Ecosystem Services and Idaho's Farmers

Interview Two

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 family had a farm and I worked on that farm as a child and a high school student. I left farming for ten years and did several other things, but decided the farming changed enough that I could come back and have been farming since. I picked up the family farm and then partnered with a brother and made it and grew.

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

R: Sixty years.

I: What do or did you grow?

R: The crops in the area all of which time I grew at one time or another: Potatoes, that was early in my career. After that, it was wheat, barley, sugar beets and alfalfa mostly.

I: And how many acres did you farm?

R: When I started farming, we were farming about 400 acres. When we quit we were farming about 2,000.

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

R: Almost none. The area was rural to start with and still is.

I: You retired from farming, who is now farming the land?

R: I have rented that land to four local landowner farmers in the area. They are all local. I did not send it all to one. They went to four different entities.

I: So it is still your land and you are leasing it?

R: Correct.

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

R: For me it is very important because that is my retirement. That is my money that I have made, is what I have gathered up as far as real estate that I am renting. That is my pension fund or my state retirement or my 401K are a little bit thin. So that is actually what I own so it is extremely important that it stay in operation to produce income for me.

I: If you had to choose between selling it off to somebody who was going to be doing something else with it but would give you the same amount of money, would it still be important that it was a farming operation?

R: It would be important that it stayed in farming to me because I did it for a long enough time that you get the gratification of farming, which is a little esoteric, but there is gratification in farming besides the troubles. Sure, absolutely.

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

R: Absolutely. Conservation in one way and not another. My farm is all irrigated. There is no dry land. The dry land part of my land is so insignificant it is not really worth talking about, a few acres here and there. We have learned to conserve water. We were not very good with the use of water fifty years ago when water seemed plentiful. That is no longer true. It was not true then, we just thought it was. Much of what we conserved, we did not use less; we have made it go further. So we farm more land with the same amount of water and better water management. Also, some of the land I had was prone to wind erosion. So you plant cover crops. You leave residue to reduce that possibility. That is not only for conserving land but that is conserving my farm and my value. Those are synonymous with one another: Conserving the soil and conserving your own ability to produce is mandatory. But as an owner I demand that as an owner today of the people that are farming it now because it is still my property. It is like letting a commercial building kind of run down a little bit. It does not work. You have to maintain the quality of what you have and conservation is part of that. So I have done that over all the years.

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

R: You want names of those individually?

I: Yes and what they were intended to control?

R: I am not going to be able to remember all the names because it has been a long time. Herbicides were mandatory in all crops. Early on in potatoes you used mechanical devices to eliminate some of the weeds; but ultimately a product called Sencor, later Eptam and Treflan came along that were used. Today's potato products I am not aware of. I quit raising potatoes a few years back. In small grains you use 2-4D products or bromate products; both of which work to control broad leaf weeds in wheat. Then there were several wild oat herbicides (I won't be able to put my name on at the moment) that were necessary to control wild oats in the small grains.

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

R: Both historical and daily monitoring. Historically, you have an idea what weeds you are fighting in an individual field, what the predominance of those weeds are. So you know ordinarily what weeds are already in your field so you pick from that; but you also monitor on a daily basis through the season what your problems are and how you are going to deal with them.

That works on any crop as far as I am concerned. I did ultimately in the sugar-beets world. Roundup-ready sugar beets were available and so then you used Roundup. I never got to raise any Roundup-ready hay/alfalfa; but that is going on on my farm now; which I have allowed since I already had sugar beet rotation of Roundup rotation in 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: Yes. the availability of Roundup-ready seeds for sugar beets made the ability to raise sugar beets a better crop much easier. You did not have to rely on hand weeding. You did not have to rely on transient labor; which was disappearing in the area. This helped it disappear. That helped that. It also gave you as a sugar-beet raiser the opportunity to go to the neighbor's farm and rent a little piece of ground now and again. Originally, the neighbor would not allow that because he always ended up with a new crop of weeds. If you came with a Roundup-ready project, he got to clean his field up. Instead of losing ground he gained ground. So that changed and gave you an opportunity to rotate in a lot larger pattern. You could go to a neighbor and rent a field from him; therefore, you lengthened the rotation …which was also an exceptionally good soil management project on your own farm. So you could lengthen your rotation by doing that. That was an advantage. In sugar, it is a pretty simple decision because none of the genetic markers show up in the sugar. There is absolutely no genetic marker in the sugar from a genetically modified organism. In the beet pulp that they might feed there was still a marker and that was in a problem. But in the sugar as far as human consumption there is no marker whatsoever. I did not get the opportunity to do hay; but I know that goes on. It benefited from some of the same things. The farmer benefited in that he has a lot cleaner, a lot nicer, higher protein product. There still is a marker in the hay that he sells. That does not transfer over to the animal or to the milk; but there is a marker in that hay. You can tell. You can test it and say this is genetically modified product.

I: So you just said that marker was a problem for the sugar beet pulp. Why is it a problem?

R: It is not really a problem. You can find it there. That pulp is still fed as animal forage. It is an extremely high quality product in that it is a little bit sweet; so like for a dairy raiser if you feed a little pulp that cow eats just a little bit more, produces a little bit more milk. But it is available. You can tell that that was a genetically modified product in the pulp. It is not really a problem because nobody can figure out that it is changing anything further down in the system. But you can tell that. In the sugar you can't. There is no. It is the same product that we raised before. It is exactly, you know. When we went to that we had a little problem in that they shipped a certain amount of the pulp internationally. Pulp became a high-value product as soon as we figured out how to dry it down to the point where it was storable. So internationally it was a problem. The sugar was never a problem. You could ship it anywhere because there is no marker.

I: Why was it a problem to ship it internationally?

R: International law some places in Europe, Japan especially, they would not allow anything that was genetically modified. So that cuts your ability to ship any product to that country, anything that still had a genetic marker in it.

I: Why do you think that those countries are not allowing GMO food?

R: They are not sure if there is a problem in it, so even though there is in the US plenty of information that says up to this juncture there does not seem to be a problem with it. But they have their own rules. Sometimes they are protecting their own economic system and their own products; which we also do in the U.S.

I: You have mentioned a few crops that you were growing with genetically engineered seeds. Were there any others?

R: No. Not for me. There is genetically modified corn, soy bean; but that is not a crop that I have dealt with basically around there … but still there are problems with some export situations.

I: What is your opinion of genetically engineered crops?

R: As far as an economic situation, they are good for the local farmers here. They have changed our cropping rotations a little bit because we can deal with herbicide problems we could not deal with before.

I: You would say you generally have a positive opinion of them?

R: I do as long as we have done the research to see what the results are, absolutely.

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: Environmental changes. Do you want to expand on that questions just a little bit further?

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: In a micro way a little and in a macro way no. Once in a while we have had a little bit of a wet decade maybe and maybe a little dry; but if you look back just a little bit it has not really changed here. A hundred years ago when the canal came to this area they tried to raise beans here. They could not. Thirty years later they tried to raise beans here. They could not. Forty years ago they tried to raise beans here. They couldn't. Five years ago they tried to raise beans here. The season is still too short. That part has not particularly changed. Moment to moment and with hybrid development they have hybrid shorter season beans. We did not ever use to raise corn here; but with hybrid development there is shorter season corn which is raised all over. Once in a while, there is some corn raised here, seldom for kernel corn or even for high-moisture corn once in a while, mostly for forage. That happens here. But beans like whites and pintos they can raise in Twin Falls. They have tried and they have tried. People try every twenty years

or twenty-five years. I am sure short-season beans will probably come which will mature a little faster; but the traditional. As far as the season and beans to me are the deciding factor. If you get a little late frost on potatoes it hurts them a little. If you get a really hard frost on sugar beets when they first come up it takes some of the crop out but it does not ruin the crop. But beans, if they get frozen after they first come up you get almost nothing. So people just cannot take the chance and they do not. But eighty miles down the road there is just enough time that it is a big crop, edible beans that is, not soybeans. They can raise soybeans. They can just do it a lot cheaper and a lot better somewhere else.

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

R: Same thing. In the short we get a little wet. We get a little dry. In my view, it is basically the same. It has not really changed very much. I think right now we are in a little bit of a dry season; but five years ago it was the wettest year on record for thirty years. So over a short period of time in my view it has not really changed very much. As an irrigated farmer we are extraordinarily aware of water. Flows down the river are a little bit light for the last year or two. But in the past fifty years it has not really changed very much. We use more of the water and so water becomes more and more critical. I do not see. The change is not there that I see in my mind. Our use of and the importance of, which we will all find out, is what makes things happen. In the West. And sometimes the rule-makers from the Eastern part. I am preaching now. Live where it rains fairly regularly. Once in a while they have drought but it rains fairly regularly. They do not understand where there is water there is something and where there is not water you have to be extraordinarily careful. You have to sort of live here to see it so you understand. We have not as an agricultural community or as a state organization, the State of Idaho, has not quite understood the importance nor protected nor made the rules that were necessary. We are facing that continuing change. We need better control.

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: Not in the macro view. In the small view yes, right now we are in kind of. I am very in tune to that. 1977, 1978, 1979 was a very dry period, three years. That was the worst I had ever seen. I actually lowered a well at that time and the Snake River aquifer is a huge lake; but it actually went down to a point where I had to lower a well. I did that again about three years ago. Since then, now I have a well that is seventy years old. I have never lowered that well. But some other wells that I did not get quite as far into the aquifer. So there has been a change; but that is both normal rainfall and pumping out of the aquifer. In the last 65 years the draw on the aquifer is astronomical compared to what it was.

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

R: Absolutely. I worry about the money to defend. There is enough legislation and enough lawyers and enough law suits. Where I live and where I farm all my value is tied up in water. The dirt, which is a pretty nice place, without water is worth about $50 an acre. With water it is

worth thousands. There is the answer. And it is not me, it is everybody in the West. Where there is something there is something, where there is not there are some skinny cows.

I: Where and how do you receive your water?

R: I take water from the Snake River aquifer for most of my farm in four different locations but they are all fairly close to each other. Then I have a little water in the local canal system for one farm.

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

R: That is a very technical question. Absolutely not. I do not use all the water that is allocated to me at all. Nobody does. Because the way water is allocated you are allocated x amount of flow. I do not have water rights, I have rights to divert. My right to divert is for seven months. Each well has a number listed on it how many CFS you can take out of the aquifer, how much flow you can take out of the aquifer. I never run 100% of the time for those seven months, never. No one does. So, no, I do not take all the water that I could have. The same way with the canal system. You are allowed x amount of water, 2 acre feet here for the season. I never use that much. I put 2 acre feet on the ground that we do farm; but I own twice that much water. So I never use all the water. They are going to curtail me. That is coming up. They are going to curtail the water that I use by a certain amount and I go well I do not use it all anyway so what are we really talking about? It is too difficult to figure out and so they say well, we are going to take some of your water, curtail some of your water anyway.

I: But you are saying nobody really uses all the water?

R: That is written on their right to divert, no. You can say that because you have seven months. The first month that you actually have access to that water you probably run 20% of the time. In the middle of the summer you may run 90% of the time. You are trying to get to 100%; but you can't get there because mechanically you just can't get it done. Or if you have side rolls you shut off for a couple hours every day to move those and then turn them back on or any kind of lateral move. If you have a continuous take, a center pivot, you could do that. But it just doesn't happen. Mechanically you can't do it. Then at the end of the season you turn off. In August, if you were raising small grains, your pump won't be on for a month. So you are certainly not taking all the water. But you are taking a certain amount of water through the season. But, no, I do not use all the water at all that is written on a piece of paper somewhere.

I: You were earlier talking about new water conservation practices since you first started farming. What kinds of practices were those? For better water management?

R: When I first started farming, all irrigation was done with running water down a ditch and down a furrow in a field. You ran that water down that furrow to the end of the field and seldom did all the furrows end up down at the bottom at the same time. So down at the bottom of the field you had to have someplace for that tailings water to go. On my farm out in the desert, we used to pick the tailings water back up, pump it into another ditch and water another field. On

the canal system, the tailings waters once in a while run into the lower canal; but sometimes they run into the river because you do not know what to do with them. There is water running off the end of the field. It has to go somewhere. It has to go somewhere. In the desert we used to pump it to the surface and run it through the fields, put it in a pond, and pump it again and put it on another field and run it down. It took quite a bit of water to do that because you could not spread it efficiently and there is tailings water that is running off the end of the field that you have now lost. It is running down the ditch somewhere, down the gulley somewhere, whatever it is. When you pressurize it, put on the sprinkler systems, you spread the water. You know exactly how much you are putting on, where that pivot is or that wheel line is or that hand line is. You know exactly how much water you are putting on. Now you are putting it out in the air and so some of it is evaporating. But you know exactly how much you are putting on and you only pump up (cause it costs money to pump water) what water you are going to use. You never let it run off the farm. No water ever runs on my farm today. You put it on the ground where it is supposed to go. You lose some to evaporation but you only pump what your crop needs and you test your crop weekly/biweekly. So you know how much water it needs and you apply that amount of water. However, with the same amount of water, I water more territory. I still bring the same amount of water to the surface but I water more territory and I do a better job of it. I get better, more consistent, higher quality and higher volume crops by doing that. Not me. Everybody. If you have done it here you are no longer in business. People that do it best are the ones that are in business and they are the ones that are still farming.

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

R: I never raised alfalfa seed but I had neighbors who did and a fellow I rented to once raised alfalfa seed and he definitely relied bees to pollinate. In fact, he imported bees to do that. I had a neighbor who did that a lot. So I did not, no. I never raised fruit trees. I did raise fruit trees but I just raised them with the idea that it would be nice to have some fruit. Bees are the pollinators and so I understand pollinators and have promoted pollinator plantings like in the roadsides and that sort of thing.

I: Have you noticed any changes in bee populations around here recently?

R: I am not really qualified to say this, but my guess would be that there are less bees than there were fifty years ago.

I: Obviously, it is your perception, but what makes you think that?

R: I do not see as many bees. That is the only thing I can say. I am aware, yes. I think there are less bees.

I: Have you noticed any other pests or animals or something in the field more than there used to be, pests or rodents?

R: There are not as many rabbits as there used to be. Many years ago there were lots of rabbits. There are few jack rabbits. When I was young that was a real battle. That is not even a concern. Back then it was a battle. Now it is not really a concern. As far as field mice, voles, they come

and go. Once in a while we have a couple years of a lot and then not so many. Now we have a few pocket gophers out. That happens in the canal area. Out in the desert there is not so many because there are enough predators to kind of hold them down in that area. They come and go. That has been not an exact cycle but a cycle that has happened off and on since I have been farming. I do not see too much change in that respect. Since there are fewer rabbits, there are probably fewer, some less, coyotes. There used to be quite a few foxes in the not too distant past. Some introduced species like the ring-necked pheasant used to be a lot, there does not seem to be so many but that is an introduced species so I do not know exactly. Fewer sage hens.

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

R: Not very. I am not very worried about the climate change. I am not sure that climate change wouldn't almost help me if it was going on. I am not sure that it is. I think you can make an argument on both sides. My overall perception is. This is such a short period, fifty years, basically that you are sort of aware. That is so short term that how can you really determine. So I am not particularly worried about climate change. If they made the season a little bit longer here I am not sure it would not be an advantage to me. Now somewhere else that would go against them as far as an agricultural guy. But to make the season shorter that would be a disadvantage to me. If the frost season got longer that would be an advantage as long as there was still water. Will that happen? But if it is a little bit warmer there is a little bit more water evaporation from the ocean there is a little more. How do we know. I can't see it. So it is not a big concern to me.

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

R: Certainly, absolutely, there is no doubt in my mind that if there is some change and that some of human activity has probably changed at least some minor elements. How much the human activity is a real question in my mind, but certainly. There are areas where some of the rivers in the East, chemical plants were terrible; but they are all getting better now. All of the rivers in the U.S. are getting better. Now are the rivers in the world getting better? That is a real hard question.

I: What kind of human activities are you thinking about when you answer yes they could have a change?

R: Chemicals in a plume, either the water plume or the air plume, could affect downstream or downwind production. We saw that at the Simplot FMC Plant. There were some just downwind in the plume area down below there were some changes. The hay was not as palate-able. But that is the micro. It did not change the forest in the Palisades. So absolutely we have changed things. How much we have changed things is a question in my mind. Some smaller areas we have changed things badly. Like I said, in the U.S. those things are getting better. In China and Brazil maybe not. In India probably not. Do we have the ability to do something? Yes. Do we have the economic will to do it is another question.

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

R: Climate obviously. We have talked about that. I do not think the climate has really changed a great deal. The other natural resources, the availability of fertilizer is in a way a natural resource is extraordinarily important. I am not a huge fan of the Simplot complex but no matter how you look at it some of their advertising is pretty good fertilizer. It is what life is made out of. I don't care how you put that. Their fertilizer, animal fertilizer, i.e., is what life is made out of. That is extremely important to me as the ability to produce a high amount of food value from an acre have to have a little fertilizer. Chemicals are also, which is the same thing back to sort of mining and maybe the use of some of the natural world make it so that you and I eat for a lot less and a lot better than we would if we did not have those sort of things.

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

R: I am worried about the water; but that is a political thing. The amount of water is not changing particularly. What is going to happen and the political outlook on what is going to happen to the water could affect me dramatically. Right now we are under the idea maybe they are going to curtail water to underground pumpers by 13%. It does not sound like a lot; but I lived mostly on 4-5% on what I made in the years I farmed. Thirteen percent is a significant change. That is in terms (I don't know what you own or either one of you guys own) but that is like you have got $150,000 house today but are going to cut out the last two bedrooms and so it is now only $125,000 house. Can I say something here? Unless we can figure some way to. That is another question. It is too big for this interview.

R: Are you from here?

I: I am.

I: She is. I grew up in Montana.

R: Well, in Western it is the same. Different area but the water is the same thing.

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 planting dates, not harvest dates. Some of those are done with risk management plans. You just take a review of what has happened for you in the past and so you say okay I need to maybe delay my planting of sugar beets a little bit because I am really struggling with early weather. When you decide to harvest is pretty much Mother Nature decided. When it is time it is time, so you make those decisions. Some crops, potatoes and sugar beets, both, potatoes especially, you artificially decide when they are going to be harvested. Instead of waiting for Mother Nature to come along and give them a touch of frost and then wait a little while to do something you artificially decide that. You tell the potato it is time to bulk up a little bit and die because you have a certain amount of time to harvest it and you need to get that done before it

gets really cold. Sugar beets are a little bit the same way; but you do it on a different decision making process. Harvesting in good weather is so hard and harvesting in poor weather is ten times as hard. Let's make the decisions where we know we are going to get our harvest done basically in good weather and then mostly Mother Nature will still determine how it works but you make those decisions. Those are just risk management decisions you can't wait. If you get a way-late frost with potatoes we are harvesting potatoes in November. This is a very poor time. Anything. It can get really, really cold. You can lose your crops. Those are just risk management decisions. Small grains when it is time to harvest them you harvest that. Mother Nature decides that still exactly.

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

R: The political strength of the farmer lobby is one of the biggest challenges. Fifty years ago this was an agricultural state. Most of the people in the legislature were either connected or one generation out. That is not true anymore. Most of the people in Idaho are no longer connected to agriculture or even a couple generations back are not. The political part of it is, which involves transportation, water allocation, controls/rules about how you operate, what time of the day you can operate, what kind of chemicals you can use. That is one of the real challenges. As an irrigated agricultural fellow, water and its appropriation is paramount to all things with an irrigated farmer. In the State of Idaho, all of the water belongs to the State of Idaho. They have not done as good a job with that as needs to be done. So that is one of the really dangerous things for an irrigated farmer. The economic aspect of loss of water or loss of products that you can use or time you can use and not supportive infrastructure which is necessary to get crops to market are also challenges.

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

R: Just more intense. The challenges are basically the same; but they are more intense because you are dealing with more people that are not on the farm who do not look at it with the same eyes that a farmer does. If a farmer decides he needs to bale his crop, which happens all the time starting about 2:00-3:00 in the morning, and his neighbor now gets up at 6:30 and goes to work and comes home he does not want to be awakened by that. If he had grown up on a farm he would have said I understand he has no choice. Mother Nature says this is when it is going to happen, we can't. So those challenges are more intense because there are more urban people. Where I live and farm that is not really a problem. But if you lived in the Boise valley or Twin Falls valley or around Idaho Falls those are problems. So, there is impact. That urban impact is not great here at all.

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

R: Raising a crop and bringing it to harvest and the fact, this is sad, but when you did not do all that well there came an end and you could start again the next year. It just did not go on forever. You got to start again and say okay I will do things a little bit differently. But to raise a crop and bring it to harvest and know you are doing something good is a good thing.

I: Kind of rewarding.

R: Do you garden?

I: I do. Yeah. I have some tomatoes, corn, and zucchini gardening.

R: One day when you are peeling that off and like that and going, multiply that by.

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

R: To begin with what you got what was on the TV. Well, to begin with there wasn't a TV you got weather from the radio, but then the TV. As soon as you could get a daily report or an hourly report on the phone then you used that when cell phones showed up. Now you can get it and tell within about ten minutes when it is going to start raining or whatever. It is beyond. You still can't change it. What you get to know is well I am going to spray. I have to have an hour. I do not want it to rain on that spray. I have to have an hour time between. That information. Political information you do at the coffee shop, through the paper, and through the news, and the Ag organizations. You sort of have to, you don't have to be, but it seems better to be at least hooked up to some of them so you are aware of what is going on, whether it be the cattlemen or potato raisers or the sugar beet raisers.

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

R: The USDA obviously, I dealt with the USDA. Actually, for a while the Conservation Districts were out there helping you kind of develop a plan to maybe extend your rotations or protect any soils or water situations that you had. They came out and helped you with a plan, so you worked with them. Everybody built a plan. It was kind of forced upon you. Built a plan to operate to protect the soils and the surrounding environment. There is very little surface water in Southeastern Idaho and after you quit letting any of it run away from your farm those problems were not nearly as big as they at one time were. At one time, I talked to the Army Corps to build a dam for flood control which happened twice, two years apart, 1961 and 1963. So I talked the Army Corps to build a dam out in the desert, which has never had more than a foot of water in it since. But we had a long discussion with the Army Corps about how to build a dam and so I have one out there.

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

R: Generally, they have been positive. I have gotten good information, good ideas. That does not mean I have not crossed swords with people I have once in a while with the county about roads, bridges, transportation issues a little bit. But mostly my experiences have been good as long as you are semi-sensible.

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

R: I am not sure in the free enterprise system that they can, they can provide me with information, information that is correct and true.

I: That is all that you would want from them?

R: That is about it. yeah. I would prefer they did not create market-moving situations. The wheat embargo of the 1980s, trade agreements with people that are not treating their farmers the same. But that is on a federal level, the state a little bit, but basically on the federal level, not to create road blocks would be good, or market moving situations. But that is not going to happen.

I: But if you could have a wish?

R: Sure. Sure.

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

R: The Ag organizations are extremely helpful, the crop consultant capabilities, the fertilizer production people, the insurance people. Those people are extremely helpful because it helps their bottom line also. It helps mine. So the amount of information, expertise, services that can come out of the local service people, organizations in the area, and fertilizer/chemical are excellent. Those people help you all the time and you help them so it is...

I: Community?

R: Yes.

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

R: That is a little bit too new for me.

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

R: When the technology was available and actually just as I was leaving farming was available too. We mapped per acre the whole farm first with soil quality and type so we could kind of electively put on only the chemicals, fertilizers that were necessary for those individual square acres. I do not know how far. Every acre. The first time we did it we did every ten. We ultimately got down to every acre which is an extremely sophisticated difficult thing to do; but it does actually help save you a little bit once you get the systems in place. I think an aerial. I have used some aerial photography to look for problems in irrigation, problems in soil. You could deal with them ultimately after the soil election kind of got control of most of those things. To be able to look at your field from the air is very important to start with so you understand how things are going. But on an everyday basis I do not see it being that important. Once you get to know what you are dealing with, stuff you don't see as you walk or drive by.

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: Today? Just me.

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

R: Conservative.

I: And what is your age?

R: 68

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

R: Yes. A little bit maybe. Farming is becoming less farming and more big business. As it changes it changes, the demographics of the area, there are a lot less farmers and a lot more farm workers than there was fifty years ago. As that changes little rural communities that once were very vibrant. You don't see that here. I remember when this town was very vibrant. All the buildings were full of businesses doing business. That has changed. That is not good for rural Idaho or rural America. I do not know if that is going to change, what to do about that. But as the businesses become not so much kind of family-held farms but Agri-business they no longer do business here. As businessmen, they care about what is going on in their community but there are not as many of those people to sit on the school board or belong to the city council or to promote the service organizations, Rotary or Lions. Those organizations, which were part of a small community, a big part of a small community, no longer exist because there is not the business owner that runs the clothing store and the hardware store and the lumber store and the tire store. Those people no longer live here. They are not here anymore. That is changing rural America into little ghost towns. It is not a good situation. I don't know if it is going to change. But that is something that is very difficult and in America that is what is going on. It is here. In Eastern Montana. Are you from Eastern Montana?

I: I am from Western Montana.

R: Okay, well Eastern Montana some of those town are just. It has happened in the Midwest even before this and I relate to this. I was driving through Iowa a year or so ago. I came up over a little berm. There was a nice little town out there. Looked about like the size of Aberdeen here. I thought, say, there are probably 2,000 people living in that little town. Let's just pull off and see what it is like. So I drove into that town. I said I need fuel anyway. I drove down Main Street and there was not one business on Main Street that was alive, not one, not a barbershop, nada. So, I thought, well, there must be a little business section at the edge of town. We were driving the freeway. So I drove clear through town. Came to the other end of town. Still had not found one business. Drove back. Finally stopped a guy on the street and said, "I need to buy gas. Is there any place to buy gas in this town?" He goes, "Sure. You go right back. There is a Gas-O-Mat. You can buy gas." Now there was not a C-Store. There was a Gas-O-Mat. That

was what was in that little town. It was well-kept, nice little town. I was getting gas and I asked the guy getting gas next to me and I asked, "Where do you shop? Where do you buy a pair of shoes or a pair of socks or that kind of thing." Oh, he said, "Down this road that goes under the freeway about 15-20 miles is a Pocatello." So all the shopping, who runs that little town. It is going on. That town at least looked pretty good. The yards were nice. Some of the little towns you dive through. They are really rough.

I: What do you think is driving that trend in general?

R: Larger and larger farms, Agri-business. It is so difficult. The price of land. The price of equipment. The price of everything. It is so high that a young person cannot get into farming without either a huge amount of money or a hand from grandpa or dad. There is just no way to do it. To start a little farm today is just. And you are not going to start a produce farms. Here there are not enough customers. Go to the Farmers Market in Pocatello and you go "I could starve to death trying to eat out of here." You know. There are only twenty people going anyhow.

I: That is kind of the technology advancement is costing so much more that then only the bigger companies can afford to pay for that?

R: Well, the cost of equipment. The first new tractor I bought, which was really a long time ago, cost me about $18,000. That is probably close to fifty years ago, not quite. That tractor is still worth $18,000. But a new tractor to replace it is $250,000. What little guy around here can round up $250,000 to buy, and that is just a tractor. That is not, you know. So it is really difficult. There are still a few small farms. They are not even small farms anymore, but farms in the thousand acre category. But when I started farming 1,000 acres was a huge farm, irrigated farm.

I: Especially with gravity irrigation?

R: Yes. I watered 450 acres gravity irrigation. You have to know how to run a shovel and you do not do a very good job. You do not do a very good job because you do not have time. We had to get the best. We are going to get most of this field watered pretty good and some of it is probably not going to get any water and some of it because we don't have time.

I: Do you think any of it is being caused by young people moving away. Is that a trend or do young people mostly stay around in this area?

R: Young people definitely leave the area, definitely leave the area because the opportunities are. There are not new little farms showing up or a little farm changing hands. People are not interested in farming. I don't want to say the hard work because I don't think that is it because, Boy, there are some hard working people in the world that are not farming. There are some really hard working people in the world. Some of them get so much done it is amazing to me, way amazing. But the opportunities. They look at a guy and go when do I get. If I get a job over here at Simplot as a chemist or something like that you know I can buy a house next year and I can buy two cars. With farming that is not going to happen for twenty years or fifteen

years that is going to happen. When you are done you may have something. I don't own my farm. I owe as much on my farm right now as I owed when I started. Now that is a sad commentary. Now the value is a lot higher but I still owe the basic amount of money as when I started. I had to do a deposition for a lawsuit that I was involved in. They said well, how much. Are you still in debt because of the loss here. I said I have never been out of debt. I have not the remotest idea what that would be like. I have heard about it but I do not know really know. I still owe a lot of money. I think wow I wonder how this came to be.