2016 Group Sow Housing Seminar
What to do with Sows during Renovation

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(Edited for clarity and conciseness)

John: Last week I spent a little time away over up north, over by Blue Mountain, and so it gave me a little bit of a chance to do some prepping for this presentation. We were down on this large bridge which was constructed between large points and they showed us how that all got constructed. We were on a relatively safe bridge, and so that safe bridge kind of made me feel like where I am right now with gestation stalls, is that I'm pretty comfortable with all that and everything is going along really well, and then all of a sudden we've got to go ahead and do some change.

So anyways, going on this trip they made us do the treetop walk on the plank, and so you've got to go on there and you've got to get geared and you're double-lined, and as you go between the trees and you're walking on this board you don't think that's all that hard, but after a while when you get to about the tenth tree and you've got people behind you bouncing, the real goal was to make sure you didn't lose your footing on that plank. Because if you did all of a sudden your gear would hold you but you're dangling down there and somehow you've got to get back on the plank. And I thought to myself, I'm not going to go there so I'm going to hang on as hard as I can. But I started getting a little wobbly on my feet and that's kind of like going through this transition here when I'm talking about loose housing too, there's a lot to think about.

(Slide 2) So what to do with the sows during renovation? This question came up with the sow housing committee as we got together in the planning stages, so we – South West Vets, along with Marsha Chambers and myself have a keen interest in loose sow barn conversions and how to do the process without changing or minimizing the current farm output. And I wanted to go through that journey and find out what would happen in our sow barn if we made the changes and what the output would be. You can do the conversation on the barn, depending on your equipment and the barn won't shrink all that much.

We did go and visit into Quebec to touch and feel some conversions and new constructions, and we were quite impressed; it was very enlightening. So then we wanted to do an illustration on one of our sow units to see what the outcome would look like, and so all along this whole step is … you know, it's the YMMB, which is your mileage may vary in terms of what will happen on the your farm, but in this particular situation this is kind of what the outcome was.

(Slide 3) So things to consider. Are you capable of rolling you're your existing herd into a new housing project? Does it fit the existing facilities? And so our/my vision is that we've got 1,500 sows in this unit and I kind of want to have the output the same. I don't want to spend a lot of money to do it, but I want to do it right, so we need to maintain the existing cash flow because that's what we kind of thrive on to make all the things go around in our world. We need to maintain existing pig flow supply for our early weans down to our nurseries and in our finishing barns, and we've got commitments on where our market hogs are going. We say we want to produce so many pigs per week and this is what's going to market, and we don't want to change that.

And then if you're going to do a project like this, there might be a better time of year to reduce pig flow, because at this point in time we do have access to pigs and have had to find homes for these pigs by recruiting some new barns to put these extra pigs in. And then there's a time where you go, well, we had to do a renovation and you want to reduce your flow, it might be the pigs that can go to market into that November/December market, so you need an early time of year, very early in the year when you want to do your renovation.

(Slide 4) So a new barn. See some prices out there. $2,500 to $3,000 per sow, and establish a new herd if your facilities are not usable or wont work as a loose sow unit or they are at the end of their lifespan. And if you add that new herd in there with the total working capital I could have up to another $850 per sow. So by the time you add those two numbers together you've got a big project there and you have a huge project to finance.

(Slide 5) The other option you've got, you've already got your herd and looking at building a new barn. If we renovate the barn, your mileage may vary, but we are up to about $500 per sow and maintaining an existing herd without reducing of the herd size, pending barn layout. There's a question mark on that because as I'm discovering here, I'm not sure this is all going to work.

So reduce the herd and make room for renovation, so that could be, really, just shrink the herds, they've got enough time to go ahead and make the renovation, or we're just going to expand the facility. If we're going to expand that's a little easier to do – the sows stay where they are and we can start adding additional on to it and start making equipment change in there and start moving animals around. There could be opportunities where there's depopulation, repopulation if there are some major health issues where the herd is just removed from the whole barn and the renovation would be done.

(Slide 6) One of the options here that we looked at is moving enough sows from gestation to another facility which could house the sows as we renovate. A finishing barn with autosort gates and set up here to accommodate these sows. So we've got the typical finisher barn … it will be about a thousand spaces and we would look at housing around

350 sows in those barns, and this is the floor layout as it is right now today **(Slide 7)**.

(Slide 8) We'll have to have enough ideal space to store sows in that finishing barn and that will allow enough time to renovate in the gestation barn. It's a calculation to calculate the space, time flow to meet the timing needs of the renovation.

(Slide 9) So now barn has changed over – this finishing barn – so it's now set up with ESF and training and they can hold these 350 animals that are going to go through here. Some of this inventory in this barn is not going to stay static – it's going to revolve as we're doing the renovation. It's going be around a 12 to 15 week timeline.

(Slide 10) So the existing barn … So now we've moved the sows out of the gestation barn where we've got some space here now, so what we're looking at here is that we've got a training area for the gilts so we've got 35 animals that will be on training and we start doing that. We've got training going on over in the finishing barn, and then we've got this new area that's been built where the stalls have been taken out.

So this barn here right now holds about 1,296 spaces, and when I calculate the space in here I'd like to get the same sows and, guess what, it didn't happen. We don't have enough room and that's just the way it is. We can do that calculation either in dynamic or static and it's not really going to change. This area here is going to give us around 20 square feet. Where the existing stalls are will have that concrete where you get the troughs, pull the troughs up, cap it with concrete, and then we've got the dividers and what we call little breakaway walls where the sows can rest and stuff like that. They'll lay on there and hopefully they'll just mess over on the slats – that's the bigger zone. And that's the barn where not changing the floors, we're just taking the stalls out, cap the floors and renovate.

(Slide 11) So the other thing here – and thanks for the help from Steve Caris – I wanted to get basically some flow as to how this was going to work. So we're talking about the weeks here along the side and then the actions, what's going to happen. So the first week we moved 350 sows in the finishing barn, but what we're doing is do this over a five-week period to remodel. So we're going to take 350 sows and shove them on a ESF, they've never seen them before and see what's going to happen. We're going to do seven a week for five weeks, get the space into there.

There's calculations over here and not really focus on that. What it is is just basically total sows, untrained, trained, and sows in training and trained sows, but what we're really looking at in this type of diagram would be the timeline and what the actions are. And so that there gets showed to the people who are in the production and who know where the animals have got to go. Also for the contractor to know and the equipment supplier to know how much time they've got to actually make all those moves.

(Slide 12) So then after that it takes on the next stage of the next quarter of the barn where it's changed over. We've left some stalls here up through the middle and that was going to be where we were going to be essentially doing our breeding in through here. This system here, the sows will be bred three to five days and then put into the dynamic groups.

(Slide 13) And then we carry on again with a further timeline going forward. It's to the weeks five, six and seven as we move through there. What's the timeline and what's the description, and there's the calculations over to the farthest side as to what they are. And everybody is a little bit different, but it does give an idea. If you've got a working plan where everybody can look at and see how this layout will go and timeline and actions, then it has a good use. Everybody knows what to do, particularly even the farm staff; they're going to know where we're going to have to train animals and when the new part of part of the barn will be ready, or this housing.

(Slide 14) So then the third part of it comes in. Then, three-quarters of the barn done.

(Slide 15) So a little more planning in there as to what the timeline is again, and the, boom the barn is done, Bob's your uncle, we've got a new barn, the new sow housing is all set up, we've still got some animals down in that finishing barn **(Slide 16)**.

(Slide 17) And then what I do is I have the spaces, so in this situation here I've got 1,296 spaces and want them all done in the dynamic or static. I've got 1,150 sows at 20 square feet. And I heard yesterday that maybe 22, 23 – it could be better – that means we're going to back this herd down in reduction. So it's a minimum of ten percent reduction on the capacity going to loose housing.

(Slide 18) So if that is the case, then this sow herd right now well put out 45,000 pigs, and so we've got plans for all those placements of those 45,000 pigs. If it could maintain the same production it will be 40,500. But let's just realistic, that means in the first year or two that it may reduce a little bit more to a little under 38,000. And of course we just did renovations on a barn that we've got less pig flow going out, and this will be the cost. We've spent some money to do this. And now we can go ahead and utilize that finishing barn on there or we're going to go and add onto the barn to bring it back up to 1,500, and that's another capital cost consideration we'll have to take a look at.

(Slide 19) However, some of the benefits would be if we just ran that herd at 1,350 with a lesser output, because it's a longer lactation period for the sow, for nursing. Heavier pigs out of the nursery, shorter interval to finished market products. Or we can just add the sow barn to support 1,500 sows with the ESF loose housing.

(Slide 20) And so the conclusions I come up with here is it's a calculated barn capacity and outcomes from housing conversions. Plan timelines: it's going to take a lot of planning. We covered that earlier this morning. Plan details so the farm staff know the actions and outcomes, and allow lots of time for existing sows to adapt to the loose housing in the ESF.

There's a real cost involved in here. There's a cost of conversion, there's a cost of a reduction of the herd size or adding on to the barn, and how you do all the pig flow.

Someone mentioned yesterday, and I've thought about it before, too, is maybe I'm just going to do the renovation as I get my gilts in, and I'm going to go at a slow pace and just do the gilts. Well then you'd almost have to do your renovation with your own crew because it's going to take two years to do the sow barn, and once you shift that crew you can move to the second sow barn and the third sow barn and come back to the first. You've got a sow barn to do that renovation and it will take two years to do three sow barns, and you just do it all through the gilts and never train any sows to go through the ESF and just let them in your new gilt population to be trained. So having mapped that one totally, I'm not sure I want the duration of the three years, but it is an idea.

Moderator: Are there questions for John? I think it's a very important issue, how we're going to do this. People, if we're going to have to do this in the next eight to ten years, we've got to figure out a cost-effective, practical way to do it. I think John is showing us one approach. Do we hear any questions from the audience?

Audience: So you made reference to large dynamic pens or small static pens. What makes your decision? Everybody has got the same decisions to make. What goes around in your head to go, okay, am I large dynamic or small static?

John: I think in that barn that we're doing there and maybe the other barns too, it'll just be how the placement is going to be. There's a lot more things to consider what I just heard from the previous presentation where we end up with that area where we sort the sows out in the ESF and the dynamic. We sort those sows out, and then we need to send them down to the other end of the barn down to farrowing and we've got this narrow little passageway and we're trying to grab every square foot for sows and get all these narrow little passageways. And sows will need some room and so you need a wider passageway. So in our drawings probably we've got some really narrow passageways that are drawn into there and we have to rethink all that. And so that all depends on what's the maximum depth and flow just for that square footage that we've got.

But I have been in static groups and really liked that and into the dynamic ones which they pulled it off too. Our renovation is not due, but we will start at some point in time, but we're not into this for

another three, four years, but we're not going to wait until 2024, or even several years before that, we'll have to come up with some solutions. So, as much as I may be presenting here somewhat, I'm also learning at the same time.

Moderator: Other questions?

Audience: Just a quick question in regards to the retrofits. You haven't mentioned anything about making sure to add space for gilt training and so forth. So I'd like you to comment on that.

John: Yeah. So actually in some of the diagrams that I have here we do have provisions for gilt training inside the barn when they first come in. They also have our acclimating room. It's not that it'll have an ESF, but it will have the two-way gates where there will be feed and water separated, so enticing them to start moving like a group. It's much like somewhat pre-trained pigs that have gone through auto sorters and finishing barns, that kind of movement. So that would be done in our secondary gilt acclimation, and in our primary too, and we'll do the training in that area.

You bet, down there will be, front and foremost, the training of the gilts. We think of the mature sows and we've got that to take on, and that's where we might take a reduction in some production as we go through. But as we get through the two years and onto the herd that's all been trained as they were gilts, particularly in through the acclimating barn and that will work and that's what we saw in Quebec too. It's like I just went, wow, this worked really nice.

John: Any other questions?

Audience: I have one, John. When you look at doing, let's say a depop and starting with all new animals in a conversion or something, and the training, and then trying to keep your herd and to keep the older parity sows, did you take in account the older parity sows you might have a higher cull rate just because they don't fit the new system and you're down anyway? So at the end it's a trade-off of all new, and maybe work that system and try to take all these old sows anyway?

John: Yeah, that's the bit of the reduction where the reality comes in where if you're at 30 pigs per sow you are going to take a dip, and I think that's dip's going to be the handling of how well we do with the older sows. The gilts, they're coming in through that project, and were trained well early in life and will probably fit in extremely well. You know, there's been people who have done well with the existing herd. And you can do a little bit of parity selection often, you don't have to do that every group, just so that you've got an even pig flow. And so we don't really want to mess that up at least, if we can help it, so that's probably a part of the projection we will have to go through and let the bean counters know on the operation that, you know, we're going to take a hit, and hopefully it isn't too bad.

Moderator: I'm just going to throw in one. John, when you do these calculations it's also kind of a big difference if 2024 is looming and your barn is falling apart anyway and you're going to have to put in new grates and renovate a lot, or you have another ten years left in this facility when you have to tear it apart. I mean there's a big difference in how the bankers, or how your cash flow would look depending on whether you had to go to renovate or not anyway.

John: Yeah, so one of our sow barns would have been built 2001, so those stalls in there, the staff have done a great job managing and keeping repairs in shape. And we can go a long time with that barn yet. We had a fire in 2010 and we didn't think we were ready and smart enough yet to start with the ESF so we ended up putting stalls into that barn. And it's a great barn, the sows are doing well, and that will be the barn we'll renovate the latest as we try to get the use out of those stalls. And then we have older sections in that barn but we think we'll delegate that to ESF and find that in our best stalls that will become the new breeding area. We will still like to breed them in the stalls. And I'm still debating whether I want to have three to five days and dump them in the group or I want to hold them for a few days, as long as I can and then establish a group. And that will depend on which stalls I want to keep.

Audience: Just a quick question for you on the $2,500 and $3,000 you've quoted as kind of what you're getting a sense of the cost … that's new build?

John: Yeah, new build. Total enterprise cost. And that would probably be the barn there, and it could vary. It'll vary again depending on what you've got to do for the driveway and one-way hydro, water well, you know.

Moderator: When you say you shrink the herd size, maybe you could leave them in farrowing in a little longer because you've got more crate space. So you wean a heavier pig, you put a heavier pig in the finishing barn and it grows faster. Now all I got is wasted finishing space.

John: Well, for sure, I mean that'll depend on what you've got and it depends on the design of your production. If you have the actual physical finishing space then that will be something you'll want to carefully calculate. If you're into production loops where you've got weekly barns for weekly flow then there could be where you drop one week or one drop one finishing barn. And so you've got that flexibility to pick up that gain of the flow change.

Moderator: Sure, you drop a contract finishing barn, but if it's your barn you just built it brand new and now you can't keep it full.

John: Yeah, then that'll be the calculations in the planning prior to that. Then you're going to expand your herd to match that finishing quote.