

National Sow Housing Conversion Newsletter

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National Sow Housing Conversion Project Update

The NSHCP is a four year project, with the goal of providing Canadian pork producers with reliable information on barn renovations and management of group housed sows. This newsletter marks the midpoint of the project which is gathering steam as interest in group housing grows across the country. We look forward to achieving a lot more before project completion in December 2017, and appreciate the role that strong hog markets have played recently. Good returns on production are essential for producers' confidence in the industry, and the ability to plan for the future.

Doug Richards joined the project team in the fall of 2015, shortly after his retirement as a swine extension specialist for the Ontario Ministry of Agricultural Food And Rural Affairs. Doug has a great background of working with pork producers and Ontario Pork, and many years of experience with the London Swine Conference and other producer events. Now (in semi-retirement), he enjoys the opportunity of seeing barns across the country, and helping producers with the information they need to move forward with group sow housing.

Doug was instrumental in getting the project website up and running (www.groupsowhousing.com). Since the website launch in January 2016, we have made a number of additions, and many more improvements are in the works to make the site as comprehensive as possible. If you haven't seen it yet, please take a look, we welcome your comments and suggestions!



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We recently confirmed two new farm sites: one in Ontario and one in Quebec. Producer Ted Janmaat from Clinton, Ontario, is doing a full barn renovation to expand his herd from 45 to 100 sows, and meet organic production standards. Ted is using the Gestal G3 feeders, made in Quebec. See the photos and article on Ted's barn in this issue. The Quebec site is a 600 sow herd owned by Luc Veilleux, in Sainte-Marie de Beauce. Luc is also installing the Gestal system. Another barn is ready to officially join the project in Manitoba, which will bring the number of project farm sites to eleven. Our final goal is to have 14 barns documented; we are now seeking three additional farm sites to complete the project. These sites will be selected from group housing barns located in Quebec and the Western provinces. Currently there is only one farm on the project using competitive feeding (Amberley

Bacon Co. in Ontario), so additional examples of farms using these systems would be valuable.

We appreciate the ongoing participation and support of all producers on the project. As we head towards the end of the program, we will be organizing more events and look forward to meeting with more producers. If you have any thoughts on improvements to the website, or what information producers should have when adopting group sow housing, we would love to hear from you!

Dr. Jennifer Brown and the NSCHP team

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Producer Profile: Ted Janmaat

Ted Janmaat has been operating a conventional 45 sow farrow-to-finish pig operation in Huron County since the mid 1980's. The original fully slatted barn was built in 1986 with an addition of 48 gestation stalls in 1990. This past winter he decided to increase the sow herd from 45 to 100 sows and become certified to produce pigs for the organic market. In addition to renovating the original 36' X 156' barn, he is adding a new addition to accommodate the farrowing and weaning areas. The original 48 gestation stalls, feed/water troughs, farrowing crates and slat floors were removed to allow the operation to be converted over to a straw based loose sow housing system. Some of the original stalls were kept for A.I. of sows. The organic certification requires 32 sq. ft. per sow bedded on straw along with access to the outdoors. The sows will be grouped in one of



three 28' X 30' large pens with solid floors which slope down to the 8' wide slatted dunging area at the back of the pens. Because of the space required for each sow and the size of each group, Ted was looking for a feeding system that would fit the current space and allow him to feed each sow individually. Two free access ESF feeding stalls (Gestal 3G from JYGA Technologies in Quebec) were installed in each of the 3 pens. The computerized feeding system allows the sow to enter and leave on its own. Currently the new gilts have just been introduced to the group housing pens and are being floor fed. The feed system is in place and just waiting for the final hook up and programming.

The original herd was on a 4-week batch farrowing system of 12 sows per group with pigs weaned at around 21 days. The new system will batch farrow 25-27 sows every 5.5 weeks, with a 28 day weaning age, and sows will be held in static groups with each pen housing one batch.

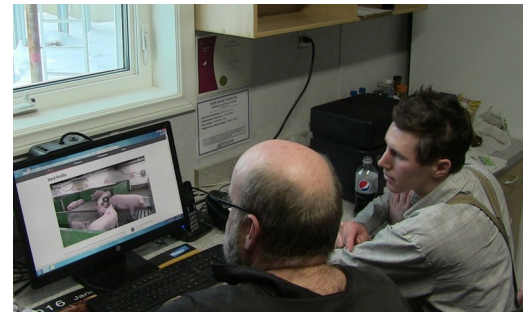
The renovation was tied in with Ted doing a de-population/re-population of the old herd/genetics and starting new. Breeding animals were shipped and the barn was emptied for 1 month at which time the barn was washed down and cleaned out. The slats were removed, the gutters filled in and the new solid floors and pen walls were poured. To improve cash flow the barn was renovated in sections so as to reduce the down time. The breeding area was completed first so that young replacement gilts could be housed and bred while the other renovations were being completed. Ted and his son did most of the labour so biosecurity was easier and the breeding area was closed to entry from outsiders.

Ted is now in the midst of building the new farrowing and weaning barn for the first batch of gilts, which will farrow this fall. Be sure to see the complete producer profile of this operation on the [NSHCP website](#).



Group Sow Housing - What is out there

The NSHCP currently has 11 sow operations from across Canada in the project and on the website (<http://groupsowhousing.com>). Unlike stall housing, group housing comes in many different forms for the NSHCP, we have deliberately selected a variety of feeding systems, farm sizes and locations to show a range of examples. Basically, there is not one 'right way' to house sows in groups, there are pros and cons to each system, and good management is key to success.



Project farms include both static and dynamic grouping systems, with herd sizes ranging from 100 sows to over 1200 sows housed. Flooring types include partial slats, total slats, and one example of solid floors with straw. Some barns are in the midst of renovations, while others are ongoing operations, such as Stephen Moffett's operation in New Brunswick, which has housed sows in groups with ESF units for over 12 years. Feeding systems are considered central to group housing; project examples include competitive feeding, free access ESF (Gestal) and ESF (Nedap, Weda, Schauer and Big Dutchman) systems.

ESF systems have been a popular choice for barn renovations, largely because they allow individual control of feed intake and make very efficient use of floor space. There are many types of ESF units, all with different features and they are all doing the job they are designed for. There have been start-up glitches and things that do not work as planned, but overall the producers visited are satisfied with how their systems work. Producers particularly enjoy the heat detection systems available with ESF, which can be used reliably for breeding gilts in groups and for finding repeats during gestation. As producers become more familiar with these systems, early mixing of sows (i.e. up to 5 days after breeding) is becoming a more common practice.

Producers on the project have all emphasized the need to get as much information about the type of group housing you want to run before going ahead, and speaking to other producers that are using the system. The design used for a new build may not work well in a renovation, where space may be limited, or with the number of sows and grouping practices on your farm. By considering the existing barn layout and condition, and learning about group housing options in advance producers can be prepared to choose a system that will work in their barn that matches their management style. The NSHCP website (www.groupsowhousing.com) shows many different types and designs of group sow housing, and highlights the different management strategies for each. The project team is also available to provide individual advice on group housing designs and management.

Note: The NSHCP does not endorse any one manufacturer or type of group sow housing.

A list of the different systems currently on the project includes: Big Dutchman, CanArm, Gestal, Nedap, Schauer and Weda, but is not a complete list of the equipment available.

To Rebuild, or To Build New?

by Murray Elliott, FGC Limited, Ontario

That is the question. With the new Code of Practice being finalized and a return to profitability, Canadian hog producers are beginning to think about what this all means to their operations, and how they are going to become compliant by 2024. There has been a lack of reinvestment in existing structures for all the obvious reasons, and now producers are faced with the decision of renovating structures, building new or some combination of the two.



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Taking a look

Before any further effort is invested, it will be important to take a hard realistic look at the existing barn. Think about your structure and the way it was originally constructed, from the bottom up. Footings, foundation walls, pit floors, pit walls, slats and solid areas, upper walls, ceilings, insulation, trusses and finally roof steel. These are the major parts of any hog structure and each will experience different amounts of natural wear as well as added stress due to original building decisions, management decisions and maintenance.

Walk the perimeter of the barn and look for significant cracks. Look at the barn cladding for rust and leaks. Peel back some exterior steel, especially around fans and inspect the insulation and vapour barrier. Enter the structure and look into pits through the plug hole to inspect the condition of pit walls. Inspect slats for cracks and wear. Inspect the ceiling for water damage, paying special attention around exterior walls. Look into the attic; is there any wet or discoloured insulation? Pay special attention to galvanized truss plates for corrosion. Lastly check roof steel for corrosion, leaks or popped screws.

Estimating costs

Once you have a list of suspect structural issues with the barn, reach out to the repair people you know and trust to get a second opinion. Some of the things that may strike you as especially worrying may not be so serious, and can be repaired or replaced easily, while others may be cause for serious concern. It is important to know what extra expenses may be incurred over and above the basic construction costs of the renovation.

When pricing a significant renovation I expect the cost to be approximately 50 – 75% of the cost of new. Most new structures, whether they are for farrowing, dry sows or finishing, cost around thirty two dollars a square foot structure. These are Ontario prices with 8' deep pits in both dry sow and finishing, and 4' deep pits in farrowing. Therefore, major renovations cost between fifteen and twenty-four dollars a square foot. If the estimated cost exceeds these parameters, serious consideration should be given to building new. In rare cases, such as minimum distance issues, or simply the difficulty of removing a structure from a complex building, renovation is the only option. Most renovations for group gestation include pit work, slats and interior walls. Exterior walls, ceiling, trusses and steel are generally not included or required.

The layout

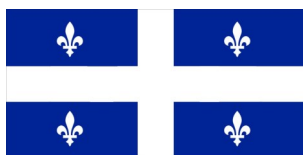
If, after all these costs are considered, renovation is still an option, then it is important to draw a detailed floor plan of the existing structure. Include the perimeter walls, doors, interior walls and especially load bearing walls and support posts. Show all slatted areas and backfilled solid areas. Overlay what you want the new floor plan to look like on the existing structure. Usually the compromises begin here. It almost never fits, so the question becomes, can you live with the revisions that are required to suit the existing structure? In most cases it can be made to work.



However, a new build has the advantage that it can be specifically designed to fit your herd and the selected housing system. An early trend we are seeing is that producers are building new farrowing units on a site, and then renovating the existing farrowing unit and a portion of the dry sow barn to loose sow housing. The farrowing units tend to be the most worn part of the barn, and with the increased litter size and older weaning age of modern sows, the facilities are no longer meeting production requirements. We can build the new farrowing barn to meet the new production parameters, move production and then start the renovation. This allows the unit to stay in production while the work is being done, while still maintaining biosecurity.

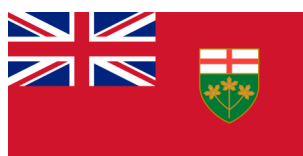
Making these decisions is both difficult and important. These are major capital expenses that will impact production for years. The good news is that I've stood in many renovated barns on the last day of construction, and when you look around it seems like you are standing in a brand new facility, one that will function as intended for many years to come.

Provincial Sow Housing Updates



The restructuring of the Quebec swine sector to improve herd health is on-going. Well located production sites (isolated) are being developed as farrow-to-wean facilities, and sow barns in high pig density regions are transitioning to finishing barns. Producers are taking advantage of this restructuring to transition to housing sows in groups. From July 2014 to October 2015 more than 21,000 sows were newly housed in groups. There were 6 farms with a total of 10,000 sows that are doing construction or extension projects and 13 farms with a total of 11,000 sows doing renovations.

An important project under construction is Olymel's Fermes Boréal. The project involves the construction of 5 farrowing barns with 2,400 sows (total of 12,000 sows) using Free access ESF in 5-week batches. The first farm will be populated by summer 2016.



Ontario will be hosting its second group sow housing seminar this September. The two seminars (September 6 & 7) will present practical solutions to the challenges of different group housing systems, along with potential opportunities related to group housing. Day one is for producers who already have group sow housing and day two is for producers looking at group sow housing options.

The 2016 London Swine Conference in April had several sessions on group sow housing. Adam Schlegel, a NSHCP participant, talked about the challenges of managing a 800 sow conversion and A. van Brandenburg, an ESF Specialist from the Netherlands, spoke on 'Optimizing Loose Housing'. <http://www.londonswineconference.ca/images/pdfs/Proceedings/LSCProceedings2016.pdf> (page 11 and 57). Ontario suppliers and builders report there has been lots of interest in converting to group housing for this summer, with most facilities looking at additions to existing operations, and producers have been booking into next year to secure builders.



Manitoba saw its first new sow barn built in some time with the opening of Suncrest Colony's 800 sow ESF operation in March of this year. This high tech barn is using the Big Dutchman ESF system with Gestal lactation feeders in the farrowing rooms. This operation is a NSHCP participant and is featured on the website.

Maple Leaf are currently converting all their own barns to group housing, 5-6 have been completed, and 2-3 barns are being done in 2016. The Nedap ESF is the feeding system being used on all sites. Overall, not much is happening in MB because of the restrictions on building new barns. In the past 3 years the number of producers trying small scale group housing has increased from 6-8 operations to 10-20 operations. These are typically small scale trials of group housing with floor feeding/shoulder stalls, these sites are not putting in free-access stall or ESF equipment. The estimate for the number of sows in loose sow housing is at 7-8%, with Maple Leaf driving this number up in the coming years as they are renovating about 3 company barns per year.



Saskatchewan's Matador Colony has a brand new 600 sow farrow-to-finish barn with Nedap ESF units. The site was completed in 2015 and is in full production, and is a NSHCP participant. A second colony is in the planning stages to build, following the same layout as the Matador site. Maple Leaf Pork also has a 2000 head sow barn in Farley, SK, that will be converted to group housing. Olymel will also be converting barns, but no time line has been set. There is a lot of interest in group housing among Hutterite colonies; 4-5 may be looking at converting their old barns, or building new sow facilities.

Provincial Sow Housing Updates (con't)



Alberta has not seen a lot a movement towards group housing; the current estimate is that about 10% of sows are housed in groups and there is no data on the types of systems this number represents. There is one project involving barn renovation plans that Alberta Pork is coordinating with help from Manitoba. Alberta Pork is using the resources available from other provinces to help answer producer questions on group sow housing.



British Columbia has 12 producers in the Fraser Valley of which 7 have sows in groups and there are a couple of producers further North. One producer in the Fraser Valley has just finished building a new group gestation barn that has 1400 sows, but can expand to 1800 sows. They have put in the Big Dutchman ESF units and have been in operation for a few months. The system is working well and they are now building a gilt training area and working on training their older sows. Other producers in the Valley area are waiting to see what the market does; some will retire and others will delay renovations until it becomes mandatory.

Considering loose housing? We can help!

Are you thinking of converting your barn to a group housing system?

We can help you make the best choice for converting your present barn or designing a new barn.

What the NSHCP can do for you:

- Provide detailed advice about the group sow housing options that could work for your herd.
- Develop a personalized barn plan illustrating the layout options for implementing group sow housing within your existing barn footprint and sow herd size, or with a barn expansion.
- Provide assistance in seeking supplemental funding to assist in infrastructure costs for the conversion.



The specifics: We're looking for producers in Manitoba, Alberta or Saskatchewan who are planning to convert their barn to group housing, but have not yet begun the process. We will be documenting the conversion process and sharing the information with other producers. If interested please contact:

Dr. Jennifer Brown, Prairie Swine Centre – Tel: 306-667-7442, email: jennifer.brown@usask.ca

Doug Richards - NSHCPProject@gmail.com

Subscription: The NSHCP newsletter is a periodical publication that covers updates on the NSHCP and provides resources and further information on group sow housing.

To receive regular copies electronically or by mail, please contact: Doug Richards, Project Coordinator at NSHCPProject@gmail.com

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