

2016 Group Sow Housing Seminar
Technology: Now and in the Future

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(Edited for clarity and conciseness)

John: **(Slide 1)** This is actually a promotional picture from Ontario Pork that they did last year of my operation. They did it at 6:00 in the morning, a September morning and it shows that turbine there and last year's corn which is going to be a hell of a lot better than this year's corn.

It just shows you technology; I've got the turbine there which is actually a joint venture between me and my brothers who have a dairy farm. Right now that turbine's interfering with my ESF. If I want no interference I can turn my turbine off but I'm not going to do that yet.

So, it's these little things with technology that can really screw things up. They always say that err is really human, to screw up you need a computer. My dad's 93 and he walks through my barns and says things were a lot easier when he was farming, when something broke all you had to do was replace the handle, which is really true. It's not like we want to go back there. Today's facilities, all the technology we have, well used as long as you use it.

(Slide 2) So, six months ago I put Wi-Fi through my barn and on my yard so anywhere you go on my facility you can get Wi-Fi. With that Wi-Fi I had a security system that my wife bought at Costco which said you install it. Well, it sat there for a year and a half till I got an IT guy to install it for me.

So, with getting this all hooked up, I got my Smartphone there and anywhere in the barn I can connect with Wi-Fi and see what's happening on my yard whether it's at truck or something happening or someone at the door. I can see that just with my Smartphone.

(Slide 3) So, I'm hardwired through the barn, which goes to these boosters and I got boosters for the barn so it doesn't matter where you are in the barn you can get your Wi-Fi **(Slide 4)**. And with that Wi-Fi you can listen to Spotify, you can listen to streamline, you can do a lot of things with that, which really keeps your kids active and keeps them going. But the reality is it is for business too. But it really does work great for listening to streamlining, whatever you want.

(Slide 5) And for things like this you can even have a wireless video camera. This wireless video camera, as long as you can plug it in somewhere, you can see what you're doing.

(Slide 6) This is just streamlining my hallway in my barn. So, if you want to look at a sow or some pens of sows or something like this, you can plug this in and streamline it.

(Slide 7) So, if you've got Wi-Fi through your facility, you've got your computer screen up there so if you want to do everything from the computer and the desk you can do it there or if you want to be walking through the barn you can do it there with your tablet or Smartphone. That's the same program all the way for my ESF, so if I want to do any adjustments in front of a sow or somewhere if I'm training something or if I have to do some feed adjustments based on condition score or something like that, you can do that right there with your Smartphone.

(Slide 8) RFID heat detectors, they work really well. They do what they say they do as far as detecting sows coming in heat. You've got a spray marker that is up there so when it comes to a certain stage you can automatically spray mark that animal and there you got your heat detector that detects the animal when he comes there. Of course she's coming for that boar and every time she comes for that boar it gives you some information on your computer.

(Slide 9) This here is one I have right now. I've changed my facility a little bit to accommodate what I have. **(Slide 10)** This here's your boar pen where the boar is, this here's my heat detector for my sows and these are all bred so they're actually looking for returns. **(Slide 11)** And there's my heat detector for my gilts. So, it's a two for one deal actually. So, the boar's pretty busy and getting behind there you have a boar in a pen for breeding. So, this pen opens up to the sow side. If I have a gilt that has to be bred it opens up the gilt side. So, if I have one that comes it heat, they're always a little different, some are a little more aggressive, some don't do anything at all. But if they do come into heat they're starting to mount, you just lock them in this pen, you can use the boar and you just breed them AI. As soon as they come out of heat then you can let them back into the same pen again. And so, that pen has come in real handy and I really appreciate having it now.

(Slide 12) This is what comes up on my computer. This tells you where the sows are, tells you this one here's a repeat. They come into the gilt area because right now when I'm weaning, I'm weaning my group all together in one big pen. I have not had much aggression doing that because they're so sore with their udders they do very little fighting.

So, I wean Thursdays, Mondays they go into stalls, I breed them in the stalls and then when they come out of heat they go back into another premixing pen and I have very little aggression doing that, it works very good. I started doing that probably three quarters of a year ago and it really has decreased the aggression between the sows 'cause you're premixing and then you breed them in the stalls and then you let them back into a premix pen and there's very little aggression.

(Slide 13) So, anyhow with this sow we're going to look at here the numbers. This is the sow card for her on the ESF. And with that it shows HRVs, which is a heat relative value I guess they call it, something like that. And then visits, it has 30 visits and this is how many seconds she stayed there, which works out to be about 47 minutes.

You can set that anywhere, that number of 95 or 87. It basically comes on your computer when it comes to 25. If you've some sows with a little bit more aggression or they come too often, you can set that point to 30 or 35. So, that you're not getting sows that are maybe not in heat. But it's basically the set point that the factory put there and I've never changed it. It works pretty good for me at that point. So, you'll have to assess that as your own operation if you have something like this.

(Slide 14) Sometimes it's not the high tech things you want in your barn, sometimes it's the little simple things that make it a lot easier for you in loose housing. This was a gate that was just made up for me to try out, this gate here is of course a walk thru gate, this is a nine and a half inches across. You can walk straight through this. It was actually meant for sows but this is actually a gilt right here so a gilt can actually put his head through, does not get stuck because the bars are wide enough. I've never seen one stuck in there yet.

(Slide 15) This is another one, manufacturer is the same person, this is actually seven and a half inches wide and is designed more for gilts but I've got it actually between the gilts and the sows. And then there's a little bar there, it's about a foot high. If you can't quite get over this 32 inches on your own maybe you want to step on the bar. So, anyhow it does work very easy, you don't have to pull any pens, you don't have to worry about the gate being closed, you just walk straight through, it's very good, very easy. Simple things sometimes make life a lot easier.

(Slide 16) So, this is inside my barn, I've got three ESFs. I say precision feeding is actually what we're doing with these ESFs. Right now this company is putting a weigh scale in the corridor and I talked about this a few years ago and I said it was needed and now they're doing it but I think the idea is that you're actually going to - if you want to start keeping sows longer I think this a good way of tracking the sows through their parities. And during their gestation you can actually track sows. For example, if you have problems with ulcers periodically and sows that start throwing up, they may be losing weight. And when they do that sometimes you don't see that in loose housing the same way you would in stalls because in loose housing they're all walking all over the place. So, I think a scale is maybe a good thing for that.

(Slide 17) This is my feeding program here. I have actually three programs for a standard sow, gilts and big sows. And then on each one of them, like for the standard sow, you actually have five condition scores, three being ideal, two being too thin, four and five being too fat. So, you put in that program, whatever you want as far as feeding them. If they're too thin you can increase the feed or if they're too fat you can decrease the feed. The reality is I might have three feeds but I actually have 15 rations as far as start base points. I feed my gilts a gilt ration and I feed my sows a sow ration. My gilts for the first parity on one ESF and then after they come out of that first ESF they go onto the sow side.

(Slide 18) I just came back from Europe a month ago and these are the new lactation automatic feeding systems they have for this company here. This is the feed system that's actually hanging here, it's hard wired but it's run through the internet. So, you got a Smartphone, you connect to that. The motor there has a RFID detector on it and it links with a sow and you link those two together to get everything linked into your computer. And then it comes on your Smartphone and then you have a curve there that starts feeding them. You can feed them 24 times a day, you can feed them four times a day, it's just in the program, whatever you want to put in there, how many times you want to feed them, you can do that. This system too they actually have two feed lines right here so she actually does the same things as me. I actually feed two lactation rations, one for the first 10 days and then one for later on.

(Slide 19) So, this is mine, I actually have 10 of them. I'm not using them right now. My biggest problem is they're working with pellets, I was working with mash. I was having bridging with the mash in here and so it wasn't falling down 100% of the time. Otherwise it would all work great. So, I did do innovative things, I put a golf ball with five inch screws so now it's only bridging at the six inch mark. So, anyhow so, we're still working at that.

(Slides 20-22) This is not necessarily to do with sows, but it is to do with pigs and you can still use this for performances for retaining gilts or something like that. It's a pig performance tester. I've had this thing for three years already, I've done nine trials, I do about three a year. Every time we put in pigs, it does ongoing feed conversion and average daily gains. The reason I wanted to get it is because we're shipping heavier hogs. I don't want to do my feed conversion on the top end.

(Slides 23-26) Now we're going into loose housing, why don't we have a sow shower? I mean we're washing rooms right out and now we're bringing in a dirty old sow. I saw this four years ago when I was in Europe, somebody had a sow shower. And so, I just put this together recently and it does work pretty good. It uses a soap especially for livestock. So, you can put the soap through there and the sprinkling system, you see the sprinkling system, it's just the same as what they actually use for dairy cows for sprinklers. And you can put soap and water through there. And also I had hooked up to a garden hose, that if I wanted to just do it directly with the garden hose it does through the garden hose also. So, then you can fine tune it a lot easier than using a sprinkler. So, you can use soap first and then you can just use water. They do get pretty clean. They do like it and they came out very spotless. The only problem I have is that these brushes are actually designed for dairy cows. You can actually see this right here, scrub yourself red, if you realize it's built more for dairy cows they've got more of a fur, a lot of heavy hair, pigs are just a little bit of hair. They will scrub themselves red so these brushes are a little too hard. Right now I'm thinking about indoor, outdoor carpet on the walls. It might work, we'll see.

(Slide 27) In the future I think there's a lot happening, like nano technology and environmental stewardship and environmental footprint.

(Slides 28-30) This is another thing I saw in Europe. This is a piglet processor, you can see the brand name on the side there. So, anyhow this is actually this is the backside of it. And this here is a fan that you tip up. And that fan I'll tell you what it does in a minute. But this little gadget here, it's got a hand sanitizer on it. It's got a needless injection for iron, needless injection for vaccination, it's got an ear tagger 'cause you got to tag every pig. And then you got a tail cauterizer. So, you just put the tail and it burns it right off. And that's what the fan is for, you put the fan up and it takes the smell away so you don't have to smell that burned tail. So, on top of that there's a little gas chamber inside this too, a CO₂ tank so you can put them to sleep for castration. They're not using it because they don't castrate up there. So, on top of that, it's portable, battery operated, you plug it in and it charges up and then you can bring it throughout the barn. They seem to work pretty good.

(Slides 31-33) So, this is something that is not necessarily technology but when I was in Europe I went to an SBF farm, I didn't get passed the gate but I did get to the feed group. Anyhow nobody gets into his barn, not even the services guys, he picks everything himself. So, anyhow what you're seeing here, this guy is really high on quality control and well he's strictly selling breeding stuff for Topigs. So, he's an SBF'r. Inside these wooden container boxes is actually grain, wheat, oats and barley. And then three together, he mixes and he takes a quality control. He actually analyzes the feed, gets samples for toxins and everything like this and moisture. And if it's not good he sends it back. So, he buys everything in totes like that, and he puts it into the mills.

So, I kind of found it fascinating that he was actually sucking all the dust off all the stuff and then pulverizing everything really fine, I couldn't believe how fine it was. He didn't have any ulcers well he's got 100% replacement rate so he didn't have any ulcers. So, I found it pretty fascinating that he was doing all this and pulverizing everything and with the quality control.

(Slide 34) I don't know if you're going to go to that extreme but when you sell pigs like he is and getting the money for what he gets his pigs, this is his shipping truck. We're not going to start shipping pigs like that. This is totally enclosed, it's got water and feed inside and hyper filters. So, when you go down the countryside and he's shipping a few boars to Greece or Portugal or something like that, nothing gets contaminated because they pay pretty big for these pigs. So, it was interesting to see that. I would have liked to have gone into the barn. He actually has a webpage and he has a bunch of photos you can actually see.