

Panel Discussion

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I'd just like to say a few words. We were asked to speak out of the perspective of a grower and address researchers—what they should research for. But I find that the most important topics were pretty near covered anyway and I really liked what I heard. But I would probably have one question. There are a lot of products out there that I have been using myself—different seaweed products, different oils, different bacterial enhancements like Phyto-Zyme or Farm for Profit products, and I would like to see a trial on all those different products and their impact on fertility. Some of the claim that they work against fungal diseases such as late blight too, so, as a grower, it's pretty hard to judge that.

I'm not a certified organic grower. I like to point that out. As much as I want to be one, I used to be one back home, and that's our long term goal. For me, it's more a market issue at the moment. But, nevertheless, I've been farming a certain protocol which I follow. The World Wildlife Fund was involved, but really the way I work now is my own protocol. I exceed the original protocol by far. Basically, in potato production I don't use any herbicides whatsoever. That's just my personal crusade there because I think, especially in a row crop, you can get by without herbicides. It's just a management thing, and so far we did alright, other than in one or two really wet years where you could really have a problem. But we still managed to do it.

Maybe I'll just say a few words about how I do that just to speak to these topics from a grower's point of view. I farm on very heavy land which is not as suitable for potato production as the light PEI soils. If you want to handle your weeds without using herbicide, you have to really know your soils. If I were to wait until the middle of June until I can touch the land, then I just have to wait that long no matter what everybody else around me does, because it will haunt me. If I start working the land when it's too wet, it's just going to haunt me right until the harvest. Later on, during cultivation, on the heavier soil we use a Rumpstad hiller and the cultivator later. Every year, ever since I started, I got more brave, and I got to the point now where I really bury my potatoes when they're about this high—I just bury them completely. Sometimes the field is totally green with weeds, and they get buried too. Usually the potatoes are so strong that they come right back out.

Actually, I find that over the years it has a little bit of an advantage towards Colorado potato beetle handling too. As I said before, I plant fairly late, which is an advantage because the parent generation that moves in likes to see some potato plants, breed, and lay eggs, and usually my plants are not out, or if they are out, it's usually at the point in time where they just get buried. I have a wide crop rotation. We grow close to 200 acres of potatoes in a 3-4 year rotation, about 70% at 4 years now. I used to do strip cropping and fairly close rotation, and that really interfered with my use of no insecticides other than Novodor for potato bugs. But ever since I moved it—I grow certain areas of potatoes and then I stay completely out of it, the last 3-4 years—I don't really have many potato bugs; there is no big problem, really. But I talked to Robert Coffin before. It could have something to do with, coincidentally, the Island starting to use Admire and Furadan. The populations of the Colorado potato beetles are just kept so low that it could have something to do with that. That's my personal theory on that matter.

We have a mixed farm. I always believe in diversification, whether you want to be organic or you want to be close or not. We have wide crop rotations and we also keep cattle. I find that cattle fit

very well into a potato system, especially toward late blight. I appreciate all the research and what's out there that you can use to protect your plants, but you should also always look at the whole system. Everybody knows whether you're organic or not, and that includes seed. I don't cut seed, for example. I only plant whole seed, and no culls—absolutely no culls. There's not one box that leaves the warehouse with culled potatoes and gets dumped somewhere. Everything goes right out of the warehouse and into the feeder wagon and gets fed to the cattle. So we don't have very many volunteers.

On to blight problems...We've been using Koside for years, even though I'm allowed to use some of the other conventional sprays. In the heavy soils I've never had as much problem with the foliar blight. Usually it will get me in the end, but the potatoes will die down anyway. But for the tuber infection, it is very important in such systems that you have a really huge hill. You have to have a really good hill. I use a four-row chopper to chop off the canopy. Sometimes if I have a field with 20% or 30% on a certain area, usually it's the centre where starts and spreads out, I go in there with the chopper and I chop it off so it won't spread any further. This chopper works very nice. It puts the residue off the plants; if I left it, any rain would wash the spores down off the plants into the soil where it hits the tubers and that would result in tuber infection. So I find with such a chopper that it puts the residue of the plants in between the hills. Our hills are fairly high, so we don't have any infection there. I built myself a roller. Some people on the Island use similar systems that attach on the back of the chopper and they will close in the cracks which appear during the growing season, so the spores won't wash in and affect our tubers. Following that, we use a harvest system that was originally developed under heavy marshlands in Holland and never really took off there, but it works out great for us. We windrow in a swath; we don't windrow in between potato rows. We pick up four rows of potatoes, and the windrow has a drag underneath—it builds up a little bed, raises it up—and that's where the swath of potatoes is—just like a hay swath of pure potatoes and mud—and we leave them there for two hours while the windrower starts ahead of the harvester and catches up by the end of the day. That way the potatoes will dry up a little bit, I get rid of most of the lumps, and for the crew working on the harvester it's really easy to pick out infected tubers. We don't do that later on because we're not using any fungicides such as Mertect in the warehouse. So I have to make sure I don't put any wet or diseased potatoes in the warehouse, at least as much as possible anyway.

Q: (inaudible)

A: That gets determined by the size, if the blight doesn't get me before. But usually I'll look at the tubers and that's the size I want. Certain plots are seed potatoes. I only plant single drop so I want to harvest a high amount of smaller potatoes. It differs too in variety. There is one variety that I really favour. I've been growing it for four years—the Fabulas—because I can grow the same crop as, let's say, Superiors, at about one-fifth of the N input. But on the other hand, the Fabulas are very hard to stop from growing, even when I chop them off. In the first couple of years I waited for the size, I chopped the tops off (and it takes a little longer to wait than if you would use a defoliant like Reglone because the skin has to be set), but they keep growing, even with a little bit of stem like that. So it depends on the variety and what I desire.

Q: Do you think it's better to chop under dry conditions or slightly moist conditions?

A: If you look at the soil conditions, you're right—it's probably better if it's as little moist. It depends on the soil type, too. Our soil is heavy, so it doesn't really matter that much. But personally, I never chop when it's wet. I like to do it when the sun is there because if you drive

through a wet canopy and you have some infection there, you just spread it. You just spread the spores everywhere. Plus, I find that if it's really nice, dry, and hot, and I chop it off, it kind of burns the end—the end of the stem. It dries it out right away. The scientists say the spores will not wash down the stem but I always felt safer if they would dry right up. So I would never chop under wet conditions.

Q: What did you do about your stems?

A: Nothing. There are other ways to do it now too. Some conventional growers use a root pruner, a root cutter. It probably works even better than a chopper because it really cuts the roots off and that's the end of the story. They can't pick up any more nutrients or water, and they will die down faster. But I never really used that because it lifts up the hill a little bit and with the heavy soil we have, if you disturb that hill and you open it up after taking the canopy off the potatoes and they lay there for three weeks, there will be too high a percentage of green potatoes.