Ecosystem Services and Idaho's Farmers

Interview Twenty-Nine

I: All right, let's begin with a little bit of background information. Please tell us a little bit about how you got into the farming business.

R: Um, my dad's farmed all his life, so I was raised on the farm. His great-grandmother was one of the first people in this area to farm. Since then, the farm has just been passed down from his dad to my dad, and then I guess me if it gets that far, so.

I: And how long have you or your immediate family been farming in this area?

R: About a hundred years.

I: What do you grow?

R: We grow a three crop rotation with potatoes, sugar beets and wheat. So, every year the fields change and.

I: And how many acres do you farm?

R: Probably somewhere around 2,000 acres between what we own and what we rent from landlords.

I: In what ways, if any, has urban expansion or any nearby construction affected you and your farm?

R: Um urban expansion so far hasn't. As far as we are concerned, it hasn't really affected us. Um, Aberdeen is really not growing that fast so the need for land, for I guess housing or buildings, hasn't really affected us. I don't think.

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

R: Um, we don't.

I: Do you have any idea what your father will do with the farm when he stops farming?

R: You know, we've talked a little bit about it. Hopefully, there would be some kind of transition where he would kind of be able to retire, and if it's viable then I would rent from him and just kind of transition slowly that way. So, that would be the goal ultimately. We are at the mercy of markets and other things, so we would see how it would go, but that's probably where we're at.

I: How important would it be to you that your farm remains an agricultural operation?

R: You know to me it is something that I would really love to do. It's something that I enjoy. You know, its hard work. Um, in my opinion it is something that is very necessary. I mean obviously the world is hungry, and we try to provide for that. Every year there's less and less farm ground,

less farms around the nation, at least according to some things that I've seen. And so, to me its exciting to farm, its what I love to do, but it's also. It makes me feel good that I'm providing a very beneficial service to a lot of people.

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

R: As far as?

I: Anything to do with water conservation or soil conservation?

R: Yeah, those are concerns that we are faced with every year. Uh, our irrigation systems, we try to keep those up to date because if we are wasting water or pooling water in places, than that can really cause us a lot of problems. Every year we begin the year, we look at all of our irrigation systems, ditches and everything that we have, and make sure that everything is up to snuff. Make sure there's no leaks. You know, make sure there's no things like that. As far as soil erosion, um that's another big concern for us because a lot of the ground we farm has hills in it, so we do implement practices that will help keep water from running down the rows which will wash all your dirt out the end of the field. So, we do that. Wind conservation, there's not a lot we can do with Idaho wind, but I know 25 years ago my dad had a field that was just blowing all the time, the sand would blow. So they planted a big huge wind break, and to this day it benefits us by keeping the wind down. So, those are a couple of things that we try to do.

I: What do you do to keep the water from flowing down the hill?

R: Um, it's called cultivation, and on the back of the cultivator there're these wheels that come along and they make big pock marks. So, about every foot there's a divot about that big. So, when the pivots go around, and the pivots are really notorious for this because they put down a lot of water very fast, you know when they're just walking in a circle. The sprinklers are not as bad, but those pock marks will take and basically make a little pool of water. Instead of letting all the water run down the hill, it will just stay in that puddle until it can be absorbed into the ground.

I: Okay, can you think of anything else?

R: Um, you know as a basic practice we try not to over-till the earth, or to over-work the dirt because that will make it very fine which add to erosion also. So as a general practice it is two different goals maybe, but they work for the same purpose. By not over-working it and turning it into powder we can, we have some effect there to, and that leaves the dirt open to receive moisture and not to run-off so bad.

I: What kind of pesticides and/or herbicides do you use on your farm?

R: Um we work with a company, we work with Simplot. They're who provides a lot of our fertilizers, so there's a lot of synthetics that we use. Um, we use Roundup on our sugar beets. We have the sugar beets that are resistant to Roundup. Which has been really awesome because by allowing us to use Roundup instead of some of the other stuff that we used to use,

the overall application of pesticides and herbicides has gone way down. It's a much more targeted approach and it's more. You know I always use the analogy that instead of using like a shotgun you're using a twenty-two. I don't know if that makes any sense, but instead of just throwing everything you have, which has kind of been the history of farming is that when new stuff would come out it would be piled on the with the next thing, but now with some of the more targeted, more precision synthetics we are able to really reduce the amount of overall pesticides that we use. Um, but we'll use, for the potatoes we use a lot of zinc, copper and magnesium; stuff that the plant needs. We'll use, a lot of nitrogen goes back into the ground. We'll use some sulfuric acid for different things to help the plants grow. I guess those are a couple of the things we do.

I: Okay, anything else? Do you have any issues with pests?

R: You know the ground we work, the ground we rent has been in our operation for a lot of years. That's really beneficial because if land is changing hands every year sometimes it gets what they call mined. Basically people come in and put as little money into investing into the dirt as they can, so the next year the dirt's kind of mistreated, sort of. And if that keeps happening, but the land we use we have used for a lot of years. We have a overall program that is really aimed at taking care of the dirt because if we don't. You know, it's not going to grow anything if we mistreat it. So, those are some of the things that we implicate to try and I guess protect.

I: Do you have any trouble with mice?

R: This year we have had a lot more mice, and in Springfield, up towards just up 39, there's a couple pieces that we run and gophers were really bad this year. Even in places that we've never had them ever, and they were serious too. So, that was a new pest this year that we haven't really, and we don't necessarily have anything to combat those. I trapped them all spring. That's kind of all we had was me going out and getting them.

I: How many did you get?

R: I think I was up to 40 or 50 over the spring. I know there are some kids that were doing some trapping for some farmers, and I think they were up in the thousands that they were getting. So, there's a lot of gophers this year.

I: Yeah, sounds like it.

R: There's a lot of people through here that trap, and this year's been a lot more serious because of the gophers. You know when we till in the fall, we do some deep tilling and that will disrupt them some, but they're surprisingly resilient.

I: Do you ever have issues with aphids?

R: You know we have stuff that we apply for aphids. Usually in the beets is where we see that the most. They'll get down right around the crown of the beet and cause us some problems

there. So, we got some stuff, we wait to see if it is going to be a problem because some years, I don't know if it's the climate or whatever it is, but it's just not favorable for aphids. So, some years we don't have to apply for that. You know in our approach, like I kind of said, you know fifty years ago, from my understanding, a lot of the time they would just have a program and every year you would put this on then you would put this on to kind of give you this blanket of protection, but because of the way the market works and because of the price of commodities, we wait until it is necessary to apply it, almost everything. You know a lot of the basic fertilizers and field prep we do every year according to what the soil needs, but aphids are one of those things that if we don't need to we won't do it.

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

R: We've got what they call a field man, and he is an expert you could say in that area. At his disposal, he access to some people in Boise and some people here at the extension center that he can communicate with and say hey we've got this issue or that issue, and then you've just got to look at. You know you have to look at the price of a product. With so many competing chemical companies out there, they all usually have a competing product. So for example, if one company has a chemical that they're really fond of and price it so high that you can't pay for it, then there's usually somebody else that has the same thing. So, you look at the overall spectrum of what it will cost and what it will take care of. So if we are going to apply something, like with the potatoes we put on foliar, which is just kind of like a multivitamin for the plant. If it looks like, like this year we had some late blight reported in the area, so if it looks like that's going to be an issue for the year then we will apply something to help protect against late blight. So, it kind of just depends and there's somethings too. The winter wheat that we grow is very susceptible to rust or striped rust, but sometimes it hits so late in the year that there's nothing you can really do about it and it won't affect yields. In that case we wouldn't do anything for it either because it doesn't transfer into the commodity, it's just kind of something that if it hits early it can kill your plants, but. So, there's a lot that goes into each decision, a lot of work with some of the ag science places around here that will give us advice, and we got our field man he's really good at what he does. There's a lot that goes into it. We make our ultimate decision based mainly on how much it will benefit and how much it will cost. Pretty standard.

I: Did you get that rust that is going around this year?

R: We haven't, we didn't see any. The year for the winter wheat was so nice because we got a lot of rain in spring and that just dried out. It's been colder now, but the rust will only come in the green. When it's starting to turn yellow it won't do anything. Usually it won't because the plant is no longer alive basically. So, no luckily. That was nice.

I: So, the use of GE (genetically engineered – also sometimes referred to as GMO) seeds has been in the news a lot recently, but the coverage only rarely discusses how American farmers are being impacted – either positively or negatively – by this technology. Has the use of GE seeds affected you as a farmer, and if so, how?

R: I will start with the negatives. Uh, there's some, on our opinion, kind of like what I already mentioned about the herbicides, a lot of people. I've read a lot about the discussion from both sides and I can respect people's opinions and how they feel about those types of crops, but if they could look at it from our point of view, the amount of stuff we would have to put on our crops before to just try to control the weeds was unbelievable. It was within USDA regulations, it was never anything crazy, but on top of that we would have to hire crews of people to go out and walk every row of the field and pull weeds because we just didn't have the weed control that we needed. So, that was a lot of labor, and on top of that you had stuff you were putting on that if you don't have to why would you. With Roundup, instead of having to put on this broad spectrum of herbicides, we are able to really reduce, and the amount of Roundup that we use is really a very low dose. Because the sugar beets can tolerate it, it is very, very effective. The weed control in sugar beets is amazing, so that in my opinion, the tradeoff of using the GMO and not all that other stuff is worth it. It's very valuable to us, but the negative is there's some markets that don't want it. I don't know if you hear the story, but there was a tanker going to, a wheat tanker, and they found a GMO kernel of wheat on there, which GMO wheat is not on the market yet. There's some, the Roundup Ready wheat is not on the market. So they found some on a ship and it shut the whole port down because there's a lot of fear involved with it. I guess as far as I'm concerned there's no viable research to show that GMO is bad. So I guess that is my opinion of that.

I: Have you ever used any other kind of genetically engineered seeds? I know Monsanto had a potato on the market previously?

R: No, we've never used anything like that.

I: Have you considered growing Simplot's new GE potatoes?

R: We have considered that, but for right now. When that was introduced competing markets, competing plants and places, kind of bullied more or less, they kind of bullied that out of the market because it wasn't there technology. Simplot's potatoes, there claim basically is that it won't bruise, and then when you cut a potato and you see how it starts to skin over and get kind of hard, that's called suberizing, and these ones wouldn't do that. So, all that does is allow you to, you know like in a processor plant where they're making French fries, they can slice the potatoes and not have to worry that in five minutes they'll be pink or brown, you know it gives them a little more leeway to get them fried and frozen. So, but a lot of the, a couple of the places around here said that if you ever grow Simplot potatoes on your farm, we will never take potatoes from you again. So, for a lot of farmers, I mean they have their main potatoes that they take to the market, but then they have those that they take in for processing, and the processors are the ones that said we will never take them from you again, ever.

I: Like for the dried potatoes?

R: Uh huh. The dried processed and even some of the wets. They just said that if you raise this potato, and you know there's no science, there's no research to show that it's dangerous

because all. Another thing that I feel about GMO's is that all it is, is the breeding process sped up because we have the technology so it's not anything that we couldn't have done over the next hundred years with just selective breeding and things. So, if it's something that's that far out, you know something that's super crazy, I would worry a little more about that, but where this is just helping them to be more adaptive, basically natural selection sort of, it doesn't scare me. Anyway, that's what sort of happened with those, so for now everybody is kind of on hold for that Simplot potato.

I: So, the decision is really market driven?

R: Right. Absolutely, and the people that buy your potato have the option to kind of control what you raise.

I: So, your overall opinion of genetically engineered crops?

R: I would say that I'm in favor of them. I don't think it's something that we should do blindly. I think it is something that we need to be informed about. It's not a cure-all, but for what the world demands and for what we can supply as farmers worldwide, you know we've got to do something different. You know the organic, it just doesn't produce for what the world needs. So, I think it's a favorable thing. I think it's the best option we have right now, and I guess that's kind of what I feel about that.

I: Turning now to the subject of environmental change, have you noticed any changes in the environmental conditions in your area that seem beyond normal variation from year to year?

R: You know I'm fairly young so it's kind of hard for me to comment on that. I feel like we used to get a little more snow in the winter. I remember when I was young we would snowmobile all over the place. We would get a foot and a half or two feet of snow around here. It seemed like, at least, but I was young so I don't remember real well. We just don't really get that as much anymore. This last winter we had was probably the most mild winter I've' ever seen. I would say that's one thing. I don't necessarily know what its connected to or anything like that, but I've seen that.

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

R: This year it was different. I think the only killing frost we had was in December of last year, or October I mean. We worked the ground in December of this year, which in thirty years my dad's never done that, but we needed one more field to get worked and we have two or three weeks of just really mild, nice temperatures so we were able to go out and finish the field. So, that was an anomaly for sure. Usually we get, you know usually it's pretty close within a week or two. It seems like in June we usually get a frost, but towards the fall usually we are shutting down about the same time. This last year was definitely an anomaly though.

I: Many of us have heard about the drought affecting the western U.S. right now. Have you noticed any persistent changes in yearly precipitation?

R: Um again last year was an anomaly; we got rain all of August. Usually that doesn't happen. Usually August is fairly dry, we may get some thunderstorms in the afternoon, but I think we got three weeks of basically straight rain. We weren't able to cut our grain for three weeks. That's not necessarily the norm from what I've seen. Last year, that whole fall and winter season was kind of an anomaly, but other than that I haven't seen any numbers or any information on it, but with a little variation it seems to me that we're pretty much on the mark, but that's without what happened in the fall and in the winter.

I: Do you think the precipitation is shifting? Maybe more rain and less snow?

R: I don't know if there's anything different with the rain. With the snow I feel like there's less snow for sure. Every year it seems like we're worried about whether we'll have the snowpack to make it through, and there's been years that we haven't. So it seems obvious that that's different than it used to be. It used to be that it wasn't a concern, but that's a concern every year now you know, whether or not we are going to have enough snowpack.

I: What do you think is causing these changes?

R: I can't really comment on that. You know, I just don't have the expertise. It's really nothing that I've studied, so I was going to say anything it would be speculative and no more than my opinion.

I: We are here to get you opinion if you would like to share it? If you have one?

R: You know, I just really don't have one. I do know it's been a little bit different, but I just don't. I've heard the theories, some of the theories that people have and I just don't know.

I: Do you worry about water availability or maintaining your water rights?

R: Yeah we do. Right now it's a pretty hot topic. There's a big lawsuit between the canal water and the ground water. A lot of farmers for a lot of years have had the rights to both, or a field will have ground water. You're always just supposed to pump what your rights are, but this year they went around and did an audit and some of the fields. I mean it used to be that there used to just be a lot of little fields, but now we've consolidated a lot of fields so water rights, you know where one half would be out of the canal and the other half would be groundwater, if people have enough shares they'll just pump out of the ground for all of it or they'll just use the canal for all of it. They went around and did an audit and that's a big worry for people. We have some pretty old water rights, so if it came to it we should get our water before some people. But yeah, that's always a concern. Not getting enough water would shut the whole valley down.

I: If you have a certain amount of water allocated to you, about how much of that water do you usually use?

R: Um, I don't know those numbers. Again though for us, when you look at it from the perspective of the farmer, every day that you pump water that you don't need to you are wasting money. So, we aim to be as efficient as we can. That's why we put in so much time and effort into maintaining our watering systems, or if we have mainlines that need replaced. We try to keep those things really tight and really clean so that we're not just wasting it because it is very valuable to us, to everybody. I would say that we use less than all. I would say that most farmers in this area have some, just with the acquisition of land and water-the older farms had both well and canal water. So, when they acquire a piece of land they'll just use one or the other and not both, so they have extra.

I: Do you use both ground and surface water?

R: Uh huh. Not obviously on the same piece, but yeah we have both.

I: Do you rely on bees to pollinate any of your crops?

R: I don't know. I think we do. I've read about bees and I know how important they are, but its not like some farms that have to bring in a semi full of bees and park them at the end of the field and let them do their work. We don't do that. We don't have to bring in bees to pollinate our farms, but I know they're doing important work.

I: From just being outside, have you noticed any changes in the bee population?

R: Uh no. That's not that it hasn't changed, but I haven't noticed. I haven't really paid attention you know, so. I get stung less often, but I think that's because I am not where I shouldn't be.

I: Thinking specifically about changes to the climate, how concerned are you about climate change?

R: To me, it's. Well first off, I haven't studied it. My personal feeling is that it's very important. You know I think changes will happen, and I think it's possible that some of the changes are cause by us. So, I think it's important to see and to monitor because if we get, or if our seasons change to where we got frost all the way through the summer, that would shut us down. Or, if it gets mild enough that we could grow a crop in the winter. You know, those are both things that would be important one way or another. So, I think it's something important to know about.

I: Do you think that any of the changes to the climate some people are talking about are caused by human activities?

R: Um, I don't know if I have a comment on that. I just don't know. No, I don't have a comment on that.

I: For you, other than water, since we know that is extremely important, what is the most valuable natural resource for successful farming?

R: You know it all kind of plays a role. Obviously the dirt is important, and just the overall weather of the year is important to us. Like this year, we had that really hot week in June and that has really caused us problems. All the way up to Washington they're having a really hard time with their brown potatoes because the heat just came at a bad time. So I mean, the dirt's very important to us, the dirt's very important to us. A lot of the synthetic fertilizers too that we use start out as natural products. There's a lot of phosphorus and a lot of pot ash and a lot of those things that are mined that are very important, so guess those too.

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

R: Uh yeah, absolutely. Um you know like I mentioned, water is so important to us. If we lost that, just that one thing, or you know if the shares were cut in half or cut down for any reason that would shut down this whole area if not valley. If you look at a map this whole valley is agriculture, so yeah that's very important. You see it in California right now there's a big war between the people in the cities and the almond growers because almonds are so so water dependent. They take a lot of water, so we could be in a similar situation if we ran out of water. Availability of ground is something that we're faced with right now. You know the market price for an acre of land now is unbelievable, compared to what it used to be. So, that's another thing. Groundwater, you know we depend a lot on our lakes, but when you get into the desert more there's no canals, so a lot of them are one hundred percent groundwater. So, I know there's discussion about what's going on with our aquifer, so that's something else that's important.

I: Have you changed any of your farming practices or decisions in recent years, such as the type of crops you are growing, when you plant or harvest your crops, how you manage pests, or other major changes, and if so, why?

R: Um, types of crops we haven't. Um, well variety of potato I guess. That was more of a market driven thing. We are trying to diversify a little bit from just the brown potato market. We ran some gold potatoes and some red potatoes, but that was even market driven to diversify.

I: Is that driven by eating habits?

R: Yeah, we've seen some impact from that. You know, there's a lot of diets now that call for low starches and a lot of things. My dad always mentions this and in America it always used to be, in his opinion, but it used to be that you would go home or when you had a nice meal it was always steak and potatoes, or roast and potatoes, or something with potatoes. People just don't do that anymore. There's a lot of pasta. There's a lot of breads. You know if you go to a nice restaurant they always give you bread as an appetizer or as a snack is always bread. So, the consumption of potatoes has gone down a little bit while we've improved our practices. We are more efficient. We've really been able to utilize all of these resources to produce these beautiful potatoes, but at the end of the year we usually have too many. That's kind of the thing, but other changes that we've mad. You know the machinery we use is probably another topic. We use, our equipment has gotten bigger and our tractors have gotten bigger, so the

equipment we use, the efficiency you know, the time it takes to do things has improved. It used to be when we would harvest potatoes, you would take two rows and then between those another two, so you would harvest those four. Now there's combines out there that will harvest 6 rows and into another 4 rows so you're getting sixteen rows at a time or more. Anyways, so you are getting more rows, and what that does, or I would assume, is that you have less tractors up and down the field, less impaction on the soil, less diesel is consumed because they are more, well I wouldn't say green, but their consumption of diesel is something else that tractor manufacturers are concerned with. If we are breaking our bank trying to pay for the diesel than what good does it do? So, a lot of those things are trying to roll into the right area. Another thing that's been really helpful is satellite tracking. Tractors will drive, for example when you plant wheat, you can plant wheat so that the spacing is just perfect all the way across. So, when you go this way and come back this way, the spacing never changes. What that helps with is over planting or under planting in your farms. For us, that has been a big benefit too, but also efficiency. You can get in and out of the field as quickly as possible.

I: Yeah, I met someone that said you can now sleep while you plant.

R: If you're brave.

I: Yeah, are you more precise on your fertilizer use?

R: Yeah, and I think our recording, our ability to record and monitor our pesticides and fertilizers has gone way up. You know, the thing we used to use to applicate with was just not very effective in letting you, I mean once you were out, you were just out because you knew that nothing was coming out anymore. Now our systems will count the gallons, and will count the rate that you're putting it on at. If you're putting on too much or too little it will warn you. And also, the way they used to do it, they would just drop this big foam down and then you would come along and had to kind of eye where your boom was. Now, they track, there's nor double coverage.

I: Do you spray differently?

R: Yeah, now we can definitely get it right into the plants and right where we want it to be. So, that's really nice.

I: Have you changed when you plant crops?

R: Yeah. You know, with sugar beets we used to have to thin them like you do in your garden, plant them, and then you would see what emerged. The crews that would go through and pick the weeds out would also thin all the sugar beets and space them right. Now, the technology is so much better that we can just plant really good spacing, perfect spacing. I would assume with potatoes it would be the same kind of idea. We didn't have to thin those, but the accuracy of the machinery we have now is a lot better than it used to be.

I: What are the biggest challenges you see to farming in southeastern Idaho?

R: I would say flat out it is the market. The way that we raise potatoes, I mean we've gotten better at it obviously. I was talking to my wife's grandpa the other day, and his last year of farming he had an excellent crop and he raised 300 sacks of potatoes to the acre. Now, we're upwards of 500 or better in a lot of places, dependent on the soil. So, we've gotten a lot better at that and the world is eating fewer potatoes that there's a hard switch off. You know, with the market, and the way we sell our potatoes is also a challenge. If you do some contracts with processors for all your potatoes, that can be a little bit better. But, if you just hold your potatoes until the market is good, you know they have a shelf life. We have to get them through and processed or you start losing big percentages. So, I would say the biggest thing right now is market. There's been a couple times when regulations from the government have been a real obstacle for us. When the Roundup Ready sugar beets came out it was more or less a nightmare, but a nightmare worth having because of what it helped us do. I mean we had to keep track of every field they came out of, and where they are going, who's driving the truck and when they got back. So, you know it was fine and we still do a version of that, but people were very, very concerned about that when we first started. That was a challenge, and you know we will get stuff. There's been products that we're using that for whatever reason they decided we shouldn't use. So, they've taken those from us before and we've had to adapt. That's another thing that we're faced with, but overall I would have to say that the market is the biggest battle.

I: Keeping the price up?

R: Right, or even just getting paid what they should be worth. It's hard because in most industries, for example if you go to buy a car. I mean you can negotiate a little bit, but at the end of the day the dealership says pay this or go away. But with potatoes, if you have a whole cellar of potatoes that are going to be bad in a month, and somebody comes in and says I'll pay you nothing for them, you can't say go away and I'll sell them to somebody else because they might be the only ones offering that to you. So, that's kind of where the tradeoff is. There's such a huge availability of the exact same potato more or less.

I: Why did you need to document the trucks?

R: There was a big fear about. I guess whoever was concerned about these Roundup Ready beets, they kind of looked at them as the terminator of sugar beets, just indestructible. Once they were planted in an area they just thought that they would come back and back, but we've already kind of talked about it, but the amount of actual Roundup that we put on these beets is so low. I mean it is very surprising how low it is. So, they had the idea that if a truck left the field and a beet fell off in the barrow pit, in fact if any of our trucks spilled we had to go pick up the beets. Which was fine and we did it, but they had this idea that if it planted in a barrow pit that the next year it would come back and spread, and that eventually we would have just these uncontrollable sugar beets. The Roundup Ready sugar beets are resistant to Roundup, or

glyphosate, but if you turn it up just a little bit. I mean within regulation, we're not talking about dumping gallons and gallons on a plant, but you can kill them, easily. So there was kind of a fear there that they were just going to take over, and you know, it's probably based a little bit in the fact that in the Midwest where they don't have as good of a crop rotation. You know for us, we have one year that we use Roundup Ready crops, then the next year we use potatoes, and the next year usually we do two years of wheat. So in doing that, it really gives us the advantage over weeds for our herbicide control. Back in the Midwest, the have a lot of Roundup Ready corn that they use, and they've started to see some resistance from weeds. That is a concern. That's a huge concern for us, so that's why I say like, I support GMOs now, but I think it's really something that we need to keep working on, keep researching and making sure that it's viable.

I: How are these challenges different from what they were in the past, if they are different?

R: As long as I've been around it's been a challenge. My grandpa always said when he was farming that if you raise good potatoes, you will get paid for them, you would get paid well enough. You can see that here in the valley you know, every farm or piece of dirt has a house on it. Those all used to be farms, but now it's consolidated to where one person will have ten or fifteen of those fields because the viability of one crop of potatoes every three years just disappeared. So every year now you have to have this much potatoes, and this much wheat, this much sugar beets in your portfolio to cover your overhead, and to hopefully make it through the next year. The market has definitely caused some problems. I know when some of the trade deals we've done with Mexico and Canada, Canada can raise a potato for way cheaper than we can because of the exchange rate. They can sell it for more here, so that causes problems. In Mexico they grow a lot of sugar which causes problems with the sugar beets. Then the global, you wheat's grown everywhere. So, if I were to attribute it to anything it would be the globalization of the market. Before when my grandpa would sell his potatoes, maybe they would make it to Utah or, but for the most part it was fairly local. Definitely not outside the United States, but now you know, we're competing with wheat grown overseas. We are competing with sugar grown in Mexico which I shouldn't even get started on that. Those are the challenges, but I think they are getting more intense. It's just like any challenge, I mean there's a way around it. You can make it work, and you have to, you have to adapt and grow.

I: What is your favorite thing about farming in southeastern Idaho?

R: You know I honestly like the hard work. At the end of the day when I'm tired and had a long day, it just feels good to me. It's what I'm used to, it's what I've always done. So, that's something I really enjoy, and people look at me like I'm crazy, but that's how I feel about it. I feel like it's just rewarding in the fact that you can go out and put work in and see results fairly immediately. If only you could get paid, but I really like that. I like the variety in my job. Every day when I come to work, there's a different pile of challenges that we'll be doing. Some days it's fixing equipment. Some days its field surveys. Some days it's this and that, different schools, different things. So it just really, and time just flies it seems.

I: Never boring?

R: No, not usually.

I: Where do you go to get news about weather, regulations, or other farming-related information?

R: Most of it just comes through the grapevine. We get it through Simplot here in Aberdeen. They are pretty connected to the global market as far as what fertilizer prices are doing. Fertilizer is tied very closely to oil, so you know, when you see that oil prices are going to the roof you can kind of know that next year I'm paying a lot more for my fertilizer. Things like that. Wheat prices we get straight from the buyers, from Thresher or Lansing, some of those companies. You know, you can call them and ask what is this doing now? Is it trending up or is it trending down? Is it stagnant? What's it doing? So, that's kind of where you get that information. Regulation, it just kind of comes down on the chopping block sort of. Usually they just come and say you are doing this or you need to stop doing that. Or, you got to do it this way or report it to us this way. So, I mean it finds its way to us pretty quick. If it's important to the government they'll make sure you know.

I: Which regulatory agencies, such as the USDA or other government agencies, have you been in contact with in the last few years?

R: We do a GAP audit every year. I don't know who that is exactly, I think it's just the Department of Agriculture. Basically what that is, they come out and look at our fields and make sure we're not dumping toxic stuff here or there, or then they assign you, they have a point system. If you want to keep farming you gotta stay within their points. So, that's one. Obviously we do a lot of taxes. We pay a lot of taxes. So you know, with the IRS. A lot of licenses for applications. I think we get those through the Department of Agriculture, but you know they want to know whose applying what, when, how, if they've learned how to handle it, how to work with it. We do a lot of licensing that way. So, there's just a lot of agencies like that we work with. Is that your question?

I: Yeah. Have you ever had any experience with the EPA or the Department of Environmental Quality?

R: I personally haven't, but I wouldn't be surprised if my dad had.

How was that experience for you? For example, was it a positive or negative experience, and why?

R: You know, in any of those types of relationships I think there's got to be a lot of give and take, but usually the gives on our side. Because they have their rules and their job and things to do. Sometimes if they come in and are pretty determined to do what they want to do and you fight back or are stubborn about it, you can cause yourself a lot of heartache. That's not really how my dad's ever operated just because he sees the whole picture. You know, if I'm done now

they are going to cause me a lot of heartache, so as far as with the Department of Transportation and getting licenses and stuff for vehicles, that's pretty standard. The GAP audit can be a nightmare, but the person that works with us has been just awesome to work with. They're very informative, and they, instead of just coming in and checking off a list of everything you do wrong they say this is what's out of whack. You need to do this to get it within standards. You need to do this, you need to do this, and fix this. They give us a list, and maybe just a little bit of opportunity to fix it instead of just you're shut down. You're done, you know what I mean? So, that's been a fairly pleasant experience. But, I don't think that's necessarily the program, I think it's the person that does the program with us.

I: Is the program itself frustrating?

R: Yeah, it is, and I just I can. It's hard for me to comment on a lot of those things because I've grown up on a farm. I see how it works, and we eat the stuff that comes from the farm all year long, and we love it. We are healthy and happy, and so when someone comes in and says, well if you've got. One of the things is if you got animals, we've got dogs. If a dog runs out in the field and they see it go to the bathroom in the field, which no one really wants that, but in my opinion growing up as I have, that's life. You know, it happens. There's no way you're going to stop every fox, every coyote from going to the bathroom in your field. You'll lose points for that, and they're pretty serious about it. Whenever they come we have to put the dogs in the garage. I mean they know we have them, it's not like we're hiding them, but they can't be running out in the fields even if they're not using the bathroom. So, they get upset about that. That's kind of a small issue, but they want rat traps everywhere checked every single day. They want, you know it makes sense, but we've had traps in here four years or five years and we've never caught anything. We know there's mice around in the shop, but anyway, just some interesting things they want to enforce. I'm sure there's some thought and process behind it and why they think that's important, but some of it we're kind of like, what the heck?

I: Is there anything that the local, state, or federal government could do or provide for you to help you do your job?

R: Because of my personal beliefs, I don't know if I really want them to. I kind of believe or appreciate more of a hands off, kind of free market experience even though it's not working. You know one thing that I think we're faced with. It used to be that more people were from an agricultural background that were in the government, so we would get a little more of a voice. Now we are kind of looked at as a minority, especially when it comes to who has the money to support campaigns or whatever you want to call it. So, I think that our voice has gotten a lot quieter in agriculture until it starts to hurt real bad for us. Then we try to be loud and try to put some money into it, but I just don't think that is there anymore. There used to be a lot more people that were. I mean that's how our whole nation grew up is with agriculture. I don't think we have much of a voice to just protect us from silly things sort of that can really do some damage.

I: What about other people or organizations in this area, can you think of anything they could do to help you farm?

R: Um you know, I don't know how to answer that. We get a lot of support from the university extension here. Um, so that's really great.

I: What about any local commission or coops?

R: I don't know. I know a couple of years ago they tried to start a coop to try to control the market a little bit better. The orange growers in Florida have a system where they, and the dairy farmers do to, The United Dairymen of Idaho. But, basically they control what goes out into the market. You know, they say you're allotted this many cows, but if you keep this many cows we'll guarantee that your milk sells for a profitable price. So, they will give them incentives. If they get too many cows in a year, or if there's too much milk, they have ways of compensating the farmer to either get rid of the cows or not produce as much milk or whatever the case may be. So, we tried, the farmers in Idaho tried to come up with a coop like that. It basically fell apart because there were too many, what would you call them, too many individuals basically. People just basically said, you know what I'm doing fine all by myself and it's not going to benefit me. So, they would just pull off and pull off, and it just fizzled off.

I: Are you talking about potatoes?

R: Yeah, potatoes. The sugar beet and the wheat market, it is what it is. We're at the mercy of, but the potato market that's such a huge. You know, the percentage of potatoes that people usually raise in proportion to their total acreage is usually a little smaller. It's a huge amount of your income and your overhead and everything.

I: Do you belong to the sugar beet commission?

R: Not me personally, but my dad does. In order to grow them you have to have shares in the company, and those shares are a stake in ownership. I'll be it a very small stake in the company, but it is a grower owned company. That's just kind of how that works.

I: Are you using aerial drones or unmanned aircraft systems at all for your farming operations?

R: Our field man just got one.

I: Oh, really?

R: And Simplot just got some satellite imagery. But our field man just got one and they use it to. We got a potato field this year that just is really struggling. So, they flew the field looking for anything that would indicate some sort of pattern. You know, if you've got a pivot that goes around and around and you fly aerially, you can see that there's a circle here and a circle here,

or you know a dead spot. That probably indicates that something is wrong with your water. So, they use it for that type of thing. That's about as far as it goes, it's just imaging.

I: So, how has it helped you understand your farm? You mentioned watering, is there anything else?

R: As far as we know, that's about it. Another application, they haven't used it with us, but if you have a spot in your field that. For example, they told us a story about a dead guy that had a dead spot in his field, but it was a three-hundred-acre field, and he tried to give them a reference as to where it was but even if a dead spot is as big as this room, once the sugar beets are this tall or if the potatoes are healthy you aren't going to be able to see it until your standing in it. So, they were able to fly up high enough and go to that spot and find it. So, I mean it's quicker I guess. But, they use it for that. A lot of the imaging that they get from drones is still pretty young. It's an exciting technology, but they're just not, there's not a lot they could offer that I couldn't do by just going out and walking through my field and looking at the plants and taking stock of what's going on. So, that's kind of where I sit with that.

I: Okay, before we finish here, I would just like to ask you a couple of brief demographic questions. Including yourself, how many people live in your household?

R: My wife and my daughter. There's three of us.

I: In the simplest terms, how would you describe your political views?

R: Um, conservative.

I: And what is your age?

R: 27

I: Finally, is there anything else you would like to share with us about farming in southeastern Idaho that we have missed?

R: Um, no.

I: Okay, well thank you for participating.