N E W S
L E T T E R

PIG CHAT

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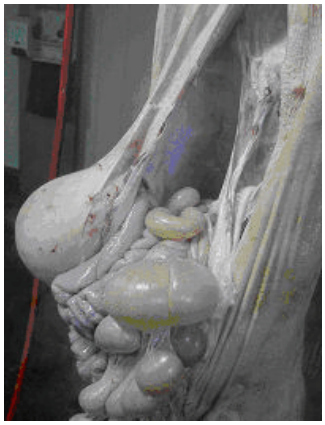
From the office of George R. Charbonneau DVM & Steven D Wolfgram DVM

Umbilical Hernias: Problems for Pigs, Producers, and Packers

Umbilical hernias occur when the belly wall fails to close over the spot where the umbilical cord had been. Often sections of small intestine find their way through the defect and then put pressure on the hole so that it expands in size. In the early stages the intestines can move freely between the hernia and the abdomen. As the condition progresses and the hernia enlarges the intestines may become trapped inside the hernia. This process can continue until the hernia becomes quite large. Why a hole in the abdominal wall forms in some pigs is unknown. Some speculate that it results from a genetic defect. Others speculate that an infection of the umbilical cord at birth prevents the body wall from closing normally. Preventing infections of the umbilical stump at birth is the most common approach to decreasing the prevalence of umbilical hernias. On very rare occasions umbilical hernias may be associated with the use of a particular boar.



Umbilical hernias vary in size from barely noticeable to large sacks that touch the ground when the pig walks. Hernias can cause problems in a number of ways. Large hernias often retard growth and may break open resulting in the death of the pig. Large and medium size hernias may contain intestines that have become stuck to the skin or belly wall and this makes it difficult to remove the abdominal contents at slaughter. Market hogs with large hernias or sever ulceration of the skin over the hernia are not to be shipped to slaughter for humane reasons.

Occasionally there are disputes between the packers and producers over what constitutes an unacceptably large hernia. In these disputes, the inspector at the slaughter plant makes the final determination. If the hernia is considered to be unacceptably large, the pig is condemned and no compensation is paid to the producer.

A guide to assess animals with hernias for suitability for transport developed and used by the Canadian Food Inspection Agency for their Compromised Animal Policy consists of four criteria. These are:

1. Is the normal gait impeded?
2. Is the hernia painful on palpation?
3. Does the hernia contact the ground when the animal stands normally?
4. Does the hernia have an open skin wound, ulceration, or obvious infection.

If an animal with a hernia meets any one of these criteria, the animal is considered compromised and cannot be transported unless it is going to a veterinary clinic for treatment.

To avoid such disputes and loss of potential income, producers should first attempt to prevent umbilical hernias by paying careful attention to hygiene in the farrowing crate. If a hernia is noticed in a growing pig, it should be treated as soon as possible to prevent a small hernia from becoming an untreatable large hernia. This can be done by massaging the contents of the hernial sac back into the abdomen . After the contents of the hernia have been massaged into the abdomen an several wraps of elastic tape are applied over the hernia and around the back of the pig. This creates a type of “truss” that will hold the abdominal contents in the abdomen . Another approach is to apply elastrator bands around the base of the hernia to compress the hernial sac after massaging the contents of the hernia back into the abdomen. It is best if your veterinarian demonstrates these techniques prior to you attempting them on your own.

There are plans to set up a few small on farm trials to compare the efficacy of elastrator bands and tape. If you are having problems with pigs that must be culled, euthanized or are condemned at slaughter due with umbilical hernias and are interested in evaluating these techniques you can call the Swine Services Group office and ask to be enrolled on the trial. Some on farm training in performing the umbilical hernia repair technique will be available.

For both the pig, the producer, and the packer, preventing and treating umbilical hernias is far superior to “letting nature take its course.”

Submitted by Dr. Tim Blackwell, Dr. Robert Hayes & Dr. George Charbonneau

Our Water Resources - Let's Not Waste It

As our water resources become more and more valuable, it is now more than ever, important to utilize the least amount of water possible and still efficiently raise our animals. This study was completed by an Alberta hog producer comparing watering systems from a practical and economic viewpoint.

A Prairie Swine Centre (PSC) trial completed in 2003 concluded that there was a savings in water use by 35% with the use of Bite-rite drinkers rather than the standard bite drinkers. This commercial producer questioned the validity of the trial and conducted his own farm trials.

Trial Description; The trial was a full one year trial in order to study any seasonal and weather related differences. During this trial other differences besides consumption and wastage were measured. These included behaviour differences, performance, manure management, barn management, economics and potential greenhouse gas effects.

Water flow controls and monitoring equipment were installed in a 3000 head commercial facility near High River. Half of the barn was equipped with new ball-bite drinkers and the other half with new standard bite drinkers. The difference in the drinkers is that the pig must have the entire bite-rite in its mouth prior to activating the drinker and on the standard bite drinker the animal only has to move the toggle arm in the centre of the spout to activate the drinker.

A data logger report was generated using water flow monitors that measured incoming water versus outgoing liquids. A device was installed to specifically measure water consumed by the pigs. A manual record of the information was recorded in a daily data log.

The data was derived from six rooms of pigs at 500 head per room arriving at 8 week intervals. Pigs entered at approximately 25 kgs and exited at 60 kgs. Pigs were raised up to 25 kgs on non-bite type drinkers and therefore no preference should have been shown to either trial group.

Variables were minimized between groups by controlling for and accounting for sex, location, number, feeding programs, etc, amongst the trial groups.

Manure generation was significantly different between the two groups. Composition of the manure was similar although for one group it was much more concentrated The more highly concentrated manure would allow for lower per acre applications therefore increasing the practicality of more distant land applications, as the concentrate costs less to transport than watered down manure. Concentrated manure will also reduce the risk of leaching into the environment, saves labour costs, reduces the chance of odour issues and reduces wear and tear on equipment..

When applied to the soil, concentrated manure generates less nitrous oxide due to the decrease in anaerobic breakdown at time of application.

The bite-rite drinkers cost approximately twice as much as the standard bite drinkers, therefore the increase in cost must be justified from an economical as well as an environmental perspective.

Results

The bite-rite drinkers resulted in 35% less water used than the standard bite drinker. The results were consistent over the entire year for both water wastage and water used.

The decrease in water use, also saved the electrical demand required to pump the extra 35% of water (in this study it would have been an extra 133,149 litres).

The concentrated manure did not increase problems with solids. Holding tank capacity as measured by "days storage"was increased.

Greenhouse gases are reduced when the bite-rite drinkers are used. This occurs because less electrical energy is consumed pumping water and less petroleum is combusted since there are less applications, pumping, stirring etc, required.

With the reduction in water use, producers may prolong the need for capital investments required for such items such as new wells, water tanks and pumps.

There was no significant differences in growth of the pigs between the bite-rite drinkers and the standard drinkers.

The George Morris Centre reviewed the impacts of this study and projected that the payback period for the installation of bite-rite drinkers versus standard drinkers, would result in a payback period of 3.5 months. The analysis was based on 1 bite-rite drinker for every 15 pigs and on an operation of 500 pigs per cycle.

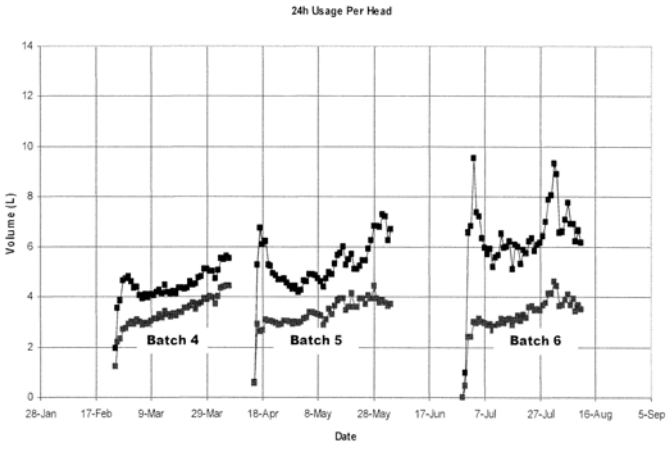
Discussion; When changing over to the bite-rite drinkers it is recommended to change all of the drinkers within a common living area so that aggression or dominance of a specific type of drinker is minimized.

A further study in 60T, 115 kg animals as well as lactating sows is warranted.

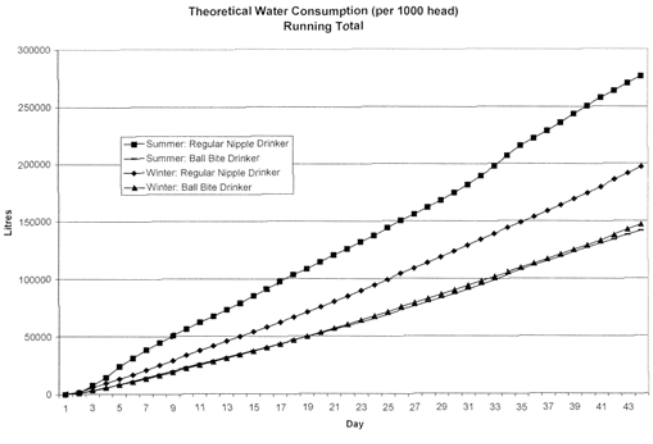
The next time you have to replace water drinkers in your operation, consider the use of bite-rite drinkers. Not only will it save you money on hydro, tractors, equipment wear and tear, but it can reduce the number of manure applications. Not only does this make money sense it makes environmental sense.

Figure 1: Batch 4 to 6: Water usage variation between groups (top line is standard drinker, bottom line is ball-rite drinker)

Figure 2: Variation in Water Consumption



Submitted by Ken Marenger



Source - 2007 Banff Pork Seminar - McKerracher, Dennis, JV Farms, RR #2, High River, AB T1V 1N2; Email mckerra@telus.net

OSHAB Mortality Benchmarking Project

The OPIC Swine Health Advisory Board (OSHAB) is now past the six month mark in collecting mortality information on nursery and finisher pigs raised in Ontario. The objective of this project is essentially to create a "scorecard" for industry wide disease control and elimination initiatives. OSHAB is also involved in a similar project monitoring PRRS virus prevalence. The mortality information will likely be easier to interpret as we accumulate more periods of data. The first period (3rd Quarter 2006) may not be the most accurate representation of the industry mortality situation at the time because there were relatively small numbers of animals reported. It does, however, appear to show a gradual improvement in finisher morality over the past six months (marked in **bold** on table). This may be due in part to increased usage of Porcine Circovirus type 2 vaccines and their positive results so far. The numbers from the first quarter of 2007 are from our clients; the province-wide data for this period is currently being assembled. Because OSHAB is trying to get a true representation of growing pig death losses across Ontario each quarter, we encourage anyone who has this data available to submit it to our office. Data will be summarized and all individual data will be stored in your herd record and will remain confidential. The second quarter for 2007 covers groups that will close out from April 1 to June 30, with data collection anticipated in late June or early July 2007.

	Contin. Flow	All in/ All Out	Total	Contin . Flow	All in/ All Out	Total
1st Quarter 2007 (Clinic Clients)	**Nursery (N)**			**Finisher (F)**		
# Pigs placed	17361	51048	68409	11718	31428	43146
# pigs dead	520	1308	1828	538	1540	2078
% Mortality (weighted)	3.00%	2.56%	2.67%	4.59%	4.90%	**4.82%**
% Mortality (Minimum)	1.02%	1.11%	1.02%	2.70%	0.00%	0.00%
% Mortality (Maximum)	10.46%	8.60%	10.46%	12.10%	10.60%	12.10%
4th Quarter 2006 (Ontario)	**Nursery (N)**			**Finisher (F)**		
# Pigs placed	68352	157751	226103	39067	157605	196672
# Pigs dead	1748	4796	6544	2095	10918	13013
% Mortality (weighted)	2.71%	2.55%	2.63%	5.30%	6.09%	**5.70%**
% Mortality (Minimum)	0.60%	1.20%	0.60%	1.00%	0.11%	0.11%
% Mortality (Maximum)	6.30%	7.78%	7.78%	10.20%	15.30%	15.30%
3rd Quarter 2006 (Ontario)	**Nursery (N)**			**Finisher (F)**		
# Pigs placed	38297	60933	99230	26426	75191	10617
#Pigs dead	1064	1099	2163	1588	4515	6103
% Mortality (weighted)	3.08%	2.94%	3.01%	6.79%	5.67%	**6.23%**
% Mortality (minimum)	0.60%	1.50%	0.60%	1.60%	1.69%	1.60%
%Mortality (maximum)	5.70%	4.30%	5.70%	8.90%	43.20%	43.20%

Submitted by Steven Wolfgram DVM

PigCHAMP/PigCare News

Parity Distribution Report

The parity distribution report can be a useful tool to determine to what extent production concerns are impacted by the parity distribution of the sows. This report shows performance in four categories similar to a Performance Monitor; breeding, farrowing, weaning and population. The two typical periods of concern with respect to parity's impact on production would be older sows (parity 5 or 6 and greater), and also the transition of pregnant gilts through the farrowing room to be weaned and become bred sows. Herds with older sows have to deal with different issues than a herd that has an excessive number of gilts, but both scenarios can cause problems.

The breeding section allows you to evaluate the performance of the sow herd after breeding. Breeding performance includes all sows served during the report period. If there is a problem with repeat services, for example, this report will let us know if there is a parity effect.

Farrowing performance reports values by parity for litter size, including total born alive, average stillborn and average mummies per litter. Normally we would expect an increase in litter size over the first two to three farrowings, with a gradual decline after that. Changes in managing gilts through pregnancy and their first trip through the farrowing rooms may be needed to improve farrowing performance on their subsequent litters.

Pre-weaning mortality is another factor to consider when looking at this report. This is an area where gilts and older sows may have different issues to deal with. Gilt litters may have increased pre-wean mortality due to poor quality of colostrum, which may be improved through vaccination and/or feedback programs. Older sows may not milk as well throughout lactation.

The population section allows you to evaluate the herd parity distribution. Within this section, the ending and average female inventory, sow deaths and culls, and non-productive sow days are broken down for each parity. The herd parity distribution will reveal how much of an impact will be felt by the differences noted in the breeding, farrowing and weaning sections. Maintaining a stable parity distribution is important in minimizing these potential negative effects.

If you have any questions about parity distribution, please do not hesitate to contact a member of our Records Team.

Submitted by Steven Wolfgram DVM & Darlene McBride

Product News

Pro-Banminth

Phibro Animal Health have relocated their production facilities for Pro-Banminth from Belgium to Brazil. Application has been made to Health Canada for licensing of the product for resale in Canada from the new facility. We will keep you updated with information from Phibro detailing product availability in Canada.

Hog Jog 2007

OPIC's first annual Pork for a Cause Hog Jog was a resounding success! Last June 21st, 2006 over 200 runners & walkers as well as over 50 volunteers contributed to the Cause by raising in excess of $21,000 for the Parkinson Society. In addition, their participation recognized the contributions that Richard Hiscocks has made to our pork industry and our community. This event was also made possible by the contributions of several sponsors – Ontario Pork Congress, Ontario Pork, and PIC. Because of those sponsorship dollars we were able to send 100% of the funds raised through registrations as well as pledges to the Cause. For this, we are most appreciative.

We all contributed to a great Cause, honoured a great member of our industry, and had a great deal of fun last June, so we're planning a repeat performance! Plans for the second annual Pork for a Cause Hog Jog are well underway. Hog Jog 2007 will be held on Wednesday June 20th and its Honourary Chair will be Doug Maus – an energetic and entrepreneurial contributor to our industry who passed away in October 2006. In Doug's honour, this year's Cause will be the Heart and Stroke Foundation's AED program which provides defibrillator equipment, education and training in an effort to save the lives of heart attack victims in arenas, theaters, workplaces – anywhere that groups of people congregate.

We are looking forward to another great event that meets our objectives of giving back to the community, celebrating our people, celebrating our product, increasing awareness of a worthwhile cause, and sharing together in a fun activity! We hope that you share our enthusiasm for this event and we look forward to seeing you there!

For more information on OPIC's Pork for a Cause Hog Jog 2007 or to download the registration form, please visit OPIC's website at www.opic.on.ca or call Donna at the OPIC office (519) 272-1532.

Register on line at www.onlineregistrations.ca.