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BREAKOUT SESSION 5

Novel Research and Application

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Summaries by Terry Hockaday, Meristem Land and Science



Helmut Janz displays his award-winning innovation. Photo by Terry Hockaday

Piglet processing innovation wins BPS Aherne Award

Helmut Janz developed a tool that improves handling for baby pigs at processing and improves the health and wellbeing of farm workers. For that he has been awarded the 2014 F.X. Aherne Prize for Innovative Pork Production by the Banff Pork Seminar.

Janz, a barn manager for Maple Leaf in Zhoda, Manitoba, recognized the need for a better way to process baby piglets when he saw employees suffer repetitive stress and strain injuries as a result of performing piglet processing tasks.

His "piglet processing arm" invention gently and safely holds the animal and allows it to be pivoted and rotated during the handling process. This makes the processing of piglets a safer task by

eliminating the potential for repetitive stress and strain injuries on the employees.

The design is simple, constructed out of six simple, standardized, easy-to-source low cost parts.

A universal joint similar to what is used on power take off shafts on tractors serves as the basis for the device. A holding plate for the piglets is attached to that and mounted on the processing cart. Foam inserts cradle the piglet and a Velcro strap easily holds the piglet in place.

The processing arm attaches to a processing cart, and can be adjusted for employee height and used easily by both right and left handed people.



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With this new tool, processing tasks such as injections, tattooing, castrating, tail docking and oral drenching can now all be done with the piglet in the cradle by simply swiveling the arm to the correct position. Since the piglet can be processed without being held and squeezed by staff, there is less stress on the animal and far less repetitive stress on the staff.

The arm is now used by 40 people in 20 barns across the Maple Leaf system and will be used on approximately 1.5 million piglets annually.

As well, Maple Leaf is now manufacturing new custom designed carts for their barns with two arms. Use of the carts will be a mandatory part of operating procedures because they are seen as an important opportunity to improve injury prevention.

“Innovation is the lifeblood of any industry and the F.X. Aherne Prize for Innovative Pork Production is an opportunity to recognize those individuals who have developed either original solutions to pork production challenges or creative uses of known technology,” says Dr. Michael Dyck of the University of Alberta, chair of the F.X. Aherne prize committee.

The award is named after the late Dr. Frank Aherne, a professor of swine nutrition and production at the University of Alberta in Edmonton and a major force for science-based progress in the western Canadian pork industry.

R.O. Ball Young Scientist winners announced

Two winners of the R. O. Ball Young Scientist award were announced at the 2014 Banff Pork Seminar (BPS).

The award is named after long-time researcher and former BPS program director, Dr. Ron Ball. It recognizes outstanding young scientists and is awarded to graduate students who provide a best overall combination of good and relevant science, well-written abstract and excellent presentation.

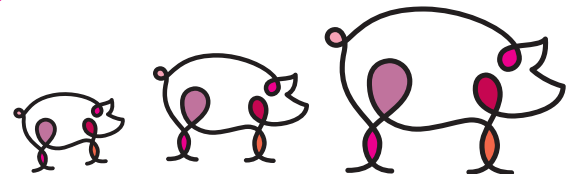
First prize went Xun Zhou of the University of Alberta, for his research paper topic “Nutrient digestibility of solvent-extracted B. napus and B. juncea canola meals and their air-classified fractions to growing pigs.”

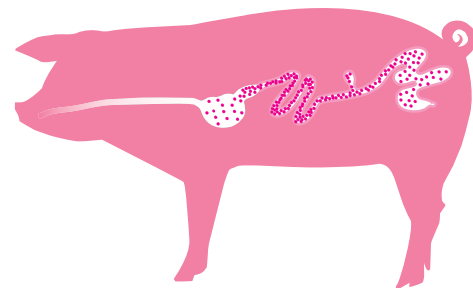
Second prize was awarded to Natalie May, also of the University of Alberta for her topic “Selection of superior sires and identification of seminal plasma proteins associated with boar fertility.” ■



Natalie May (left), Dr. Michael Dyck, Award Committee chair, and Xun Zhou. Photo by Terry Hockaday

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PLENARY SESSION TWO: What Controls Future Production?

Part one – Technology – the vital ingredient for producing efficient, affordable and abundant food globally

Jose Cardenas, Elanco, USA Summary by Terry Hockaday



Photo by Terry Hockaday

Enough.

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"It's time to solve the greatest issue of our time, securing the food we need to feed the world," says Jose Cardenas with Elanco USA. "We need to increase food production and decrease resource use. We have a window of time but the time to act is now," he told the 2014 Banff Pork Seminar.

grows to 4.5 billion people leaving about half the population without access to milk. That's five trillion servings short."

Rewriting the story

"We can rewrite the story," says Cardenas.

"Unlike many global challenges we have solutions to this problem if we act now. There are many pathways to this solution but there is general agreement that three solutions stand out as the most significant, can have the most impact and can be acted on the quickest."

1. **Innovation.** The products, practices and genetics that help farmers produce more food more sustainably. Many of these innovations are already available and proven.

"We must enable innovation more now than at any other time in our history," says Cardenas. "We must raise the bar on safety, but regulatory bodies that approve innovations must be the ultimate authority. We can't allow fringe movements or non-factual information to turn into the wrong policies and marketplace confusion that ultimately takes away proven solutions."

2. **Choice.** Farmers need to be able to choose the right practices for their operations. Consumers need to be able to choose food that fits their price, taste and nutritional needs. And we need regulators and policy-makers to make science-based policy choices. Choice must not be taken away without a fact-based, legitimate reason from science-based regulators.

The growing protein gap

When agriculture productivity lags, food gaps appear, says Cardenas. "This isn't a prediction, it's a reality," he says. For example, the 2013 Global Protein Gap analysis estimates that by 2020 the global population won't have access to one glass of milk a day on average.

"Today, globally, we have access to about a glass a day or equivalent on average. The recommended daily intake is two glasses a day. On our current productivity path, more than 500 million people won't have access to even a glass a day.

"If we look at securing two glasses of milk that our bodies really need for growth and cognitive development, the gap

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3. **Trade.** Trade is the mechanism that allows us to produce food where it is most economical and sustainable and deliver it to people who need it. Pure economics and environment prove that food must move from the most to the least productive area for a food secure tomorrow. Politics need to be reduced and trade needs to increase in parallel with local advances in food production.

A food secure tomorrow

Food security is solvable. Population growth will plateau between nine and 10 billion people. Unlike many of the world's challenges such as Alzheimer's, autoimmune disease, there are clear solutions, says Cardenas. "There is a window of time to meet the challenge. We have enough time if we act now."

"The next few years will determine if we have enough food to meet demand or if we deter middle class growth and disrupt global and environmental stability for decades to come. A healthier, more sustainable, more peaceful world is possible."

A new option

Cardenas called on his audience join a new initiative on food security launched by Elanco. They can do that by visting www.sensibletable.com, signing and sharing the "Enough manifesto," and engaging in social media conversation.

Part two - Global economics driving Canadian production

Steve Meyer, Paragon Economics, USA

Summary by Bryan Passifiume



Photo by Terry Hockaday

As Canada's pork industry is largely driven by exports, what goes on in world markets affects what happens right here at home.

Speaking of how the global economic climate affects local pork production was Dr. Steve Meyer of Paragon Economics.

The key numbers to pay attention to, according to Meyer, is 7.601 and 10.112.

According to the most recent statistics, there are currently 7.601 billion people calling our planet home right now, with that number

CONTINUED ON PAGE 38



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expected to increase to 10.112 billion by the year 2100. While populations are currently growing, Meyer says that the world's population isn't going to be increasing forever.

Population trends for the next 40 years show Africa with the greatest growth at 110 per cent. North America is next with 29 per cent, Latin America is growing at 26 per cent and Asia at 22 per cent. Europe's population, however, is expected to contract by two per cent.

These numbers, according to Meyer, are important in determining future pork needs. While Asia isn't set to grow as rapidly as Africa or North America, they do house about half of the world's population. While China is home to roughly half of the world's pigs, they export almost none of their meat, and import what they can't produce domestically. India is at the tail end of a large baby boom, with the majority of their population under the age of 20. In

40 years this boom will be middle-aged, and will be looking for sources of meat protein as their incomes increase along with the quality of their diet – what Meyer says is as typical trend among developing nations in Asia.

Other factors that mean an increased demand for pork in Asia include an increase in urbanization and an increase in income that comes with it.

To that end, world corn prices are becoming favourable as a feed crop again, thanks to flat ethanol production numbers. Meyers said that the United States biofuel policy fuelled an expansion of corn crops, with non-U.S. corn production increasing by 46 per cent since 2004, with worldwide corn stocks growing steadily.

Canada's population is an important factor in determining the cost to raise a hog from farrow to finish, a cost that sits around \$78.22, up from the

1999-2006 average of \$52, but down from the nearly \$100 at the beginning of last year.

Canada ranks as the 38th most populous country, but is the eighth least densely populated, averaging about 8.8 people per square mile – roughly equivalent to Botswana and Guyana. Canada's crops, however, cover 24.4 million hectares (60 million acres,) and averages out to about 1.7 acres per person – compared to .7 acres per person in the U.S.

The main issue here, according to Meyer, is that Canada's economy depends on a steady export of agriculture, including pork. In terms of productive capacity versus population, a sound and effective export and marketing program for Canada is critical. There are about 0.38 pigs per person in Canada, roughly the same as China (0.35 per person), the European Union (0.33) and the United States (0.21) -- the numbers come into perspective when you consider that China's population is 1.3 billion people compared to Canada's 35 million.

How well Canada is able to compete on the world stage when it comes to pork exports depends greatly on the world currency market. With the Canadian and US dollars in constant change over the past 40 years, Meyers says it's difficult to maintain a consistent trade policy and keep prices from fluctuating. While parity between the two currencies is good, and a lower Canadian dollar is good news for exporters, stability is more important over the long run. ■



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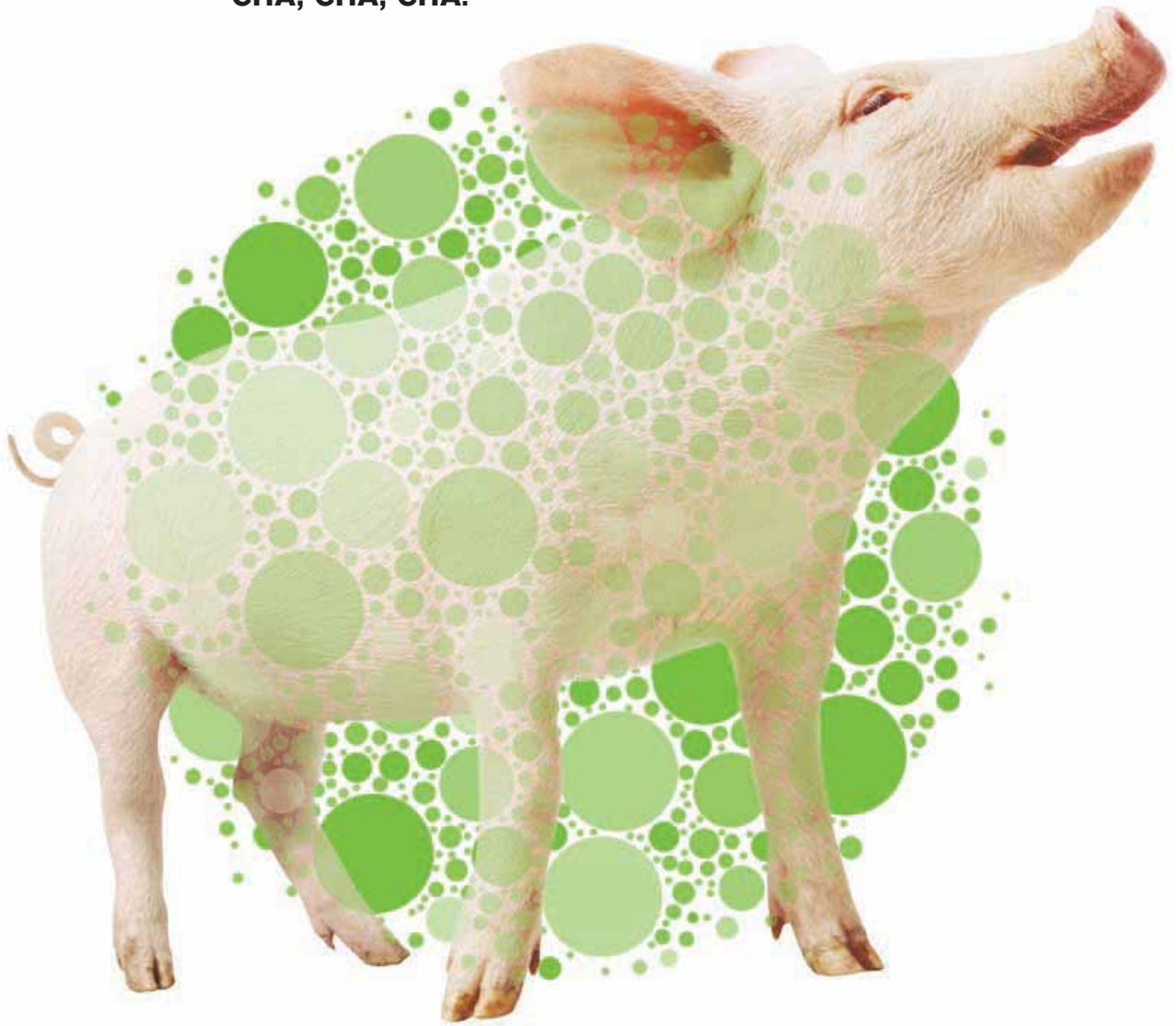
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BREAKOUT SESSION 6

Long Live the Hyperprolific Sow

It's not how many sows you have, it's how productive they are...

Summary by Bernie Peet, Pork Chain Consulting, Lacombe, Alberta

Speaker one - William Flowers, North Carolina State University
Gilt and sow management considerations in sow longevity

Sow productivity has increased dramatically over the last 10-15 years, primarily due to increased litter size. As a result, many producers are now achieving 30 pigs or more weaned per sow per year. This large improvement in output, though, has increased the demands on the sow and may be the reason why sow replacement rates in many countries have gone up. In this breakout session, Dr. Billy Flowers, from North Carolina State University, described an ongoing research project which is investigating the differences between two farms, one with high sow longevity and one with low longevity.



Photo by Bernie Peet

High replacement rates for first and second parity sows have skewed current parity structures on many sow farms towards younger, less productive females, according to Dr. Flowers. As a result, he said, herd productivity is being limited because females are culled before they reach their peak periods of reproductive efficiency. Current research by Dr. Flowers and his team involves comparing conditions and management practices on two similar farms, one with high, and one with low

sow longevity. While the study is not yet complete, it has already revealed a number of factors which are thought to be related to sow longevity.

The comparison involves two 2,400-head commercial sow farms that receive replacement gilts from the same gilt multiplication system, which eliminates any effect on longevity of management prior to delivery. "The definition

being used for sow longevity is the proportion of sows that produce 6 litters," explained Dr. Flowers. "The high longevity farm typically has 26% of its sows reach their sixth parity, while only 12% of sows produce six litters on the low longevity farm."

Sow productivity has increased dramatically over the last 10-15 years, primarily due to increased litter size. As a result, many producers are now achieving 30 pigs or more weaned per sow per year.

Although the results are preliminary, there are some interesting trends developing between the high and low sow longevity herds. "After sows were rebred after their first lactation, the high longevity farm still had 78% of the gilts in production while the low longevity farm only had 58%," noted Dr. Flowers. "The majority of this difference appears to be related to the proportion of gilts and first parity sows that were bred - 98% of the gilts that were delivered to

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the high longevity farm were bred and entered production compared with only 83% of their contemporaries on the low longevity farm.” Farrowing rates for first parity sows were comparable for both farms, he adds. There was only a 4% loss of sows from weaning to rebreeding on the high longevity farm compared with a 12% loss over the same time frame on the low longevity farm. This trend continued during the rebreeding of sows after weaning their second litter. “It appears that factors related to breeding in general and how sows are managed during lactation play significant roles in differences between the two farms in terms of sow longevity,” Dr. Flowers suggested.

One difference between the two farms that is likely related to differences in culling of young females is the age of boars used for oestrus detection and how they are managed. “The high longevity farm uses 14 month-old boars and collects them periodically after heat checks. In contrast, the low longevity farm uses boars that are older than 24 months without ever collecting them,” Dr. Flowers pointed out. “Boars on the high longevity farm appear to have increased libido and both the sows and gilts show enhanced standing reflexes compared with the low longevity farm. This, in turn, produced higher mating quality scores.” Bred females

consistently show more intense initial standing reflexes and accept semen better on the high longevity farm, he noted. Examination of the ovaries of gilts culled because they were never bred indicated that they did ovulate at some point but their oestrus was not detected. “Routine collection of boars used for detecting estrus appears to have a positive effect on behaviours associated with high levels of libido and stimulation of oestrus behaviours in gilts and sows,” Dr. Flowers concluded.

Another difference between the two farms is that, on the high longevity farm, a single person is responsible for breeding all the gilts and, after breeding, moving them to their gestation stalls. On the low longevity farm, these tasks are performed by different members of the breeding barn staff. The researchers note that movement of gilts into gestation stalls takes less time on the high longevity farm. A subsequent behavioural test, which measures a pig’s interaction with farm staff, showed that there were fewer, but longer, interactions between the person managing gilts on the high longevity farm, indicating less fear. “The significance of these observations remains to be determined; however, it is tempting to speculate that if they are representative of animals that are calm while being handled by workers, then this could

CONTINUED ON PAGE 42



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have benefits not only in breeding, but during farrowing and lactation as well,” commented Dr. Flowers.

Sows are assisted fairly aggressively during farrowing on the high longevity farm compared with the low longevity farm. “It is interesting to note that the high longevity farm has fewer sows with a retained placenta or dead piglets and fewer sows that experience transient decreases in feed intake during the lactation period,” Dr. Flowers said. “It will be interesting to see if these trends continue. If they do, then it would be tempting to suggest that, in this production system, failure to assist sows leads to increases in retained piglets, which, in turn, could affect their feed intake temporarily later in lactation.” Decreases in feed intake between 5 to 7 days have been shown to change important physiological aspects associated with resumption of reproductive activity of sows after weaning, including their subsequent fertility, he noted.

As the study continues, and the sows move into later parities, it is expected that more differences in management that can be linked to longevity will emerge between the two farms. “Hopefully, this information will provide a blueprint of sorts that production systems can use to develop their own management checklists for improving sow longevity,” concluded Dr. Flowers.



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Speaker two - Chantal Farmer, Agriculture and Agri-Food Canada Milk production and mammary development

As litter size has increased in recent years, one management challenge is to ensure that all the piglets in a litter receive sufficient milk for optimum growth. While milk yield is influenced by numerous factors such as litter size, parity, nutrition, genetics, management, environment, and endocrine status, the topic of mammary development is often overlooked, said Dr. Chantal Farmer, a scientist at the Agriculture and Agri-Food Canada Dairy and Swine R & D Centre in Sherbrooke, Quebec. She reviewed the factors influencing development of the udder and whether they can be manipulated to increase milk output in the sow.

“Mammary development in swine occurs at three developmental stages: from 3 months of age until puberty, during the last third of pregnancy, and during lactation,” explained Dr. Farmer. “It is controlled by a complex interaction of various hormones. During gestation, oestrogens and prolactin are essential for mammary development, and relaxin is also needed to stimulate total mammary gland growth.” She described two studies in which gilts were given an injection of prolactin, from 75kg for a period of 28 days. This increased their mammary development, either measured visually, or by direct measurement on the carcass. However, the impact of such a treatment on subsequent milk yield is not known, and furthermore, porcine prolactin is not currently available commercially, she said.



Photo by Bernie Peet

Nutrition has some influence on mammary development in growing gilts, according to Dr. Farmer. “Either a 20% or a 26% feed restriction from 90 days of age until puberty drastically reduced mammary tissue mass in one trial,” she noted. “On the other hand, earlier feed restriction, from 28 to 90 days of age, did not affect mammary development at puberty. Furthermore, lowering protein intake (14.4 vs. 18.7% Crude Protein) during the period from 90 days of age until puberty did not hinder mammary development of gilts.”

Dr. Farmer described an interesting phenomenon, involving supplementation of the gestation diet for sows with 10% flaxseed from day 63 of gestation until weaning. “Beneficial effects - a 30.9% increase in the mass of milk-producing tissue and an 11.6% increase in number of milk-producing cells - were noted in the mammary tissue of the female offspring of these sows at puberty,” she explained. “This was the first demonstration of such an *in utero* effect and it opens new avenues in terms of potential management methods to stimulate mammary development of gilts.”

As litter size has increased in recent years, one management challenge is to ensure that all the piglets in a litter receive sufficient milk for optimum growth. While milk yield is influenced by numerous factors such as litter size, parity, nutrition, genetics, management, environment, and endocrine status, the topic of mammary development is often overlooked.

During gestation, feeding very high energy levels may have detrimental effects on mammary development and subsequent milk production due to an increase in fatty tissue in the udder, Dr. Farmer believes. However, increasing the amount of dietary protein from 4 to 16 grams/day did not affect mammary development but may increase subsequent milk production. “When manipulating body composition of gilts by changing their protein and energy intake during pregnancy, overly fat gilts (36 mm backfat at the end of

gestation) on a high energy-low protein diet had reduced mammary development and produced less milk than leaner gilts (25 mm backfat) at the same body weight,” she pointed out. “However, backfat of gilts in that study was much thicker than what we normally observe, and the ideal body condition required to ensure maximum mammary development in late gestation should be investigated further.”

Feeding in lactation also affects mammary development, Dr. Farmer noted “An increase in weight of functional mammary glands is seen when sows are fed either more protein (65 vs. 32 grams of lysine/day) or more energy (17.5 vs. 12 Mcal ME/day). It is therefore imperative to maximize sow feed intake during lactation.”

Dr. Farmer’s recent research has shown that teats that are used in first lactation will produce more milk in the second lactation. “Indeed, piglets suckling teats which were previously used weighed 1.12 kg more on day 56 than piglets suckling a previously unused teat,” she said. “Furthermore, development of a teat that was previously used is improved in the second lactation and piglets suckling teats which were not used previously show a greater level of hunger in second lactation.” Interestingly, piglets seem to be able to differentiate between previously-used and -unused teats, she added.

With the current use of hyperprolific sow lines it has become important to provide the best-adapted management and feeding strategies to improve upon it, Dr. Farmer concluded. “Nutrition of replacement gilts and of sows in late pregnancy requires special attention to ensure maximal mammary development and future milk yield potential,” she stressed. “Management of first-litter sows can also impact subsequent lactation performances.”

CONTINUED ON PAGE 44

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Speaker 3 - Mark Wilson, Zinpro

Managing sows for optimum retention

The sow culling rate in US breeding herds has been going up over the last 10 years and now stands at about 53%, according to Dr. Mark Wilson, with Zinpro Corporation, Eden Prairie, MN. The loss of young females, early in their reproductive life, is a feature on many farms, primarily due to lameness and breeding problems, he notes. Dr. Wilson examines what can be done to increase the retention of gilts and young sows, so that they reach the most productive parities.

“A high sow turnover rate indicates that more gilts must enter the herd to maintain inventory,” Dr. Wilson explained. “This increases the number of progeny born to first parity sows, which has several consequences for the performance of the breeding and growing herd. Gilts usually have a decreased



Photo by Bernie Peet

litter size in comparison to multiparous sows, and their piglets are lighter at both birth and at weaning, compared to older parity sows.” These differences in weight at weaning have been shown to increase in magnitude by the end of finishing, he added.

Gilt progeny also are more susceptible to disease than are pigs born to sows, with increased rate of mortality and medication costs. “The differences in performance of gilt progeny may be due to lower colostrum intake, poor

transfer of immunity from the sow and reduced concentration of immunoglobulins in milk,” Dr. Wilson pointed out. “The overall impact of the indirect effects of high culling rates is that feed efficiency is negatively impacted as increased proportions of gilt progeny enter the grow-finish groups.”

Dr. Wilson suggested a target replacement rate of 42 - 45%, noting that a figure of less than 40% would lead to excessive aging of sows in the herd. “Setting a goal of more than 70% of the gilts entering the reproductive pool and remaining in the herd until at least parity four will optimize retention and profitability of the sows,” he said.

Because culling of young animals is such a problem, attention to gilt management is crucial, Dr. Wilson noted. “An important goal is to create a female pig that will lose less body mass and overall condition through the first parity, which increases the potential for greater reproductive performance in subsequent parities,” he suggested. “Different gilt genetics have different feeding recommendations to optimize litter size and reproductive performance and we encourage you to follow the recommendation of your genetic supplier.”

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“Ensuring sufficient feed intake in lactation is essential for young females, Dr. Wilson stressed. One study showed that sows consuming less than 3.5 kg of feed per day during the first 2 weeks of lactation were more likely to be removed from the herd before their next parity,” he said. “The odds of removal were highest for sows that failed to consume feed during any single day of the first 14 days of lactation. The bottom line of this study is: If sows don’t eat in lactation, they are going to leave the farm.” He noted that, in lactation, nutrients are prioritized for milk production and lean body growth, not reproduction, so that insufficient feed intake

will result in failure to show oestrus after weaning. Over-conditioning gilts and sows in late gestation has a large impact on feed intake in early lactation, he added.

Lameness is a major cause of premature removal of sows and any type of inflammation will lead to loss of performance, Dr. Wilson explained. “Inflammation affects the partitioning of nutrients toward the immune system and away from production,” he said. “Thus, it is better to prevent inflammatory conditions, such as lameness and disease, because they impact nutrient utilization and decrease reproductive productivity.” ■



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BREAKOUT SESSION 8

Swine Health Update

Biosecurity never more important than today – especially once PED is present

Summary by Bryan Passifiume

“You eventually get what your neighbour has..”

This oft-repeated sentiment is especially true in the world of swine production, especially amongst local producers.

Keeping information moving faster than the latest outbreak is the challenge faced by today’s pork producers. Proper biosecurity measures rely on efforts by those in every link on the production chain, from local pens to transporters to processors, all working together to ensure the industry remains healthy and economically viable.

Speaker one – Martin Misener, DVM

Transport Biosecurity: The Risks and Realities in Today’s Swine Industry

One of the most virulent vectors for disease in any animal-based agricultural operation is transportation. Ontario, for example, moves nearly five million market hogs annually, amounting to 65 truckloads on the road every day of the year. These numbers don’t include the transportation of non-market breeding stock, culls and feeder pigs, all transported in various stages of growth and health.



Photo by Sheri Monk

Transportation biosecurity was the subject of a 2012 Ontario Swine Health Advisory Board study that analyzed the industry’s current capacity to control the spread of disease during transportation.

The project had five goals:

1. Assess the capacity of the Ontario industry to wash swine transport trucks and trailers;
2. Assess the current range of practices being used;
3. Identify the gaps and provide recommendations to address these gaps;
4. Identify the best practices and protocols already used in the North American swine industry and modify and/or improve on them for use in the Ontario industry;
5. Engage the industry and make it truly a consultative project.

The information and materials generated from this project are available on the Ontario Pork Industry Council web page at www.opic.on.ca

Contaminated trucks risky

At the time of the report, it was thought that contaminated trucks would be the likeliest vector for the introduction of Porcine Epidemic Diarrhea (PED) into Canada’s pig farms. These predictions eerily came true after PED showed up in Canadian swine, 11 farms so far as of mid-February. Officials believed that contaminated trailers returning to Canada empty after delivering hogs to the United States may have been behind the disease’s northern spread.

The report identified seven key findings, as presented by the board:

1. One of the most significant gaps identified was the need for practical education efforts on best practices for truck washing.

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There was already some excellent educational information developed, but for the most part it tried to incorporate both rationale and required steps together into a protocol—a more straightforward visual teaching aid was required. In response to this gap, a poster was developed outlining the steps required to properly scrape, wash, disinfect, and dry a pig transport truck and trailer. A best management practices handbook was developed using Canadian Swine Health Board materials as a template. This provided rationale and references for the poster. In consultation with transporters and producers, two videos were developed. The first one focused on how to properly wash a truck and trailer. The second video walked the viewer thorough a washed trailer audit. The trailer audit video specifically addressed the request from transporters that “it would be great to know exactly what was required for a truck to pass an audit”. The development of these materials is only filling the gap if they are made available to their target audience and become used.

2. Truck and trailer wash capacity was another substantial gap within our Ontario swine industry. It is very difficult to accurately assess the need and the capacity for truck and trailer wash. The industry uses commercial transport and farm-owned “internal transport”. However, wash, disinfect, and dry capacity is important for all transport events. After taking into account the estimated amount of internal transport as well as understanding the range of knowledge with regards to best management practices, it is our (OSHAB’s) belief that the Ontario Industry is lacking at least 33% of the wash capacity that would be required for a major disease control initiative. Part of the bottleneck is the length of time it takes to follow the best management practises for truck and trailer hygiene. This time is significantly extended when trailers have frozen or baked on manure and bedding. In the United States, there are more commercial wash bays available for transporters so this problem is reduced. However, contamination at the wash bay is a real concern, and wash bays need to be well designed to prevent this. The project proposed that scrape out and high volume facilities be made available in Ontario,

particularly for trucks returning from slaughter plants. Ideally, these facilities would be in close proximity to packing plants and in pig-dense Southern Ontario. Manure and bedding could then be removed before it could freeze or get baked on. Then the truck cleaning would become a two-step process. The final high-pressure wash, disinfect, and dry could occur at the transporter’s facility, reducing time requirements at that facility and improving the efficacy and efficiency of the process. To achieve this recommendation, government funding would be required to help establish the initial wash sites.

It costs between \$400 and \$800 to clean a truck from its cab to the trailer, not counting the money lost as the unit sits idle during the cleaning. Innovative ways should be found both to ensure proper disease protocols are followed while reducing the cost and hassle of current cleaning procedures.

3. With regards to producer (as opposed to commercial) transport, clearly farm level facilities fall into two categories. A small minority have well-appointed wash bays that conform to the standards required to minimize disease risk.

The vast majority have inadequate facilities, and protocols and producers often lack a basic understanding of the requirements to minimize transport risk. Funding and education are very much needed to help correct this gap.

The Canadian Swine Health Board National Biosecurity Program initiative is a good start; however, much remains to be done. This area may be a very good place for future funding. Incentives to assist producers in upgrading wash facilities would be well received. It is recommended that funding for on farm wash facilities be tied to having facilities that meet certain basic biosecurity criteria.

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4. Another way to attain the goal of reduced disease transmission via pig transport, and therefore better disease control, would be to understand the health status of pig sites. In Ontario, knowing PRRS status of a site, in real time, would be a critical element to disease control. Knowing PRRS status of a site would enable organizing transport from highest to lower health status.

This could be a key to reducing the risks associated with pig transport.

Transporters, producers, and veterinarians all agreed that knowing PRRSV status is currently a major gap and one that we must find solutions to. Immunity to PRRSV is strain-specific, so even if a site is positive, it does not reduce the risk of it becoming infected with a new strain. However, if the pigs loaded on a truck are known to be negative, the risks to the next load of pigs on that truck are significantly reduced. The OSHAB study found that, when asked, transporters indicated



Part of Dr. Miesener's presentation showed a photo of a truckload of dead piglets struck by the PED virus. Photo by Sheri Monk

that they would use PRRSV status information to influence route planning and wash procedures. The transport project researchers were very impressed with the overall desires of transporters to do whatever they could to reduce the risk of disease transmission for their customers.

5. One area that may provide risk reduction is implementation of low cost alternatives to truck washing. Because of the PED outbreak in the US, we evaluated our highest risk transport events and identified that cull animal transport is a significant risk to the Ontario industry. In one particular situation, dedicated trailers haul cull animals from an assembly yard in Ontario to US packing plants and the

trailers are not washed when they return. This provided an opportunity to assess the efficacy of a scrape out and "dry" disinfection process in reducing the pathogen load on pig transport trailers. The trailers are scraped at a low risk site and then go to a nearby building to be dry powdered with Stalosan F. The powder is applied with a leaf blower, using the recommended application rate. Stalosan F has been shown to be an effective dry disinfectant in the presence of organic material (Rabbe et al 2012). If this proves effective, the benefits could be two-fold. For those vehicles going on to a full wash in Ontario, the dry disinfected trucks would reduce the risk of contamination of the existing Ontario

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truck wash facilities. For those vehicles cycling between cull pig assembly yards in Ontario and U.S. packing plants, the potential for disease such as PED to contaminate the Ontario assembly points would be reduced. OSHAB hopes to have a project demonstrating proof of concept done before the 2014 Banff conference.

6. A further potential risk reduction method may be the use of some form of antifreeze used to apply disinfectants to trailers in the winter when freezing is going to occur. In 2005, Scott Dee et al. demonstrated that Synergize plus antifreeze did not freeze at -20 C and trailers that were washed and disinfected with this combination were not infectious (for PRRS) 8 hours later. However, trailers washed and disinfected with Synergize and water and frozen within 60 minutes were infectious 8 hours later. (Dee et al, 2005) Even though this experiment was conducted in 2005, the knowledge gained has not been applied within our industry.

7. More work must be directed at the farm level to design and use more bio secure load-out options and positive pressure load outs. Providing good, workable options for driver entry and exit to the trailer in any weather condition will bring us significantly closer to having reduced disease transmission in our swine industry.

Industry lacking

Dr. Misener's conclusion is that the transportation network for Ontario's swine industry is lacking. The recent outbreak of PED was traced to exactly what both the OSHAB and Dr. Misener feared – inadequately cleaned trucks. Dr. Misener feared that the high cost to properly clean and disinfect the truck, not to mention the equipment downtime as this is performed, would be a primary factor in future disease outbreaks. It costs between \$400 and \$800 to clean a truck from its cab to the trailer, not counting the money lost as the unit sits idle during the cleaning. Innovative ways should be found both to ensure proper disease protocols are followed while reducing the cost and hassle of current cleaning procedures.

Speaker two – Chris Byra, Manager, Canadian Swine Health Intelligence Network

What Surveillance Using the Canadian Swine Health Intelligence Network (CSHIN) Can Do for the Producer and the Industry



Photo by Sheri Monk

A report issued in 2011 by the Canadian Swine Board identified a number of worrying gaps in the surveillance of diseases among Canada's swine herds, prompted by the 2004 Circovirus outbreak that saw considerable losses in this country's pork industry. "Gaps in knowledge, the use of laboratories, communication between stakeholders, a lack of commitment by decision makers (governments and industry), and a lack of coordination in responses were identified,"

Byra said. "The Canadian veterinary diagnostic laboratory capability was good, although not in all regions."

Keeping tabs on outbreaks, both current and projected, is the job of the Canadian Swine Health Intelligence Network, created in 2012, addresses worrisome gaps in how swine disease information is collected. Going beyond blood tests collected by government inspectors, disease surveillance is the responsibility of everybody in the industry.

A statement from the Surveillance Working Group of the national Animal Health Strategy made in 2008 says that information from surveillance, "*Advances our ability to respond in a more predictable, measured and logical manner. Response can imply a multitude of things covering a range of*

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activities from basic investigation and communication events through to establishing research priorities and major disease control programs.”

Canada, as a leading exporter of meat, is expected to conform to the mandates laid out by the World Organization for Animal Health – the requirements of which have evolved over the years from one that ensures the exportation of disease-free meat to meeting certain criteria involving the tracking and monitoring of future outbreaks.

Passive vs. Active monitoring

Legislation maintains lists of reportable diseases that should be part of ongoing surveillance programs – diseases that are not only of immediate concern to local herds, but ones that could potentially affect overseas customers.

“Historically, there has often been a significant delay in detecting outbreaks, since detection requires the observation of symptoms or pathology that is recognized as being a reportable disease,” said Byra. “Active surveillance is still intermittent, and will usually miss the initial case of a new disease.”

Byra stated that active surveillance, which involves regular testing of animals, seldom catches a new disease at its onset. Individuals on the farm-end of the supply chain, including vets, farmers and producer organizations are often seen as the first line of detection for endemic disease outbreaks.

Diseases such as African Swine Fever, Swine Flu (H1N1), Foot & Mouth Disease and Pseudorabies are ones that are, by virtue of legislation, monitored on a federal level, whereas local industry and informal veterinary information networks normally monitor outbreaks of E. Coli, Circovirus, Swine Dystentry and Coccidia.

The 2004 Circovirus outbreak in Canada's pork industry showed the dangers of an ineffective monitoring network. The industry was slow to react to the outbreak because information was not being shared.

The 2004 Circovirus outbreak in Canada's pork industry showed the dangers of an ineffective monitoring network. The industry was slow to react to the outbreak because information was not being shared.

Keeping open lines of communication between all levels is an important part of keeping track of disease trends. The study by the Canadian Swine Health Board examined the gaps in the surveillance network at the time, identifying several across all facets of the swine production and health management industry.

Protecting confidentiality in the information chain

The 2011 study stated that veterinarians are a key part of the information chain. According to Byra, the study included three recommendations.

“The first recommendation was to develop a swine veterinarian communication network with regular meetings and reports about the current status of the health in the Canadian herd,” he said.

The second recommendation called for a data network, one that would collect information while keeping the identity of the farm secret. One of the key issues in the report was a lack of ability to report herd issues by farm workers and veterinarians. Information was shared informally between vets, but due to confidentiality reasons couldn't be shared on a wider scale, or even with neighbouring farms.

“An event detection system would monitor the information in order to recognize changes in health preceding the confirmation of a diagnosis,” explained Byra. “The response to a health change, where warranted, could occur through the communication network.”

Recommendations from the report prompted the formation of the Canadian Swine Health Intelligence Network in 2012, a way for practitioners to submit vital information about current herd health trends – not only to help producers get inside the spread of disease in their animals, but as a means of protecting privileged information. Information about health issues at specific farms submitted by veterinarians are kept anonymous in order to preserve these confidentiality obligations.



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Canadian Swine Health Intelligence Network

The network, as stated above, was created in 2012 as a direct result of the 2011 report.

Thanks to the CSWHIN, swine health specialists are able to access up-to-date information on the current health of Canada's swine herds. In addition to confidential updates filed by vets on an ongoing basis to report their field observations on herd health, local health practitioners are queried on a quarterly basis by the network to discuss trends, changes, treatments and new virus strains. All of the information is stored in a central information bank. This information is available to health specialists and vets across Canada, producing an accurate snapshot of current herd health.

"The goals are to react to changes in health more rapidly in a more co-ordinated manner, and to understand where health problems exist and how to keep them out of your region," Byra said. "Circovirus and PRRS have taught us valuable lessons in working together to manage the costs of these diseases."

Using Circovirus as an example, observations of local pigs were made without putting the symptoms into a larger, industry-wide context.

"Subtle changes in a region or over time can be recognized as a new problem," explained Byra. "If each veterinarian reports the one or two farms where they observed more coughing or lameness, for example, a health event is recognized. Although the practitioners are unaware of each other's problems, and the cases don't seem to be linked, a health change will be evident."

The network, on the other hand, can also show where disease isn't. Before confirmed cases of PED were found in Ontario, regional reports of diarrhea among piglets were quickly identified. The network allowed quick response from vets to confirm that these cases were not caused by PED.

"The network has been set up with producers at all levels of decision-making," said Byra. "Confidentiality is critical. It responds to diseases that normally fall through the cracks,

common endemic diseases that cost money, but are not the responsibility of any level of government – Brachyspira, for instance."

The CSHIN is a model that is catching the attention of other countries, who are looking to the Canadian example to create similar networks of their own.

Byra says that the CSHIN gives both vets and producers the tools they need to not only keep their local animals healthy, but also to contribute to the overall well-being of the industry nation-wide.

Speaker 3: Leigh Rosengren DVM, PhD Local Disease Surveillance: Tools to work locally to keep disease out of your herd

While national networks provide national snapshots of herd health, the front line of maintaining a healthy herd comes down to the local producer.

Keeping disease contained locally has led many producers to form regional disease information networks in order to share real-time information with their fellow producers.

Herd diseases seldom stay contained to one pasture, so producers have found that it's in their best interests to contribute local information to their counterparts.

The presentation by veterinarians Leigh Rosengren and Manon St. Hilaire explained: "Many producers have chosen to join together to voluntarily share their current health status, diagnostic monitoring results, and biosecurity efforts. This information helps us understand local health risks and see interventions that were not obvious when our perspective was limited to an individual herd. Voluntary health status sharing and regional collaboration is an industry innovation that allows for new ways of doing business."

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This local information network not only presents a local picture on current swine health, but also identifies trends that might not be evident on smaller scales.

These projects vary drastically from national disease surveillance programs, but these ‘grassroots’ collaborations contribute valuable information that put regional health issues into a national context.

“All projects aim to reduce the health, welfare or economic impact of at least one known endemic disease,” they continue. “All projects are based on the voluntary sharing of nominative health information. Participants openly share their name, location, and health status with other participants. From this it is clear that regional disease control is very different from national disease surveillance.

These are complementary concepts but they are not interchangeable.”

The outbreak of PED in the United States highlights the importance of regional information sharing efforts in action. Producers were able to create monitoring plans and implement control strategies based on shared information -- not only between local farmers, but between regional and national monitoring groups.

According to Rosengren and St. Hillare, all local projects include some sort of mapping tool, with many incorporating dynamic mapping. These web-based and secure maps provide their participants, using a PC or otherwise internet-enabled appliance, to access up-to-date maps that outline the herd health in their areas.

Information-sharing between producers also takes the onus off veterinarians to be the sole information source of herd

health, who by virtue of their profession have an obligation to keep the health of their client’s herd confidential. The information available allows producers to track many different criteria and herd relationships to identify and to ostensibly to head off possible disease vectors before they become large-scale problems.

Despite reservations felt initially by many producers, this information sharing is vital to not only preserving herd health locally, but also to feeding national information databases on overall health of Canada’s swine market.

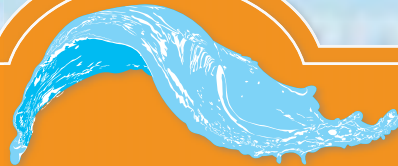
“This information can enable participants to reduce their individual risk, and if widely adopted, can affect the area risk,” they state. “It may also lead the group to recognize regionally relevant challenges or questions. Being in a structured project can enable producers to initiate their own trials or studies to find solutions. Regional networking means that these findings are shared between projects and with the Industry in general.”

The information can also help reduce risk by liaising with the service industry. While insuring that off-site contractors work on low-risk farms before visiting high-risk ones seems like a small step, existing regional information partnerships have shown that steps like this can make a big impact in reducing the spread of disease.

Despite reservations felt initially by many producers, this information sharing is vital to not only preserving herd health locally, but also to feeding national information databases on overall health of Canada’s swine market. ■



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BREAKOUT SESSION 9

Controlling Feed Cost

Feed Energy in the Balance – Joel DeRouchey, Kansas State University

Summary by Christina Carley, Alberta Pork Producers

Introduction

Many questions surface when producers and nutritionists consider the feed fed to their pigs. What feed? What price? What formulation? Sourcing the feed?

Several factors must be considered when attempting to answer these questions, including, but not limited to the ability to consistently source high quality ingredient, feed mill bin space, production constraints, carcass weight targets and diet formulation methods. This paper explores how the breakeven of certain ingredients is influenced by diet formulation as well addressing factors resulting in the diet formulation being utilized. The information builds upon the principles of Tokach et al. (2013) which outlines the effects of lower energy, high fibre ingredients.

Diet Energy Formulation - Impact of Diet Energy

Digestible amino acids, energy and mineral concentrations of ingredients vary based on diet composition, which can influence the economic decision to utilize those ingredients. This paper will focus the role of diet formulation based on energy density of ingredients and the resulting breakeven price of swine diets. Two primary factors that drive ingredient selection when formulating the energy concentration in swine diets are allowing diet energy and F/G to be variable as the ingredient is added or keeping dietary energy and F/G constant.

1.1 Formulating to allow diet energy to change

Many producers formulate diets to allow the dietary energy to be variable thereby providing the lowest cost per kg of gain. Although a popular method of diet formulation, there are some downsides to decreasing diet energy including;

- ADG will normally be reduced as dietary energy decreases. A general rule of thumb is that ADG changes by about 3% for every 100 kcal/kg change in ME content of the diet.
- Feed efficiency is always worse when diet energy is lowered.
- Carcass yield is reduced if the low energy ingredients utilized are also higher in fiber.
- Bulk density of the diet is reduced, thus, transportation cost can increase if more loads of feed are required and a lower volume (weight) of feed can be stored in the bins. Bulk density also affects feed handling characteristics that may lead to a higher number of feed outages.
- Manure handling systems will be influenced by an increased volume of manure produced and manure tends to have a higher level of retained solids.

To determine if these low energy diets are economically justified, producers must consider if the cost of these negative impacts are offset by the savings earned using the low energy ingredients. In addition, education of production staff regarding diet changes and the ensuing production goals (ADG and F/G) changes must be also be considered.

1.2 Formulating to a constant diet energy

In order to maintain a constant energy level in the diet, lower energy ingredients will only be economical when combined with a higher energy ingredient to reach the base diet energy level. This method is optimal for nutritionist when using a least cost diet formulator as the dietary energy can be “locked” therefore optimizing the ingredient combination. In this fashion, only the ingredient prices need to be

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updated and a new diet can be generated to match the diet specifications in the formulator.

Sow productivity has increased dramatically over the last 10-15 years, primarily due to increased litter size. As a result, many producers are now achieving 30 pigs or more weaned per sow per year.

It is worth mentioning that although ADG and F/G “should” be unchanged with this type of diet formulation method, there are some negative impacts to its use. An abundance of high fiber ingredients used together can negatively impact performance. In addition to this, the above mentioned issues including carcass yield, diet bulk density, and manure generation can be present when formulating to a constant dietary energy concentration.

2. Assigning energy values to an ingredient

Assigning nutrient values to ingredient is not an easy task and various methods exist. Published sources, calculations from laboratory assays, estimations from nutrient values of other

ingredients and/or a combining of all these methods can be used to assign an energy value. All approaches have their own challenges. Lower energy ingredients are often more variable in composition, therefore the variability must be considered in formulation to avoid over-valuing the ingredient.

Energy (metabolizable or net energy) is the most difficult nutrient to estimate because it cannot be measured directly in a laboratory. Chemical analysis such as analyzed moisture, NDF, ADF, crude fibre, starch, fat and crude protein can be used to determine energy values; however, the equations used for the estimates were not developed with the ingredient that you want to assign an energy value for. Several sources of energy values or equations can be used to estimate the energy value of an ingredient including but not limited to NRC (2012), INRA (2004), etc. If the energy values are used across source, as opposed to using only one source, they can be ratioed relative to a common feedstuff so their energy value is relative to a standard that can then be used in your database.

3. Determining the breakeven of ingredients based on dietary energy

To understand how formulation method impacts ingredient breakeven, we demonstrate how the actual breakeven prices of

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barley and canola meal are altered. Using the NRC (2012) nutrient book values, all diets (Table 1 and 2) formulated were balanced for digestible (SID) amino acids, minerals, and vitamins. The NE values used from the NRC(2012) for wheat, barley, soybean meal and canola meal are 2,472, 2,327, 2,087 and 1,890 kcal/kg, respectively. We chose to formulate for a single finishing phase from 35-60 kg BW for this illustration.

3.1 Determining barley breakeven by formulation method

To illustrate how breakeven of barley relative to wheat can change, three diets were formulated (Table 1). The first diet is wheat based. The second diet was formulated with 50% barley allowing the decrease with the barley addition. The third diet was formulated with 50% barley and tallow was added to reach the same NE as the wheat based diet. All diet were formulated to a constant lysine:calorie ratio. Prices were held constant except for barley to achieve an equal cost per pig to determine its breakeven price relative to wheat.

Due to diet 1 and 3 being equal in dietary NE, the SID lysine is similar (0.91%), but for diet 2 the required SID

lysine is lower (0.87%) due to a reduced diet NE. Since diet NE varied, the feed budget and predicted F/G of diet 2 is increased compared to diets 1 and 3 to achieve the same total body weight gain from 35 to 60 kg.

For economics, barley breakeven price for diet 2 on a feed cost per pig basis when dietary energy was allowed to decrease is \$185/tonne (86% of wheat price). However, for diet 3 when dietary NE remained equal to that of a wheat-based diet, the breakeven price is \$153/tonne (71% of wheat price). Therefore, formulation method has a significant impact on whether barley will price into this finishing pig diet. Also, the cost of added fat in diet 3 will influence barley breakeven by further reducing the breakeven cost of barley when the added fat experiences an increase.

3.2 Determining canola meal breakeven by formulation method

Similar to the barley illustration, three diets were formulated to demonstrate how canola meal breakeven pricing can be altered based on formulation method. Diet 1 is formulated with soybean meal as the primary intact amino acid source. Diet 2 contains 12% canola meal replacing all the soybean meal and allowing NE to decrease. Finally, diet 3 contains 12% canola meal but is balanced to be similar in NE as diet 1. All diets were formulated to a constant lysine:calorie ratio.

Since canola meal has less NE than soybean meal, the required SID lysine level of diet 2 is slightly less than that of diets 1 and 3. Thus the feed budget and F/G are slightly higher for diet 2 than diets 1 and 3.

For economics, canola meal breakeven price for diet 2 on a feed cost per pig basis when dietary energy is allowed to decrease is \$455/tonne (75% of soybean meal price). However, for diet 3 when dietary NE remained equal to that of a wheat-based diet, the breakeven price decreases to \$367/tonne (60% of soybean meal price) (see Table 2).

Summary

Many factors come into consideration when determining the breakeven price of various ingredients. The first step will involve the producers and nutritionists communicating the production goals and educating staff on the logistics of purchasing ingredients. The second step involves the nutritionist translating these goals into a breakeven price for an ingredient in order for production staff to develop the best cost strategies. To calculate a breakeven price, it is essential that accurate nutrient values are utilized for feed ingredients being evaluated. Otherwise, by utilizing the wrong formulation method based on producer circumstances can decrease their profitability and negatively impact their long term sustainability in the swine industry. ■

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BREAKOUT SESSION 10

Advocating Pork and Production

Everyone involved in the industry has the potential to be an advocate for it

Summary by Bryan Passifiume

Speaker one - Darcy Fitzgerald,
Executive Director, Alberta Pork

Passion for Pork: Stimulating pork consumption

After several very trying years for the industry, many experts see optimistic signs of an improving future.

Executive director of Alberta Pork, Darcy Fitzgerald told breakout session attendees that while things have indeed been bleak for



Photo by Terry Hockaday

Canadian pork, there are reasons to be hopeful for the future.

"We are at a point where one might question the viability of our industry in Canada," he said. "However, there is opportunity on the horizon. With a proactive and well

thought out strategic plan, there is significant opportunity to make a positive turn for the industry through a more focused value-chain approach."

One such opportunity comes from the world's increasing hunger for imported meats, especially from western Canada.


"We proudly have some of the highest quality pork in the world, and it is primarily sold outside of Alberta," he says. "Ensuring a secure and viable domestic trade requires an effective strategy to address value-chain relationship development, and consumer awareness."

To this end, Alberta Pork and B.C. Pork have partnered to develop the *Passion for Pork* program, a multilayered approach to promote the western Canada pork industry at all levels.

"The goal of *Passion for Pork* is to change the fundamental relationship among all players in the value chain, so that they may all profit while improving the eating experience for consumers," Fitzgerald said. "Through social media and engaged chefs, *Passion for Pork* is built on the idea of providing consumers with trusted information that is easy to access and use."

Fitzgerald says that the smaller scale of Canada's pork industry, from producer to packer to retailer, is a primary talking point in the program. He says that with today's consumer becoming more socially conscious, desiring to eat locally produced food and wanting to know where their food comes from, the industry has a valuable opportunity to show that commercial pigs in Canada are among the best cared for in the world.

CONTINUED ON PAGE 58



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This idea, he says, is the motivation behind the program's tagline: *Taste Local Quality*.

He says that the program is based on the entire industry working together to increase awareness of our industry to consumers, and promote western Canadian pork from farm to plate – not only to Canadian costumers, but to markets around the world.

Fitzgerald says that a stronger domestic market results in a stronger global trade position.

“Losing market share is not a good position, especially for pork producers,” he says.

The position of producers in Canada's production and supply chain, he says, puts them at a marked disadvantage. Historically, the producer's role in the pork industry ends the moment their animals leave their farms on the way to the packing plants.

“Producers and their representative organizations have often had little say or input into how their products are ultimately marketed to consumers,” he explains. “By defaulting to others, it has removed the producer from the conversation with consumers and made him dependent on others to tell his story.”

He says that a key part of the *Passion for Pork* program is the means for local producers to ‘tell their story,’ and more importantly, take an active role in the marketing of their animals.

Fitzgerald hopes to increase local demand for western Canadian pork among consumers, and increase direct relationships between retailers and producers. Many retailers are starting to integrate ‘shop local’ programs to fulfill this need by consumers to know the path their food takes before it hits their local grocery store aisles.

“Customers want to know who is growing their food,” he says. “They want the food production story that meets their needs and gives them comfort.”

In order to engage consumers, *Passion for Pork* formulated a plan to strategically use various forms of media to direct the public to their website passionforpork.com.

There, Fitzgerald says visitors can not only find recipes, information and meal ideas, but also the ‘inside scoop’ on the pork industries in Alberta and British Columbia – tools to educate the public on how that pork roast ended up in their oven. The site, he says, tells the story of the producers, processors, retailers and food services that keep the pork industry moving.

The program makes use of television, social media and print to increase the industry's profile among consumers in western Canada.

Social media is a key part of the program's marketing strategy by offering direct engagement to the consumer.

“It is critical to engaging a new generation of pork eaters,” Fitzgerald said. “It allows us to have a conversation with both current and new customers by rising above the chatter on mainstream media that regularly portrays our industry, and agriculture in general, in a negative light.”

Bloggers based in Calgary, Edmonton and Vancouver serve as the ‘face’ of this strategy. Well connected, high profile food writers with an existing audience and credibility help to create an excitement for western Canadian pork.

“The buzz and excitement that our team creates with food, and those who love to cook and talk about food, helps to bring producers and consumers closer,” he says. “It is this fun, creative and young dynamic that the value chain also wants to tap into, and this is one more aspect that helps forge the relationships that are vital to the *Passion for Pork* objective.”

Fitzgerald says that a sound strategy is needed to counter the negative image of pork production and ensure consumers get an accurate picture of the industry.

“We have a great story to tell... with some of the most innovative and resilient producers on the planet providing safe, nutritious, world-class pork,” he says. “How we communicate that story through programs like *Passion for Pork*, and the extent to which we can change the dynamics of the value chain, will determine whether producers, packers, retailers and consumers will enjoy a happy ending.”



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Speaker two - Jeff Schneider, MarketingNinjas.com

Proactive, Positive, Promotion: 3 Ps to social media success

Keeping ahead of the many problems that have plagued the pork industry recently, Jeff Schneider of MarketingNinjas.com suggests a three-sided approach for pork marketers.

“With the industry coming under constant attack from government bodies, environmental groups, animal-rights activists, and retailers who buy its products, it’s vital to take a positive and proactive approach to promoting all of the good that comes out of the industry,” he explains.

The key of any marketer is to directly connect with the consumer, he says. Getting consumers to talk about the issues facing the industry is an important part of this strategy.

“It’s up to the producers to get the public up to speed on how they are addressing industry issues and help consumers understand what steps the industry is already taking,” he said. “Being proactive in promoting your industry is an important part of ensuring a bright future for pork production.”

Schneider suggests that industry is afraid of social media. He says that horror stories about PR strategies gone disastrously wrong make marketers unwilling to even attempt a social media campaign.

Many of these fears are unfounded, he says.

“Negative PR sells,” he says. “Watch the evening news and you’ll see that 80 to 90 per cent of the headlines are negative. For each negative news story, there are ten positive stories that aren’t being told. This is why you need to lean more on social channels and rely on less traditional media to tell your story.”

Schneider says that social media is just one of many tools that marketers can use. The tool itself is neutral, but it’s up to the PR team to use it correctly.

He says that social media is perhaps the fastest currently available medium to disseminate messages.

Building a message, however, is what he says makes or breaks campaigns. Ensuring ideas are properly explored and organized is essential in making sure you’re truly getting out the message you want.

As well, Schneider states that your message needs to be custom fit to how you want to express it, be it a written blog post or a video.

Promotion of your content is the last step in ensuring your message reaches the people you want. Unlike the message itself, promotion of content is essentially the same regardless of what you’re promoting. Some ideas for promoting your

CONTINUED ON PAGE 60

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content can include sharing links on Facebook, Twitter and LinkedIn, reaching out to people of influence in the industry, writing and submitting press releases that promote your content and submitting your content to industry blogs or news sources for consideration.

Schneider says that properly crafting and promoting your content is key to reaching out and engaging consumers, and ensuring the conversation about the pork industry shifts from negative to positive.

Speaker three - Teresa Van Raay, www.thewholepig.ca

Instant communication between producer and consumer

With more and more consumers wanting to know where their food comes from, producers are finding that opening up a direction relationship with consumers can be a unique way to market their products.

The Van Raays operate a thriving pig farm in Dashwood, Ontario, northwest of London near the shores of Lake Huron. They operate The Whole Pig, a website that not only markets pork produced on their farm, it tells the story about how their animals are raised and highlights a positive pork production operation in action.

“There is a major disconnect between primary food producers and the consumer of agricultural products,” says Teresa Van Raay of The Whole Pig. “At our company, we therefore state: *I am the Farmer, this is our farm, and you are buying our high quality, nutritious, protein-packed, easy-to-prepare, great tasting pork.*” This may appear to be an obvious statement to most of you in agriculture; however, when you have customers ask you, “Where is the pork from?” and they are standing 75 yards



Photo by Terry Hockaday



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from our barns, and there may be an odour, you know there is a disconnect.”

It was this disconnect that spawned the idea to directly market their product to consumers. The other was cost.

“Seeing the price in the grocery store and the difference between the two made us look at capturing some of those profits,” she explained. “Plus, we have always eaten our own pork, and when we served a basic pork chop and the comments were, *What is this? It tastes great.* We decided to share.”

Van Raay said that the decision to diversify their business four years ago. Their first step was to build an online brand via a website. Utilizing the help of companies specializing in online marketing and web development, they developed and approved a logo and tagline. They built their website based on five key points:

- A strong and clear message. “We’re not selling pork, we’re selling a healthy lifestyle,” she said.
- Ease of navigation
- Content: “Our customers love cooking information,” she explained. “I have customers call me in the muddle of cooking something with a question.” She cites relationships with established pork marketing organizations in assisting her with this.
- Community hotline: Van Raay says that building an online presence means nothing if people can’t find you. To help, they developed a presence on major social media sites.
- Responsiveness: Still in the works, they are developing their site to be easily readable on mobile platforms such as smartphones and tablets. They are located close to a major provincial park, and envision customers surfing their site from the campfire looking for good, local pork to eat.

Social media, according to Va Raay, has allowed her to expand their business and increase their pool of target customers. With the help of some knowledgeable family members she was able to expand onto social media and operate an effective presence. She also stresses that social media should be a communications tool only, and not a sales tool

She stresses the importance of personal contact, not only on the Internet but in person.

“At the farm, our pork is in another building and our customers come to our house before we go there,” she explains. “I really enjoy the time it takes to walk to the freezer. It is about two minutes at the most, however, I love the stories they tell me.”

She says that consumers enjoy the ‘human story’ behind their meat. She encourages her customers to come and visit her farm, and gladly meets issues head-on, including GMOs, factory farming, organic vs non-organic food, hormones & antibiotics and nutrition. She also stresses that her animals have but one purpose: food.

“Our bacon is from pigs we grow for meat,” she says. “They’re not pets.”

As a consequence of their extreme accessibility online, Van Raay says that they often get negative messages.

“Because we are out there, we are getting known. That is a good thing for people who want to learn about and buy pork,” she says. “However, we have gotten ‘not so nice’ emails because we’re accessible. I know we are not in this alone, and we let the proper groups know and work through them. The interesting ones appear to be legitimate questions, and then I get back a scathing review of my chosen career and personality.”

She does stress that mutual respect, even with people who have opposing viewpoints, is always the best strategy when dealing with people like this.

Going forward, Van Raay says they continue to get the word out through networking via local chambers of commerce and local marketing boards and promotion groups, as wells through local schools and community groups.

“Selling something we grow is personal, as we are asking people to put our pork in their mouths,” she says, “There has to be trust, and trust is meeting the farmer. We are 2% of the population feeding 100% of the people who eat. We need to step out and be honoured to be the farmer behind the food.” ■

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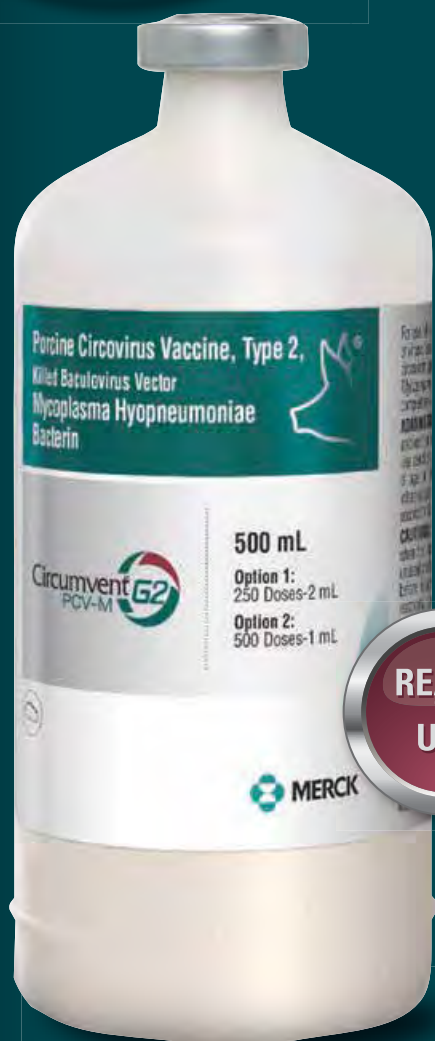
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