

This interview with Mr. Fay Hooton took place at his home on Timothy Road near New Carlisle on August 17, 1978. The interviewer was Jerrold Gustafson.

FH: Yah, this maple sugar story is quite an interesting thing. It's been with us so long, so many, many years. We who've studied it a little bit, as a youth I worked in a sugar camp in the community here and learned a lot about how it works just as a young boy. Trying to pick out the history of it is interesting, in that when Columbus and his few people came over here in the latter 1400s, I believe 1492, something like that, they settled in the fall and they didn't get very far from the seacoast. And then in the years that followed other Europeans came over and in the early 1500s they'd ventured back in from the seacoast far enough that they began to contact Indians, tribes that had quite large settlements. And I believe these were Frenchmen that found the Ojibaways particularly that we're talking about primarily in the early 1500s, making maple syrup. Now we think of the Indians as maybe a little bit backward and dull, that they can't keep up with us in our own personal pride possibly. But these Indians had learned that the sap from a particular tree was sweet and by accident, possibly in use of that instead of river water, its a very clear, clean fluid with a little sugar in it and these squaws probably were cooking with that and they relished the sweetness and they began to examine it and learned how to make the necessary utensils to make maple sugar. Now this is the early 1500s, to make maple sugar. Now this is the early 1500s, a hundred years before the pilgrims, before they landed at Plymouth Rock these Indians had perfected this system that these later French immigrants learned about. How many hundreds of years before that they'd been doing it we'll never know. Archeological digs have never found anything I've heard of that would give them any clue as to when this knowledge first came into use. Of course, now, sometimes we can take suppositions on historical activities, actions, I sometimes put tongue in cheek when I read these because man tries to be honest as best he can but we don't always have enough information. But it has been written and quoted that in these early 1500s, some time in there these French immigrants had found large settlements of the Ojibaways and it is stated that 1500 Indians in one season produced ninety tons of maple sugar. Now that's fabulous, ninety tons, eighteen thousand pounds of sugar, that's a lot of sugar. Well, thousand pounds of sugar, that's a lot of sugar. Well, when we think of how the syrup and the sugar is made today, I can't hardly imagine the magnitude of the maple forests that those people had to use to produce that much in a springtime, because in the springtime only can this be done. So that's what I mean tongue in cheek because it's a lot of big numbers but we'll have to take it for gospel because that's what they have given us. But that's a lot of work. But of course the European, when he came in heof work. But of course the European, when he came in he learned, he had a lot of tools that the Indian had never heard of and he could improve the methods very quickly to build an improved system. So he taught the Indians how to tap the maple trees more efficiently. There are two kinds that we primarily use today - the rock maple and the black maple. They're of the same "Ager" family, they're the only two that produce sap with sufficient sugar content to make it a profitable venture. Now-a- days the tree that won't produce more than, well we can hardly economically afford to produce syrup with a sap of less than one and a half sugar content. There won't be too many trees like that, but they'll be enough of them to block them out of a group. So normally we'll run from two and a half up. There'll be a stray tree once in a while for reasons that we don't know, can't be sure, whether its soil, light, there's so many variables, but whether its soil, light, there's so many variables, but occasionally you'll find two trees that may be a hundred feet apart - one will have a two percent sap and the next will have a six or a seven sap. As far as a man can

tell it's about the same soil, about the same amount of sunlight, the weather will be the same - but the trees are different. So there are times that make us wonder if we are as smart as we hope to be. But at any rate they had learned how to do this - pick out these - they knew the maples that would serve them better. But the Indian had quite a, he was a destroyer of these trees - unknowingly since he didn't have the appropriate tools, many, many large maple forests were killed just in an attempt to get the sap and make sugar. They had to cut a big large gash in the side of the tree, somewhat similar to how they take the latex out of rubber trees, and then they made their containers and collected the sap. It's quite a deal to containers and collected the sap. It's quite a deal to make their buckets and various cooking utensils in order to boil it. It was a laborious job. In slashing the bark of this tree, as greatly as they did, that killed many, many, many of those trees. Course all he had to do then was move his camp to the next area and start in all over again the next springtime. The white man taught the Indian with, what we call a brace and bit today, but in those days they called them augers, how he could bore a hole in the tree and taught him how he could bore a hole in the tree and taught him how to whittle a piece of wood hollow on the inside to make a little spile, and he'd drive the spile into the tree and now he didn't have to cut the tree badly and kill it, so then they'd collect the sap in their birch bark buckets, or however they made them - we don't know. In the northeast, across the northern tier of states Maine, Vermont, New Hampshire, northern Pennsylvania, New York state, Michigan, Wisconsin and parts of Minnesota, then this'll string along down to Illinois, Minnesota, then this'll string along down to Illinois, down to about the middle of Indiana is the southern terminus of these maples. They'll grow within this northern area of the United States. So anyway, it's the oldest true industry that the nation has. Anyway they taught these Indians how to do this more efficiently with the wooden spiles. The Indians manufactured their own wooden buckets, the Frenchmen taught them how to make the wooden staves with a metal band around it, which was a big improvement. We calculate that the Indians was a big improvement. We calculate that the Indians had to make a utensil for boiling this syrup. They had to hollow out a big log. Now this had to be done with their stone axes or whatever tools they had. They also had another technique, just how they handled these we really don't know, but they'd heat stones, large stones and they'd shape this utensil, I'll use the word bath-tub to explain a similar shape. They'd shape the exterior of this thing then they'd put these heated stones onto of this thing then they'd put these heated stones onto this and burn, char out that wood. And of course they had to control it, pour on water to keep it from burning if it got too hot and just keep taking out the stones, reheat them in the fire and replace them until they could burn out, and chop out, the shape they wanted. Well when they got that done, then they could put the say into those containers but they, had to boil it the same way that they made the bid kettle, we'll call it. Course that they made the bid kettle, we'll call it. Course they didn't dare put a fire under it. They made maple syrup and maple sugar in this fashion. So it was a lot of work to carry all this to the fire and heat the stones, it took lots of people and lots of effort. And I think about how black that syrup must have been - stones coming out of the fire, covered with ashes, smoke, all this in open kettle cooking. It must have been a pretty black sugar. But they could keep the sugar, keep it from spoiling. But they could keep the sugar, keep it from spoiling. They couldn't keep the syrup and keep it from spoiling. They probably had tried this and come to the conclusion that sugar was the only way to do this. This figure of ninety tons in one season - that tells me there were an awful lot of Indians and an awful lot of sugar. What-ever it was, they knew how to do it. The white men brought metal utensils, cooking utensils, the sugar for boring the tree and in a short time they were able to make metal spiles and replace these wooden spiles that they'd made previously. This mechanized syrup

making to a considerable degree - the European had ways of checking the viscosity or thickness of the syrup when it got to the point that they they could take it off, course in later years, that's a sophisticated operation now-a-days compared to what it was then. Anyway that's some background for making syrup. Then probably from the early 1600s up until I'd say one hundred years ago there was some change, not too much. Then there was another jump in the improvement of the cooking methods. Now the tapping of the trees and the collecting of the sap is essentially no different than what it ever was, because you can only get so far from nature and still be with it. The spiles, the boring of the hole into the tree, the insertion of the spile, the collection of the sap, its essentially the same, only now the pails can be covered from the rain and the insects, blowing leaves won't be found in this covered bucket, which used to be a problem. The more commercialized operations are such that they have a plumbing system made of plastic tubing and they can connect them, many trees, to have the sap flow down through this labyrinth of plastic tubing, very sterile now, you see, no insects or rainwater or anything can get to this, it'll all come down, collect in one localized area, and this can be right down, collect in one localized area, and this can be right down by what we call the sugar shack, where the boiling is taking place. That makes it much easier. But anyway this evaporation deal- that we call it, will require, depending on the sugar content of the sap, anywhere from thirty-two to thirty-three up to, oh, possibly forty-two to forty-five gallons of sap to make one gallon of syrup. And all this extra water must be evaporated, and that is done by just open kettle cooking. We'd get this big fire done by just open kettle cooking. We'd get this big fire going constantly, and the water is being constantly evaporated from the sap and it becomes heavier and more sweet and when it gets to, oh, a viscosity of thirty-five to thirty- seven it meets government standards and it's the kind of syrup that can be sold commercially.

JG: How do you check the viscosity?

FH: With a, oh, I wish I had one of them with me, it's a graduated scale with a weight. It's a floating device actually. It floats in the syrup and it gives these various readings, now the thinner the syrup - the deeper this weight will fall. And as a consequence will give a higher viscosity reading. So as the syrup gets heavier it supports the weight and tends to hold this thermometer looking glass tube, except that it has these numbers graduated on the scale and this has a weighted base, graduated on the scale and this has a weighted base, scientifically built this thing is, for its purpose. And when it can raise this tester set in the syrup to a level where it reads thirty-five - its time to draw. So this now will call for a description probably of this evaporator. Normally they're made up of two or three separate tanks, setting flat over a big long horizontal furnace. Now this furnace can be wood-fired, in the old days they all were and that means chopping a lot of fuel, days they all were and that means chopping a lot of fuel, oil or gas. Big commercial outfits will have oil or gas because it's more controllable. And we're kinda running, out of good wood anyway. This fire is going constantly, the sap is brought from its reservoir or holding tanks, to the front end of these tanks over the furnace. Now when I say the front end - I mean the tank nearest the smokestack - the farthest away from the firebox, where the fire originates. And it goes through a labyrinth of the fire originates. And it goes through a labyrinth of channeling in these tanks. They're built with separating dividers and holes in these dividers in such a fashion that this flow goes snake-like through there until it gets to the far side of the tank where there's valving to let it go into the next tank which is the middle tank and it goes through the same process constantly boiling and becoming heavier. Then it'll come into the front tank, the

tank next to the firebox, where the fires are built. It goes through the same process, constantly boiling, getting heavier and heavier. Now the reason there's a flowage through this, its a constant flow of fluids, is because since there's evaporation over the whole of these three tanks there's the syrup tank up near the firebox, the level gets lower and there's a constant flow to fill this and as its flowing its losing water and when it gets down to this viscosity that we're asking and when it gets down to this viscosity that we're asking for, of about thirty-five, and also now I'll say a gallon of this syrup will weigh about eleven and two-tenths or three-tenths pounds. This again is a government standard, so we don't have to weigh it, which we used to have to do. But now-a-days this viscosity tells us the same thing and it makes it much easier to find this. So when the syrup now has reached this state of drawing, manually you can close off the area of this syrup tank so -that no more sap gets in. No more sap will come into the tank and then they'll open the tank valve and let this finished syrup run out into containers. But they have to be very careful not to let that portion of the syrup tank become empty because that sweet stuff will burn so very, very quickly. It's a delicate and precise operation to know just how to do that. A novice can burn that tank pretty easy and not know it.

JG: Does that hurt the quality of the syrup?

FH: Oh yes. Yes. It'll just burn it - completely ruin it. You can taste it just like if your wife is cooking candy and it gets a few degrees too hot, you can taste it. This happens in seconds - it's so quick. Anyway they draw the syrup into some container and immediately as soon as that gets down they got to let more syrup flow into this pan and they go through the same operation, until viscosity says we can draw some more. So that's pretty good stuff. Maple syrup is marvelous, its natural food, probably Maple syrup is marvelous, its natural food, probably has just as many calories as any other kind of syrup but, well that with toast or pancakes or anything else, its mighty hard to beat. The romance built around tree syrup industry is tremendous. As a youngster before I was old enough to be fired with the romances of high school it was interesting for me in the sugar bush to watch the tree antics of some of these big folks. I remember back and I wondered, "What in the world is going on?" The sugar camp, when, if we back up a little bit and say when this starts - normally in the middle of February in a normal, if we can call seasons normal - they're never quite that, but soon around the middle of February, these trees know that spring is about here, and the sap and the sugars that have been stored in the roots of these trees all through the cold frozen wintertime will become active and the temperature change in the soil, in the air, numerous other things probably, trigger this change in the trees. And the fluid is developed, picks up this sugar and it starts to raise, goes up through the tree, goes out to all the limbs to every little twig to take some food to the leaves and the blossoms. And man has learned that he can bore a hole in there and rob some of this. The days and nights that produce the most activity in these trees for the raise in this sap will be the days in these trees for the raise in this sap will be the days when the temperature gets up to the thirties, at least to the middle thirties or forty. Say from thirty-five to forty-five. Around forty degrees is good - very active sap flow and then the latter part of the afternoon it'll begin to get cold and it'll freeze and get down to the twenties at night, then the tree becomes dormant again. And the next day, up comes the sun, warms the tree and the same thing goes over again. Its very active flow in this same thing goes over again. Its very active flow in this sort of climactical change. This can go on if, as I say, it's a reasonably normal season from the middle of February to the latter part of March. Rarely is it a six weeks activity but four or five is more close to what one can expect it to be, the last few

winters have been a little bit different - this last one particularly. The middle of February didn't mean anything with this big snowstorm. But it did follow through about two or three weeks late, the whole process came right on. The trees knew when to produce the sap and when not to. And the tree will continue to do this until the leaves and the buds for the flowers begin to form and when that happens this sap changes its characteristics. In other words its started its summer growth, but when the tree gets this far along the tree automatically changes the chemical composition of its sap, and its no good for maple syrup making anymore.sap, and its no good for maple syrup making anymore. We refer to the term "it tastes too buddy." It isn't rancid, it isn't losing its sweetness, it isn't bitter- it's just less flavorful, so when that happens we can notice it in the sap - it'll be just a tiny bit milky. A whole pailful - it looks like soap suds kinda in color, just a little bit opaque. The sap tastes different and you wouldn't want to make syrup of it, having the experience of the good stuff just prior. So then the whole activity is shut down - go out to the woods, take all these spiles and take them back in, sterilize them, cleanse them, put them back away for the next year.

JG: How old does a tree have to be before it starts producing enough good sap to make syrup?

FH: There's an experience here within the last couple of years, principally by the University of Michigan, I believe was the source, they found that a tree ten to fifteen inches in diameter you can put in one spile. And the sap you take from that one spile will not do the tree any harm. Then from fifteen to twenty inches two spiles, and then on up to two feet you can put three spiles, up to thirty-four inches, when you get to the big trees, four or five is the most I ever put into any big trees, four or five is the most I ever put into any of the larger maples because there aren't many that large anymore, but more than, take the first tree for instance, more than one spile in this tree can take too much sap from it so that the lower limbs won't show any evidence of this until the following spring. Any tree, if it's tapped too much, those lower limbs will die. The next season you'll find that they're not alive, by tests over several years to test out this theory, they find that it depends on the size of the tree. And I'll say this too, each season each spile will produce enough sap to make a quart of syrup. If you have a lot of big trees that can handle four spiles, that's a gallon of syrup per tree through the season. It's amazing how much you can get out of them. It's a lot of work, to cut wood all through the fall and winter season, a man and his family that has a big sugar making operation - they'll cut wood all through the fall and winter in preparation for next spring. Because when the sap starts to flow it's a night and day job because a lot of trees will produce a lot more sap than the evaporator can handle, they'll need storage facilities then. While Dad goes home to get some sleep the boys take over and keep the sugar shack moving, and over here - now I've worked on this operation - we've stayed twenty-four hours. The guy that ran during the daytime would go home to get a little sleep and I'd handle it alone till midnight then he'd come back and I'd take a little snooze, we'd trade off like that every couple of hours. The fire never quit, we'd keep drawing syrup all the time. A good year - this is what, will happen - that kind of operation around the clock could be going from three to four weeks of this six weeks period. So it's work. It doesn't come free. But the fun that was associated with it, back in the early days, they don't do it so much anymore because it's too commercialized but after school, on weekends, Sunday night after church the people would congregate at the sugar shack. Old folks, middle-age ones and youngsters. It was a lot of fun to be around. It was a reason to gather and enjoy a community activity. And out of this grew many romances that budded into new families because it was a sweet atmosphere! The young folks - people from all the farm

homes in the vicinity would generally be there - be part of it. Now some of the young folks would decide, "Well tonight we ought to have some roast chicken. So we'll go to the Jones's' and see if we can borrow some of Ella's chickens." Well none of Ella Jones's' people would be in our group this particular evening because we were just going to their chicken coop and raid a few hens, bring them back over and cook them over the fire right there. Just have over and cook them over the fire right there. Just have a ball. We'd say, steal a few eggs, well we never called it that, it was always "borrowing." The eggs would be boiled right in there with the maple syrup. There'd be some wilder times, sometimes there'd be some libations from a bottle in a hip pocket. Now as a youngster, this I couldn't understand, but as I got older I learned what they were talking about. Ha ha ha. It was fun, even to get lost in the woods. Go for a snipe hunt. Now if you don't know what we mean by a snipe hunt: these farmers everyone of them had a lot of burlap bags in which they had their grain and their feed that they'd had around, so there'd always have some of these burlap grain sacks laying around the sugar shack. And they'd get to talking about hunting and how these snipe work around at night, somebody that was gullible enough not to know would like to go on this snipe hunt. "Fine. We'll go out." So a half dozen of us would go out and take the neophyte that didn't know what we were getting into and of course everybody had a bag and the neophyte did too. So we'd get him or sometimes her stationed right behind this big tree. "Now when that snipe come around be sure and have your bag open because if it isn't open you won't catch him. They always go around a tree trunk the same way. Watch out for him. "Everybody would go back to the sugar shack and let the poor snipe hunter wait for the snipe. Oh, it was mean. Somehow or another there's no joy unless somebody has to suffer. No one ever got hurt, just wiser.

JG: Does a tree ever run dry? Or lose sugar content?

FH: No, I'm right now in the midst of having tests on seven trees right here in my front yard. Last year, last two years, I kept record of the quality of the sap, the amount of sugar in the sap of each of these individual trees. It varies. It'll vary as much as two-and-a-half percent between the lowest and the highest sugar producing trees. So if I can get, oh if I can hang around on this old earth long enough I can get a ten year spread on this along with the weather conditions - I might be to run on to something. But no, to answer your question, a tree that's producing sap to stay alive, and they always to do this - man can take some of this as long as he's careful not to take more than the tree can give. Some of these trees out here, I have one that won't be ready until probably another two or three years before it'll be large enough to take one spile, then there are others that can handle up to three, one old patriarch back out here in the back, probably four feet in diameter I put four spiles on that. But I find in one area of that tree - there's no sap flowing, not any appreciable amount. It flows, but in very minute quantities. Now whether that's going to cause any portion of that tree, any of those limbs to die, or whether there's any restriction that prohibits its flowage, I don't know why, but that same area of the tree doesn't produce as much as, we'll say its one-fifth of the circumference, but the other fourth-fifths do a good job. And also, in tapping these trees, from year to year, don't tap a tree closer than six inches from the boring that was made in the previous year, because when the sap flow through the tree is interfered with, tiny little tubular - we'll call them pipes - just millions of them - very, very minute. When that boring is made and we take the sap out, that particular time of the year we haven't made much change in the tree, but through the summertime now, after that tree is healing that hole, it'll grow it full of wood in one growing season, it disturbs the rest of the channeling of

these little tubes for quite some distance around that hole and from then on - those tubes are out of operation. So there's new circuitry made to join these tubes to put back into the system - so if we bore a new hole six inches away from the new one you'll get into new flowage area without having to be restricted by what we did the year before. I've seen logs cut from tree that had been used many, many years and the strange looking grain of the wood where these holes had been filled, and the disturbance showed so plainly what man has done to the tree. Now if he's careful he hasn't harmed it as far as a producing tree is concerned for its self as well as producing sap. But he's go to use some judgment. And here's where the Indians didn't know about this and their judgment was so poor they killed great forests of them by taking more than the tree could afford to give, so now-a-days a sugar bush can produce probably through two men's lifetimes. If you use good sense and tap judiciously, why, a tree never quits giving sap.

JG: Where were the sugar camps around here located? Were there many?

FH: Yes, there was one right across the road, you can turn around, right out the window, right in those woods, less than a half-mile. Then there was another back over here by the Bendix Woods Park. Oh, they were all over. If we go south here a mile and a quarter there was a nice stand there. Back over north and east of us - they were all over. Anywhere a man owned a woods with sugar maples in it he made maple syrup. The community activities- the joys of being together - didn't exist in all these the joys of being together - didn't exist in all these sugar camps because the personality of the farmer and his family told a big story about where people would want to go - where they preferred to go. The more popular family got the bigger run around their sugar camp. There were times when fifty, sixty people, on a Sunday afternoon, there might be a hundred people in the woods, all dressed in winter gear. It was quite a great thing. People relied on this for much of their sugar, too.

JG: Did they sell much of the syrup?

FH: Oh yes. Sure. The people that didn't have it or the people from town that couldn't get out to it - the farm families that didn't have any sugar bush to make their own - Sure they'd buy it. Two dollars and a half for a gallon of maple syrup, good syrup. It was very good, equal to today's syrup though they didn't have the ability to check its viscosity as can be done today. What these men, the operators of these evaporators, what they would do - they had a little ladle that was part of the outfit. They used to add some cooling sap if it looked like we needed to slow down the boiling, they'd take some of the colder, thinner sap and pour it into the thicker sap just to control the excessive heat in one slot, its a maybe ten or fifteen minute deal and then the heat is more evened out, but then this scoop, we'll think of the old grocer's sugar scoop but that was rounded, this has a flat based ladle. Well, what he'd do is put that in a flat based ladle. Well, what he'd do is put that in the syrup and then lift it up and let it hang upside down and watch the syrup as it would drip off this flat, level edge and when that syrup was thick enough that when it began to cool on this ladle, it would form, didn't want to stay in individual droplets. These drops would tend to web between one another and form a little sheet - she's almost ready. Then he'd keep dipping in - and oh this testing - dipping in - is done almost by the minute -this testing - dipping in - is done almost by the minute - when it gets this close its delicate timing and he'd take another reading and he'd watch and when that sheet began to get a little longer, then he'd try again in a little bit and pretty soon when that syrup would be cool enough to run off in, try to make a sheet

all the way across the bottom of this ladle - then he drew his syrup. He didn't know what its viscosity was, but it was right. So it's interesting to note the little tricks those men used to control the quality. It wasn't scientific - but it worked.

JG: More by experience.

FH: Experience, right. That's why the novice can't do this job without all the tools that we have today. Those farmers, that made that good syrup - they'd been at it a long time. Generation after generation. That was probably one of the most looked forward to activities in the spring- when the sap began to run, light the fire at the sugar shack, and everybody would congregate around and hoop and holler and have fun. It seals friendship that doesn't come any other way. Maybe I'm from the old school a little bit more than others would like but I'm saddened when I see these attractions vanishing from our community life. They were good and helped to make what I think is one of the best nations in this world. Man has to love one another in its truest sense but I don't sense that today like I did sixty years ago. The sugar making was a great thing.

JG: How does that syrup you made, say when you were twenty, how does that compare with the syrup that people buy in grocery stores now?

FH: Well of course to answer that - the stuff in the stores today, there are so many different flavors, some chemically produced, but its pretty good syrup. But none of it compares, and of course maybe I'm partial when I say this- I've always liked it, I like nature in its entirety anyway but when we get foods like maple syrup and maple sugar from these maple trees it has an essence of realness, honest naturalness, that to me tends to give me a preference for that over some of the commercially produced syrups. In the stores today maple flavored syrups are available and they taste quite good but they don't compare to the real thing and the folks in town who don't know what maple syrup is all about don't realize what this difference is. There's no way for them to know. Whoever learns to know maple syrup says there's nothing in this world like it. And that'll be the new devotee who bought a gallon here last spring and will come back for two or three this last spring and will come back for two or three this next spring. It's pretty nice stuff.