

## Ecosystem Services and Idaho's Farmers

### Interview Nineteen

I: Okay, let's start out with little background information. So how did you get into the farming business?

R: Well I grew up in the area. I grew up 10 miles north of regional town. My dad was a farmer. His father came here from Sweden. We celebrated 100 years last year.

I: Wow.

R: So, my great-grandfather came from Sweden to Salt Lake City. He was a bootmaker. One night someone broke in and knew where the money was in the floor boards of the house and took it all, beat him up. So they, the next week my grandfather who was 19 at the time drove up and homesteaded the land where my dad died five years ago at the age of 90. So that was 100 years ago last year when my grandfather homesteaded that land and that's how we started. So my dad farmed there in this area. He had four sons. Two of us decided to farm. So, we are separate, and we just went along and my dad helped us get a loan and we just grew from there. That's a long answer.

I: So what do you farm?

R: I grow potatoes, sugar beets, and wheat.

I: How many acres do you farm?

R: I got 3300 acres of potatoes 1900 acres of sugar be and I don't know, the balance in wheat about 4500 or so.

I: In what ways if any has urban expansion or any construction affected your farming?

R: I would say here it hasn't affected us at all. We always joke that this town is just as big as Chicago just less people. So really, urban expansion here has no effect.

I: Do you have any current plans to sell or lease all or part of your farm?

R: I don't. I have two sons that I think want to farm, so I think it'll probably be something that continues on. I hope to lease it to them, and sell it to them.

I: Is that what you hope will happen when you stop farming?

R: Yeah, because I do not want to do this very much longer. I love it but I'm 61 and I hope by the time I'm 70 they just send me a check; they don't call me.

I: So, how important would you say it is you that your farm remains in agriculture?

R: I would say it's pretty important. I mean you work your whole life to build something up, to acquire land. So even though land prices are really high right now, I would rather get a mediocre price and have it stay in the family.

I: Have you implemented any conservation practices into your farming?

R: We have. We work the ground a lot less than we used to. This just helps stop wind erosion and water erosion, mostly wind though. In the old days before we planted sugar beets, we would work it three times in the spring and now we only work it once in the spring. We just learned how to prepare it in the fall so it has more fiber or straw, and so in the spring we just work it once and then plant it. So, I would say we have done quite a bit. Probably could do more, but we have a conservation plan that we have to abide by the government, and the government checks on us according to the texture of your ground so the lighter your texture the less you can work it and still be eligible for some of the things at the USDA. I don't know if you guys are aware of that.

I: So, anything else you can think of?

R: Well, we're trying to conserve water, just because it's such a valuable thing these days and it looks like next year they may cut some of the, if you have deep wells, they may have a meter placed on, and then you have to irrigate with 7, 8 to 13% less. So yeah, we are trying to conserve. The other thing we have conserved, and it's not a local resource, but the new tractors. We are on a program where we trade thirteen tractors every 2 years, and it's amazing how much less fuel the new tractors use than the old ones used a lot. So, it's amazing the difference. Maybe in the past fifteen years, like half.

I: Really?

R: Pretty awesome, yeah. So it almost makes, its starting the level off now, but for a while it's like you can't afford to not trade in for the new one because the payments are high but the fuel consumption is low. When diesel is 2 1/2 a gallon and you have 13 tractors running using 100 gallons a day it adds up pretty fast, so we're trying.

I: What kinds of pesticides or herbicides to use on your farm?

R: A lot, yeah, less and less all the time because they are more effective, but we the food that we raised too, so we don't want our kids or our grandkids to have problems. You know I think sometimes people think that farmers are just in it to grow a lot. We eat potatoes we grow every day, and we consume the sugar. So, to say which ones we use, I would have to go dig it out and it would be a long list. You know pesticides that were really effective have been outlawed like Chemic. Chemic is one that we can no longer use that was really effective getting. It's getting harder and harder. I don't really know how to answer that question.

I: So, yeah what I have just been saying is what pest do you address with the use of these pesticides? What do you use them for?

R: Well, lately nematodes. Nematodes in potatoes and sugar beets. Just lately we've addressed root maggot. We treated them with a chemical called Counter. That's where chemic came in but it's really not getting the job done. All you can really do then is put more water on because they hate humid, wet conditions. They can't live in those conditions, so all you can really do is keep them really wet, and that does not work as good. That's what is a little troubling that the food supply in the US is the safest in the world, and that's what bothers me this little bit is that you go to the port in Portland or LA there's all kinds of food coming in from South America and other parts of the world, and who knows what they use but they don't have the same stringent rules that we do, guaranteed.

I: How do you make decisions about pesticide and herbicide use?

R: We have an agronomist. He does work full-time for us, but well we have one for potatoes and one for sugar beets. We test the soil, and we go out to the field daily so we can recognize. You know to be honest, there are new funguses every year. I mean not every year, but there are new funguses here that two years ago we never heard of, so it is a challenge to keep up with that and to stay on top of that . . . I can't myself. So we hire people because they are schooled in it, and they can recognize things that we can't. So, it is just part of the expense of growing a crop.

I: Okay, so the use of genetically engineered seeds has been in the news a lot recently, and has been a very controversial issue. Very rarely has anyone really discussed this with farmers and found out their perspective. Has the use of GE seeds affected you as a farmer-either positively or negatively?

R: Well, it has affected me positively. Because the majority of the sugar grown in the US is genetically modified. You know that?

Interviewer: yes?

R: Yeah, all the sugar in Idaho is genetically modified and, in fact, the sugar from everywhere but Florida is genetically modified because they grow sugar cane. I don't know, I know when you get on Facebook you realize that it's pretty controversial. It is processed and I think it is really safe. There is, Simplot has developed at the cost of 60 million bucks, a genetically modified potato and there are growers in the area that are growing it. We are not growing them. I don't know how I feel about it to be honest with you. I mean I think it, they in some ways I think it is really the only way to feed the world because by the year 2050 what they say the food consumption will double in the world I don't know where that they are going to get it. So you know, people say well I am against genetically modified sugar and yet morally I don't know how you say it if you travel the world much. So that is probably my answer.

R: So sugar beets of course, but have you grown any other genetically engineered crops before?

No, just sugar beets.

R: What is your opinion of genetically engineered crops?

My opinion is that it is safe. I think it is safer, it is funny how in the US we ship in all this food from other countries that are using these chemicals that we banned forty years ago, and yet they are worried about genetically modified. I think it is merely education to be honest with ya, and yet you know, it threatens us farmers because, and I'll tell you why, I'm not going to be quoted in a newspaper or anything?

I: nope

R: Okay I will take my word for it. So just speaking anonymously like in the potato deal, the genetically modified potato that Simplot has engineered does one thing. It doesn't cut black. Like when you buy 10 pounds of potatoes, how often do you use the whole bag before they go bad? Not very often, so the garbage can is probably close to the number one customer in the US. So if they allow us to genetically modify we're just going to need less food. That is how the world is going to be fed in the next 40 years, and yet I sympathize with those who don't feel safe about it you know, but I just think we need to really get educated because I don't have all the answers. What do people worry about, do you know, that don't like genetically modified? You are probably one of them.

I: No, I mean my opinion is not important. No, I think these type of technologies need to be examined individually. I don't believe it necessarily fair to disregard something without looking at its particular health and environmental impacts.

R: I agree with that. I think will be really shortsighted for us to say hey there's no problem. We don't know, you know all we know is our scope and we are trying our best to be responsible with the land and everything. We don't know everything, so you know, Yeah.

I: So, now turning to the subject of environmental change. In recent years, have you noticed any changes in environmental conditions in your area that seem beyond normal year-to-year variation?

R: Not really. I'm, right now we are in the cycle. I mean this year crops are probably 10 days ahead, you know. Last August we had like 23 or 4 days of rain. It kind of seems like the weather gets a little more violent and you know, we were just talking yesterday you know, when I was young man we would go through periods of drought and then we go through periods where we had major drifts in the winter which we haven't experienced in a few years. So, I think there are cycles. I'm not a big environmental change. There is, I think, if you look back to the normal pattern of life, it's not a big theme of worry for us I guess is what I would say.

I: Have you noticed any persistent changes in the length of the growing season, or first and last frost dates?

R: No. You know, but I can't say that I am a real student of it either. I can say that we plant sugar beets later, we plant potatoes earlier. We harvest potatoes earlier and sugar beets are about the same. So I wouldn't be there any major differences, but ya know.

I: What about average winter temperatures or snowfall?

R: I know it seems warmer.

I: So, many of us have heard about the drought affecting the Western United States. Have you noticed any changes in precipitation?

R: Yeah, we're just not getting it like we used to. We are part of the canal system that comes from the river and we are pretty directly affected, and you know as far as the deep wells there's a lot of concern about the aquifer. You know on our farm, we haven't seen any drop at all. In fact, in some areas it maybe even a little higher than it was 10 years ago, but definitely the runoff. I don't know. It has definitely decreased, but I think use is up. I think farmers in the last 10 years water more just because they just do a little better job, they are just more on the ball.

I: Do you think that has anything to do with rainfall at all? Are they needing to use more?

R: I don't know

I: So, I know we've already discussed this somewhat, but do you worry about water availability or your water rights?

R: We do, yeah. You know some friends, my son did an internship in Bakersfield. We haven't talked to them in a long time but he raises, he used to raise potatoes, but he raises garlic, wine grapes, fingerling potatoes, mandarin oranges. They are being really affected by the drought. You know, we've been meaning to call them to find out exactly what is going on. I know we were there, we were there three years ago, when they were having problems and he is really having problems being regulated. The regulations in California are really severe, so I don't know, I worry about that. I worry about it, it is easy for people to make laws and they think it has no effect, but every time they do that or every time there's a drought it raises the price of produce for the people that can afford it the least, you know. So, I worry about that. Yeah.

I: So you mentioned irrigation, is that is that primarily the way to you receive your water , or do you use groundwater as well?

R: We are primarily groundwater we have some surface water. We have like five fields of surface water. About 90% groundwater, deep water.

I: All right, if you have a certain amount of water allocated to you, about how much of that water do you generally use in a season?

R: Well, it just depends on the year. Every year is different. This year, we are going use all of our allocation from the groundwater. Well, we probably won't use all of it, but we will use more than we did last year. It just looks like it is going to be a drier longer season, you know. As of to date, from the deep well, water allocation today in Idaho, no one has been curtailed out of the ground.

I: Is that what they're trying to change?

R: They are trying to do that. There are people in Twin Falls, you know saying we are being robbed because you guys are taking the too much, so it's a big battle. There are some attorneys that all they do is water law, and yeah so that's where we are at right now. You know, if they think that we are going to use 10% less in Idaho. In Idaho, it has always been first in time, first in rights, so if a person has a 1950 water license for so many acres, he is going to be unwilling to shut down his well down 10% less and have a guy who drilled a well in 1985 you know. And the guy in 1985 is saying no let's just all take 10% less, and the guy from 1950 is saying no, why don't you take 40% less. So it is huge, and really the land, the value of the land is 10,000, and really without water it's like 1000. So, it really is the lifeblood.

I: So, do you rely on bees to pollinate any of your crops?

R: no

I: Have you noticed any changes in the bee population?

R: I haven't

I: Going back to climate change discussion, how concerned are you about climate change?

R: Not in the top five. I mean, I'm more concerned about drought. I am more concerned about the economy. I am more concerned about the safety of the food. I'm more concerned about taking care of the land, and I think that climate change. What I am worried about in regards to climate change, is that the government will overreact and try so hard to regulate and then the regulations will cost so much that people starve to death because of the regulations or something, I mean that is a real possibility. So, I think, I hope going forward we will all approach it really slowly and with caution, so that is what I worry about.

I: So do you think that any changes to the climate are caused by human activities?

R: I think slightly, but I'm farmer so I really don't know. You know, I do think and I sound like a guy that hates regulations, but I see documentaries where India and China

haven't taken steps to regulate the output of huge factories, rubber factories and that, and it's a mess. So, I think there's a place for regulation. I just think that we need to be middle of the road somewhere. I think Al Gore would just stop production of food and would have us all going back to doing it by hand and if we did that, it would be really the safe way to go, but people would die of starvation. So I don't know. I'm someone who has hope I guess is what I'm saying.

I: Okay, so for you other than water because we know that water is extremely important for farming, what would you say is the most valuable natural resource needed for farming?

R: Land. Yeah, unbelievably valuable. I mean they are not making any more of it, so but the population grows every day. People live a higher lifestyle every day, you know, in 08 wheat prices like doubled and they said it is because there's not enough, there's not as many starving nations around the world and that people who used to just eat wheat and rice, now can afford beef or animal and it takes twice as much wheat to produce meat per person as it did when they were eating very simply.

I: Are you worried about the health or availability of any natural resources in the area?

R: Yeah, I mean you know natural resources of water and land. You know for a farm, everyone wants more. Everyone wants to expand. You know it costs a lot. The cost of land goes up every year, and it is almost out of reach for a young man like that is. I don't know how person would get started farming right now if they didn't have a leg up somehow. You know, I thought it was tough when I started farming, but it is really tough now because the capital needs it takes to start farming ya know, because of the machinery you know.

I: It would be difficult for someone to start on their own?

R: Yeah

I: So, have you changed any of your farming practices or decisions in recent years, such as crops you are growing, when you plant or harvest, or how you manage pests?

R: Yeah, with the availability of Roundup Ready beets, we used to plant the 1st of April or 25th of March, as soon as we could get in the fields, and now we don't plan until the 10th of April, and because two years in a row our last field planted at like the 25th of April was the best. So, it just, I don't know the science of it, but we just grow quicker, we grow faster and more efficient. I don't know that it in the fall it gets colder any sooner. If you look at the records, to me, it doesn't. My dad always said to be done harvesting by the 10th of October. We try to be done by the 5th or something like that, and then if we have a rainstorm or something we can still be done by the 10th. I think the food receivers around the country are more picky, and so I'm getting off the channel here and can't even remember what the question was, but we are more worried about that because in the old days you can send them food with a few blemishes or something,

and now they just want it perfect, you know. So we really, in the fall we really watch the cold and, for example, if you water potatoes too long, you want to water long enough so that you get the full growth potential, but if you water them too long, they get water spots on them, and if those don't get a chance to dry up, believe it or not, it possible for a potato to go into storage and store for six months, and come out and when it's put in water to wash it before it is shipped those water spots become alive again and they will rot the potato. So there's a lot of things to really be watchful about, you know, more than there used to be.

I: So you mentioned you plant potatoes later?

R: No, we plant potatoes earlier on. It used to be that if you planted a potato in cold ground, it just wouldn't thrive, and now I think the seed just gets better. I think the breeders do better and it is just getting better. So we change the way we used to harvest wheat for example. We used to disc it twice and then we would rip it, which is a shank that is like fifteen inches long every three feet. We would rip the land just to tear it up, and then water it really heavy. Now we just basically harvest it, sometimes we will beat the grain, and sometimes we will disk it once, but they have a machine called a disk ripper that does it all in one trip. So the machinery industry is changing to get more efficient. So you take a machine that does the same thing in one trip that it used to take two, and then he take a tractor that uses half the fuel that it did 15 years ago. You know, we're changing. There are some things that are different than they used to be, and mostly because the advancements in machinery. The technology is unbelievable. You know everything is on GPS. So, when we pull into a field to do anything, whether disk or plant or anything, you won't see any crooked rows anymore because you just turn around and you have a monitor there and you go over to where it is, and you click on a button and it does just brings you right in there. You just go down the row and it dings 50 feet before you get to the end of the row in case you are asleep.

I: That's nice

R: My younger son came home from college a couple years ago, and he was on a really flat, no rock field, and I know he was taking a nap, just waiting for the alarm to wake him up, and it alarmed but he drove through three wheel lines.

I: So, any changes to how you manage pests?

R: You know we just scout, and spray for them. You know it is just constant. Here in a month, we will have the leaf miner in potatoes and sugar beets, and it just. What's the other one? If the worm that comes on 10 August in the sugar beets. What about pests?

I: Have you changed how you manage them?

R: In the last 20 years or maybe just the last 10 years, you know, we really just watch. Our agronomist is in the field every Monday and Thursday and we meet with them, and we do it ourselves. We try to train our employees to really watch you know. There's a



time in a month or so when mice and rodents get really bad. We've never actually sprayed for mice. Last year was bad, you know, they just take a bite or two out of every potato and then you can't sell it then you know. You have to sell it to make flakes out of it or something like that, you know, so have we changed how we probably. You know, we go to schools in the winter. The University puts on school to train you in what to look for. The University is really on top of, those doctors are really good and enable classes and explain and show pictures and it is a necessity. You have to do. You have to be on top of it. I would say if anything changed, it has gotten more intense, more costly in the past 10 years.

I: Why is it more costly?

R: Just because the cost of everything goes up. Chemicals are so unbelievably expensive because when somebody invents something that can be sprayed on a crop in a safe way and still kills the bugs. You know, you're talking 200 gallons and its 120 bucks a gallon, you make sure they're really tightened down when you transport them. Plus you know, safety, the worker safety labeling you know, when we put pesticides in a field, we have to put markers up that tells people not to enter the field.

Respondent: that stuff, really so every year we have to go to classes. We have to get six credits every year. So that stuff takes time. But that's good you know.

Interviewer: so what would you say are the biggest challenges for farming in southeastern Idaho?

Respondent: You know the labor force, enough labor, the economics of it I would say. The price of commodities you know. People's eating habits have changed a little bit. You know the brown Russet is under fire right now. You know I went to my doctor, I am prediabetic, and he says try not to eat any carbs or sugar and then he asked me what I do for a living. I said I grow potatoes, wheat, and sugar beets and he was like wow, good luck with that. So, you know, that is a big challenge. So you have to become diversified enough. So brown potatoes are sliding off just a little bit. Red and yellow potatoes are healthier and they are on the rise, so we're trying to change our operation a little bit. We own 40% of a packing company in Aberdeen called Pleasant Valley potato, where they pack and package potatoes for shipping down south and the east and so we're talking about trying to pack some red and yellow ones.

Interviewer: So you think you are going to start growing more red and yellow potatoes?

Respondent: Probably, yes.

Interviewer: how are these challenges different from in the past?

Respondent: well, I think it is a little more opportunistic. For a long time around here it was just weeding potatoes and then we started growing sugar beets and now the growers own the sugar company. So, that has become a solid crop for us, and as a

farmer I would say it is probably more challenging right now than it has ever been but the future may be brighter. It depends on how you look at it.

Interviewer: What would you say is your favorite thing about farming in southeastern Idaho?

Respondent: I just love to watch things grow, it's really exciting. There is never a dull moment. One thing about it, one thing that is different about farming, you know I always say to the guys that work for me, "we don't do anything month to month that is exactly the same." You know, we work the ground in the spring and then we plant it, and then we cultivated fertilize it, water it, and we get it to harvest. You know the potato plants have to be dead three weeks before you harvest them or they don't look, you know, the skin is torn off. It just takes time. So, that is where some people fail I think, they don't honor the timeliness of it. Then you harvest them and if you get them in before it freezes you have a really good crop and storage, and then we start to run it through our facility where we wash it, sort it, pack it, size it and ship it out. In the winter, we repair things, and that we do the cycle again. I love it. Someday I will not be able to do it full-time, but I love it. I like it a lot, it gets in your blood. So I guess the most exciting thing for me, is to watch the crops grow and turn into something that people can eat.

Interviewer: Okay, so where do you get information regarding the weather, regulations, or any other farming related information?

Respondent: Well, the weather, we just watch the weather channel. Probably just like you guys do. Tanner runs a sprayer that is parked out here and this fungicide has to be sprayed three times a year. It is fungicide for blight. Blight is a fungus that if you ever read about the Irish potato, 1000, 10,000, or maybe like 100,000, a huge amount of people starved to death because of blight. A disease, you know, they had nothing to control it with. We have chemicals that will control it, and we just try to stay ahead of it. So, Tanner is spraying it and it is illegal to spray when the wind is over 15 mph so we have we engage, we really watch it. But the same resources you guys have. As far as regulations regarding pesticide, herbicide, and fungicide, we just get it when we go to school in the winter. There are laws, all of the people that sell them to us they are even held at a higher law than we are. It is really important to stay up on it. That is how we get the news. We go to those schools, plus there are different websites that keep you informed about the spread of blight and other problems. It has its own little society like anything else does.

Interviewer: Which regulatory agencies, such as the USDA, have you been in contact with over the past few years?

Respondent: Which government agencies?

Interviewer: yes

Respondent: Well, we work with the USDA. We do all our reporting, and do everything to stay eligible. There used to be a payment that you would get every year, and they have done away with that, but there are. We stay eligible because you never know when a catastrophe could happen, and if a catastrophe happens and you are eligible, then you can get some insurance. Plus we buy private insurance but in order to get that you have to be federally eligible. So I would say we work the most with them. The EPA, we'll come into contact with them a lot, but once in a while they will check what kind of fuel were using and making sure that we are using the right fuel. But we don't really, the state Department of ag, if you spray someone else's crop or your crop duster sprays in the wind or something like that or they spray somebody's house, they are really right on it. And people, I have never been reported but some people have, and it is pretty serious stuff. The agents we have been in contact with, we also rent ground, so we have been in contact with over the past couple of weeks the Bureau of Indian affairs, probably four or five times. But in looking at regulatory agencies we are not bothered much by the EPA and with the State Department of Ag.

Interviewer: So how have your experiences with these agencies been? Were they positive or negative experiences?

Respondent: Well, you know once in a while, a few years ago we had 100,000 bags, which is about 1/10th of my production with a potato distributor, and they found one spud that had bacterial ring rot, and I have never had bacterial ring rot, but they called and just said, "hey we have to tell you and then you have to tell your sleep supplier." So I don't know how you only have one potato, but it is alarming because if you get in the majority of your fields is like the death penalty. So then I called to see the suppliers that it might have been, and of course they both said okay but they both denied. You know, it's like having AIDS, that disease. So it was pleasant, except the guy, kind of, so the State Department of Ag had to come and just asked us 1000 questions and it was a little bit out of touch. Our guys spent the morning doing a GAP audit. GAP stands for good agricultural practices. It was brought on by those radishes or that salad in Salinas California where somebody got sick, and so they try to take the same government regulations. You know they pack that stuff in the field, so they try to take the same regulations for that and apply it to us. And it is just so different because we don't pack anything in the field... We take it out of the field, and we put in the cellar, and we take it and wash it and scrub it and ship it. You know that's the frustrating thing is that they make those, and I know it is hard to make laws, but then some of the laws are like, you know you can't have any animals in your filled ever. And we farm out here in the desert, and there's a herd of elk that roam around. So we are in a meeting with like 200 farmers and I am sitting in the front row, and this lady is up there talking about like, you know, you can't have animals in your field and you can't have their feces in your field and I said okay, but what were what do we do where we are not fenced around all the sagebrush, because I am right on the edge of the desert out there. I asked her how do we keep animals out? She said, "Get out." She is just kind of joking like she was crazy to. You really can't fence everything out. Like elk, you could put up a 6 foot fence and they can jump it. Anyway, so we had a lot of contact with government agencies. When we ship our food it has to be inspected. So in our warehouse there's two inspectors.

Anytime we are packing potatoes there are two inspectors there all the time. And if they don't stamp it, we can't ship it. The same goes for the wheat, is inspected by a government agency and they grade it. So, so we can be number one wheat, number two wheat, or feed wheat. When you first mentioned that I was like I don't know but really we have them all around us. It's okay. It's good. You know you can fight laws and regulations, but at the same time, it is awesome that we have them because they provide order and balance. So we are good with it.

Interviewer: Is there anything that the federal, state, or local government could do to help you in your farming practices?

Respondent: They could change them of the things they do like this GAP audit is mostly just ridiculous. Like we have a pump and if you spill any oil they will take 10 points off your grade or something and you have to have a passing grade of 70. So some of it could just become more common sense, you know. But, it's okay.

Interviewer: what about other people or organizations in this area, can you think of anything they could do to help you in your farming?

Respondent: Like who?

Interviewer: Well, there are various commissions.

Respondent: The Idaho Potato Commission. We pay a large tax to them. I think they could do better. I don't really agree with some of the things they do. It is just normal to disagree with some of the things they do. I tried to be a commissioner. So the growers submit three names to the governor, and the governor chooses one. I wasn't a very good politician, so I didn't get chosen. There are like 9 commissioners and they spend between 12 and \$13 million. So I think they can spend it a little differently.

Investigator: Are you using any aerial drones or any unmanned aircraft systems in your farming practices?

Responded: Yes we have a drone. He runs it. It's in a little box over there. Pretty awesome. There's a little control that I can Bluetooth to my phone, so I don't even watch the drone I just watch words out of my phone. It wasn't too expensive either, compared to some other technology out there. You can send a grid pattern so the drone will survey the whole field, but we just take it up to see how our stand it, to see if we missed anything. We have 950 acres down by late channel. Do you know that is? It is on the way to Burley, So, we have a pivot, and an arm comes out in the corner and there's a place where the pivot has to fold in. We take the drone out, and we found out that the nozzle at end of the mini pivot wasn't shutting off so we just created this pond of water. I don't think we ever would've seen from the ground.

Interviewer: So I was just going to ask you that, how has it helped you in your farming practices?

Respondent: It has been great. It is pretty neat. It has helped us see leaks. I kind of wonder what kind of problems that might cause in the future. I'm sure there will be privacy issues.

Interviewer: Okay, we are just about done here. I would just like to ask you a few brief demographic questions. So including yourself, how many individuals live in your home?

Respondent: two, just me and my wife.

Interviewer: In simple terms, how would you describe your political views?

Respondent: Probably, moderate to conservative. Not a tea partier by any means, but not a total left-wing liberal either. I would say moderate probably more conservative.

Interviewer: and what is your age?

Respondent: 61

Interviewer: And finally, is there anything else you would like to share with us about farming in southeastern Idaho?

Respondent: Yeah, I would just like to say that I appreciate you guys doing this really. I know you as are just striving to get your education, we really believe in education. I think farmers get this wrap as just being, you know this friend we have in Bakersfield has a young neighbor and this neighbor is mega wealthy, but he would go into LA to parties, and he would always say he was a gynecologist because once he told them that he was a farmer, the ladies didn't want anything to do with him. He would try to get to know them first. You know everyone thinks that everything exciting happens in the big city, but this is a pretty awesome place to live. It is a well-kept secret. It is a lot of work, a lot of late night hours, but if you love something you don't mind doing it a lot. So, that's all.

Thank you