

DOUBLE EXPOSURE

The Health and Economic
Wellbeing
of the Family Farm

March, 2007

THE ONTARIO
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Occupational Health
Clinics for Ontario
Workers Inc.

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The Health and Economic Wellbeing of the Family Farm

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This document contains information gathered from a variety of sources. Much of it was provided by farmers themselves. Direct contact was made with approximately 52 individuals from the rural community. Three peer facilitators helped to recruit participants and facilitated interviews and/or focus groups. Personal interviews or consultations were conducted with 25 individuals and 5 focus groups were held with a total of 27 participants. The individuals represented a wide range of ages and rural experiences. In total, 24 women and 28 men participated in the project. Interview notes and taped interviews and focus groups were transcribed and a video was produced and distributed.

The range of views expressed in this publication and its accompanying video do not necessarily reflect those of the Occupational Health Clinics for Ontario Workers nor the Ontario Trillium Foundation, nor are they necessarily shared by all of the individuals who participated in this project.

DOUBLE EXPOSURE

The Health and Economic Wellbeing of the Family Farm

INTRODUCTION

The receding glaciers from the last ice age left fertile soils and an abundance of fresh water in Southwestern Ontario. The moderate temperatures and long growing season have earned it the nickname of the banana belt of Canada. The area supports field crops, dairy farms and other animal husbandry, as well as vineyards, orchards and the largest concentration of greenhouses in North America. The family farm has been an institution since the first settlers began to clear the land in the 18th century. While there have always been some financial risks and hardships, generally farming has provided a good living, as well as personal fulfillment.



“Sometimes when it got hectic, you didn’t enjoy it, you endured it. But the rest of the time it was a good livelihood. I would, if I was in that position again, I’d probably farm because it’s a good healthy life ordinarily. And your kids have the freedom to run. I don’t know, to me it was perfect. I couldn’t think of anything I’d do in place of it. But at times I grumbled just as loud as anybody. Because it was hard work.” ...Kathleen

“It was wonderful life as a child growing up and I was born in ’58 so it was really the 60s and 70s that I spent my years on the farm.”...Mary



“My uncle always used to say, if he won the lottery and had a million dollars he’d keep on farming till it was all gone.”...Gaye

“The most amazing thing out here in the rural environment is the eternal optimism. How that guy can get up in the next spring and plant that crop again after he’s just gone through a years like this last one where these guys have lost an average of 50 – 150 dollars an acre in grain seed product ion out here. How these guys can get up in the next spring and do it all over again with no hope, well maybe not, I guess they’ve always got hope; they’ve got this eternal optimism. Farmers have just got this amazing amount of resilience to go back out there and do it all again. If you ask some other worker to go out in another industry, let’s take a chance and work for a year, maybe we’ll pay you and maybe we won’t. It’s pretty hard to imagine. And these guys have got that, the whole

lives, their whole investment is there. So they just take a tremendous gamble every year.”...Brian

There is growing evidence that farming may not be as financially rewarding or as healthy as we might imagine. Economic pressures are forcing more and more families out of the business of farming. And while the farming lifestyle seems to be generally health enhancing, it seems that farming may actually increase the risk for some diseases.

HEALTH



Two back-to-back studies carried out in Essex County found increased risks for breast cancer among women who had ever farmed. And there is growing scientific evidence that farmers are at a greater risk for developing asthma, reproductive problems, skin and prostate cancers and lymphoma. Some members of the farming community are concerned about what they perceive to be a growing number of cancers in their neighbourhoods.

“When I look at the people in this particular area, there’s been an awful lot of cancer showing up in this part of the world.”...Bob L.

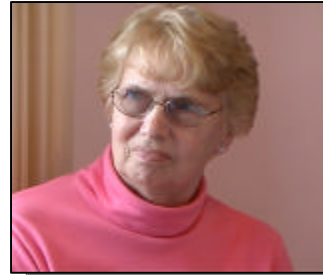
“I think they have a very high rate of cancer but I guess that’s just because you’re sensitive to your own community and it seems like every time you turn around you’re hearing that somebody is having some problems in one way shape or form. You know it’s hit home I think for a lot of people. How that compares to - is that in a larger city you don’t know as many people? I don’t know.”...Michelle

The farm where I grew up, that’s Dawn Township, Lambton County, and in that area, I guess I don’t know particular people, but there are a lot of cancers.”...Karen



“Yeah, as far as hearing a lot about cancer? Oh yeah, it seems like you’re always hearing it. Like when I was going through treatment myself, there was a girl that I golfed with that started treatment at the same time as myself, and a girl about two blocks down the road. We, all three of us, we’re all young women, under 50, going through breast cancer. And I said to my husband, “what the heck is going on here?” And he said “I don’t know.” Yeah, it just seems like you’re hearing it all the time. And I asked my mother if she used to hear those things and she said “no.” Like it just didn’t seem to be the case when she was my age. I don’t know whether she just didn’t know those women but, it just seems like it’s a lot higher.”...Lori

“Almost everyone on the 11th Concession had been affected by cancer in some way. And that was pretty much all women who were affected by cancer.” ...Fran



FARMING PRACTICES

Are farming practices in some way contributing to farmers’ health problems? And what can be done to protect the lives and the livelihoods of the family farmers? We asked farmers and rural residents to lead us through an exploration of the business of farming today and of the changes that have taken place over the past century. They told us that the two biggest changes, which occurred just after the Second World War, were mechanization and the introduction of agricultural chemicals.

MECHANIZATION

Before tractors, combines, milking machines, and other farm machinery were widely adopted, farming was extremely labour-intensive. But while mechanization generally increased the yield, it was an expensive change.

“It was horses when I was growing up. But we had a tractor, I’m talking after the war in ’46.” ... Ilene



“Probably the biggest change was in the post-war periods when they went from so much dependence on horses to mechanical means and that type of stuff. And the farmers were able to adapt were to farm more, quicker during the appropriate times.” ...Brian

“I know at the time when we bought the tractor, the man that sold him the tractor told him he could have bought the farm on the road behind us for the same price.” ...Kathleen

AGRICULTURAL CHEMICALS

The other significant change in farming practices came with the introduction of a wide range of agricultural chemical products -- chemical fertilizers, herbicides, fungicides, and insecticides. They were seen as both labour saving and as a boon to production.



“I can remember when that corn borer first started. I was just a little guy. And when it first started we cut our corn. Took the fodder and all in the feed and they go when it turned cold and take a railroad iron and pull it and break all the stocks off and they had to break them all up and burn them. And there was an inspector that would come around and check that you had burned them all.”...Doug T.

“The way of controlling the weeds in the old days was to manually hoe them. Their kids were out there hoeing and that was pretty well a full time job. 30 acres, it takes a long time to hoe 30 acres one chop at a time. And then came the introduction of the pesticide.”...Lorne

“That’s why people turn to chemicals. Because it’s brutally hard work farming if you don’t have the chemicals, you know what I mean?” ...Susan

“We used a lot of chemicals that were going at the time, which included many different kinds of, and DDT which was supposed to have been, which was, we had a bug that got into the peaches. It was called the oriental fruit moth. We didn’t have any chemical or any pesticide that would seem to touch. And then they came up with DDT, which everybody, if you know anything about it, was one of the worst chemicals we had. And I sprayed for 2 or 3 years, but there was a man that worked at the Harrow Research that used to come in to the orchards, and I can’t think of his name now, he said, “you be careful of this, spraying with this DDT.”... Ernie

LACK OF INFORMATION

There was very little information available in the early days about the potential health hazards of exposure to agricultural chemicals and this was reflected in farming practices.

“Anyway, I used a lot of chemicals, I did a lot of spraying and it was only the later years that we started using coveralls and a mask, and you were protected a little bit. Anyway I stopped using DDT I think a year before some other growers did. Anyway, I did a lot of spraying, a lot of it, for years on end.” ...Ernie

“There weren’t the controls at that time. And there were a lot of products such as DDT that were used back in the sixties and that. And we probably became much more aware what they were and the government itself became much more aware and then put bans on these things. Then farmers tried to find other ways of controlling. The chemicals were cheap, for one thing and they were very broad range you just kind of sprayed and anything that was out there got killed no matter whether it was beneficial to your crop or whatever happened to be in the way was taken care of. And the half-life of these products ended up being significant length of time that they remained in the environment. And so there was a tremendous increase in knowledge in the 60s and 70s period about the effects that these chemicals were having.” ...Brian

“The pesticides were released; we didn’t have the Pesticides Act back then, that mandated any type of education. Anybody could literally go buy, go to the co-op and buy quantities, 50-gallon drums of this and they were marketing it as such.” ...Lorne



“I did some. When I was finished we were using masks but for years we didn’t use a mask” ... Ernie

“You used to go out after supper and we never closed the window or anything. We could smell all that. Yeah, you just had on your farm clothes.” ... Mary Ann

“We didn’t realize then.” ...Ernie



“50, 55 years ago, and you’d remember that, in the tobacco fields, the guys with their dusters, arsenic of lead going down there and dusting doing it in the morning when the dew would stick to it. They’d be walking right into it.” ...Gerard

“I was wet right with my coveralls; no mask and I used 24d ester. And I was under the fact, no mask or nothing.” ...Jack

“He had a power sprayer. It was an electric one and he’d just stand there and just fog that barn. You couldn’t see in there. Just like that, in one spot he could fog it all. He didn’t have to go to each cow. What a beautiful set-up he had.” ...Bob A.

“He was living in the lap of luxury eh?” ...Carol

“Yeah. That man grew a lump on his neck that big before he died. I don’t know what it was but I presume it was a cancer. That big, just like that. He couldn’t put his hat down at the end.” ...Bob A.

CHILDREN’S EXPOSURES



In the early days of agricultural chemical use, children were often exposed as well, either through their own responsibilities on the farm or simply from being in areas where various chemicals were being mixed or applied.

“When I was 5 years old, 6 years old, I watered, because they picked up potatoes by hand then right I went in my little wagon and took the water pails out and I did that all everyday that they were there I watered them out in the field. I made sure they had fresh water when they got back to the other end of the field. That’s what I did.” ...Barb

“Farm girls started working a lot younger doing jobs than city girls did. And maybe some weren’t the cleanest jobs. And dust exposure too, like we used to live in dust that I couldn’t even tolerate now even if I tried. The dust and ammonia, like I was cleaning cow stables when I was 4 because I started school when I was 5, but I was helping dad before then. Just lived in the cow stables. And you walked in, anybody walked in and wasn’t used to them, they were so full of ammonia. Stripping tobacco, you walk into a tobacco stripping shanty after they’ve been stripping tobacco in there for a few days, and you can hardly breathe.” ...Bob A.

“I don’t know, you never think about those things as you’re a kid. You just go about what you’re there to do.” ...Lori



“Yeah, I remember as a little kid, not as a little kid, as probably a 10 year old, is where I start remembering it, 9 or 10, I remember us being in the field and dad spraying while we’re hoeing the cucumbers. And he’s spraying in the field right beside us.” ...Tricia

“You certainly got it on your skin. You washed when you came in for a meal, that was a given in our home but of course you’d be out on the farm, you’d eat an apple, a pear off the tree, because we had fruit trees, and there wouldn’t necessarily be hand washing going on. And when you have feed bins and grain sitting around because it’s going to be



used for your livestock to feed them, you have a lot of rats, so of course you have all kinds of rat kill out there and children, small children are told “stay away from that” but you know you still pick it up, you handle it, you refill it and you know, you go wash your hands but I don’t know how readily that’s done because I’ve been in other homes and my goodness the flies would be a real problem in milk farms.” ...Mary

“My job most evenings was when dad would bring the cows in to milk them, they would just be covered in flies. So we had a pump can and you just sprayed. Is this to keep the flies off the tails? Off the tails and off the back. They were all settled right on the back of the cows and so you know, here you are as a little seven year old, you’re walking around and the air would just be like a fog after you’re finished. Was that DDT? That was DDT, yes.”...Carol

“Oh we always sprayed the cows in the summertime. Because otherwise they’d kill you with their tails if you would have sat there and milked, if you milked by hand. Which I did.”...Yvonne

“And they’d spray chemicals and that on there where you probably shouldn’t even be going back in there for 2 and 3 days. As an agricultural worker you weren’t allowed back in the vineyards in that and yet here they were spraying, these vineyards were right in – well they weren’t urban settings, but there was serious numbers of farmhouses directly around these spraying sites. So they were spraying some heavy-duty chemicals.”...Brian

“Like I said we’d be in the house at night when Uncle Ernie would go and spray. We wouldn’t shut any windows and we knew exactly where he was and what was going on. You’d smell it. And of course that whole area, if it wasn’t Ernie that was spraying it was somebody else. It was all just a cloud.”...Mary Ann



“Ok, so this is all corn, this is cucumbers, there’s your cows, there’s our house, and there’s our little well, and he would spray all the way around here. This is your dad right? This is my dad, yes. This is the way it was right? Yes, and he died of cancer at 56.”...Tricia

“Dieldrin for example on tobacco. Because that’s one crop that I worked in personally quite a bit during my younger period like from the age of say about 11, 12 years old up to about 18. We would be exposed to that type of material because we would be working like in the fields suckering tobacco. So you’d have your hands in that material.”... Bob L.

24d, which was first marketed in the mid 1940s, soon came into widespread use as a broadleaf herbicide. Although it has been used for decades, its potential health and environmental impacts are still being studied.



“Yeah, you’d spray the corn with it, you’d spray around the ditches with it, or around the farmyards, kill thistles and in kind of an unsophisticated way then. Everything was open air and you’d almost stir it with your arms. And it was relatively inexpensive at that point right? Real cheap. 50 cents and acre. We could afford it, we could grow clean crops, we could grow more. Because you had to hoe it before and you can only hoe so much.”... Bob A.

“Because they developed more and better chemicals that could be used at different times of the year, at different stages of crops, it would take care of different weeds. So you had, instead of just having 24-d you had atrazine. Now there’s got to be a hundred chemicals out there you can use. So you can sort of customize when you want to put it on and what weeds you’re targeting.”... David

Atrazine, which was introduced in the late 1950s, was used extensively to kill grassy weeds. Much less is used today. In fact, due to health and environmental concerns, atrazine has been banned in Europe.



“It was seen as a god send because it was a grass herbicide. So if you had a real grass problem it just got it right out”... Bob L.

“You could always grow corn right in it. You could spray it and the ground actually turned to white behind you almost. You could put it on and the corn would still grow”... Gerard

“Atrazine was used a lot in corn and they didn’t realize the build-up of it in the fields and it wasn’t that common to rotate your herbicides. So if atrazine was good this year then let’s keep on and let’s use it next year, and next year. And it became a big problem with build-up and well contamination.”... Brian

Glyphosate, an organophosphate herbicide was introduced in the early 1970s. Round up is one of the more commonly recognized names in the glyphosate family. Some crops are genetically engineered to resist glyphosate so that only the weeds are

killed. While this strategy has been effective for weed control, it does increase farmers' dependency on this chemical product. Also, while considered safer than many herbicides, a number of studies have suggested there may be problems with it. An Ontario study, for example, found that within the families of farmers who used glyphosate, there were increased miscarriages and premature births.

"They've incorporated round-up ready genes into a lot of the new strains of plants. I would say probably 75 percent of the soybeans grown in Ontario are round-up ready where you just go and use glyphosate or whatever glyphosate equivalent you've got." ...David

*"The biggest advancement made in modern times." ... Bob A.
"And probably the only clean fields you'll see this year are round-up ready beans. All the rest have weeds coming up." ... Clayton*



"The basic agreement is if you're going to grow a soybean and grow a round-up ready soybean you have to sign an agreement saying I'm going to buy the seed from you, I'm going to pay you the license fee for it and I can't save it for seed. So you have to dispose of it all and you have to go back and buy fresh seed from these guys every year. Whereas if you're not doing that you can normally save soybeans and wheat, you can save those and re-plant those again next year." ...David

"It's the majority of people use that system now. But it's a more expensive system but it's a more convenient system so there's a cost for the convenience." ...David

"And so many farmers farm part-time anymore, you know what I mean? They work in the plants or something. They need a system that's more convenient. They only have to spray twice and not think about it anymore." ...Susan

According to the Sierra Club of Canada, pesticides have been found in the bodies of pregnant women, amniotic fluid, the umbilical cord, and in mother's milk. A recent Quebec study found pesticides in 98.7% of children tested. 2,4-D was among the pesticides found. Although it has been banned for years, DDT and its metabolites are still detectable in the breast milk of Inuit women in the north, far from where it was originally applied. While it may be years before scientists fully understand the

implications of this contamination, many people are beginning to question whether or not it may be contributing to cancer, reproductive problems, and other diseases.

“I think that it may have brought it on earlier than it would have you know. I may have gotten it anyway but I probably wouldn’t have gotten it at 39 without all the pesticides.” ...Tricia

“When you talk about all these girls that aren’t able to get pregnant, were they girls that would have been around here corn detassling as teenagers? Like when I’m thinking about even our oldest, who had been trying for over a year to get pregnant and couldn’t, and she worked in corn detassling for years and years.” ...Mary Ann

“You had prostate cancer and that could be from the spraying that you were doing.” ...Veronica

“Yes. I had prostate cancer and I was operated on. And I’ll tell you one thing, that’ll make you wish I hadn’t done any spraying.” ...Jack

“Yes. Because at that time you weren’t wearing any protective clothing.”... Veronica

“That’s right.” ...Jack

“My mother died at 57. This is my stepmother but she died and she had cancer. And when people were talking so strong of this spray, she said “you’re going to ruin it. You’re going to ruin the whole world. That spray is going to kill you.” And she believed that firmly until the day she died.” ... Kathleen

THE ENVIRONMENT

There are also concerns about the effects of pesticides on the broader environment.



“And the spraying of the ditches is the other thing that you don’t get in the city, which you get here. They’re trying to keep the weeds away from the fields”. “Yes, they’ll put it in the paper that they’re going to spray; they’ll tell you when.” And what are they spraying? “I’ve heard 2,4,d I believe. That’s what they always used to use.” “And they’ll spray that now and then they cut. They spray first and then they cut after they’ve killed it. And they’ll do that a couple of times during the season.” Gary and Janet

“And we used to play along the ditch bank and we used to watch the sprayers. And they were unique in that; that was back in the 60s and they were huge. And the way they would work the spray would go out the back and they would have jets in every direction so literally everything got covered with the spray.” ...Lorne

“I think that in my twenties I started getting very aware of the environment. I did. I was becoming very concerned. I used to get quite upset. We used to rent, when we first lived there we rented the three and a half acres out, we did. And then one time I came home and I had had the windows opened and he was spraying and I was like, “Oh my gosh,” you know. So I talked to my husband then and we said, “You know this is it.” And we told him “this is the last year. You’re not using the field anymore.” ...Tricia

“A lot of it has to do with the wind during the spraying process. If there’s any type of a dominant wind, I mean even a 5-mile an hour wind, you will get migration. Because you’re blowing it into the air. It’s been aerated, right.” ...Lorne

“Because we are so concerned about we are thinking of turning this into something that won’t have crop. Something else. We don’t want the pesticides. When they do spray it, and also you can tell we know the minute they come out by the road, they’ll start out by the road and then they’ll work their way back. And you can smell it right away.” “Oh, yeah. You know it’s strong and the wind doesn’t have to be blowing in your direction you know.” Gary and Janet

“I was also part of the municipal government for a while and some of the well testing that we did at that period of time was showing up chemicals like atrazine, Lasso, those types of chemicals were making their way into the underwater streams and were showing back up into the well water that the homes were using.” ...Bob L.

ECONOMIC CONCERNS

It would seem that, in order to avoid the potential human health and environmental impacts related to the use of agricultural chemicals, it would make sense to simply discontinue their use. But it is not so straight forward. Farmers face not only potential health consequences from exposure to chemical agents, but also constant financial pressures. With such a slim profit margin, larger farms and larger yields are needed to make farming financially feasible. Without sweeping systemic changes, many fear that the economic impact of reducing or eliminating agricultural chemicals would make it impossible for family farms to stay in business.

As it is, the family farm, as an institution, appears to be an endangered species. There were more than twice as many farms in 1961 as there were in 2001. The farmers point to everything from global competition to big agribusiness for the decline. According to the National Farmers Union, in 2004 Canadian farmers suffered near record losses while agribusiness, which has swallowed up many of the smaller family farms, has enjoyed enormous profits.

“The people who make cereals, Monsanto makes chemicals, people who manufacture...Everyone around the farm had record profits last year and the Canadian farmers’ profits were the lowest they’ve ever been in history. Worse than in the depression. We weren’t negative in the depression, you can see on the average on that

graph that we're negative 20,000 on average, \$20,000 on average for the average farmer."...Clayton

"It's definitely a threat to the family farm. You know I guess just in my life a 50-acre farm used to be a large farm in this particular township. Today if you're not working a minimum of 250 to 300 acres, forget it. And even then you'd have to have a job outside the farming community."...Bob L.

"On an actual farm where they're growing crops, outside greenhouses, that there is a problem. I mean we read about it all the time in the paper. Soybeans were getting \$7.50 a bushel 20 years ago and fuel costs this much, and now soybeans are getting \$6.50."...Michelle

"If, had we not had chemicals in the last, especially the last 20 years a lot of farmers would not have been able to exist. Two things would have happened. The weed population would have increased, which would make the yields decrease, and with the pricing problems that we've had in the last, especially the last four years, people would have lost their farms. No question about it. So, but everything, it's not just the chemical side. It's the hybrids, it's the advent – it's just there's been such a change in the agricultural field that it's mind-boggling really. But all of these things are part of the economics that make it work today."...Bob L.

"Today you wouldn't be able to make a go on a farm as a stand-alone. You would have to have a second income or you wouldn't survive. You literally wouldn't. With the cost of the machinery, the cost of the land, farming is very prohibitive today and that's probably what fed the birth of the factory farms; the industrialization of the family farms. The multinationals literally took over farming and have industrialized it."...Lorne

"In our case, we used to have tobacco, we had chickens, we had cattle, we had all of these things. So everybody was a part of the operation, everybody needed to be part of the operation to make it happen. But we only had about 75 acres, 100 acres for quite a while and then we grew to about 300 acres and even today, well I made a decision 2 years ago to drop it because I couldn't make enough money to make it worthwhile."...Bob L.

There are so many unpredictable conditions that can affect the financial well being of farmers -- everything from the weather to the markets.

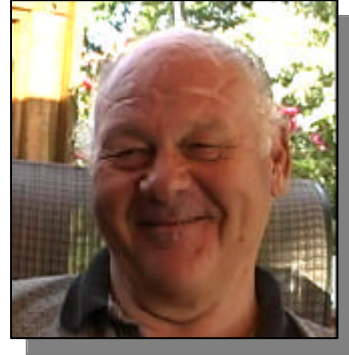


"When you're talking about farmers and stress, the weatherman causes you a lot of stress, believe it or not. But people in the city wouldn't realize it, but you get a dry spell or a drought, you need rain, your crops are shriveling up and you've got no water to put on them, that is stress. It is very stressful. That and the markets. The markets are very stressful. Especially more today than they were a number of years ago."...Ernie

“I can remember my grandparents listening to the radio when they were having lunch or at breakfast to find out the price of soybeans, the price of corn.”... Gaye

“Oh, sure it was stressful on them because if the price wasn’t good enough, high enough, what are you going to do?”...Ernie

“Well it’s not an Ontario problem; it’s a worldwide problem. Like it seems that it’s a real paradox that you have so many people in the world starving and yet we can’t make a living with the materials that we grow here because there’s just no need for them, you know to the point where we’re using them for fuel rather than feed for food. So it just seems ridiculous that that’s what’s happening. But that’s exactly what’s happening. And I think the only reason that’s happening is because of the world conditions. You have the superpowers like the US especially at this point, France is another one, like Europe as a whole has a very heavy subsidized agricultural programme, and we cannot compete with that. You know as much as we increase yields and are efficient; in the end you can only produce so many bushels per acre. And if the price is not there, there’s just not enough income to pay the expenses.”...Bob L.



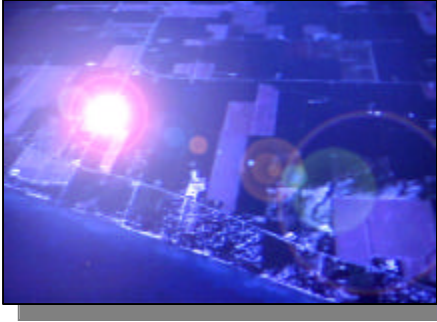
Young people are finding it increasing difficult to enter into farming or to take over their families’ farms. According to a recent survey of farmers in the Essex and Kent area, only a very small percentage of their children, now in grade 12 intend to go follow in their parents’ footsteps and pursue farming as a career. 84% intend to leave farming altogether and to seek other careers.

“So to substantiate the investment I had for the revenue I was getting, I said, no, it can’t happen. So I let it go and Of course my sons will never have the opportunity now to go back because the investment would be tremendous to get back in. Even at that level.”...Bob L.

“When you see the auctions of very, very successful farmers that are my age and that there families aren’t taking over, that the next generation coming up isn’t taking it over anymore, what have we done? What have we changed to make that dynamic happen?”...Brian G.

“By Statistics Canada the average age of the farmer is 62. And they’re losing money every year so they’re probably going to want to retire at 65. So if 50 per cent of your industry disappears in three years, ask any politician what to do about it, they don’t have a clue what’s going to happen.”...Clayton

THE FUTURE



We don't have a crystal ball to tell us what the future holds for farming in Southwestern Ontario. We know that the climate is changing and scientists predict that the growing season may become hotter and longer but with more extreme weather conditions and droughts, negative consequences are expected to outweigh the positive.

“Well, winter's warmed up. We put corn in the last of April the last two or three years and that was...unheard of right? I can remember in '67 Barb and I went to California in the last week in February, the first week in March it was below zero all the time we were gone and it was below zero for another week or better after we came home. That's Fahrenheit, not Celsius.” ...Doug T.

And our dependency on fossil fuels is becoming increasingly costly, not only in terms of the environment, but also in terms of food production.

“Well, basically what's happening in this part of Ontario right now is basically survival. These guys they've had about three bad years in a row. So besides the weather they've got so many other things that they've got no control over. They've got fuel costs, which is just – think of the dynamic of what's happened to you as you just drive your car. And this guys he relies on machinery that takes a significant amount of petrochemical to keep it running. Whether it's the oils, and the oil changes and greases, everything keeps going up. And the cost of the fuel that doesn't go away.” ... Brian

It has been estimated that 10 calories of hydrocarbon energy are required to produce 1 calorie of food, when taking into account the energy needed for agricultural chemicals, fuel for farm equipment, and transportation. The Worldwatch Institute estimates that food travels an average of 1500 miles before it reaches our dinner tables, up 25% from 20 years ago. Many farmers support a shift back to producing food for local markets. This might also serve to better protect the consumer.

“One of the strange things that's happening now is that we allow importation of products from all these countries where we know they don't have pesticide regulations and we know that companies like Monsanto and different firms like that are selling these same products that have been banned in North America that these people are spraying on these crops and then we're allowing those crops to be imported and sold in our stores because of the cheap price involved with them. It's a serious issue.” ... Brian

The no till method of crop production may also save on energy, chemical use, and cost.

“So now they’ve gone to a system where they actually leave that trash on the field, they don’t do that amount of plowing, they go in and they plant right back over that again with this new equipment they’ve been able to develop. It means a lot less time on the land, a lot less soil compaction which is always a problem when you’re running bigger and heavier machinery on it. So it’s a lot less fuel costs per acre, a lot less labour costs per acre because you don’t have your man and machinery out there constantly on the field several times a year, you’ve eliminated a few of those things.”...Brian

ORGANICS

Some farmers’ groups are urging governments to fund independent agricultural research, including research into affordable organic methods as well as to provide assistance to farmers making the transition into organic production. While the demand for organically grown foods is on the rise, it not without its drawbacks for those actually doing the farming.

“I was the only person there consistently. I was there for three years and each summer we would go through five or six workers, and they’re doing the hoeing. I mean, I worked there for three years, all these people did it their whole lives so I don’t want to complain about what hard work it was when you guys knew a lot better about how physically demanding it all is. But, I mean in an ideal world I think organics is great but I think in North America because people are so disjointed from where their food comes from.”...Susan

“If you sprayed your apples and you got a heck of a good crop. And I didn’t spray mine and I didn’t get as good a crop and they were wormy of course and I’ve got to get more for mine because I didn’t produce as much as you did now just whose, and they were both sitting there, whose apples do you think people are going to buy?”... Doug T.

I know. That’s the dilemma isn’t it.

“Yeah, just like the organic stuff. You see that’s what they’re trying to get away from, this other stuff.”...Doug T.

“And the organic food and that is way higher.”...Louise

“It’s just certain people will buy it.” ...Doug T.

“So are you saying that the person doesn’t spray benefits by the person who does spray.

“And the guy who does spray pays the cost?”...Fran

“Yeah but he’s getting benefit because he’s getting a good crop. They wouldn’t even buy my apples with worm in them.”... Doug T.

“With worms, yeah.”... Louise

“They obviously don’t spray.”... Doug?

“If you don’t spray – worm always tastes good in an apple.”...Doug T.

AWARENESS

The health and environmental effects of many of the chemical pesticides are still unknown. There are so many mixed messages; it is difficult for farmers to know what information to trust.



“It’s very interesting how I think the media has a lot to do with what you think about anything to do with farming. They control what you think, and what you’re scared of and what you’re not scared of.”...Lucy

“What they say is acceptable now, 20 years from now you find out is a big mistake.”...Tricia



Still, farmers have much more information available to them today than in the past and are responding accordingly.

“I have noticed since probably the early nineties, the farmers are becoming very, very aware of the danger of the chemicals they’re handling. And they are handling it differently. And their children aren’t out there doing the things that I did as a kid. Because of education. I mean you have to hear and hear it to, you know, to grasp hold of these things are dangerous, the long latency period between exposure and disease. Because as humans we tend to think well it didn’t make me sick today so that’s not hurting, and I feel that education has helped and people are much more aware.”...Mary

“When you go back in the earlier days, like in the 50s for example it was very common for farmers to be spraying and their families be right in the same field hoeing. So that would have not been a good practice. But those are the things we didn’t know at the time. So, today like you sign a lot of these fields. If there’s materials that are persistent you would actually sign them and not let anybody into that field for a certain amount of time, and then you could go ahead and do what you had to do. So today you have things like detassling for the kids for example, so you’d have to be careful about some of the insecticides you use.”...Bob

In fact, current pesticide regulations require training and licensing. Now much of the pesticide application is contracted out.

“Agriculture has changed a lot, like the bigger operations. They come in with a big sprayer. They’re a lot more regulated. Like Bob says before you had something, and you went hmmm, I should have used a little bit more so you’ve done more. But now you read the labels and you’re bound by the labels. They can be ignored but the recommendations

are a lot more stringent and your application equipment is different than I used to be and your spray is more controlled.”...Gerard

“Well, most everybody that’s in the agricultural sector has had to take advanced courses in pesticide spraying and that type of stuff. And they are responsible. The amount of pesticides used on farms is decreased by something like fifty percent in the last twenty years. And farmers now use something called IPM, which is integrated pest management. And they tend to spray after they see a problem. In the old says they just used to broadcast spray, and that was it. If there happened to be any bugs, no matter what they were, it kind of killed whatever was out there.”...Brian

There is still debate in the scientific community about whether or not current chemicals and practices provide adequate protection. And, unfortunately, there is no way to undo past exposures. Individuals, who may have been heavily exposed in the past, may or may not be at a greater risk for disease. But perhaps by being aware of their exposures, they can take steps to ensure that they are adequately monitored.

“And to do that you have to be aware that you need to go and have early diagnosis, or you know have your regular yearly check ups. And I believe the medical community, our family physicians need to be much more aware of the occupational risks and to be looking and monitoring. I feel that often men are well monitored for many of these things. Maybe not as well as I’d like to see them monitored but I think they get preferential treatment over women in many cases. Especially like if you’re not in a high risk profession, even though I believe farming is a high risk profession for sure, I just don’t think the medical community is aware of that and I believe we have to keep working at having the doctors realize that women have been exposed at young ages.”...Mary

A PROUD PROFESSION

Clearly, the production of food is a very complex business. All of us -- consumers, the government, the markets, and the farmers themselves -- have a stake in keeping farming healthy, financially viable, and environmentally sustainable. What is it that keeps farmers going when the odds are often against them? As one farmers said, it’s hard to imagine a more important occupation than growing food to feed the nation.

“I think there’s a tremendous amount of pride in growing a successful crop. When you see some of these farms around here they’re absolutely just amazing, they look so nice, they treat their land so well, and because of that the land returns to them. And I think that’s a tremendous amount of satisfaction from these guys. And they battle certainly a lot of conditions, the weather, it’s always prime up there at the top, and they’ve got a tremendous amount of pride and accomplishment in what they do. I’m sure that’s a big driving force in what they do. I guess economics is something else. I think you feel pretty good when you work that close with nature and you’re able to be successful. I think it must feel pretty good at the end of the day.”...Brian

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Photographs

Stills from video, “Double Exposure: The Health and Economic Wellbeing of the Family Farm”

Images from Google Earth

Black and white photos from Southern Ontario Tourism. History of Agriculture.
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