem at all. We can move 100 bushels out of a cold storage room in just a few minutes, maybe 10 or 12 minutes, we can handle 1000 bushels of apples. At the present time we have two, well one electric and one gasoline powered, trucks that work in the cold storage rooms and the packing operation. Uh- we, in the period from 1957 until 1967, 10 years, we developed the operation as best we could, best we knew how. We kept removing some blocks. Like for instance, we had a block of peaches, 1000 trees on 10 acres that we were leasing, and after keeping a careful cost analysis on it for 2 years, we found out we were making 5 cents an hour on a bushel of peaches for our time one years the other year we lost 10 cents an hour on that crop, even with full crops. So there wasn't much use in staying with the peaches in 1962 and '63. And there wasn't much use to staying with an operation like that, so we just abandoned that and went on to some better things. We kept paring things down, increasing efficiency, got better and

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better equipment. Improved the gridding system for handling. We can pack about 500 bushels per day now with a crew of about 7. And we shipped largely into Chicago but also shipped into
Detroit and St. Louis, Minneapolis, we had truckers out in Central Illinois, doing Springfield, Decatur, hauled a lot of apples out. And that's where the operation went for about 10 years, and then in 1967 was sort of the the end of an era. I could see then that we weren't making a suitable profit, and even after we improved the operation as much as possible, we still couldn't make a suitable profit. So that was the time we decided to increase the sales to the consumer. Now we had some sales like that, but very little at the time. In fact, in the summer, it hardly paid to have anybody here to wait on people because so few people came. But then we diversified, and diversification was the key to this whole thing over the last 10 years or so, into other fruits, into vegetables and into berries, principally raspberries, and it's been a whole new ball game particularly since 1967 because of that. It has, of course with promotion and advertising, inviting the people here, it developed very rapidly. In fact in the first four years, as I recall the retail sales increased 375% in the first four years. And now we move most of our crops direct to consumer. Our vegetable crops, we raise 75 acres of vegetables and berries, and nearly all of that is sold direct to the consumer, my wife manages with me the U-pick operation which is mostly vegetables and berries, and I think we sell almost as much vegetables. The U-pick it business would not have been successful in the 40's and 50's. My father and I tried it. At that time it just would have been thought of as a means of salvaging something from a lost cause. More often than not, growers would harvest their orchards, and anything that was left they'd try to sell for some salvage price to anybody who's want to come get them.

Laurie: What do you think has caused the change?

Unknown: Well, there's many facets to it. One thing, most of the people that come are city people. About 60% of the people we have come from Chicagoland area, and they're people who like to get out in the country. Some of them have a farm background in their young lives. Now they've moved to the city and they like to come back and see the farm and taking their children for an educational trip - it's partly recreation, partly education. It's partly getting a real good product. For instance, they can get a bushel of green beans, it only takes them about an hour to pick the green beans and they know they're absolutely fresh, they no exactly what they have. They have the finest product, and they can go home immediately and do their freezing or canning then. It's a guarantee of the quality. It's also economy. They'll buy a bushel of beans like that for $3.75, and the wholesale price in the Chicago market at the same time for the same thing would be $8, and they wouldn't know, even if they did pay the $8, how fresh those beans were, or if it was a good variety suitable for home freezing and canning and so home. So here they know they get a dependable product, at a reasonable price and it'll be here when they want it in most cases. So this has been part of doubling the business. And these people who go out and pick their own things. Quite often are people that would never have come here just to buy some apples or some cider or some peaches or something like that. But they do

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come out to pick their own. But once they are here, then they will stop in our showroom where we're selling other merchandise and vegetables and berries and so forth, and when they see a product and like it, they'll buy some and take it home. So we've increase sales by drawing from various segments of the buying public. For instance, raspberries draw a tremendous amount of people for the U-pick operation, because raspberries have been difficult to grown in the last few
years because of disease problems, and we attract the people here with the raspberries, but once they arrive and see the nice vegetables right next to the raspberries, then the next thing you know they're back the following week for vegetables, and this is what developed the business. Sweet corn is another sales leader. We've been very careful about picking sweet corn at just the right stage and keeping very good quality, and some people come just for sweet corn, but like I said, once they're here, they'll buy other things too. But still, the apples are the backbone for the business. I noticed as I completed books for this year, that around 675 of our sales were still fruit. Now this does include some raspberries, apricots, pears, plums and so forth, but still 67% of the business is fruit, and I suppose 60% of that would be apples. So we're still best known for apples and cider. When we first started cider, I always say when I first got out of college, on a weekend in the fall we'd go down to Holmesville to get cider pressed, we didn't have a press at that time, and it was either getting one barrel or two barrels. They'd with a gallon of ice and put them over the barrel to keep it a little cool over the weekend, and if we were real lucky we'd sell both barrels, or maybe one barrel and part of another, maybe 60 gallons of cider for an ordinary weekend in the fall. Now we may sell on a weekend afternoon, as high as 1400 gallons, just on a Sunday afternoon. Of course you don't get too many Sundays like that - this is during peak time in the fall. I think we sell around 34,000 gallons of cider a year now. And here's another case where we always made it ourselves, and careful about the blending of the apples and having the apples washed and cleaned and well inspected, being very careful about the quality, get a good clean well balanced flavor, and a product that will keep well for the people that buy the cider. So it's been, the whole business is really based on apples, and based on having a good apple, a good product.

Laurie: The rest of the orchards in the county, do they follow the same type of trends like becoming mechanized and larger cold storage and was it about the same time that everyone started to convert?

Unknown: Well, we were the first ones in Indiana to do that, and I can't remember, it was some years after when others did it. Now some still haven't converted in Southern Indiana. They're slower to convert down there. We started in '57, and I think by '67, by ten years ago, the Sun Acre farm and the __, also the old Williams orchard had converted. Now just in the last 2 years the Anderson Orchard near Westville converted. So we were really pioneers as far as Indiana went. Now I had traveled over in Michigan and visited over 20 different farms in the period or 1956 and '57, studying those that were starting the operation like that up there. They were some of the first in the US, so that's where a lot of our ideas came from. But a lot of the things we did were home made. A lot of our equipment was home made. We always built all our own buildings, and we had to convert buildings. bigger, higher doorways and bigger doorways. The buildings that were built had to have heavier reinforced floors to hold the fork lift trucks. The trucks and trailers and wagons had to be adapted to the size of the bin rather than carrying the bushel crates that they used to. So it was whole new operation and once it started it was a heavy investment, So we had to borrow a lot money to do it and were very concerned about it and nearly lost __ right when we were in the
worst of debt, but came out OK. But, like I say, even working at the very best, by 1967 we saw it pure ag operation wasn't going to make it, at least under the conditions we'd had for some years.

Laurie: I wanted to ask if you can describe how the operation was done before it was mechanized, like how any when would you go out and pick the apples, and how did you get 'em back here, and what did you do with them then?

Unknown: Well, apple harvest starts about July 15th for the early apples, Lodi and yellow transparent and so forth, and then there's a whole series of apples that comes into July, August and the very early part of September, and then the fall apples, the Johnson, McIntosh, __ Golden, and we'd be into those about Labor Day, and then some Bartlett pears are first on sale too, and typically our heaviest harvest period has been between September 15th and the first of October. Now this used to be done by pickers picking into bushel crates entirely. The crates would be distributed near the trees and as a picker filled his picking bag with approximately 1/2 to 3/4 bushel of apples he'd just empty it into the crates and the crates would have to be leveled, and then workers would come through with trailers or trucks, and they'd have to lift the apples by hand onto the trucks or trailers and stack them on the trucks, and it was a long distance. We'd be going about 4 miles, so they had to be roped or strapped on so they wouldn't slide off, and then bring them back to the cold storage, and then they were put on either roller conveyors or power conveyors, conveyed into the cold storage rooms, and then sometimes they had to go on another elevator conveyor to bring them up onto second layer for high stacking, and it took some strong, hard working people to do that kind of work. It was quite difficult.

Laurie: Was migrant labor used very much in the orchard business?

Unknown: No, we never used migrant labor to any extent, not one time. There were a few migrants that worked both here and at Bassett up North of us. They were people out of Missouri that were share croppers there and they'd come up here in the fall and pick apples, but I think there were a few of those around in 1959, something like that. This is when they first started getting restricted on housing and so forth, and we got into so many government regulations that we just couldn't do it anymore, so we just used all local help. I think it the last, well at least in the last 15 years, all of our temporary help, virtually all of our temporary help in the field, has been from the South side of Gary. there are families that have been with us for many years, I guess this goes back 20 years - yeah, at least 20 years, come to think of it. They just keep coming back year after year. They

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come in the summer, say about who's going to come, and then we have several people who are leaders, that we know 'em for years and we can trust and they round up the people they want and try to get the suitable people. At this time on a day of heavy picking, we'd have about 40 pickers in the field, and it takes quite a few people hauling the fruit in, putting the fruit in storage, packing fruit, selling the fruit, running the sales operation and so forth. So on a really full day, we'd have maybe 65 people working, maybe. But this was during the fall. At this day today,
here, what, the second day or March, 1978, my two brothers and myself are pruning out in the orchards, and we have one hired man working with us, a young fellow about 22 years old, he's been with us since he was about 14, and that's it. We get a little temporary help before springtime, but we do all the pruning by ourselves. We'd like to hire then but we can't find anybody to do it the way we want it done.

Laurie: have the techniques of like pruning and that changed?

Unknown: Pruning techniques haven't changed a great deal. Now, the equipment has changed. When my father and Elmer were young, why they used hand shears and hand saws, and I did too when I started. And then starting in 1957 we had electric equipment. It was essentially a circular saw on the end of a pole powered by electricity, and they worked quite well, made by the Home Life company. But they went out of business on that several years ago, so for the last 7 or 8 years we've had hydraulically operated pneumatic, well oil hydraulic equipment powered by out tractors. We use three different diesel tractors that have hydraulic pumps that furnish the power for those, they power shears that are hydraulically operated on the ends of poles, also chain saw, a short 10 inch chain saw on the end of a pole, and we also use gasoline powered chain saws for larger cuts. And, uh, we do have one piece of equipment, the orchard high lift, that has all the power on it for the equipment, and it has a basket where a person can lift himself in any direction, up, down, in and out and so forth, and this is for working on the tops of the trees. At this moment we're doing the trees up as high as around 10 feet, and the trees are up there around 14 feet., so that last 4 or 5 feet will essentially be done when the snow gets off when we get the other equipment in and go to pruning taller. We're at the point now where we'll probably get into summer pruning instead of winter pruning, and here we'd use more mechanization. It's a method recently being developed, where we'd go through with hedging equipment and hedge during the latter part of July, hedge back some of the present season's growth, and do it much faster that way.

Laurie: How is, when do put you r trees out, or how do you start?

Unknown: In planting trees, the largest planting we ever made was 5 1/2 thousand trees, a block of apples especially made for U-pick which was planted mostly in 1964, and uh, the trees are grown by specialists. the trees are made by first growing a root system, and we use trees that have been imported from Europe in England that are semi dwarfing,

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they'll produce an eventual tree that will grow to perhaps two thirds of normal size, or half of normal size of the old, what we call standard trees. We first started in 1957, with 3

of this series of trees called a Malling tree, M-A-L-L-I-N-G, that were developed, or sorted out at the Long Ashton Research Station about 40 mile South of London, England, and this some of my work in college, I wrote a term paper on this subject at that time. It was very difficult to find information, it had to be mostly European writings at that time. And the first, well I guess is was 1954, the first trial planting, and that was still by the packing shed, so ever since 1954 it's been mostly semi dwarfing trees. They're made up by growing this dwarfing root stock, and in
August, a tree that has been grown as what they call a liner, it'll be just a little bit larger at the base than a pencil, and at that time they bud from the variety you want. Let's say you want a Red delicious. You take a Red Delicious bud and insert it, slip it under the skin of whatever root stock you wanted, let's say a Malling's 7, which is a favorite of ours, and then this would start to grow in the fall and grow a short ways, and then the following spring it would start to grow very fast. At that time, you'd cut off, at the union, or where you planted the bud into the root stock, you'd cut off the root part growing, and leave only the Delicious part growing.

Laurie: Mmm...

Unknown: And during that growing season, for that Delicious Wood to grow approximately 5 feet in height, and have a diameter at the base, preferable 1/2 inch or a little bit less, maybe, and no side branching. This is called a one year whip. This is standard commercial tree for planting. These trees are harvested in the fall after one growing season and put into storage, and then we pick up the trees in March or April and usually our soil is ready for planting during the first week of April, sometimes later, but the soil must be thawed out completely and dried out enough so that it isn't sticky, and then we have an auger, it's a 36 inch wide auger for the diesel tractor that digs a hole for the tree, and the tree is planted so that that bud or that union is about 2 inches above ground level. Understand that if that union should be below ground level, just a slight amount, you may get rooting from that Red Delicious part on top, and then this would destroy the dwarfing of the tree, you'd start to get the standard root and it would start to grow way too fast, especially the Delicious. We plant about 400, my two brothers and i, we plant about 400 trees a day if things go well for us.

Laurie: When you were in the apple business, or, you said it was a side line for you, um, did you do the stuff the same way without the mechanized, or did you, did you probably have to schedule so tightly?

Elmer: Well it was altogether different than it is now. Everything was done by hand. Setting trees out, you'd go out there and dig a hole, big enough for the roots, you know, and center it in there and put a little water in there, and cover 'em up with dirt, and go on to the next one.

Laurie: You didn't have any, um, way to make sure, you know, now it's very accurate and scientific. You didn't have any rule of thumb or anything?

Elmer: No, no. And the spraying material is altogether different now than it was when we started out.

Laurie: Yeah? How was it when you were starting out?

Elmer: Well, it was about 3 different chemicals we used then. I don't know how many they use now.
Unknown: Oh, we have hundreds. When was it that you first started to spray apple trees?

Elmer: Well that was, my brother Paul and I, my Dad gave us that orchard and the East end when we was just about 16y, 17 years old. We started out with a barrel pump.

Unknown: What year was that?

Elmer: Well, I think it was 1914 or 15, I would say 1914.

Unknown: That was when spraying first started out in orchards?

Elmer: In ours, or, well, there were some neighbors that had a few trees and would go out there like we did, well maybe not as many. They started out, like, spraying the same way as we did, that's where we got our ideas, from them.

Laurie: Was spraying acceptable, or a lot of people who had orchards didn't want to spray, or...

Elmer: Well, they didn't have the means, they didn't want to bother with it, you know.

Laurie: I just wondered if there was some sort of distrust of chemical sprays, you know..

Elmer: Well in them days they didn't think anything of it then. Now it's more, it's different now. Everything's been tested out, you know. But they used, when we started out, with Lyme or sulfur, that was for what they called the scale or the scab on the trees, and then the arsenated lead. And then there was another one we had to use for mites or lice on the trees, that was, we called Black Leaf 40. It was a kind of tobacco, derived from tobacco.

Unknown: Nicotine sulfate.

Elmer: It smelled just like you cooked tobacco stems or something.

Laurie: Mm hmm.

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Elmer: That's the only kind of sprays we used them days.

Unknown: Well, that started in 1914, and I first started spraying when I was 10 years old in 1938, and we were using basically the same thing at that time. For disease control, in terms of the apple scab, it was lyme sulfur early in the year and then a ground sulfur or wettable sulfur or paste sulfur, it didn't damage the foliage as much. for summer sprays. And we always sprayed 7 times a year, that was in 1938. And for insects, the main problem was the ordinary apple worm
or coddling moth, and it was mostly lead arsenates was used for that, and we had to combine some lyme, hydrated lyme with that so it didn't injure the tree. And then early in the season, very early, we'd put on an oil spray, this was before they broke into bud, buds first broke out, this would be in March or early April, and that was really the bulk of the spraying.

Laurie: How often do you spray now?

Unknown: Now we spray, just what we call regularly scheduled sprays, around 14 to 16, and then we have many, many specialized sprays for controlling the size of the tree, for controlling fruit sets, whether you want to keep more on or take some off, you can redder color, you can get sweeter apples, you can get firmer apples, you can get delayed harvest or you can make harvest come on earlier - different kinds of plant hormones. They're natural hormones, sometimes synthetically produced, but they're hormones that are part of the nature of the apple, but we just supply at the right time to do the things we want. Let's say McIntosh - it's difficult to get that McIntosh harvest done right to get 'em all picked at just the right time. So part of the crop is put on ethro, which is a natural ripening agent, this is what you smell coming off of bananas and so forth, apply this ethro, then we use alar on part of them.

Laurie: Alar?

Unknown: Alar, A-L-A-R. This is a very expensive chemical that will make them come on about a week later than normal. They'll also be redder, better tasting, longer keeping, firmer, nicer quality apple. And then about a third we leave as a check normal. So this way we can spread it and make it a 3 week harvest instead of a one week harvest. It's a tool for orchard management, among other things. Trees, when they start to set fruit in spring, until 1950's, often had to be hand thinned. In other words, they'd set out too many fruits, they couldn't support the fruit, you'd have to hire people to remove part of the fruit by hand. Many times you'd have to remove 60-70-80% of the apples which is very expensive. Now they have hormones where we can spray those apples at just the right time, just the right amount, just the right amount of wetting needed and the right temperature, the right humidity, and you can take off just the desired amount of fruits and eliminate all the hand thinning that you had to do.

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Laurie: How many times did you spray?

Elmer: Oh, let's see. It was three times.

Laurie: The beginning, the middle and the end, or when?

Elmer, No, well, sometimes it was four if you have some of 'em in mites or - mites used to be on the leaves, suck the sap out of the leaves, dry them up. Probably we sprayed four times, then. You didn't always have to spray that many times, it was three times. Two times for the coddling moth and then once for the dormant spray. That kept what they called the scab off of the trees.

Laurie: Do you think all the chemicals and more control has produced a better apple?
Elmer: Oh, yeah.

Unknown: Well, the population desires a much higher quality of apple than they ever had before.

Laurie: Has the size of an apple changed all that much?

Unknown: Well, the size is quite a bit larger than they used to be. They're much better grown than they were years ago.

Elmer: More even.

Unknown: Yeah, more even too. More even production. There used to be just so many that would just bear every other year, they'd be way to heavy one year, and then come back with nothing, and we've avoided this altogether now.

Elmer: Well there are some varieties that were always that way, they'd bear one year and the next year it'd hardly pay to spray 'em.

Unknown: There's been a large increase in insects, um, most of these have migrated from Europe. For instance, the apple maggot. We didn't even have that when I was a boy here.

Or maybe it came in a short time before, in fact they still have 'em in Southern Indiana. But this was out worst pest at the time, any backyard apple that's unsprayed in this area will have maggots crawling inside the apple. You don't notice it for about the first four weeks after picking, but then you start to see little brown thread like lines, and eventually the apple will turn brown inside from the maggot burrowing through, it's sometimes called the railroad worm, and virtually any unsprayed apple has these maggots inside. And you have to be extremely careful to avoid these, and it's only with the newer chemicals that we have, something like lead arsenate, we don't even use anymore.

TAPE ENDS

transcribed by Susan Rosselli