Ecosystem Services and Idaho's Farmers

Interview Fourteen

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: My father was a farmer. My grandfather was a farmer. My great-grandfather was a farmer. So I am assuming, of course everybody used to have a great-grandfather that was a farmer. So anyway, I went to college, went on a church mission. By the time I got back, I wasn't sure that chemical engineering, which was what I was on scholarship for, was what I wanted to do. Changed into accounting. Started taking a few Ag classes. Started to play with the idea of coming back to the farm. Started having too many kids and didn't finish graduating, actually just came back to the farm to farm with my dad who was trying to figure out whether to cut back or do something and so I came back to the farm and have been stuck here ever since.

I: What do you grow?

R: We grow potatoes, Russet Burbank variety for fresh and for process. We grow barley. We grow wheat, hard white and hard red classes. And we grow a lot of alfalfa hay.

I: And how many acres do you farm?

R: About 700 acres of potatoes, 1000 acres of barley, 1200 acres of wheat, 3500 acres of alfalfa. I farm with my brother and now my two nephews and one of my sons was also hired at the moment. We farm under the name of Bittersweet Farms and Bittersweet Ranch, which is anyway a separate operation but part of it.

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

R: For one thing, we sold the farm my grandpa lived on. Actually my dad even sold the main farm just up the road here that I grew up on for development someday. The area was growing rapidly about 8-10 years ago before the housing market took a dive and so it affected me in that the ground was too expensive around us to even buy because everybody knew that you could also develop it and so you couldn't buy it for farming cause you couldn't pay for it totally off of farm income. So you were competing against doctors, lawyers, real estate developers to buy farm ground. So I didn't, I didn't really have a good chance, I felt like, to buy farm ground in our neighborhood, too close to Idaho Falls. Further up the road here is where our farms were. In fact, my grandpa's farm and the first farm that I actually lived on have both those two malt plants sitting on them. So because of that, when I first started farming, my dad and then when my brother came back, we looked to buy a farm further out away from urban things. So then we bought in a different regional location; and that's where our main farms are at, in two areas around this area . I don't know how familiar, I can't remember how familiar you guys are with the area, but. It's out near the deserts, big wide open country. There is no urban expansion. There are less people all the time; because the farms get bigger and the people move away, quit

farming, and there is no urban expansion. In this area, what has happened, even those of us that still have ground, and I, you know, run some acres up and down this road; but I just rent it all. The airplanes don't want to fly if they are applying any kind of herbicide, pesticide, fungicide; because they get calls from people that are all upset or worried that they are drifting onto their house or does it have something very toxic in it. You know, do I need to hide my kids and dog inside? Cause there is just enough houses and there is enough worry warts. So a lot of this airplane pilots will not fly from here to Idaho Falls. They just won't. Because even if they are not even spraying next to a field, when they turn over a field, big long roar, it's just uncomfortable. So that has affected this area. You can get planes to do it sometimes and a lot of ground rigs in this area. If you're gonna have it, you better have your own little sprayer and you know stay low and so had that effect. The other thing that happened, of course, is the canals became trashier cause people throw their garbage in there when they don't want to drive to the dump and so the more people you had, neighbors you had, the more messier water was. But, overall, it's not horrible in this area. This isn't this big of a community and area; but certainly those are just a couple. I'm sure there is more but anyway. Oh, traffic. Farmers have always felt like they own the road. I mean really cause you kinda like eh this is my farm here and I'm paying clear out to the center line of the road and my neighbor farmer is paying to the other side cause you own the property. Just like my house here, I owned the middle of that road, right. So you feel like you should be able to drive down the roads. Our equipment has gotten bigger and so you are dodging more mailboxes. You're dodging more garbage cans. People put the garbage. It's hard to move your equipment out. And then the other thing that happens, really happened, is that people aren't aware of big equipment very well and so like I was hauling a disc behind me and a whole carload of girls was coming shopping and they didn't. All the other cars kind of pull off and try to figure out how to get around ya cause you can't get over anymore and this car was just kkk and all of a sudden I looked up and that girl, her eyes just got wide. She was in a blue Camaro. Eyes got wide and she realized the disc was just gonna run right over. My disc went right up that Camaro and peeled the hood off and you had six girls pile out of that car. They had a few cuts but they were okay. So traffic issues for farmers is an issue in these areas. That's why it's wonderful out there. Because if somebody is driving out there, they are probably a farmer, farmer's wife, or somebody and you know they realize big equipment, I gotta wait, I getta pull over, I gotta get around. So urbanization, you know, has changed that a little for us. If there's a traffic jam out there, it's usually not cars. It's at night and there's lots of hay equipment that's moving from one area to another. We do that. It's like there will be five bales. We have five balers going this direction with lights on and three or four balers coming the other direction and you're at 2 in the morning and there's like all lit up on the roads, just like yeah neighbor farmers.

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

R: No. We lease a lot as it is. We'd like to buy more. Ground is very sought after, very expensive, even up in the remote location. We should have done a better job. When we bought out there, it wasn't bad, and we should have kept buying as fast as we could go if we could've scraped something together. It is so competitive to even rent it that anybody who has land should just hang onto it and see where this market goes. You can rent ground so easily to somebody else. You don't have to worry. There's ten guys standing in line wanting to rent your farm ground. The land that we rent out in that location, for example, owned by insurance

companies some of it, big land management companies and stuff like that, because especially. Well, we went through this in the 70s and 80s a lot of those insurance companies and other investment firms, they always wanted a part of their portfolio in land, real estate, you know, and then went through some time in the 80s, they sold off, and that's when we bought up there. We actually bought from Prudential Insurance Company, the farm, when I was first starting with my brother, and we wanted to have more land and get a bigger farm somewhere. Now we've come full cycle again to where all the investment people are wanting to be back in the business. So we were trying to buy a farm four years ago up by us and we knew we couldn't compete with the big money that wanted it to. So then we agreed to drop out of the bidding process if they'd let us rent their farm once they bought it. Cause they were not gonna farm it. They were just buying it and then they'll write contracts with people like us. So actually our landlords are in New York City. That's where they're at. And we have to pass everything by them and get their signature and approval for things and what we want to do. It goes to a board of big wigs in some office building in New York, you know. So, no, we are not going to sell or lease anything we own now. We'll try to gather more.

I: Do you have any idea what you will do with your farm when you stop farming it yourself?

R: Well, my farm, if I choose to stop farming I have two nephews that are already part of the farm. They would gladly buy my portion. I will not. I have changed my mind. Ten years ago would have been different. I will not sell the farm until the day I die. My kids. I can have it set up to where my nephews can buy it then. I've watched with my parents. My dad died this year at 90 years of age and my mom is like 86. They still own farm ground, which we rent. Land is a stable place to make sure you never run out of money. Because unlike the stock market or something that could go wrong, really, land retains its value very well. I mean it might go down ten percent; but you are never going to lose it. And so even if I decided to retire right now and start playing and goofing off, if I last ten years or forty years I'm gonna own the ground and they're gonna pay me rent every year. The day I die, okay, somebody can buy it. But that way, I would never run out of funds. So no. That's my plans.

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

R: Well, I'm not one of those. For example, these farms that my grandpa sold, that my dad sold to the real estate people that'll turn it into houses someday. I'm not one of those that you have a farm somewhere by some creek and you're never gonna let it out of the family and you know the development is never gonna happen. I'm not like that. I'm not emotionally tied to the piece of ground. It's not important that the land we have stays in farming. If there's another great use for it, whether it be houses or whether it be those malt plants, I'm not that emotionally tied. So it's not important that it stay in agriculture. Except up in our more remote location, I mean, it's not going anywhere else. I mean, it's not gonna be useful for anything else. I'm okay. I'm never one of these that's been upset if somebody sells their property for development. I mean I'm not like. that. I figure they have the rights. In the case of my dad, it, you know, they paid big money for that. And so now at least I don't have my sisters and brothers, I have eight of us in our family, they're all getting their inheritance in cash so that we don't even have to divide the remaining farm ground up because my dad made a really good sell for development someday. So I'm not,

I'm not opposed to that. I don't think it's important to me that the land stay in agriculture if there are wise uses of it for an expanding population I don't have a problem with that.

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

R: Certainly.

I: What type of conservation practices?

R: We planted a mile and a half of trees along our places up in our remote location, three layers of trees and bushes. Got some grants to help with those things. Originally, the conservation. This is funny. We took advantage of some government programs to change from flood irrigation to sprinkler irrigation, cause it's more efficient use of water. But now they realize that, well, yeah, you use less water, so then people spread it over more ground so then it gets used and up in the clouds. When you used to flood irrigate, it went into the ground, refilled the aquifer, so the aquifer levels were higher. So now the government probably regrets helping farmers use their water more efficiently in that we are not, we weren't replenishing the ground water by stopping some of the practices where you might. Oh, they're wasteful. They're leaving the water on that pasture for three days. Well, in this area, some people had to keep dropping their wells. When all the flood irrigators quit doing it, the water table started to drop. That's a problem in Idaho right now. If you read in the paper at all, you know there's a big fight over the aquifer and how much we're depleting it because we've all gone to more efficient use of water and gotten more land under cultivation. We're pumping it out but nothing's going back. Of course, some of it has to do with drought, changing climate, those kinds of things. But so sprinkler systems and all those are conservation measures according to the government. Whether those were wise ones or not I don't know. Some of the things we do is we don't plow anymore. That helps with soil erosion so that you don't have any clean fields. Now it doesn't look as pretty cause there's always some trash, some straw, you know, some root systems that aren't totally chewed up. Actually, the government also. There was a time when, because of government programs, you had to come up with your field plan. It had to be approved. Otherwise, the government wouldn't subsidize whatever they were doing that year on crops or whatever to help disaster relief or whatever. You had to be approved for that stuff. Certainly, we take conservation measures that way. Something else we've done recently, which is a real challenge. When you come out of potatoes, it's hard to. There isn't much residue left. It's just all dirt, you know. So you try not to work the ground. You rip through, leave big hills, big old clods. You try not to smooth it out and make it nice until the spring. Because then when the wind is blowing and stuff during the fall or early spring it does not move as much. Something else that we just started last year, and I think this works really well. When you cut a grain crop. I don't know. I assume. I can't remember whether you two have ag background or not. But when you cut a grain crop, okay, you're getting the kernels off and then you have the straw. If you have the right grain combine and then you bale off some of the excess big straw and then you leave the straw standing about this tall, the stubble they call it, right. Instead of going in there and ripping that up and then planting hay if you're gonna have alfalfa in there for the next few years, we leave it all standing. Looks a little trashy but we plant right in it. We try not to disturb it. We leave those little root systems still holding onto the dirt. It's not that this crop is gonna grow again. We're just not stirring it up. It is a little harder because you gotta fight through chaff and other straw maybe

lying on the ground and your drill isn't as perfect and it doesn't look as nice. But that's important for wind erosion especially. And up in that area, even though it says mud lake, along the edge of the bowl up there is some real sandy ground. Hamer is very sandy ground. It blows like crazy. So those are some of the issues we have to do. We don't have any streams on any of our property or any wet lands. So I don't have any good stories to tell you about conservation issues in that vein.

I: So, the trees and the shrubs, is that for wind erosion?

R: It is, absolutely. You know, if you go to Canada, you'll notice up there in the prairies across southern Alberta just really pretty farm yards and long rows of trees. You know, I think we as farmers got away from that for a while because it's you know it's time consuming. It's lots of work and big equipment and you're not just on your one little farm the whole time. You're farming lots of ground. And so it just doesn't seem that important. But there are areas that need some. In fact, if you'll notice on your way up the freeway in Osgood out there, the government came in and helped plant all those trees for about two miles along the edge of the freeway because that really blows bad through there. And it even closes the freeway so it was worth their effort to throw up some trees. Those systems, the ones we have, have drip irrigation underneath them. When we are running our pumps to water our crops, we just turn valves and water them.

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

R: Do you want brand names? Do you want the chemical ingredients, or do you want what we use them for?

I: How about brand names and what you use them for. You don't have to give me the scientific name.

R: Okay. I'll start with the grain crop. Typically, on a grain crop, in the spring, we plant spring wheat and barley. We don't plant in the fall. Some people plant a fall grain, winter wheat they call it. With us planting in the spring, you have to control broad leaf and grasses in your grain. Broad leafs, you're gonna spray some kind of 2-4D. There are various names, MCP, MCP ester, bromate. But that's for your broad leafs. You will spray that when the grain is not very big, about this big, once the little weeds start coming. You will also, most of us in this area, have wild oats. You don't want those in your wheat and barley. So we spray with a selective grass herbicide. Right now, I've been using Axiel. I also am using Axiel Star; because one of the broad leafs, kosha, has become really resistant to 2-4D and other products like that. So Axial Star includes Star Rain and it does a much better job on kosha weed. Most farmers will hit it with at least those two. Now I tank mix this year with Affinity. It helps strengthen the 2-4D a little better broad leaf spectrum. So I am using those three chemicals and I am doing that fairly early with the grain. That's the herbicide program, period. I get it right, my fields are clean. I get it wrong, they're gonna have escaped weeds all year; cause there's not much else you can do. Once the grain starts heading, you cannot spray it with herbicides. It will ruin your heads and your kernels and that. I was just at this field day up here. We're having a real fight with some blight fungus type diseases. Our climate seems to be more humid. Last year it was horrible. This year it's not good. So even the grains, we are spraying with fungicides. I use Presario at the

same time I sprayed those grain with herbicides. Fungicides, some people just consider it, I don't know, an insecticide class, whatever. I call it. To me, there's herbicides, which kill weeds and things like that. But then there is specific things in an insecticide class. You're either after insects or after fungus. You're after nematodes. So if I refer to something and you don't know where it fits, fine. Fungicides, though. There are funguses that grow on your crop and cause problems, especially fusarium head blight and stripe rust and other things. Those are diseases that really affect your kernel production. So I sprayed with that fungicide and then I came back in later because there is a lot of disease pressured and sprayed with another fungicide. At the moment, the name escapes me. But I have all this on my AgriData. I can always print you out a list of everything that has been done in those fields. I think what most people probably don't understand now. Farmers used to fly by the seat of their pants basically. You just. Farmers keep at least most of us now are keeping copious records. We have to track everything we do. We write down wind speeds, temperatures, everything in some of the crops like potatoes, in order to do business with Walmart, which is who my potatoes go to, they require we pass what is called good agriculture practices audit. My brother today was here in Shelley with Department of Agriculture inspector to look at all our records, to go to all of our pump sites, to look at all of our fields, to look at our books, and make sure we have all the appropriate records. It's gonna get. I don't know if you call it worse. But it's going to get more and more detailed to where the good farmers are spending a big share of their time on recordkeeping and bookkeeping so you can look. I have to have the EPA registration numbers of every chemical I put on. That's why I can print it off my computer and hand you a list if you want one. That says this is what I put on. These are the dates I put it on. This is the amount I put on. So anybody like a Walmart can check and say hey this guy did everything by the book according to what EPA says is safe. Now is it truly safe? I don't know. I mean if you're one of these people that wants to go organic then my farm isn't safe. On the other hand, organic, by some people's method, isn't that save cause it's a bunch of poop they throw on your ground from the cows and the chickens. I don't know. So anyway in grain that's my procedure to this point. Usually, grain does not require insecticides. Some years we do spray insecticides if we have an infestation of aphid or things that you're gonna suck the kernels dry or whatever. There's cereal leaf beetle there's a problem so some people will have to spray just depending on the year and how the infestations come. There is plenty of aphid this year. I was just at these plots. The ladybugs are just incredible, cause they're out there eating aphid. So the more lady bugs you see you know probably the heavier the infestation of other little flying things that the lady bugs or aphids or whatever that they are eating. So that's the grain program. The hay program is, we will use a fungicide and we will end up flying with an insecticide or two based on how bad the aphids get. Mustang Max was an insecticide we've used this year. I'm really quite sensitive to some chemicals. I think I didn't used to take very many precautions and didn't wear gloves and goggles and face mask with some chemicals. Ah, it's plugged up, I'll just get in and let that chemical run down concentrated down my arms. I'm very sensitive to some chemicals that they think are not very hard on humans. But to me they are now. I don't have any tolerance. Anyway. Pyrethriods are supposed to be very easy on people. I get within 50 yards of pyrethroid being sprayed and my eyes start to get all red and watery and my nose is itchy and my skin starts tingling. So anyway. Hay, there isn't much in the way. We don't have Roundup Ready hay. Well, I have two fields of it, but. For the most part, we don't spray anything except Sencor is a product we put on for weed control in the spring. It helps keep the grasses from growing up in the alfalfa for the most part. It gets watered in. Then now so hay there isn't much. I shouldn't say that. It just depends on the year. You might

fly fungicides or insecticides on. In spuds, it's a regular program; but it has been getting it seems like more I don't know. We put more and more stuff on em. You may be aware that most of us now are applying fertilizers too through the sprinkler systems. So that's the case in grain. I mean, I put it on preplant spread it but also I put a little nitrogen on, just like gardeners who go spray Miracle Grow on their tomatoes to get em to grow more. I mean we are doing the same thing on almost all our crops. Spuds, that's really true. In the spring. Well, I need to start in the fall. I live in an area here that at one time the whole area was circled when they found the potato cyst nematode here in the area. They had to check all our fields. After so many years of checking our fields, those of us that didn't have it they allowed us not to stay in the program. But I'm still nervous of the area so I, in the fall, use a nematocide. I have a custom applicator come in. He fumigates the ground. That's not a very great practice in my opinion. But it kills all bugs. It kills everything in the soil to try to make sure I don't end up with this nematode that has stopped some of these people from even being able to grow spuds. They're not allowed. The USDA has taken control of their farms and fields, and it's the potato cyst nematode. So I use nematocides here. So last fall, I had Corey Frans put on Telome to the tune of 20 gallons an acre. It is a very strong stuff. They shank it in 18 inches deep and they pack the ground. Seal it over. And it's a gas that's sitting down there in the pores. It's killing. The bad thing is it's killing good bugs as well as bad bugs. Your soils are made up of gazillion microbes, right. You would like to keep feeding the good ones and then overdo the bad ones. Some people naturally try radishes. There are certain crops that are natural nematocides that you can let grow and then you chew them into the ground and it kind of kills the bad bugs but hopefully feeds the good ones. So I'm not saying it's ideal. But in the Shelley area I use it. Up at Terreton, we have not been using it. Then in the spring after we plant our spuds. Well, quite frankly, when we plant our spuds we spray Infero right with the potatoes when they're being planted we spray a fungicide called Quadrus which is a little bit. It's systemic. So then. It's really not that systemic. I should say. But it. What it does is it protects the seed piece and that area from funguses attacking the root systems and stuff as much. It's a fungicides that can go in the furrow. It can also go above the ground later, and we do spray it on later too. We also, for insecticide purposes, we used to spray a lot, like with pyrethroids that I'm telling you for the Colorado potato beetle or for some aphid. Now what we do, and I think we're not alone, we hate to spray. Because if you spray later on you're killing the lady bugs. Nobody wants to do that. The bugs that are trying to help you. So what we do is on the seed pieces, potatoes are just little tiny seed pieces, use the potato, that's how you grow a potato. I don't know if you both are familiar, but ? goes in the ground. On that, when they are preparing those little spuds, they coat them with a dust to help dry up the cut seed so that organisms can't attack and open sores so to speak. But they also will put on, in our case, you know, it's Admire Pro or something similar, which is an insecticide, which when the plant grows it actually is systemic. So then it's within the plant. So when an insect is chewing on you're plant's gonna die. So we don't have Colorado potato beetle problems anymore because of that. It has pretty well solved the insect. So unless we get some late season flush of something, I'm just a one-insecticide kind of guy on my potatoes and then you're not flying that stuff or applying that stuff that I'm all sensitive to anymore because it's in the plant. It's growing and picking up that chemical that was put on it to begin with just enough to keep the bugs pretty well under check. It's not perfect. So I use that. It's Admire Pro. I'm just trying to think of the name for the generic, but I'm not really good at that. I have it written down for when you want to see it. Then, after you do that, then when we heal the spuds up and make a nice big hill. Before the spuds come through the ground, we put on our herbicides. We use a herbicide. It's called

metrobucin is the chemical name; but there's Triclor and Sencor, all of these products that are just brand names of metrobucin. It controls grasses so you don't have old grain growing up in your potatoes or whatever those kind of things you don't want there, the grassy weeds or crops from previous years that are volunteers that are gonna try to grow. At the same time, I use down here. They do the program a little different at Mud Lake. I've used a couple of products, Prowl, H20, and Outlook, which help control all of the other weeds and the broad leafs that try to grow when spuds grow too. I mean the mustards. You know, broad leaf weeds. So I put those all on right before the spuds comes through the ground. If I do a good job, I'm done. Some years you have weedy fields because, I don't know, the weeds tried to come later or you didn't get it watered in enough, but basically we apply that to the surface of the ground and then we water it in about an inch. So then it kind of spreads it down through there and as these seeds germinate and they try to come through the chemical layer they die. So if you do a good job then you're done. In the old days, you had to go hoe them, right. Before my time, but if you didn't have chemicals controlling them you gotta go pick the weeds. So I'm done on herbicides. What I'm not done on is the fungicides. Late blight has moved into Fort Hall; which is way early for late blight to show up. So then our fungicide program is usually down here. I sprayed Luna, Tranquility for white mold suppression. White mold is a disease that gets on your vines. When you have big thick vines and it's moist because you're watering every couple days it's a real environment under there for mold and mildewy stuff, rot stuff, just like in the house basement or someplace. White mold becomes a problem. White mold gets on your stems and it rots them off and then your plants die. So I put Luna, Tranquility on for that. That was two weeks ago. Tomorrow, I will apply Bravo or a generic Bravo called Echo. A lot of people have heard of Bravo cause it was. But it's a protectant. It goes on the leaves to protect against blight spores coming off the clouds and being blown by the wind from landing and starting to sporulate and then get bigger and bigger and then they destroy the leaves. So they rot the leaves. So. I will probably, because the area seems to be. We may have an infestation of late blight this year. That's what it appears because Fort Hall already has one that's way early. I'll probably do that every two weeks. I'll put on some kind of fungicide. I'll probably change chemistries back and forth. Maybe next time I'll go dythane. You don't want to like spray Bravo, Bravo, Bravo, Bravo. Otherwise, these blight spores are, just like any pest, they can kind of get used to it and if a few escape pretty soon they get a resistance built up just like people who are sick to whatever, I don't know, whatever disease. Yet after a while their body builds up an immunity a little so they can handle more and more of that and pretty soon they are not sick anymore when that comes around. So you try to change chemistries so that you don't end up with either super weeds if it's herbicides or super pests if that's what we are talking about. So that's our basic program. Some people spray to kill the vines. We just chop them off. We run rotatory choppers and just chop em, shred em, and then we go out there and harvest. I think that's about it.

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

R: I have an agronomist hired named John Doe, John Doe Agronomy. It is what he went to school for. I also have two field men. Simplot has a really sharp field man out of Osgood, which is our field man. The only problem with field men is they will always tell you this. Well, yeah. But the field man, he might want to sell you more of certain products cause he gets a commission. We have an independent agronomist that we pay big bucks. He comes twice a week. I meet with him twice a week and look at all the spud fields. He helps us make water

decisions as well as these chemical decisions that I'm talking about. That's his job. He knows what's going on up and down the valley. He makes recommendations. I mean I have the final say. I have another field man, and he's just at the end of the road here and I also consult with him. Those are the people typically that we will use to help us with these decisions. Now, when we have problems like that they don't identify or whatever we have University of Idaho people that are specialized in all these areas. Right now we were just up there with Jane Doe. That wasn't her name before. I knew her when she was Jane Doe. Anyway, she is a specialist in all grain diseases and everything. So I have some fusarium head blight and I have something. I wasn't sure what it was and so she is the kind of person you would also call to get you some help on that.

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 am not concerned and never have been about this technology. I think it's a wonderful technology. I did get burned bad. Monsanto was the first person, the first company that started running genetically modified anything. I had Colorado potato beetles in the Goshen area down here by Firth that were becoming super beetles. You couldn't kill em no matter serious a. I put furadan on them and that's just lethal. You want to stay out of it if you're a person. I still couldn't kill em. They came out with this genetically modified potato. That was the first thing. Now there is one that we are back into again. This has been 15 years ago. I was one of the first that said you bet. I'll grow it. Because inside this potato is a gene that was inserted there that kills these Colorado potato beetles. I didn't have to spray anymore. I didn't have to kill any ladybugs. I didn't have to do anything. It controlled it. But the word got out to the public that they were frankenfoods and that you know. I mean you don't know anything about em. They were not accepted. We almost couldn't get rid of em. I mean it was such. So I had to quit growing em. I did a paper. I went back to school less than 15 years ago, about 13 years ago, because I was only like a junior anyway. I thought maybe I wanted to finish my education. I tried to go during the winter at the university place up here and finish my degree. Anyway, I was required to do a paper and I did it on genetically modified organisms, tried to impress my English class, you know. I have always been for the technology. To me, I think if you can basically do it by breeding, okay, but it might take you 20 years to keep breeding and try to get what you want, which is cross a potato from Peru that is not affected by Colorado potato beetle with a potato that you like from this area and get it to be consistent and stuff. If you can get it by breeding, especially shouldn't complain if someone now has the ability of inserting, taking it out of that, putting it in this. I do understand the concerns when it has nothing to do like you're taking a gene out of some animal and putting it in some plant. I mean. You're thinking God didn't intend this. I guess I'm not that worried about science ruining this thing. I believe in order to feed the population of the world it's a great idea. The only reason we can raise the yields we can raise and do these things is because of science pushing us further along. People will be healthier in my opinion because of that. Now is there a chance to screw up and do something wrong and put something out that ends up not being safe? I guess that potential is there. But that's what the EPA is supposed to be for and that's what the Department of Ag is supposed to monitor, and they're supposed to do enough tests on these things before they come out. So I

don't feel that I've been adversely affected, at least not in recent years by it. I'm not worried about Roundup Ready products at all.

I: So the potato and your Roundup Ready alfalfa, are those the only crops you've grown?

R: Yes.

I: Are you going to consider this other Simplot potato?

R: Inate potato? No. Only from the standpoint of I can't be one of their growers. I'm not in the right place. If I was living down in Pocatello and was a potato grower and Simplot offered me the contract and said we want you to grow the Inate potato I don't have a problem with that. I'm a purist from the standpoint. The fresh potatoes, in my opinion, in Idaho, in the Russet variety should all be Russet Burbanks cause they taste better. But as far as the Inate potato being. The only thing that concerned me about this Inate potato when they came out with it is if all of a sudden what happened to me 13, 14 years ago, people started to say in Idaho they're growing this spud that is, you know, some weird scientific call them frankenfoods, I mean you know because of frankenstein. That could get out there and then there would be some people go hey I'm not buying potatoes from Idaho. Even if they say this one's okay, we know they're growing some weird genetically-modified thing that my kids will end up looking like frankenstein by the time they get done. I am worried about that a little, the PR behind that whole thing. So far, I think they're doing okay with that. Realizing, too, that if you're gonna grow, if you're gonna eat a baked spud, it's not gonna be an Inate potato. Those are growing for a specific purpose to make their fries. That doesn't concern. I shouldn't say it doesn't concern. It concerns me the PR behind it; but if it's all handled right I certainly don't have an ethical challenge for them having done that to where they can hit it with a hammer and it doesn't bruise.

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: Yes, I would say so. Spring comes earlier as a general rule. Ground heats up quicker. Over the last fifty years that I can remember we plant our crops a little quicker, a little sooner in the year. I was discussing this with another farmer the other day. I think there may be a little more time even in the fall. But in the fall, we don't dare do things any later than I did when I was a kid for fear that this year we'll run out of time. I believe the winters are much milder. Do I side with Al Gore that it's all man-made global warming and that if we'd all just, you know, cut back on our electric bill and drive less miles we'd be able to solve it. I don't buy into that man has caused all climate change. I believe climate is constantly changing. Should we do the best job as stewardship of the ground? Absolutely. I think what people don't give farmers enough credit for is farmers want the ground to be here and do a good job. They want the water to be good for a long time. We are not miners. We're not like gonna strip mine and then move to the next hill and then the next hill and keep moving to other states. I am stuck here. I'd like to move somewhere else and experience a different life in a way; but I'm tied to the ground in the area so I'm not going anywhere. I think that there is climate change in our area. I think we have a little drier seasons. We certainly don't build up the snow. It's not just cause I was a little kid and snowdrifts looked bigger. We had more consistent big snow years years ago. Even if we receive

as much moisture now, typically we have warmer spells to where in the valley here we have less snow. We just do. I have noticed a change since even moving here thirty years ago. We used to. Some years we'd ride our snowmobiles here to the hills. We didn't even have to put a trailer on. We'd just go ride across the fences and go. When our friends would come from over here. They were farmers. He and his wife would stop here. Me and my wife would jump on our sleds. We'd go and ride up into Bone and down into Wolverine. There is no chance of doing that. We haven't had that kind of snow year. Yes. I have noticed a difference; but I'm not ready to say that it's man-made global warming. It could be global warming; but anyway that's where I stand on that.

I: Have you noticed any persistent changes in average winter temperatures and average yearly snowfall?

R: It has not lessened. I think we are getting just about the same. It seems to have changed in that we do not build it up as well in snow and consistently. We end up getting weird months of water, of rain. Rain for a farmer, used to be I loved rain because it was so hard to control our water in the fields and we all used shovels and siphon tubes and ditches. It was like oh good a day off because it's raining and watering our crop. Now that we use pivots, a lot of us, and automated systems, we don't want rain. We want to control our own water on our own crop. You see with potatoes we are trying to put on exact amounts. We are fertilizing through these systems. Sometimes we are putting on chemicals, which is what I'll do tomorrow. I'll put that Bravo on through my circle. I'll just put it right on the plant, you know. We want to control our own water during the summer. You just have less disease problems. You just get the right amount of everything on there. I would think we are having. I don't know why; but of course El Nino and La Nina and these different weathers. These are cycles anyway so it's pretty hard for somebody to say oh, yeah, because of last year's wet. It was the wettest August I guarantee ever. It's just bizarre. If that happens this year I'll think holy cow have we changed. But they just say oh once every 50-100 years you're gonna have a year like that. So I'm not yet ready to say that our moisture patterns have totally changed, other than I think it is slightly warmer in the winter so the snow seems to melt more. In the summer, you know, this summer it turned off way warm early in March and February and you were out golfing in February. But then we went through a wet period, which was only about two weeks ahead of the normal wet period. In this area, the wettest weeks of the year are the last week of May and the first week of June. This year, we had our big wet stuff the middle of May; but it wasn't that far off of. I mean, there have been other years that. Other than last year's vicious August. I know that no one had ever experienced the amount of grain damage from sprouting and all those things. I mean, none of us can remember anything quite as bad as last year and all the hay that was ruined. I don't know if I'm ready to say the precipitation is much different than it used to be other than the warmth.

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

R: Absolutely, absolutely. Right at the moment, on these canal systems, these are 1896, 1898 water rights. These are coming out of the Snake River. These water rights are very secure. However, because Palisades helps store the water and meter it out for the summer it's possible that these canal systems on very drought years might be down to a little bit of a limited amount of water. I mean they are allowed a certain amount of stream flow; but they might not be able to

supplement as much as all the farmers want if the Palisades reservoir is running low that year. Generally doesn't happen. But it has been scary a few times. I say generally. I remember a few years where they'd say hey you have four days you can water and then you gotta be off for three days and we're gonna rotate and you know. so not everybody can have as much as they want any time they want type attitude. But we have never had real problems. Now other canal systems and other water rights are a little different even if they are coming out of the rivers and the reservoir system. I worry about that water a little but not in the long term. The water I worry about is one that is in the news right now. That is that the ground water pumpers, which is what we are out in Mud Lake and Monteview pumping out of the Snake River aquifer. The aquifer is declining. We've had a lot of drought years in a row, never had really good bunch of wet years to gather to help replenish. All these people in our area have quit flood irrigating, adding more water to the system. We're very careful with our water and store it properly. We don't let it flood out over the ground in the spring because of our reservoir systems. Our canal companies are more conscious about keeping the water in the hills. They used to let water run down these canals way late in the year even when you didn't have crops people had cows out and they'd drink out of the canals. That was all percolating. Now that we have, we had a water call, so that's basically a law suit by the people that say hey I'm not getting as much water bubbling out of my springs in Twin Falls. Then they have to go back and say okay everybody who has later water rights we gotta shut em off until this guy gets his spring bubbling good again. Well, instead of that, they have given a chance for all the groundwater pumpers out here, Blackfoot on up through to agree to over the next five years cut our water usage 13%, hoping that that will stabilize the aquifer and that it won't keep lowering. It's gonna depend on the weather. I mean if we have some good wet years that'll probably work. If it doesn't, I don't know what we're gonna do. So I am very concerned about water. It's gonna cause either us to set some of our ground aside or to try to figure out what crops we can grow with a little less water or not have as good a yield and say hey I'm just gonna let the grain ripen up without the kernels being as full and plump or I'm not gonna water two times on second crop hay, I'll just kinda get a crappy crop off it and then I'll water twice on third crop hay so that's one less irrigation a year in order to type of thing. So you just won't get as good of a yield and as good of a quality. So, yeah, I'm very concerned about water. I'd love to see 20 feet of snow. I'm not kidding. Right down here in the flats, up in the hills. I'd love to see some spring floods in order to help this whole water situation. The more water that comes in the hills and percolates into the ground in floods and stuff, the more that aquifer will come back up and then our ground is we can be more productive with it than what it appears next year. It's either that. I think we'll probably even set some pieces aside and say we're not gonna grow anything on that piece. I think some people will turn off the end guns, you know the big one at the end of the pivot. They'll just go, I'm just not gonna run it. Because it is less efficient because the wind's blowing and sometimes it's not getting to the crop. It's never your thickest best crop out there where that end gun is trying to shoot and water. Underneath the pivot, it's all just a perfect amount, you know, and you know exactly what you're getting. So, yes, I'm worried about it.

I: Where and how do you receive your water?

R: Surface here and ground water out there. Now we have. We do have a little bit of flood irrigated out there. What it primarily is they pump it out of the ground just up by Mud Lake, which is shallower wells. Then they stick it in canals and let it run down and then we pump it

back out of the canal. We also have most of our stuff up there has its own well next to the irrigation system to where we drill 200 feet into the ground and that's where we're pumping it. So, but down here we do have the surface irrigation come in from the river and that's what the canal behind the house is and you know these canals.

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

R: Probably all of it more or less. I think that the water rights, I know up in our remote location we're basically there. We're a little thinner on water rights. These water rights, I believe, are pretty. Well, I know they are pretty good for date here. I mean cause we're pumping anywhere between 10 and 20 inches depending on the crop per crop. Somebody who waters their lawn, they probably water at least two acres a week with their sprinkler systems to have a nice green gorgeous lawn. So that is ten weeks of watering. And with grain that's what it takes. Potatoes, it takes more. Hay it takes more. So somewhere in the neighborhood of 20 inches on those two crops. Grain maybe 14, just depends on how many rains we get and when we can shut off and stuff.

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

R: You always rely on bees. The problem is we don't necessarily farm bees or think about that. I've never thought much about bees. If we grew corn, we'd really be desperate for bees to pollinate. But without corn and I don't, I just don't think about bees much and I don't know much about them. We sometimes have bees on our property, honey bees, because people ask you if they can place their hives and so Cox Honey and Browning Honey have both had hives and stuff. So they give us a box of honey; cause they get to put their bees in the corner of one our fields. I don't use bees or think in terms of them as. It's just out of my control kind of situation. I don't know much about bees really.

I: If so, have you noticed any changes in bee populations around here recently?

R: No. I'm not that sensitive to it. I can tell you that on the wrong years and times they'll follow a green tractor really well and so anytime you open your door step out of your John Deere tractor there are bees like. But I think they must be getting desperate for flowers. Must be the time of year when they can't find any flowers and they see that green/yellow thing. No I haven't noticed that. I know I've read plenty of material. I understand the bee decimation that's been going on nationwide. Certainly it is a cause for concern. I have no problem with whatever funding they want to do to try to help. Bees are pretty essential to the whole ecosystem. That's why it's nice. People understood genetically modified stuff. I mean if they realize farmers were maybe spraying but if they could come up with genetically modified that would take care of the pests then they wouldn't be killing the bee population. I also understand, though, if it's too closely related to bees, bees might actually die as well from the genetically modified thing that we are doing. You know, when you do have bees by your farm if it's like the honey bees or whatever then you'll usually give those guys a heads up on I am going to be spraying the field next to you so that if it is going to be for example tomorrow morning tonight what they would do is once the bees are in there at night they'd go close down their hives so the bees could not get out tomorrow

morning while we are spraying and then they would turn them loose later in the day so that you would not kill their bees while you were flying from the air with some insecticide. I just don't use much insecticide anymore. At least not flown-on insecticide.

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

R: You know, I'm not. I'm not concerned. I would consider myself an environmentalist if an environmentalist is somebody who wants it to be as good for my kids as it was to me and all that. I am not that concerned that man is ruining it with technology. Certainly, we have abused it and certainly we need to try to find better ways to do things. But I am not one of these that think we ought to go back to taking cold showers so that we can protect the environment or whatever. I mean I'm just not that concerned about it.

I: What do you think is causing the changes to the climate?

R: Natural earth cycles. I do not think man caused the Ice Age. I am not convinced that we are causing the global warming. Certainly, we ought to try to do things as clean as we can. You just should. And it is sustainable. But I am not willing to give up progress in order to do that. I am not willing to say hey the best way for us is all to build log cabins again and quit lighting our homes and quit driving vehicles and all get back on horses. I am not willing to go that route. There are some people who are; but I am not one of them.

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

R: Well, other than the sun, photosynthesis. You know, we are going to still need to be able to get some kind of fertilizer. You cannot. Some of it has to be synthetic. You can't go all natural and get. People who have gone organic you're gonna have 200 sacks per acre of spuds instead of 400. You're world population is gonna starve if we all resort back to an organic type of method. There just is not enough chicken poop in the world to grow kind of what we need to. Now, I use Bioflora products, Biowest, and it's all chicken poop; but I mean so. You know, I am worried about continued availability of fertilizers; which can allow us to push our yields. I am worried about making sure that we do have chemicals if we end up with pests that we cannot control any other way. That we have not cut ourselves so tight with regulations that nobody continues to try to make something to deal with funguses and insects and whatever else might be out there trying to stop us from growing a good crop. Am I worried about.

I: Are you are worried about the health or availability of soil health maybe or any other?

R: Certainly. That brings a good point. There is so much about our soil we do not know yet. If we could figure out. This is a learning process for us. At one time, I thought that humus, and I don't know how familiar with, but anyway the humic matter in the soil. What happens is when you don't have a whole bunch of humus in the soil, the soil becomes very tight and hard and packed. It does not aerate. We try products all the time. I hope we are happening on a couple of these that help us build that product. Now, there are a couple ways to do it. One is to add bugs

to your soil that help decompose straw and everything out there and make it into humus. The other one is to just feed the bugs that are there. So we actually are using a product or two on some fields, trying it out, to see if we can't increase the population of night crawlers, worms, all kinds of bugs. Because if your soil, when you first go out with a piece of soil it is high in humic matter. It is just light and it's nice, same with my garden. If you don't dump manure and other things on it, after a while just using regular fertilizer pretty soon there is not enough humus and the ground just packs tight. When it does not aerate, it does not soak in water and it does not make it easy for root zones to develop. It just does not grow good crops. We have lost humic matter over time. We do not understand. I thought at one time. For example, a grain crop. If you chop up all the grain into little tiny bits then it breaks down into soil and causes humic matter; which is true. But it also requires nitrogen in order to do that. Which then you're adding more nitrogen. There is not as much humic matter in the straw as there is in the roots. Root systems actually provide more. So now the idea is okay how can I create more root mass and keep the root mass. Cause when you tip it up you are just going to lose a lot to the air and things. Or you chop it up. Some of it just dissolves and takes off on you. So I am concerned about that. There is a lot more that as farmers we need to learn. I can't figure it out. I know that Ph.D.'s scratch their head all the time of why it is doing good and why is it not doing good; but there is much more that we can learn in that direction. So, yes, I am definitely worried about that and thinking we can make some great strides. If we ever understood the soil. You guys know with the natural body. I mean doctors. You go in and try to solve something. We don't understand our bodies yet. We flat out don't. Doctors are guessing. I mean they are doing their best guess. Sometimes it works for one person, does not work for somebody else. They don't understand why. They don't know what's going on. I believe soil is really complicated too. Trying to figure out how to make it. Course we do it not just because we want to be a good steward of the environment. We are hoping it will kick out a better yield so you make more money because your soil is healthier. That's what you want. And that's why I even hate the thought of fumigating. If I have other options and you just don't want to go there because you're not helping the soil to create organic matter and more live bugs. I mean the more stuff you got going on inside that soil. I don't know if you've ever looked at a teaspoon of soil in a microscope and some of the weirdest bugs that would give you nightmares. these little microscopic guys are just. It's just. And there's thousands of them in a teaspoon of soil, all these little microbes doing their job. So soil is fascinating. Sorry. Got off track there.

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

R: I don't know, not from the. I worry about us not having enough power someday if people get to. I mean they are trying to price us out of it. It gets more expensive all the time. Of natural resources, no. I don't think we are going to run out of fertilizers either. I think if we are allowed to go get it where it's at and I think we become more efficient all the time. We find better ways of doing things. I'm not worried. I'm one of these that believe that God made the earth and he made plenty here for us and we are not going to overpopulate the planet and we are going to have enough resources. We just learn how to manage them better and provide more and more. There was a time when the ground did not produce nearly as much as it does now, not because the ground was not as good. The ground was every bit as good. Since we understand a little more now and we can do more with the same amount of resources and we have better genetics and all those things. So, no, I'm not that worried about it.

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: Not in recent years. I've always been. I think we have always been okay how do we keep it from blowing and how do we keep our moisture. You are changing all the time hoping something different works. This year instead of marking our spud rows in the fall, which we typically do, we waited and did it in the spring, hoping that we would have less clods and different things. I mean I don't know. It's not like we have gone from full tillage to no till in the last few years or something like that. I mean it has been a long process of okay trying not to do as much tillage; but we have not bought a no-till drill and gone from A to Z in a big step or anything like that. When I was kid, of course, we mold board plowed all the time. That was tipping it over. We started giving that up. I will use one on a rare occasion if you got a lot of trash and you're trying to get it put under and stuff like that; but as far as I mean I'd hate to answer this and have people go see farmers never do anything different they just keep doing the same dumb thing. I'm just saying in the last few years there has not been any drastic changes other than I like this planting alfalfa straight into stubble. We didn't do that until last year. That looks really good to me. The ground is not disturbed at all. That root system I talk about that we don't want to disturb that is just barely under the surface that helps provide all that humic matter as it decomposes. Until the night crawlers get their and help put holes through your ground, the roots are the next best thing of doing that. I would say that's a change for us and we will continue to do that because I think it looks good. Other than that, no. You guys are gonna have a hard time with this tape cause I talk so much. These aren't just straight answers that you gotta figure out. Is that your job to transpose all this?

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

R: In this area?

I: Or farming in general?

R: Farming in general it is PR. That's why I agreed to talk to you guys. Everybody thinks that okay if it is a guy in overalls with his wife and a pitch fork and they are on old McDonalds farm and they have a few chickens and a few pigs and they are free range chickens and the pigs can go under the corral fence and the cows are grass fed and they have an 80-acre farm then they are all for that kind of farm. But a lot of people, when they see big farms, think that it is just large corporations taking advantage of natural resources and abusing it and just wearing it out and growing unsafe things and all that kind of stuff. I don't think they have any idea. First off, family farms had to get big, the economics of the time. In order to produce the food cheaper, you had to get bigger. Once tractors and equipment can get bigger and automated systems. You can farm more. As farmers, I think we have kept food cheap in this country comparatively. I mean you can complain all you want about oh my gosh I can't believe how much grapes are and a, a, a. But overall, we still get to use the majority of our money on other things besides food. I am afraid the perception out there is that big farming is bad. Only family farms need help and we will support them. Family farms now, the good ones, are big farms. Our family is just a

family farm, me and my brother and my two nephews but that's almost 7,000 acres. I don't think. I think that our PR work is a little difficult sometimes getting people to realize two things. The other thing is that farmers are not going to take advantage. They are not going to abuse the ground; because they gotta have it. We are not the ones trying to destroy the planet with global warming. Some of us may not understand how it all works, whatever, but we have a vested interest in making all this stuff work and sustainable. Sustainable is this interesting word that is so popular now. There are some bad things. But is it sustainable, these audits we go through. You know, you've got to have sustainable agricultural practices. The idea is okay to make sure we are doing things the best we can so that it will be here forever and ever. I am just afraid that a lot of the people that don't have any closeness to ag just don't have a sense of the reason they have such good lives is because we are able to produce food fairly cheap in this country. So I worry about misconceptions. We need to do some. We have to tell our story cause nobody else will.

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

R: Yes. I do. The reason is fifty years ago, especially a hundred years ago. A hundred years ago, even if you were a city person, part of your relatives were on a farm somewhere. You had a sense of what was happening. You didn't. You are so far from the ag field now. Enough generations, you don't know anybody that farms. I even had a cousin who was just a city kid but he just thought milk came from the stores. He didn't know. He came to our house and we were milking the cows and we put it in the fridge and we took the cream off and we poured the milk in bottles and asked him if he wanted some. This was years ago. He goes I don't think I like cow milk. I just like store milk. Because he just thought it was made in the store somewhere. Now, granted, we had whole milk, raw milk. Pasteurized milk from a store did taste different. But cow milk versus store milk, that gave us. Okay, I don't think he really gets where this comes. I think we are a little better educated, maybe, than that. But I just. The reason I think it is a problem is because it is many generations for some people and they have no tie at all to farming. To them, again, farming is idealic little ma and pa place. They see what they see on the news or they read in the paper about I am one of these people that's in trouble with a lawsuit because we tried to help farmers not grow too many spuds so that the price would not be horrifying. And then we are sued for trying to price fix. So the article in the paper is like okay the consumers were damaged. These farmers, you know, need to pay back 200 million dollars because they were. It's like it made the farmers look like some big greedy guys. I wasn't making any money on spuds. We were just trying to not grow too many so we didn't have to go dump them, we had the right amount, and all that. We thought we were working according to the coop laws and Sarbane Oxley which is a rule in the law that you are allowed to get together and discuss prices and stuff in a coop, just like the orange guys in California or Florida. But there are some things you are not allowed to do, and that is where the discrepancy comes in. I don't even remember what we were talking about. So ignore me.

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

R: Well, we get to do different stuff all the time. Just look, get to talk to you guys and stay inside. I think the diversification of our job is one thing. I don't know that I appreciate. I think it is easier now in a way. It is bad in a way. Like his job, he is mostly on books because that's

just how much time it takes. You get to move from one job to another. The other thing is being able to see a harvest. I mean there are some jobs when I don't think you get to feel. Okay I started with this little thing right here and I did everything right and now it has grown into this great thing over here. So, you know, you are planting a little potato and it's this big. Then later it yields this much. Or a kernel of grain you are planting. You know, one kernel of grain and it produces a hundred things if you add fertilizer and water and you do everything right. So there is satisfaction in that. That's great. I like the diversification of being able to go from. You get tired of sitting on a tractor some times a year. But once you're finally just sick of it. Good news, you are off irrigating or doing something else or you are even moving into bookkeeping or you go to seminars and you get your chemigater's license and you go to some school and you do this and you do that. Farming is really quite diverse. I went and watched. I am part owner in a potato shed in Yukon. That's where they wash them and put them in bags, right, and boxes. If I had to do that every day, which two bags in a box, two bags in a box. That guy puts a top on. Two bags in a box. I mean that's not enough diversification for me. I mean I can do that. I work spud harvest. You pick clods for three weeks hard and you are so sick of seeing potatoes go by. In the night, you see that. Then you are onto something else. So that's what's wonderful about farming in my opinion or at least the job of farming.

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

R: I get a lot of. I read a lot of magazines. Of course, they have those sections. I get newsletters from various organizations I am part of. The Idaho Barley Commission sends us reports out. The National Association of Wheat Growers sends us stuff out. I am part of United Coop in Potato, which I was telling you about. I am part of a potato shed. We have Potato News from Huff Acre. Trade magazines, read a lot of that. Government, you are on FSA lists; so they have to send you out any regulations and things you need to know. FSA, Farm Service Agency offices or Department of Agriculture stuff.

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

R: Yes, USDA, EPA. I don't know. Is FSA considered a regulatory agency? I would consider it one, which is Farm Service Agency.

I: DEQ, Department of Environmental Quality, have you ever had to deal with them?

R: No. We actually. The Idaho Department of Agriculture. They are the ones that come out and see. You have to pay them. But see how you have done on your GAP certifications and things like that; which is your plan on how to keep everything safe and proper with potatoes. They are the ones that come out rather than the DEQ or anybody like that. Used to run into OSHA regulations some; but I have not for years to where they have come out at all. Course, regulatory agencies, I don't know if it has to do with employing things. I mean Workmen's Comp policies and unemployment insurance; but those are basically regulated underneath the state to private insurance agents, who then send their people out here to check our books and our records. So as far as on the environmental side not that, not anything than what we've said. I don't have any wet

lands. I don't have any reason to have to get involved or haven't had to get involved with other agencies. I am not really familiar with them.

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

R: My experience has been good. However, because of this nematode here in the area and stuff there have been a lot of frustration lately. That maybe they didn't know what they were doing while they quarantined this area in the past and some of the chemicals they have used to try to eradicate in the past and the toxicity now. There are just a lot of things that have not worked out all that perfectly. I do know. Underneath USDA, what is the name of. Who does Tina really work for over here. I mean it's USDA but. There is Idaho Department of Ag. There is the United States Department of Ag. They've got a name under them. But anyway, they are the ones that. They are just controlling the pests, this potato cyst nematode quarantine pest. They have got an office over here across the highway. They are the ones that require what you do with ground that has been tested and found having this pest. You know, they can be really heavy handed. Because they can throw you in jail. My neighbor ended up with a pest just next door, Steve Franson. He just told em no, you won't tell me what to do. She says well you either do what I say or I'll have the sheriff out here in a moment and I'll have you arrested. She has taken control of his farm ground. That field, all these fields. She tells him what he can do with them, not him anymore. Most of the time if you play those people right and you don't get ornery with them. You'll realize they are just trying to do their job. It's better to be friends and try to get along even if you are frustrated at having the problems. At the moment, I don't have any problems with any of them. I'm not in trouble with anybody I don't think. The GAP audit stuff is still not government mandated at the moment. That is mandated by consumers or the people that are purchasing ours. They want to know. I mean Walmart. As a spud grower, you don't have to pass a GAP audit; but the businesses you are selling them to say hey where's your certification that says you are doing everything right. You are not polluting canals by dumping your chemicals in there without having proper backup check systems. That's what they come and look at. We have chemigator check valves. We have all these safety features that make sure we can't pollute by screwing up when we are adding fertilizers or chemicals, you know, and all that. They are the ones. You could say it's consumers. I don't know that the consumers start yelling about it. But these businesses that get ahead of it, they think that is a selling point that they get to tell everybody, Old McDonalds, or whoever. We have had all our stuff checked and all our growers are certified to use only good agricultural practices and sustainability and this is the booklet that we put out and they, you know, everybody will do this. If they do, they can be one of our growers. That is what is providing this. Now, the state has always regulated the chemicals and the fertilizer. We have to go get a license. Mine is 9556. You know, in order to apply pesticides and chemicals. When we pick them up from the fertilizer companies and all that they have to make sure we have our information sheets with them that tell us how much and how to apply and do all this stuff. I mean we have had those regulations for a long time through the EPA. Sometimes that stuff is monitored by state agencies. They are the ones that re-license us and make sure we are up on what we need to know and if our systems meet specs or not and they will tell us if they don't.

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

R: Some farmers would use to say yeah just stay out of my way; but no. I think I am not that frustrated with it. It is. My only concern, after watching this with USDA, is that there is just a lot of waste in government. There just is. Sometimes programs and things are just wasting your taxpayer's money. Sometimes the farmers are even the beneficiary of it and vice versa. Sometimes it is not economically feasible, some of the things they want to do. It is just paper pushing for just paper pushing sake just so you can say you are complying when I doubt it is really benefiting. I doubt it would be any different; but there is some guy that is coming to do an audit or hand out a regulation that is getting a paid job that is really not doing you or me any good. It's just we would naturally do it. But on the other hand there may be a few rogue people out there that would do something totally unhealthy and wrong and unscrupulous. So maybe they are stopping a little bit of abuse somewhere. I am not one of these that's totally libertarian and thinks the government should be totally out of our life. I think for the greater good they have got to do some things. It is just between Croney. You know, you give your best friend a job even if they are not qualified type of thing and creating more agencies all the time. Of course, it worries me that the government has maybe expanded a little beyond what they should do or mettle a little more than they should do. But as far as what they could do to help us out some more, I've always been for them, which shows that I'm definitely not libertarian, funding land grant universities, research projects for farmers and stuff. Yet, in some ways you go well, why should I pay for that. Why doesn't the farmer pay for their own researchers and stuff; which we do. But I am never against the government giving research grants for ag projects. From the standpoint, this is my philosophy there, yes, you say well farmers why should anybody help farmers or give ag subsidies or whatever. The government gets involved sometimes even in the subsidies. Okay, we don't want farmers to lose too much money this year. So if the price really gets bad, then this is how much we are gonna pay em to keep em going. However, as a nation, a cheap, good food supply is probably the base thing. If you go into starvation in the country, then you open up to all kinds of foreign I don't know conquest but problems. So it is the basis of society in a way. I understand the government having a vested interest and why they did get involved in some of these universities and research grants and funding promotional things. The sheep experiment station is one that is on the chopping block up at DuBois; because the senate is going okay we gotta cut some of the programs. We all them them that. Yeah, you gotta cut a bunch of the crappy programs out. But then as soon as they cut one that you kinda care about it is like well I meant cut everybody else's program. So you know for years they have been the money behind experimenting with sheep and you know how to maximize range land and sheep production and all that. Yet, I do believe that that is one area that the government can spend some of their money that benefits all society. Because one person does not have enough to do all the experimenting and some of it would not ever happen unless the government stepped in. Yet, then if they can help people do a better job with the resources that we have here and create more sheep per acre of BLM ground then that is kind of benefiting us all because then the food is cheaper and the wool is cheaper and you know. I am for the government keeping most of the research projects and supporting universities going, especially the land grant universities, which would not be Idaho State. That would be the University of Idaho. Ha, ha.

I: What about other local agencies or commissions, things like that. Is there anything they could do to help you in farming practices?

R: That's interesting. We've had a visit from a sheriff or two. Say quit watering the roads. One time a sheriff deputy came by. He was so funny about that. No. In this area, they are pretty understanding. They even let us ride on the roads on four wheelers that are not legal and all kinds of stuff because of it being an ag community. They understand this kid is just going down and across the road to move the pipe and they don't hassle him. I am pretty good in this area. I don't know what more the state people. I wouldn't want em to start a whole bunch of new programs. I mean they already do some and support some of the good causes. I don't have anything to offer there.

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

R: We are not. You realize they are regulated or at least to a degree. That is still out. I am not that technology savvy. I am sure that. Our version of aerial drones. We have, okay, the spray plane pilot in Mud Lake. His name Lief. When we want to see our fields, he will throw you in a helicopter or plane, either one, and fly you up. Cause we do so much business with him that, you know. But we are not using aerial drone imaging or anything else. Now, we have paid for some satellite imaging and some other things like that. We are still not sure of the technology there, how best to use it. We are not into drones at the moment.

I: Are you interested in using drones in the future and if so, how do you think they will be of benefit?

R: I am sure they will come; because there are some things with cameras they can do to where if you could just do your own flying, didn't have to pay somebody much to do it and stuff, yeah, I have no doubt that that will come.

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: Just me and my wife, so there is just the two of us.

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

R: Conservative.

I: And what is your age?

R: Fifty-eight.

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

R: No. I've just about talked your legs off.

I: All right, thank you very much. We really appreciate the time you have taken to participate in this research. It helps us understand what issues you are facing and how steps could be taken to help you do your work, which is work we know benefits this community and others.