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### Cover Photo

Beautiful Banff: The view from the Kinnear Centre, the primary venue for the 2013 Banff Pork Seminar



# Lessons learned

Page 50

Preface .....	4
Chairman's Message .....	6
News and Views .....	8
FX Aherne Prize .....	14
RO Ball Young Scientist Award .....	16

### Banff Pork Seminar

#### PLENARY SESSION: Measuring Success

Performance metrics in a high growth environment.....	18
True measures of successful pork production .....	25

#### PLENARY SESSION: New Partnerships

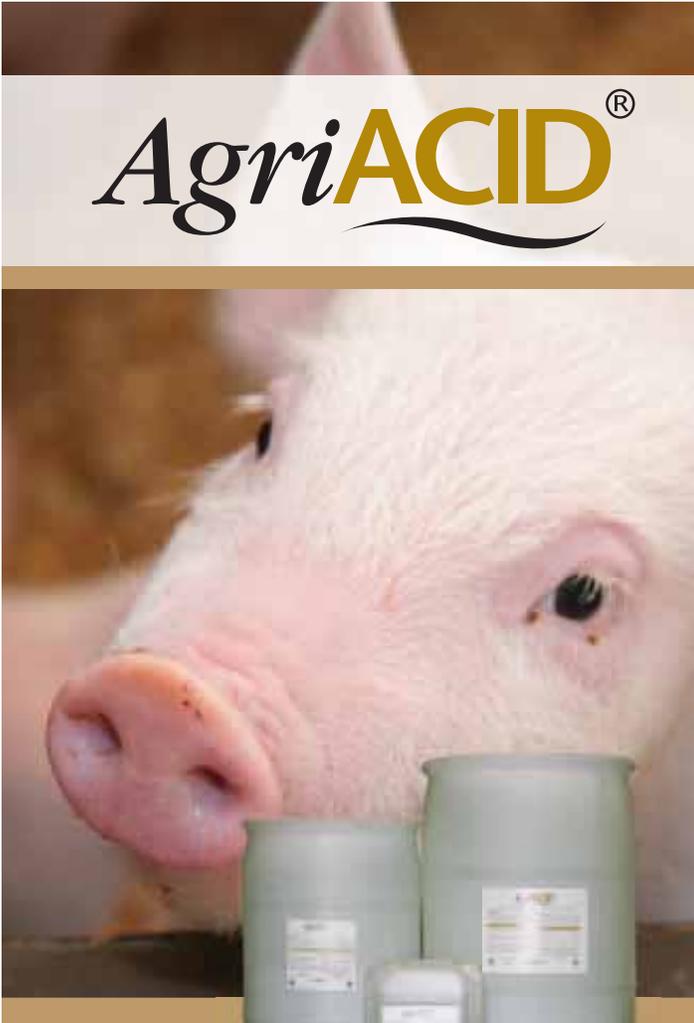
Full court press on the activist agenda .....	29
Advocating for our future in a world of opponents.....	32

#### BREAKOUT SESSIONS

Speaking up, speaking out.....	36
Competing for markets at home and abroad .....	38
Competitive Canadian pork production .....	44
Conversion of gestation stalls.....	49
Reducing antibiotics: A matter of dollars and sense.....	54
Limits and measures of biological performance.....	59
Healthy pigs mean healthy profits .....	67
Unlocking genetic potential.....	71

International Round-up .....	74
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Ad Index .....	78
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## **Banff Pork Seminar 2013 Preface**

2012 proved to be another difficult year for North American pork producers, with the US drought leading to huge feed cost increases. In addition, the pressure to move away from sow stalls intensified, with a whole host of US food industry companies announcing that they would be moving towards sourcing pork from systems which house sows in groups. Couple all this with the ongoing challenges of improving production efficiency, maintaining herd health and responding to pressures on the use of antibiotics and it's fair to say that the industry is changing faster than ever. That made this year's Banff Pork Seminar theme - "The Challenge of Change" - particularly appropriate and the topics especially relevant.

In one of the plenary sessions, the two speakers presented different approaches to dealing with pressure from animal welfare activists. Should we go on the offensive against groups like HSUS, or should we take a more persuasive approach to communicating with consumers?

The welfare theme continued in an excellent breakout session dealing with the conversion of sow stall accommodation to group housing. Other sessions included a wide range of topics covering nutrition, reducing antibiotic use, breeding herd management, health, pork marketing, challenges in the Canadian industry and unlocking genetic potential, many of which are summarized in this issue.

The original versions of the papers presented at the seminar are available in the full proceedings, *Advances in Pork Production*, Volume 24. To order a copy, call the Banff Seminar office on 780-492-3651, fax 780-492-9130 or e-mail [info@banffpork.ca](mailto:info@banffpork.ca).

I would like to acknowledge and thank those people that have helped me with summarizing the presentations for this issue: Audrey Cameron, Christina Carley and Geoff Geddes of Alberta Pork and Marvin Salomons. Also, thanks to Terry Hockaday and his team at Meristem Land and Science for assistance with editorial and photographs. ■

*Bonnie Peck*

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The 42nd Banff Pork Seminar was held at the Banff Centre January 15-17, 2013. There were 575 producers and industry partners from across Canada, the US and other parts of the world in attendance to hear local and internationally renowned speakers talk about 'The Challenge of Change', our theme. Banff Pork Seminar would not be a success without the support shown by industry partners assembled to start new

friendships and business relationships and learn and share ideas with our presenters and colleagues.

Today's livestock industry is facing new challenges. The need to change is being forced upon us. As an industry we must tackle the challenging issues and be positioned to be part of a North American Pork industry unlikely to resemble the industry we have grown up in.

1. "Measuring for Success" headlined the opening of our conference this year. A balance of leading and lagging indicators support the key metrics that business leaders translate a strategy into execution.
2. The pressure to remove gestation crates continues. There are systems designed and in place that are performing very well as we heard in our breakout sessions. The big challenge for many is the investment to fund this transition.
3. The Canadian Pork industry is under trade pressure from many different fronts. As well statistics show that Canada is consuming less pork. How do we reverse

this trend? We produce some of the best pork on the globe; it needs to generate value for our producers.

4. The cost to feed a market hog is now close to 70 % of the total cost of production. This is due in large part to high corn prices as a result of the ongoing drought in the US Corn Belt. New technologies, nutritional formulation and alternative ingredients have opportunities in our feeding programs.
5. Communication is changing rapidly. The world of Social Media is moving at a rapid pace. Over 50% of the world's population is under 30 years of age and 96% of them have joined a social network. Over 4 billion hours of video are viewed each month and over 72 hours of video is uploaded every minute.
6. Increases in sow productivity continue. We hear of 30 pigs/sow/year more frequently with the promise of more to come. The question was posed during our breakouts as to whether this is the best path to profitability or not.

Change will continue. We need to lead the change and not be forced into it.

The Banff Pork Seminar is able to attract world class presenters as a result of the excellent support of our sponsors, attendees, advisory committee members from across Canada and conference organizers Heather and Ruth Ball.

In closing, I would like to thank the Western Hog Journal and agriculture media for their coverage of this year's Banff Pork Seminar. This provides an opportunity to share the information presented at the seminar with those who were unable to attend. I know you'll enjoy reading about the innovations, management ideas and successes in this issue.

Don Down  
Chair, BPS Advisory Committee

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# News and Views

## Swine Breeding Management Workshop

The University of Alberta's 2013 Swine Breeding Management Workshop has the theme "Alternative Sow Housing & Breeding Management" and is being held on May 1st and 2nd. Speakers include Ed Pajor from the University of Calgary, Jennifer Brown, Prairie Swine Centre, Clover Bench, University of Alberta and Miquel Collell Suriñach from the University of Barcelona. The workshop is being held at the JG O'Donoghue Building in Edmonton, with practical sessions at the Swine Research and Technology Centre. The registration fee is \$250 and further information is available at [www.sbmwuofa.com](http://www.sbmwuofa.com) or from Tracy Gartner at 780-248-1159 or by email to [tracy.gartner@ualberta.ca](mailto:tracy.gartner@ualberta.ca).

## US legislation costs Canadian producers a COOL \$1.9billion

A report prepared for the Canadian Pork Council (CPC) has calculated that the total cost of US country of origin legislation to the Canadian pork industry totalled \$1.9 billion by the end of October 2012, with continuing losses of \$500 million per year. Released on January 14th, the report was authored by Alberta Agriculture and Rural Development economist Ron Gietz.

"The report released today documents and quantifies the cumulative impacts of COOL on Canada's pork industry. In the event the US does not come into compliance or find resolution to the COOL dispute, the report's findings that the current annual rate of damage accumulation is almost \$500 million, can be used to estimate retaliatory tariffs on US exports to Canada," stated CPC's Chair Jean-Guy Vincent. "Faced with continuing damages measured in tens of millions of dollars a month, Canada's pork industry would prefer a timely resolution to the dispute and an end to the

damaging trade restrictions as soon as possible."

The report indicates that the direct impacts on hog producers calculated from official live trade data amount to over US\$ 1.9 billion as of October 2012, and were expected to exceed \$2 billion by the end of 2012, at the current pace of accumulation of \$500 million per year. In addition it estimates that \$357 million in pork trade has been lost since the implementation of COOL, with a further \$85 million in price suppression of feeder pig trade. Additional damages from slaughter hog price suppression and indirect impacts from a reduced sow herd were not calculated.

**"Imposition of retaliatory tariffs on US pork exports could virtually eliminate existing trade"**

"We hope that the US will comply quickly with its WTO obligations, but affected Canadian and Mexican industries will press their respective governments loud and hard for swift and effective retaliatory tariffs on US

goods in the event of non-compliance," added CPC past chair Jurgen Preugschas. "If we get to that point, imposition of retaliatory tariffs on US pork exports could virtually eliminate existing trade."

## Olymel completes acquisition of Big Sky

As widely anticipated, Olymel completed the acquisition of Humboldt, Saskatchewan based Big Sky Farms on January 20th at a purchase price of \$62.5 million. An Olymel subsidiary, OlySky, will be the owner of the purchased assets, but the company will continue to operate under the name of Big Sky Farms.

The acquisition of Big Sky Farms makes Olymel the owner of the company's Canadian assets, including all its facilities located in Canada, primarily in Saskatchewan, the breeding herd and boar studs, the genetic nucleus, maternities and finishing sites, as well as feed mills and transport activities. Founded in 1995, Big Sky Farms employs more than 400 people. With a herd of 42,000

CONTINUED ON PAGE 10

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“This acquisition is in line with the policy of strengthening the capacity of our processing and value-added product manufacturing plants, for both the domestic market and export outlets,” says a company news release. “Although this is its first foray into the swine production industry, Olymel plans to draw on the expertise of its owners who are already involved in the production sector to take advantage of all possible synergies in order to integrate Big Sky Farms into its operations.”

For many years Big Sky Farms has been a leading supplier to

the Olymel hog slaughterhouse and butchering plant in Red Deer, Alberta, a plant that employs more than 1,300 persons and has a weekly slaughtering capacity of 90,000 hogs. Olymel also stated that in addition to supplying hogs to its Red Deer plant, Big Sky Farms will maintain its business relations with the company’s customers and suppliers.

### Japanese investment in Hylife should improve Asian exports

By Myron Love

Grant Lazaruk, the CEO of Hylife Ltd., is looking forward to increasing the Manitoba-based pork processor’s market share in East Asia as a result of a newly-announced deal with

Japanese investment firm Itochu Corporation. “There is a growing demand for fresh chilled pork in Japan and China,” Lazaruk says. “Canada provides 20% of the fresh chilled pork for those markets and we currently supply 5% of that total. With this deal, we see potential for furthering our market share in China and Japan.”

Under the terms of the deal, following about a year of negotiations, Itochu Corporation has invested \$56.5 million for a 33.4 per cent stake in HyLife. The deal does not mean there will be any change in ownership control or management.

Itochu has a focus on China, where pork consumption continues to grow, as well as in the Japanese market. Itochu officials, in a press release, said the company’s investment in HyLife has a lot to do with the Manitoba company’s expansion strategy and its priorities in developing business in Japan and Asia.

Based in La Broquerie, south of Winnipeg, HyLife produces more than 1.4 million pigs annually. Its integrated livestock operations include the former Springhill hog processing plant in Neepawa which Hylife purchased in February, 2008. After purchasing Springhill, which opened in 1985, HyLife increased the plant’s capacity to 1.4 million hogs a year from 300,000, following a \$15-million expansion. The Neepawa plant alone has about 800 employees.

“We have experienced a lot of growth over the past few years,” Lazaruk says. “There has been a lot of activity. The fresh chilled pork market is good and that is one of our strengths.”

### How much canola meal can a weaned pig handle?

By Myron Love

Feed is a major cost factor in pork production and that cost has been rising significantly over the past few years. University of Manitoba animal science professor and researcher Dr. Martin Nyachoti is suggesting that one way for Manitoba producers to reduce that cost is to look to locally-grown protein sources such as canola meal.



Speaking at the annual Manitoba Hog and Poultry Days trade show, held in December, Nyachoti reviewed research that he and fellow University of Manitoba researchers have been conducting as to the suitability of canola meal for weanlings.

Nyachoti’s topic was “Canola Meal: How Much Can a Weaned Pig Handle”, a report on research conducted by the University of Manitoba into the feasibility of including much higher levels of canola meal in the diets of nursery pigs than previously believed, without impacting performance. Funding for the research was provided in part by the Canola Council of Canada.

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Nyachoti began his presentation by noting that researchers now understand better modern feed formulation systems than they did thirty years ago.

**"Weanlings can handle a lot more canola meal in their diets without compromising performance"**

The University of Manitoba researchers, Nyachoti reported, compared the performance of weanlings fed meal from two types of canola. They further assessed the digestibility of the nutrients and energy contents of the meal and conducted a series of growth performance studies to evaluate the effect of increasing levels of canola meal in weanlings' diets on performance. Up to 25% of the diets consisted of canola meal.

Nyachoti reported that the studies demonstrated that weanlings can handle a lot more canola meal in their diets without compromising performance. The diets should be formulated, he said, to maximize net energy and on the basis of standardized ileal amino acid supply in the diet to produce the best results.

**Maxi-Gen Plus offers alternative to growth promoters**

An innovative new feed additive, Maxi-Gen Plus, offers livestock producers a viable alternative to traditional growth promoting products. Marketed by Calgary-based Canadian Bio-Systems Inc. (CBS Inc.), it is now available in both the USA and Canada. The product features a rich source of conditionally essential nutrients for young animals and the unique formulation delivers a range of productivity and performance benefits,.

Research conducted with Maxi-Gen Plus shows multi-benefits. The product stimulates intestinal development and improves immune system response. It improves average daily gain and feed intake, while enhancing nutrient absorption and gut health.

"One of the key benefits of Maxi-Gen Plus is that it helps to stimulate tissue growth and recovery during periods of stress," says Rob Patterson, technical services manager for CBS Inc. "It mimics health-

enhancing components that both pigs and poultry produce on their own. However, our research shows that during times of stress such as weaning and transport, the supply produced by the animal is often not enough to meet the demand for optimal health and performance. Maxi-Gen Plus fills that need to maximize these benefits for the producer."

Research conducted by CBS Inc. in partnership with the University of Manitoba showcases the potential. One recent trial conducted with young pigs compared a diet with Maxi-Gen Plus to a traditional medicated diet. It showed that pigs on the Maxi-Gen Plus diet performed at virtually the same rate as those on the medicated diet. "This reinforces the potential to use Maxi-Gen Plus as an alternative to medicated feed or to reduce the level of medicated feed used," comments Patterson.

Feed conversion under the Maxi-Gen Plus diet was also improved during a second trial. "This indicates multiple

actions," says Patterson. "We saw less scouring, less mortality and pigs catch up quicker and better in terms of feed intake and feed conversion."

More information on the company and its products is available at [www.canadianbio.com](http://www.canadianbio.com), or by contacting Rob Patterson on (403) 279-3339 or toll free: 1-800-561-2474.

**Slurry separation removes phosphorus from manure**

By Myron Love

As a result of increasing concerns about rising phosphorus levels in Manitoba, the provincial government has amended its Livestock Manure and Mortalities Management Regulation (LMMMR) regulations for 2013. The amendment includes phosphorus as a criteria in manure applications. In soils

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where the phosphorus level is at or above 180 ppm, no manure application is allowed without the written consent of the Department of Agriculture.



Jolene Rutter, University of Manitoba

So what is a producer to do with his manure in those cases? Among the options are

using a larger land application base, storage, transporting manure to fields further away, reducing the phosphorus intake in animal feed or treating the manure. One option for treating manure is through the use of a centrifuge to separate hog solids from slurry for easier disposal. That was the option that University of Manitoba researcher Jolene Rutter presented to hog producers attending the annual Manitoba Hog and Poultry Days trade show in December.

**"Composting hog solids separated from the slurry can produce a value added product"**

"The focus of our research is to determine compost management options that reduce nitrogen losses and greenhouse gas emissions," Rutter said. "As well, composting hog solids

separated from the slurry can produce a value added product."

Rutter pointed out that the solid fraction of the manure contains most of the phosphorus in a reduced volume that is easier to transport. The liquid residue has a high nitrogen to phosphorus ratio and can be applied close to the hog production site.

Why compost the solid matter? Because, Rutter noted, composting eliminates pathogens and weed seeds, concentrates and stabilizes the nutrients and produces a homogeneous product that provides soils with beneficial organic matter. In addition, the product can be stored until it is needed for application.

Rutter explained the science of composting and the steps required for successful compost management. She talked about turning separated hog solid compost, monitoring the compost and the results from University of Manitoba trials. "Nutrients became more concentrated as volume decreased – as we expected," she said. "And we had an 80% reduction in volume from the mixture we started with."

One problem was that after curing, the compost still had visible pieces of straw – possibly because of windy summer conditions which made it difficult to keep the compost pile moist. Or the reason

may have been a cold winter. Microbes are killed off if the pile is turned when the weather is too cold, she explained.

She spoke about the research comparisons between woodchips and straw as a carbon source for the compost. Woodchips have higher carbon content, have good surface contact and retain heat and moisture better.

"We are still awaiting the results of our compost trials," Rutter said, "but potato field trials by Katherine Buckley using cattle manure compost showed positive results for increasing yield due to reduced disease pressure."

**Eliminating broken needles in pork products**

By Myron Love

In December, there were two incidents of needle fragments found in pork products at Maple Leaf Consumer Foods' Brandon plant.

"This is a serious food safety issue, both locally and globally," said Robert MacKay, Procurement Services Representative for Maple Leaf, speaking at the 2013 Manitoba Swine Seminar on Wednesday, January 30, in Winnipeg. "We have a zero tolerance policy for needle fragments. At our end, we are using x-rays and magnetic detectors."

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Hog producers should always use detectable needles for injecting

MacKay had some suggestions for producers as to what they can do to help make sure needles and needle fragments aren't accidentally left in hogs heading for processing. His first suggestion was that producers get copies of the Manitoba Pork Council's DVD "Safe Injection Techniques" which demonstrates how to make needle use more efficient. There are three key points in

the DVD, MacKay noted. The first is that needles should be checked after each injection to make sure that the needle is still attached, that it is not bent and that there are no burrs on it. "Never try to straighten a bent needle," he cautioned. "If the needle is bent, throw it out immediately."

The DVD also strongly recommends that injectors be

properly trained and that there should always be an extra person helping when dealing with grow or finished pigs. "Always use detectable needles," MacKay said. "And always carry a marker with you so that if you break a needle, you can mark that pig right away."

If you do get a needle stuck in a pig meant for a Maple Leaf plant, MacKay said, you should contact Maple Leaf immediately.

The company will reimburse you for euthanizing that pig.

MacKay noted that there are a number of new needle-free systems available now and encouraged producers to switch to one of the new technologies.

He also spoke about Maple Leaf Food's new systems application and data processing system. "Our Hog Procurement Reconciliation System will be going live in Brandon in the first quarter of 2013," MacKay reported. "We expect there will be minimal interruptions to producer payments and anticipate that our direct producers will see improvements in the reports we will be sending them." ■

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# FX Aherne Prize Winners

## Innovators showcased at Banff Pork Seminar

Winners of the annual FX Aherne Prize for Innovative Pork Production include Sylvén Blouin and Mathieu Couture of Agri-Marché Inc. St-Isidore Que.; Serge Labrecque and Robert Germain of Conception Ro-Main Inc., St-Bernard, Que.; and Joel and Ron Wurz of Bench Colony, near Shaunavon, Sask.

“Each of the winners have provided unique and valuable contributions to improve pork production,” says Dr. Michael Dyck of the University of Alberta, chair of the FX Aherne Prize committee. “They capture the spirit of innovation essential to moving the industry forward. All are deserving winners.”

The FX Aherne Prize for Innovative Pork Production is an opportunity for the industry to recognize those individuals who have developed either original solutions to pork production challenges or creative uses of known technology. They are 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.



Winners of the FX Aherne Prize (left to right): Pascal Forest, and Serge Labrecque, of Conception Ro-Main Inc., St-Bernard, Que; Mathieu Couture of Agri-Marché Inc. St-Isidore Que.; Dr. Michael Dyck F. X. Aherne Award committee chair; Joel Wurz of Bench Colony, Shaunavon, Sask.; and Sylvén Blouin, of Agri-Marché Inc.

The Agri-Marché Inc. team was recognized for its development of a temperature controlled semen conservation unit for delivery vehicles. This allows temperature stabilization of the semen en route to the destination breeding operation, saving time and protecting semen quality. This supports greater overall planning and efficiency, to strengthen the performance of artificial insemination.

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**“Among a range of benefits, the Agri-Marché unit is reliable, practical, reusable and inexpensive”**

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Semen quality during insemination is an important issue addressed by this innovation, which represents a major improvement over existing options such as Styrofoam box transport or temperature controlled coolers that have issues with fragility, space requirements and inconsistent results. Among a range of benefits, the Agri-Marché unit is reliable, practical, reusable and inexpensive. It’s touted as a game changer for the task of delivering semen from the boar centre to the breeders.

Conception Ro-Main earned its award for the creation of an ‘intelligent’ heat

lamp controller and piglet creep system. The Intelligence Surveillance System (ISS) is a cutting edge concept that monitors and regulates the temperature of each individual creep in a farrowing room. The result is optimized conditions for piglet health that supports the productivity and profitability of sow production operations.

One example of numerous ISS features is an optional birth-alert function so that timely assistance can be brought to the sow and piglets. The technology has made major inroads since its introduction to the market, with some 6,000 units sold to Canadian swine breeders.

Like so many past Aherne award winners, Joel and Ron Wurz developed their innovation as a response to a practical production problem they encountered on their own operation. Bench Colony had problems with some pit plugs popping out. They came up with a simple yet remarkably effective device to hold the pit plugs in place so the water would not drain off.

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# RO Ball Young Scientist Award winners

Three winners of the RO Ball Graduate Student Competition were announced at the Banff Pork Seminar. The award is designed to recognize outstanding young scientists and is awarded to graduate students who provide the best overall combination of good and relevant science, a well-written abstract and excellent presentation. The award was renamed in 2011 to honour Dr. Ron Ball, the recently retired University of Alberta professor who has served as program director of BPS for 14 years.

First prize this year went to Janelle Fohse, University of Alberta for her work on “Dietary amylose affects on gut microbiota and VFA concentration in weaned pigs.” This showed that dietary inclusion of high-amylose starch may play a protective role against pathogenic microbial species by promoting the colonization of beneficial microbes. However, although this could potentially reduce the incidence of post weaning digestive problems, piglet growth rate was decreased.

Second prize went to Xun Zhou of the University of Alberta for his work on “Effects of feeding high- and low-fibre fractions of air-classified, solvent-extracted canola meal on diet nutrient digestibility and growth performance of weaned pigs.” Air classification of canola meal involves the use of a stream of air to separate the product into light, low fibre particles, more suitable for feeding to pigs and heavier, higher fibre particles suited to cattle feed. The trial showed that feeding the light particle fraction to newly weaned pigs increased the digestibility of energy and protein by 3-4%. Pigs grew slightly (+18g/d) faster and gain:feed ratio was 0.02 better.

Third prize went to Garrett Rozeboom, University of Saskatchewan, for work on “The use of spray-dried animal plasma to mitigate the effects of DON in nursery pig.” His work investigated the effect of spray-dried animal plasma (SDAP), with or without an activated clay binder, in nursery diets containing the mycotoxin deoxynivalenol (DON). This mycotoxin is common in western Canada and the use of grain infected with *Fusarium* fungi leads to a reduction in feed intake and growth rate. Compared to a negative control

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Janelle Fohse, University of Alberta (left), Dr. Ron Ball and Xun Zhou of the University of Alberta

diet with no DON, a diet with DON reduced ADG by 60g/d and feed intake by 100g/day. However, pigs fed the diet with SDAP showed similar growth to the negative control. While the use of the clay binder showed some improvement compared to the diet containing DON, it was not as good as the negative control or the diet with SDAP. The researchers concluded that, where DON contamination is determined or suspected, SDAP should be added to the diet in order to mitigate the effects of the mycotoxin. ■

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## PLENARY SESSION: Measuring Success

### Performance metrics in a high growth environment



Metrics, or performance measures, help business leaders translate a strategy into execution, says Jason Logsdon, CEO of The Maschoffs, one of the largest privately owned pork production companies in the USA. Properly designed, metrics allow business leadership to cascade a strategy throughout an organization and bring to life each stakeholder’s impact on the business, he believes. This allows each stakeholder’s performance to be measured against a metric that drives the business’ strategy and provides the business the ability to pay the stakeholder based on their contribution to driving the business’ strategy. In his paper, he focuses on metrics for a high growth strategy, pointing out that all businesses have different strategies and thus will use different metrics.

#### Metrics in a high growth environment

It is critical to start with a business’ strategy when designing metrics. Our business has a strategy centered around

innovating to create value for our customers. This strategy also calls for us to grow our market share with our customers as they grow. To effectively measure the success of the strategy, it is important that we measure not just our historical operating performance but also our capacity to grow.

#### A few critical characteristics of good metrics

##### They cascade the strategy throughout the organization

Senior leadership should have a limited number of metrics that drive their strategy. From there, metrics should cascade through the business. At each level, and in each department, the metrics should be clearly understood, readily available and significantly under the control of the employee or stakeholder. Ideally, the employee’s performance management and compensation will be tied in some way to these metrics. The process of building and cascading the metrics requires each department of the business to tie their strategy and metrics to the business’ strategy and metrics. It is important to note, while the process of creating these metrics is described as a cascade, the process of setting goals and budgets might start at the bottom of the business and ‘roll up’ instead of cascading down.

##### Balance of leading and lagging

It is important to have a balance of leading and lagging metrics at each level within the business. Leading metrics are very valuable because they allow decision makers to solve problems and capture opportunities before they are major issues or lost opportunities. Unfortunately, many leading metrics don’t have the accuracy or robustness of lagging metrics. This challenge is especially large in the pork

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## Performance metrics in a high growth environment *Continued*

production industry because many of the industry's common metrics measure activities over the last 12 to 18 months.

### Less can be more

Our business had long suffered from a metrics gap caused not by too few metrics, but from having too many. This left employees confused and lacking focus. We recently trimmed our number of metrics significantly and believe this will lead to significantly greater focus and clarity. This transition is not easy; it requires eliminating many 'sacred cow' metrics from our vocabulary.

## All roads lead to shareholder value creation

### Why is shareholder value creation important?

Shareholder value creation not only tells us if we are meeting the financial return requirements of our family shareholders, but it tells us if we are using society's resources efficiently and effectively. If we are not producing a financial return for our shareholders (and bankers), then they will cease investing capital into our business. This will stop us from accomplishing our vision and strategy for customers and society as a whole.

### Return on equity and return on assets

The return on equity (ROE) and return on assets (ROA) of a business are excellent measures of the business' capacity to produce financial return with its capital resources, but they have two critical flaws. First, they are both historical measurements. They measure the enterprise's historical ability

to create profitability without looking forward. Secondly, neither ROE nor ROA reveal the amount of risk taken to achieve the return. Efforts to maximize ROE and ROA could inadvertently lead to increasing financial and business risk.

### Value per share

The ultimate measure of shareholder value creation is the value per share, adjusted for dividends and share splits. The value per share is equal to the risk-adjusted discounted present value of future cash flows of the business less obligations owed to third parties (i.e. debt). Value per share addresses the two weaknesses of ROE and ROA while still capturing the positive attributes. First, value per share is forward looking. The value is based on future cash flows of the business, not historical cash flows of the business. Second, value per share takes into account risk. The future cash flows of the entity are discounted back to today's value at a risk-adjusted discount rate. This should be equal to the rate of return that could be achieved on a basket of investments with similar risk. By definition, the riskier the future cash flows the less the present value and vice versa.

### Independent valuation

It is difficult for owners and other stakeholders, including management, of a business to know whether the enterprise is creating value per share without procuring an unbiased, professional, third-party valuation. While this comes at a cost, it can be a great investment. Value per share is the ultimate measure of success or failure of the enterprise in creating value for its shareholders. In our business, we conduct an annual third-party valuation which we believe

CONTINUED ON PAGE 22

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**Table 1: Factors estimating long-term cash flow growth rate**

Factor	Importance of factor to driving cash flow growth rate	Potential metrics
Return on assets at equilibrium commodity prices	If the base business cannot produce an ROA greater than its cost of capital, it should not grow; furthermore, without strong ROA operating cash flow is not available to fund growth	Return on Assets for last 3 years calculated at long-term equilibrium commodity prices
R&D pipeline	Key factor in determining the ability to create future customer value and improve cost structure	Probability weighted net present value of late stage R&D projects
Human talent capacity	Scalability is not possible without excess leadership capacity at the management levels of the business and throughout the support functions of the business	Talent management and readiness scores for top levels of management and support areas of the business
Process robustness and scalability	Scaling the business requires scalable processes that can be applied to new assets, customers and geographies	Third-party and internal audit scores
Relevance to customers	Growth is not possible without customer demand for product and this is dependent on offering a differentiated value proposition to the customer	Customer share of wallet, customer scorecard performance and sales pipeline/backlog
Pipeline of high return capital expenditures	A pipeline of high return capital expenditures provides the business with a runway of opportunities to create shareholder and customer value	Cumulative EVA of capital project pipeline (excluding growth)
Brand equity	Communities will not be open to business growth without strong 'brand' equity and community engagement	Third-party surveys



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## Performance metrics in a high growth environment *Continued*

balances the cost and distraction of the valuation with the value of knowing the score of the game.

### Three core components of shareholder value

The three core components of shareholder value creation are current cash flow, long-term growth rate in cash flow and the risk-adjusted discount rate. As a growth business, we are much less concerned about our current cash flow and much more concerned about the latter two factors.

### Long-term growth rate in cash flow

Several factors are considered in estimating our long-term cash flow growth rate, including ROA at equilibrium commodity prices, R&D pipeline, human talent capacity, process robustness and scalability, relevance to customer, pipeline of high return capital expenditures and brand equity. Table 1 summarizes the importance of these factors and potential metrics that can be used to evaluate them.

### Risk-adjusted discount rate

The risk-adjusted discount rate can otherwise be thought of as the business' weighted average cost of capital. Risk can

generally be separated into two categories: financial risk and business risk. Financial risk is a function of the financial leverage of the business. In simplistic terms, this can be thought of as the ratio of debt to assets. As the proportion of assets financed with debt increases, the financial risk of the business increases and the cost of the business' debt and equity increases.

---

### "A successful commodity price risk management strategy will reduce the standard deviation of operating income per head"

---

The business risk of the entity can also be thought of as the standard deviation of the operating income per head marketed (before interest expense). In the pork production industry, there is no shortage of risks. As business risk increases, the cost of debt and equity capital increases.

A successful commodity price risk management strategy will reduce the standard deviation of operating income per head which should reduce business risk and reduce the cost of debt and equity capital for the business.

CONTINUED ON PAGE 24





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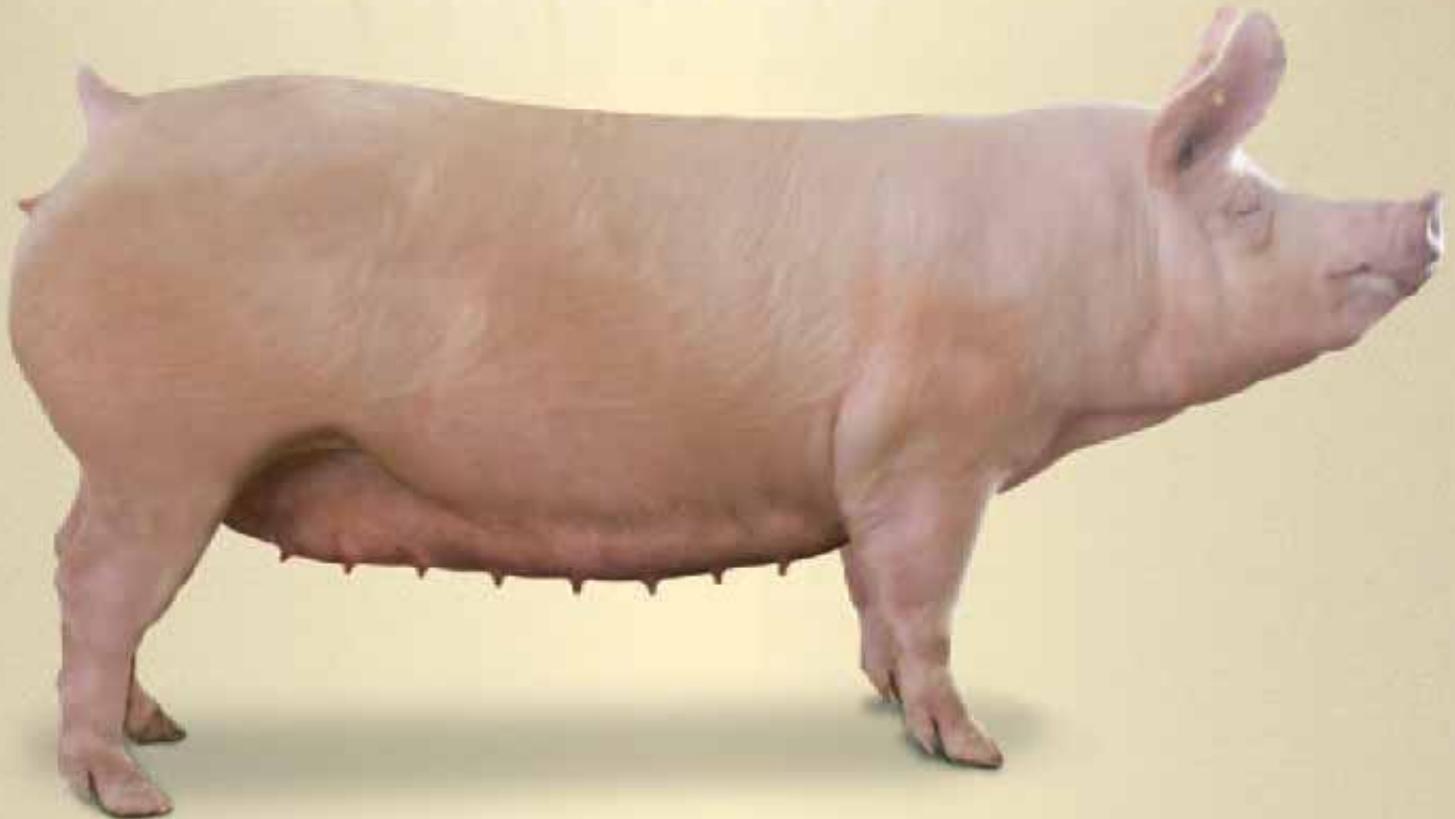
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## Performance metrics in a high growth environment *Continued*

### Break-through targets

To this point, I have argued that the long-term objective of the business should be to create shareholder value. To support this objective, senior management should have long-term break-through metrics (with targets) they believe will drive shareholder value creation in the context of the business' strategy. Ideally, there would be no more than 5 of these break-through metrics and they would address the three primary drivers of value: current cash flow, long-term growth rate in cash flow and the risk-adjusted discount rate.

### Example of break-through metrics in a growth business

An example of 5 year break-through metric objectives in a growth business would be as follows:

- Increase operating income per sow per year (commodity price adjusted)
- Increase total sows
- Never breach maximum Debt/Asset Ratio threshold

### Leading break-through metrics in a growth business

The 5-year break-through metric objectives listed above are not only long-term, they are very lagging. By the time the

metric is trending the wrong direction, significant damage has been done. Examples of real-time (most would be measured on a daily or weekly basis) break-through metrics that are actionable by management are below:

- Shrink as a % of inventory (all shrink including mortality, non-grade, and non-ambulatory)
- Weaned pig revenue per sow (annualized)
- Revenue per cwt. sold vs. USDA mandatory price reported weighted average
- Employee turnover %
- Animal welfare audit scores
- Hedge profit/loss vs. model portfolios (model portfolios would be defined in advance)
- 12-18 month forecasted balance sheet and cash flow ratios with 2 standard deviation price movements

### What about everything else?

Admittedly, the list above does not contain many of the traditional metrics used in the pork production industry. This is intentional. Management should have a limited number of break-through metrics for the business that are customized to drive break-through performance vis-à-vis the business' strategy. Obviously, management still has an obligation to use all data available, including weekly and monthly financial statements, to make sure the metrics remain appropriate over time.

### Summary

A well-crafted set of metrics is critical to translating a business' strategy into execution. The metrics should start at the top with break-through targets that will drive shareholder value creation and should cascade throughout the organization so each employee understands their impact on the entity's success. The metrics should be simple, limited in number and should be balanced between lagging and leading metrics.

In a growth business, shareholder value creation is much more about the future than the present. The metrics should reflect this fact and capture the leading indicators of future success. These are not typical production or financial metrics, but instead are measures of the future value creating capacity of the entity's people, processes, systems, relationships and fixed assets. These metrics are harder to measure and sometimes cannot be captured with today's paradigm or today's information systems. Finally, a growth business must measure risk management and mitigation, as growth requires comfort that risk is being managed and that the balance sheet can support the growth. ■

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## PLENARY SESSION: Measuring Success

### True measures of successful pork production

Contributed by Banff Pork Seminar



Is it time for a 'moneyball' revolution in pork production? That was certainly the buzz in the room at the 2013 Banff Pork Seminar, as a division president of one of the industry's largest and most powerful players took stock of performance metrics today and where they need to go.

Statistical analysis and other components of performance metrics are at a brand new level

today that pork industry players would do well to adopt, says Steve Pollmann, president of Murphy Brown-West, a division of Smithfield Foods, the world's largest pork production

company. That's what his company has done and it's where the world is heading.

His bottom-line message: A lot of old performance measures the industry has relied upon just don't cut it in today's business environment. Pork industry players need to learn from other industries and rethink toward new and more sophisticated ways to get a true read on what works in pork production.

#### The crossover connection

Smithfield Foods has adopted an approach that is meant to incorporate all of the best approaches available and be regularly upgraded as new and better ways of doing things emerge. The anchor of this is a "Crossover indicator" concept the company has developed, says Pollmann. "A crossover analysis is used to help our organization make sure they focus

CONTINUED ON PAGE 26

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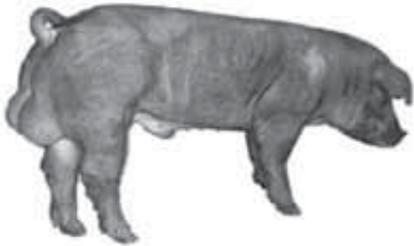
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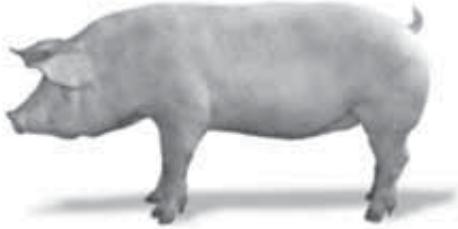
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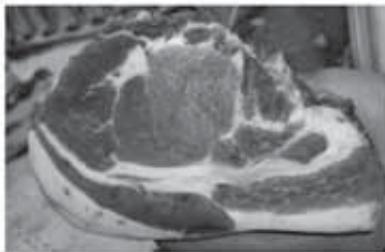
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## True measures of successful pork production Continued

on the things they can control, and that's productivity and controllable costs."

Communication is critical and the company addresses this by capturing information on the key indicators in a scorecard format that is provided every month to each of its production segments.

### Digging deeper to find where profit lies

Feed cost is by far the largest factor in the success of a pork operation, says Pollmann. But where management decisions can really make a difference are by focusing on easier to control factors.

"The mindset we have is, first, how we effectively measure the business. Then, based on that, how do we improve the business. If you focus on what counts on the measurement side, you do much better on the improvement side."

Feed makes up 70 percent of the cost of an operation, he says. But producers typically need to look more closely at some of the other variable costs that are easier to manage. "That's where there's money to be made."

### Lessons from poultry

The poultry industry is an example of where the pork industry can learn from, says Pollmann. "I admire them. They're progressive. And they've been much more effective at integration than we have in the pork industry. I think it's a good model for us to look at."

There are three principal drivers of the poultry business that are very similar to the drivers in the pork business - live performance, plant performance and sales performance. There are multiple components and indicators in each area.

Over the past six years, both the poultry and pork industries have seen a near identical rise in feed cost as a percent of total cost from around 50 percent to 70 percent. At the same time, chick cost and wean cost have become less critical.

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**"The pig industry though, has not seen the meat yield gains and feed efficiency gains at the level of the poultry industry"**

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Over the past two decades, the poultry industry has seen a 50 percent increase in bird weights alongside a 20 percent improvement in feed efficiency. "Their principal driver really is about white meat yield," says Pollmann. "That has been one of their principal integrated values. You can see how effective they've been at increasing white meat yields, with an annual rate of 0.44 percent." More recently that is starting to level

CONTINUED ON PAGE 28

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True measures of successful pork production Continued

off and brown meat is becoming more critical, with thigh meat and wing meat becoming a bigger part.

The pig industry though, has not seen the meat yield gains and feed efficiency gains at the level of the poultry industry Pollmann asked the BPS audience to think about how that trend pertains to the pig industry. “Ten to 15 years ago bellies to us were not nearly as critical as they are today – that meat sells at a higher price than loin meat. Today, bellies are much more critical. We sell stomach meat at a price greater than loin meat.”

The pig industry though, has not seen the meat yield gains and feed efficiency gains at the level of the poultry industry. Pollmann also observes that among the components of live, plant, sales and ‘other,’ live pork production represents significantly less of the value proposition today than it did five years ago.

“Today you’ve got to take less money in live production. What you need to do then is still make money as an integrator - that’s how you get the net effect of greater returns on investment.”

Meeting challenges head-on

That’s the challenge that lies ahead and identifying the best future indicators is critical to meeting it, he says.

What are those future indicators? “I personally believe there will be more focus on integrated indicators, much like the poultry industry. And for us to be more successful, that needs to be tied to that bottom line.”

The industry also needs to make better use of benchmarking results. “What that does is bring common definition. You can have better internal benchmarking. This also gives you a chance to see how you stack up with others and what you need to improve to get to world class status in your operations.

Bridging the communications gap between production people and financial people is another challenge to meet, says Pollmann. “I also think the accountants and finance people don’t understand statistics as well as we need them to. So the challenge is to increase the use of statistical process control and statistics to improve the running of progressive businesses.”

At the end of the day, a huge factor for industry success will also be adopting a progressive, forward-looking stance, he says. “We’ve got to get away from the whole concept of looking in the rear view mirror at where we’ve been. We need to spend more time looking at items that are highly correlated to key business measures so that we can be more responsive to changes in our industry.” ■

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## PLENARY SESSION: New Partnerships

### Full court press on the activist agenda

Contributed by Banff Pork Seminar

“Game on.” That’s the attitude Rick Berman has when he looks at the challenge animal activist groups pose for livestock industries. It’s a mindset the pork industry, and others in animal agriculture, would do well to adopt, he told a cross-section of producers and industry players at the Banff Pork Seminar.



“These advocacy groups are changing the conversation,” says Berman, a leading consultant on public affairs and activist issues with Washington DC - based Berman and Company. “They are remaking the world in their

image. They will keep demanding new changes. And once you change they move the goal posts again. We know where this is going - you can’t legitimize them or reason with them. You need to take back control and have an offense strategy.”

#### Know the challenger

That strategy starts with knowing what the industry is up against - more specifically who it is up against in groups such as People for the Ethical Treatment of Animals (PETA) and the Humane Society of the United States (HSUS).

Berman sees these players as part of a broader rise in activist groups. Each is unique but tends to focus on one of three areas - issues related to labour, food or energy and environment.

The most effective and high profile of these are very sophisticated in knowing the game of influencing public perception. They often have extreme agendas, such as, in the case of the food example, ending meat production. Yet they are remarkably skilled in portraying a more moderate image and misleading the public while building massive funding support.

“What are these groups about, really, and where are they taking us?” says Berman. “That’s where we need to drill down and focus.”

#### Drilling down

Groups such as PETA and Mercy for Animals are transparent as activist groups focused on “animal rights,” he says. HSUS and its true agenda have been harder for the public to recognize. This organization has maintained a front focused on animal welfare and humane care, but make no mistake,

CONTINUED ON PAGE 30

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## Full court press on the activist agenda *Continued*

says Berman, it is in lock step in viewpoint and agenda with the animal rights groups. Statements such as “the meat industry equals systematic murder” are part of its rhetoric.

“Is this really a group you can negotiate with?” says Berman. “We’re talking about people who represent a vegan culture, who are basically equating animals with people and advocating an end to eating meat. It’s animal rights and an extreme agenda masquerading as animal welfare.”

### Expose the real agenda

If HSUS disclosed its true agenda it would be out of business, he believes. But by portraying itself as a welfare organization and manipulating the public consciousness, it has become a gargantuan money machine collecting over \$130 million annually to support its true anti-meat agenda.

“Groups like this are constantly looking for ways to make their points seem legitimate and mainstream, to get the support they need to advance their own self-interest and true agenda,” says Berman.

In the case of HSUS, people believe a lot of what this organization does is support humane shelters. In reality, less than 1 percent of HSUS funding goes to shelters, says Berman, while greater than five percent goes to the organization’s pension fund. The vast majority goes to campaigns, lobbying and related efforts aimed at continually demonizing and reducing meat production. A huge chunk of HSUS dollars from public donations go to staffing its ever-growing army of lawyers.

“My issue is, who gave these people the mandate to be achieving their goals? They are not elected or appointed by an elected body. They simply mislead and manipulate, to collect money, affect opinion and advance an agenda that many people who support them do not understand.”

### Make real change that makes sense

Major retailers and some industry organizations that have worked with HSUS to make agreements on changes are

making a huge mistake, he believes. “They are not a real reflection of what the public or consumers want. And, once you agree to one change, they just keep going and asking for more. You can’t satisfy people whose end goal is the abolition of animal agriculture.”

There are legitimate animal welfare and care improvements industry has made and will continue to make, he says. “But be careful. Make sure the reasons you are changing are the right ones. Keep a strong relationship with your consumers and don’t let you or them get caught in someone else’s agenda.”

Livestock industries need to get far more aggressive in exposing the true nature and aims of the activist groups, he says. That’s starting to happen with efforts such as [www.humanewatch.org](http://www.humanewatch.org).

### Get tough and stay the course

“The bottom line for me is there’s a scam going on here,” says Berman. “People need to see what the HSUS is really about.”

The leading animal rights groups are masters of the public opinion game, he says. They know how to reframe issues, reposition opposition and diminish moral authority. Livestock industries need to compete at the same game.

### The real cost

Ultimately, animal agriculture can have the upper hand because it can make its case on legitimate facts rather than with the misinformation and hidden agendas that define its opponents. “Their game is all optics, not facts,” says Berman. “We need to hold a light up to that and let the public see what’s really going on.”

Winning the PR battle will not be easy and will require substantial effort, he says. “What’s the cost of winning? I don’t know. But I can tell you it’s much cheaper than the cost of losing.” ■



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## PLENARY SESSION: New Partnerships

### Advocating for our future in a world of opponents



Animal protection activists have long attacked confinement pork production as cruel and inhumane, yet consumption of pork remains a staple of many consumer diets. As animal rights and welfare groups confront this reality their campaigns and strategies have evolved, points out Dr. Wesley Jamison, associate professor at Palm Beach Atlantic University, Florida. But one element of their campaigns - their messaging - has remained remarkably constant, he notes. Activists seek to amplify the disconnect between consumers' relationship with companion animals and the animals they eat as meat, making them feel bad about food animal production. Then they suggest ways in which consumers can change their meat-eating habits, either by giving up eating eat altogether or by eating "high welfare" meat. If this is the case, argues Dr. Jamison, then animal agriculture proponents can use counter-strategies to weaken the effectiveness of activist campaigns. Meat

eating is an habituated behaviour among consumers, and habits are hard to break, he says. Hence, while opponent messages must seek to change consumer behaviour, animal agriculture proponents must only provide permission for consumers to continue their meat consumption.

#### Message target: consumer hypocrites

Most Canadians experience animals in the form and context of pets, e.g. surrogate children, quasi-family members, emotional companions, etc. This means that pet animals are heavily

anthropomorphized as de facto people, and that animals in this context are viewed as individuals who are worthy of intense emotional attachment. In this context, animals are still tools intended for use for humans, but importantly their uses are non-consumptive.

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**"In effect, consumers are hypocrites, because they desire animals both as companions and commodities"**

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Conversely, those same consumers eat meat animals regularly, but they have little or no understanding of how modern animal production relies upon economies of scale, intense confinement, and scientific management to provide meat from those animals. In effect, modern consumers live with one animal in the centre of their hearts - their pets - and consume other animals on the centre of their plates - their meat - with little knowledge of how the meat animals are treated. This creates incongruence because the treatment of pets and the treatment of farm animals are necessarily different. In effect, consumers are hypocrites, because they desire animals both as companions and commodities. And, from a perspective of persuasive messaging campaigns, this is a necessary precursor for making consumers feel bad and calling them to action.

#### Message strategy: Hypocrite, heal thyself!

If consumers live in a state of incongruence related to their competing, conflicting demands for animals as companions and animals as commodities, then this incongruence leads

to a psychological state known as cognitive dissonance. Cognitive dissonance (CD) can be described as the discomfort experienced by people who hold two or more irreconcilable beliefs simultaneously, or who say they believe something while behaving in a way that denies and undermines their beliefs. For example, a modern consumer may believe in and support “animal welfare” while consuming animals derived from production systems that are offensive to her sensibilities. Her competing and conflicting demands for animals as quasi-human companions and animals as affordable food place her in a position of incongruence. Those beliefs cannot be easily reconciled, so she experiences CD.

In response to CD, the consumer has several options. Social psychologists have identified CD management strategies that basically involve removal, coping, or change. Faced with CD, the target consumer may remove the source of the discomfort. This occurs by either removing the information (think of selective exposure to news outlets or internet sources that only confirm our pre-existing biases while refusing to listen to opposing views) or, when faced with no other choice, removing oneself from the discomfort. Social psychologists have also identified coping, or learning to live with the CD, as another viable strategy. In this case, the consumer either constructs or is provided with a rationalization for the inconsistent

behaviour or beliefs. This allows them a plausible explanation for their dissonance and thus allows them to continue.

Finally, change is always an option: when faced with overwhelming CD, consumers can change their beliefs or behaviour. But since change, especially change of habituated behaviours, is extraordinarily difficult, this strategy often carries with it unacceptably high costs to the consumer. Yes, she can forgo meat, or perhaps change her ideas about purchase values so they reflect “humane” production and slaughter. But change always proves difficult over time. “Humane” production and slaughter is only a temporary fix because it requires excess disposable income, while “nature” and “natural production” ultimately proves to be different but nonetheless brutal.

Hence, modern consumers live as hypocrites in a state of incongruence and feel discomfort about the confinement and commoditization necessary to produce animals as food. Thus, advocates have used video exposés, “fact” sheets, videos purporting to let consumers “meet your meat” and other devices to confront consumers with the reality of modern animal production and thus amplify their CD. In effect, opponents hope that, by pointing out consumer hypocrisy, those targeted by the messages will change or cope with their

CONTINUED ON PAGE 34



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## Advocating for our future in a world of opponents Continued

discomfort by forgoing meat in some capacity (usually by purchasing “humane” pork) or by giving votes, support or money to help the animals in question. In this way, advocates have mimicked the classic strategy of all cause-based marketing; create a sense of guilt in message targets, then position yourself and your cause as a way for the targeted consumers to work off their guilt through support of your organization and cause.

### Target message: Feel bad and act to feel better

The long term strategy of animal protection activists is to expose consumers to images that will offend their sensitivities. They know that this will make consumers feel CD and therefore act to remove the discomfort. But, knowing that meat-eating behaviour is very hard to change, rarely will advocates make open calls for conversion to vegetarianism. Instead, their message strategy urges consumers to help animals by either supporting the cause, eating less meat or purchasing “humane” pork. Thus, in effect, advocates have provided consumers with a coping mechanism that deals with their discomfort over how their meat was produced.

### Response: Permission

In the face of CD, consumers are receptive to any messages that provide a way to manage the discomfort. Animal rights advocates have provided consumers with self-penance via their support for “humane” policy, their financial support, and their support for “humane” retailers. Advocates have provided coping strategies. But animal agriculture must never forget four important facts:

- habituated behaviour like meat eating is very difficult to change
- meat consumption is beneficial for consumers
- meat consumption is normal and natural for consumers
- consumers want permission to continue this behaviour!

In other words, the cards are stacked in favour of the meat industry.

Thus, the key for animal agriculture is to weaken consumers’ CD by giving them permission to live like hypocrites. In effect, consumers want to continue their behaviour and, in the face of discomfort, they will vigorously seek out information that reassures them and helps them cope with their dissonance. So, animal agriculture must provide coping mechanisms of their own so that consumers can continue their consumption patterns. Therefore, it is recommended that pork producers adopt message strategies that deal directly with three areas of cognitive dissonance:

- confinement industrial animal production
- slaughter and processing
- alternative production systems’ aesthetic unacceptability

If done properly and persuasively, consumers will continue eating pork and will be resistant to opponent messages that seek to amplify their guilt. Basically, consumers need to know that their incongruence is natural, normal, and right and that their consumption choices are correct and justified.

Historically, consumers have managed their discomfort through removal, e.g. “just because I eat a pork chop doesn’t mean I want to meet the pig!” In a type of denial, consumers have practiced “out-of-sight/out-of-mind” when it came to how their meat was produced. Thus, animal advocates’ message strategy has been to keep the propagandized reality of meat production in front of consumers, forcing them to confront their complicity in perceived animal suffering. But in their strategy lies an opportunity for animal agriculture: if dissonance is successfully managed through rationalization and coping mechanisms, not only will consumers continue their consumption behaviours but they will become resistant to the guilt foisted upon them by their critics. ■

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## BREAKOUT SESSION

## Speaking up, Speaking out

Summarized by Geoff Geddes, Alberta Pork



## Networking without pants: Harnessing the power of social media

**If you had to name the largest community on the planet, what would it be? China? India? Russia? How about Facebook?**

**According to Jeff Schneider, social media expert and president of Marketing Ninjas in Edmonton, if you're still thinking of marketing and communication in terms of traditional media, think again.**

**In this engaging session, Schneider explained why our industry must use social media to get our message across, sharing some fascinating facts and practical tips along the way.**

Social media is the use of web-based and mobile technologies to turn communication into interactive dialogue. It may sound complicated, but when you break it down, it's really E-asy:

### Effective

Many businesses and industries still rely on traditional forms of media to effectively deliver their message to their target audiences. But in today's society, traditional media, including TV and radio ads, billboards, newspaper and magazine ads, and direct mail are failing to deliver the results they once did.

### Exponential

The world is going digital at an exponential rate. We're surrounded by advances in technology such as digital video recorders, MP3 players and iPods, satellite radio stations, caller display, tablets and smart phones. These advances allow us to selectively consume only the information that we want or feel is relevant to us at any given time.

The reality is that people don't "need" traditional forms of media any longer. We can get both local and global news in real time using smart phones, tablets and computers. We can join communities of people online that have shared interests.

We can find the answer to any question using search engines like Google.

As evidence, Schneider pointed to a recent prediction that "the New York Times will one day be out of print". Even more telling is who made the prediction: Scott Heekin-Canedy, the president and general manager of the New York Times.

### Evolving

The statistics behind social media and its growth are staggering:

- Over 50% of the world's population is under 30 and 96% of them have joined a social network.
- On October 4, 2012, Facebook announced that they now have over 1 billion users. That's the equivalent of 1 in every 7 people on the planet.
- 78% of people trust the recommendations of their peers while only 14% trust advertisements. This is why Schneider describes social media as "word of mouth on digital steroids".

### Engaging

According to Schneider, the most important thing to know about social media is that it's a communication tool, not a sales tool. Your primary objective is to engage your audience and build relationships. He likens it to working the room at a cocktail party, except that with social media, "you can network without wearing pants!"

This is especially important in the pork industry, as we can use social media to encourage and empower the people that are speaking positively about us and our industry while confronting any negative communication head-on.

As Schneider concluded, "like it or not, people are already talking about you, your organization and your industry through social media. Isn't it time you talked back?" ■



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**In her role as Executive Director of Farm & Food Care Ontario, Crystal Mackay addresses this challenge every day. With a wealth of experience in talking about agriculture, she has great insight on what to say and how to say it when we share our story with the world.**

While farmers may view themselves as representative of the general population, less than 2% of Canadians are actually involved in agriculture. As Mackay put it, “if you can have a conversation about selling semen, you’re not an average Canadian.”

As a result, a recent study found that 93% of the country knows little or nothing about farming. That’s no surprise to Mackay, who pointed to an ad saying “shame on hunters” and telling people to buy their food at the grocery store “where no animals were harmed”.

But with challenge comes opportunity. Canadians rank farmers as favourably as their own family and friends as sources of information on food and agriculture. This provides us with instant credibility and a chance to educate the public on who we are and what we do while dispelling the myths of the animal rights groups.

With that in mind, Mackay presented her “Top 10 Tips for Ag Ambassadors”:

- Be positive. Think customer service with a smile.
- Know who you are talking to and what their concerns are.
- Be prepared.
- Talk about what you know...but not too much at first. Use examples from your farm or your experience.
- “I don’t know” is always a valid answer. Refer them to someone else or take their name and get back to them when appropriate.

- Use easy to understand words and explanations, not industry jargon. Avoid human comparisons and loaded words.
- Provide comparisons your audience can relate to.
- Show you care. As Theodore Roosevelt said, “I don’t care how much you know until I know how much you care.”
- Invite discussion while avoiding debates and confrontations. Everyone is entitled to their opinion.
- Remember, you may be the only one in agriculture that person ever has the chance to meet. Make it a memorable experience.

When it comes to choosing a communication vehicle, Mackay advised going with your strength, whether it is writing a letter to the editor, giving a presentation, visiting a classroom or hosting a tour.

Ultimately, we are the best ambassadors for our industry. TV and newspapers may be valuable information sources for the public, but firsthand accounts from people with knowledge and passion?

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## BREAKOUT SESSION

# Competing for markets at home and abroad

Summarized by Marvin Salomons, Salomons Group Solutions

## Keeping pork exports alive

Marketing pork is always a topic that garners interest with both processors and producers. Reliance on exports and a domestic market requiring diligence has all parts of the value chain continually looking for new opportunities. A breakout session at the 2013 Banff Pork Seminar saw two of Canada's pork processing companies taking the podium to relay their strategies in marketing pork into export as well as domestic markets.

Guy Baudry, Senior Vice-President of HyLife and General Manager of HyLife's Food Division, who has experience in both production and processing, focused his discussions around what needs to be done to keep export markets alive. He opened his remarks using the well known quote "it is not the strongest of the species that survives nor the most intelligent that survives, it is one that is most adaptable to change". Baudry says this is what his company HyLife has been living and why it is in the good position it is in today. He reflected on the HyLife experience and the current direction the company is taking.

## The HyLife Story

HyLife™, headquartered in La Broquerie, Manitoba was originally founded back in 1994 as a joint venture and grew to be one of the largest hog production companies in Canada and among the top 15 in North America. Together

with its affiliates, it has business holdings in Canada and the USA and has recently developed a strategic partnership with Tianzow Food Company in China. In 2008, then largely a pork production company, known as Hytek Ltd, it entered the pork processing business with the purchase of the Springhill Farms pork plant in Neepawa Manitoba. The purchase of this federally certified modern pork processing plant evolved the company into a "farm to fork" business. The company took the next step and rebranded itself as HyLife™ Foods as a part of their integrated business model. Today HyLife sells pork products around the world including in Japan, China and Russia.

Baudry gave a brief overview of the company's holdings that now encompasses all facets of hog production and processing. HyLife currently has 1550 employees (500 on farms, 950 in foods and 100 in its Fast Genetics Division). Last year HyLife had over \$500 million in sales selling over 120 million kg of pork products. Baudry says the HyLife advantage is that it



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On the food side, the Neepawa pork plant processes 1.45 million hogs per year. Baudry noted that this facility grew 50% in 2012 with significant investments made by the company in cut and kill floor improvements, expanding shipping areas, adding new coolers, putting in a new state of the art wastewater system, a new CO2 stunning system, as well as installing new cryovac packaging equipment.

### Keys to HyLife successes

So what is the key to being successful in the pork export market? Baudry says success lies with three basic premises; that of knowing your markets, targeting your strategy and building on your strengths. "First you really have to know your markets," says Baudry. Looking at the 2012 statistics, the US represents about 10% of total global pork production while Canada represents 2%. On the export side, excluding US/Canada trade, the US accounts for 34% of the global pork exports while Canada accounts for 14%. "This tells us we rely heavily on exports" says Baudry.

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**"Canadian domestic consumption is down 17% over the last decade. That is 141 million kg of product or 5,700 rail cars"**

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For Baudry, Canadian pork industry dynamics tell the story. Pork exports drive the industry. Canadian domestic consumption is down 17% over the last decade. "That is 141 million kg of product or 5,700 rail cars. Pork imports have also been increasing with 111 million kg more product moving into Canada. The industry must export more due to the increased imports," says Baudry.

Looking deeper into the dynamics of the Canadian pork sector Baudry noted that retail pork prices are up. This is a positive demand indicator as consumption is holding despite higher prices at the retail counter. Baudry says more people in Canada are eating pork due to factors like the immigration of people who prefer to eat pork. "Export markets are important," says Baudry, "and these are supported by reductions in North American hog supplies, reduced hog weights due to increased feed costs and a strong pork demand

CONTINUED ON PAGE 40

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## Competing for markets at home and abroad Continued

continuing into 2013. There are a host of export factors pork marketers have to deal with". Trade agreements such as the Trans-Pacific Partnership, the volatility and uncertainty of Russian trade regulations, market access limits in the Japanese direct market channels, and the continual issues around fluctuating foreign exchange rates make it all very complex. Baudry says it is important that we all work together to overcome these issues.

So what has HyLife done to address this? Baudry says that it has seen the need to have a targeted strategy. "There are both commodity and specialty markets and you need to participate in both and sell 100% of the hog to be competitive," he said. "You also have to understand both". HyLife is a smaller player than others so Baudry indicated that it has mainly focused its efforts in specialty markets while still selling commodity pork products like bone-in primals, boneless sub-primals, cut floor sundries and kill floor offals. When it comes to sundries HyLife sells everything that comes off the kill floor including the fat and jowls. "You have to reach into the kill floor and harvest everything you can like kidneys and other interior parts," stresses Baudry. Again, for HyLife, it comes down to knowing and understanding what the market wants.

When it comes to specialty markets this is what HyLife lives for. "These are the specific customer markets," says Baudry "where quality and volume are highly correlated". He says HyLife targets strategies like special packaging, meat quality, colour, texture, shelf life and traceability: for HyLife it's specialty products like the single-rib belly (ribs-out) or cuts for the shabu-shabu market eaten in Japan. HyLife did a number of things when it came to their specialty programs including aligning international and domestic strategies to focus and keep costs competitive. It also went after the premium domestic fresh market launching an Omega 3 Pork product that required specific merchandising as well as well as their Liberteerre RWA Private Label pork identified as being raised without antibiotics.

### Keeping a focus

Baudry says HyLife kept export markets alive by leveraging their "Farms to Foods System". He said they kept the focus on food and nutrition with strict control of animal feed ingredients and diet formulations to ensure criteria like carcass fat firmness. They also combined it with a genetics program and focused it on meat quality. Traceability also became a key component of this whole system. "Research and development is very important," says Baudry. "This is where you get to try things like carcass evaluations in the plant and see the results. We partnered with CPI to be able to merchandise the product that was relevant to the customer". Baudry feels that in North America we don't often have an appreciation for meat quality and do not correlate that with value. "Too often we are focused on commodity products but you cannot live off that," says Baudry. Baudry sees market opportunities for Canadian pork in China and Russia and says it is important to engage in these international markets. When asked about the drop in demand in Canada, he indicated that he sees fewer retailers now and a focus on commodity products. "Canadian people focus on price. We need to educate them about focusing on quality" says Baudry. ■

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## Competing for markets at home and abroad Continued

### Targeting the domestic market

Katie Sinclair is the Value Chain Manager at Toronto-based Quality Meat Packers Ltd, a role that allows her to work with producers, industry partners, internal processes within the plant, and with retailers. She points out that a number of challenges such as currency issues and input costs have had a huge effect on the Canadian pork industry. Canadian slaughter, live exports and hog inventories are all trending down from the peak seen in 2007-08, she notes. While there is still a good news story on the export side - with good successes opening up sales in new markets like Russia, Australia and China - domestic pork consumption is going down and imports, largely from the US, are going up significantly. She describes the changes taking place in the domestic market and how the whole supply chain needs to adapt to these changes in order to be successful.

Quality Meats is not new to the pork business, Sinclair pointed out. With a plant located in downtown Toronto Ontario, the company acquired two additional facilities for their business - Tasty and Great Lakes Specialty Meats - in 2009. It now employs about 950 people and slaughters 5,000 pigs/week with plans to move to 15,000, and was the first plant to be HACCP approved.

### A changing world in the domestic market

Sinclair notes that we now live in a world where people have changed a great deal in a relatively short period of time. The pork sector needs to adapt to the new consumer who is an information-based consumer. "The Canadian consumer today

is not a typical consumer," says Sinclair. "Working to meet consumer needs requires the industry to work together as a true supply chain should", stressed Sinclair. She noted that

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**"Many younger families base food purchases, including pork, on what the children are going to eat"**

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groups like Provincial Pork Boards and CPI are starting to work together more as opposed to the silos she saw in the past. All parts of the supply chain from producer to retailer are critical. "All of us are feeding the supply chain to sell pork to the consumer," says Sinclair.



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Today's consumer wants clear, accurate and reliable information on food, says Quality Meats' Katie Sinclair

Access to technology like smart phones and QR scan codes has enabled the consumer to have information at their fingertips. Less than 3% of the Canadian consuming public has any connection to agriculture today. Yet these people demand more and have higher expectations concerning the food they eat. "Our retailers are seeing this," says Sinclair. "Most consumers have higher disposal incomes and younger members of the family are influencing food purchases. Many younger families base food purchases, including pork, on what the children are going to eat. They have a lot of power in the family and we need products in the marketplace that are fast and easy to make and of course good to eat".

Today's consumer wants clear, accurate and reliable information on food. "They want the label to state the facts on where the food (pork) originates and how it was produced. We see that consumer confidence in the marketplace depends on useful and good product quality information," stressed Sinclair. The days of just 'trust us everything is fine' are long gone. Still, the consumer wants a cheap food system despite more expectations and demands. Voluntary best practices are no longer acceptable. "We need to have programs like CQA and ACA in place", says Sinclair. She added that transparency of the supply chain is critical today and auditing is now more of a reality. Buying pork based on attributes like antibiotic free and welfare raised is important but when it comes to picking pork at the retail counter we find it still comes down to price notes Sinclair. She says Quality Meat customers want it made in Canada.

**The processor perspective**

Sinclair has observed other jurisdictions around the world and sees that the future road map for the processor in Canada is going to change rapidly. Core pillars that made a processor successful in the past are still going to be critical, but new initiatives like consumer engagement, animal welfare, environment and social media are being added. "It all boils down to transparency, transparency, transparency", says Sinclair. At Quality Meat Packers, Sinclair finds the consumer wants to know more about its auditing, the products and its processes. The good news for Canadian processors selling into

the domestic market is that there is a whole group of "foodies" out there that love pork, notes Sinclair. She sees pork getting more and more on the menu and viewed as a sexy food by executive chefs.

"We have a good story and we need to tell it", says Sinclair. She further added that the pork chain needs to be transparent and look for ways to brand Canadian pork. Sinclair sees a need for the pork supply chain to work together and have a unified approach. "Producers need to align with the right processors and the right program and then connect with the consumer. Embracing change and providing products that they want is key", says Sinclair. "It's time to re-invent pork".

**Future opportunities**

Sinclair listed the great opportunities she sees for all parts of the pork value chain. Food service has an opportunity to get more pork on the menu, the retailer can enhance the pork category and there is a great opportunity to educate the consumer about pork. The processor needs to optimize the opportunities, the producer needs to understand the opportunities and the greater supply chain needs to work toward delivering a consistent eating experience, Sinclair says. "It is time to understand the pork supply chain and your role in it. Its pork's time to shine in Canada," she concludes. ■

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## BREAKOUT SESSION

# Competitive Canadian pork production

Summarized by Marvin Salomons, Salomons Group Solutions

The Banff Pork Seminar would never be complete without the annual discussion around our competitive and financial position in the global industry. This year a view from Europe highlighted the topic with one of UK's pig industry leaders, Mike Sheldon, expounding on the current European continual fight for their place in world pork production and what it means for their industry. Al Mussel from Canada's own right-of-centre think tank, The George Morris Centre, followed Sheldon outlining the financial considerations used to evaluate the current competitiveness of the Canadian swine-pork industry. Where have we been and where are we headed?

## Challenges in Europe

Opening this session was Mike Sheldon, owner of Greenway Farms, a 500-sow unit at Milton Keynes, UK. Sheldon's



knowledge of the industry goes back many years starting with PIC and now as a board member of BPEX, the UK's pig levy board that spans activities from marketing, technology, knowledge transfer and economics. On BPEX since 2001, he currently has responsibility for marketing activities and is now also Chairman of the Assured Food Standard (Pork) that implements the successful "Red Tractor Program". Sheldon addressed

workshop participants on the current competitiveness in pork production from Europe's point of view. He is no stranger to the challenges as he was involved in managing the consequences of the UK's unilateral ban on close-confinement

sow stalls back in 1999 when he was Chief Executive of the UK's pig industry trade association (NPA).

**"The welfare challenges of sow stalls, castration and alternatives to farrowing crates are still being addressed"**

Sheldon notes that Europe's pig producers continue to fight for their place in the global marketplace. The same challenges of welfare, medicine usage and disease are on the agenda with some predictable gain and losses being made. The welfare challenges of sow stalls, castration and alternatives to farrowing crates are still being addressed. On January 1, 2013 EU legislation came into effect banning the use of close-confinement sow stalls during the period of 5 to 16 weeks of gestation. "The UK passed unilateral legislation in 1989 that came into effect in 1999 and it showed a slight downward trend in the UK sow / breeding herd" says Sheldon. Despite the UK's early move to ban sow stalls he showed the trend in the UK

CONTINUED ON PAGE 46

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## Competitive Canadian pork production Continued

and EU pig reference price did not result in any adverse effects. “In fact from 2001 the UK price has operated at a premium to the EU price, sometimes being quite significant,” said Sheldon. Compliance on moving away from sow stalls has not been overtly dramatic to date. Sheldon showed his current numbers on EU compliance rates with less than 100% compliance in many places and countries like France having not done much.

### Will sow stall ban enforcement happen?

Sheldon sees a good chance that a two-tier market will be the outcome from the sow stall ban. Some retailers will insist that fresh pork comes from compliant farms. He also predicts the law will be subverted with the ban being ignored by some producers. A “light touch enforcement” will happen in the EU, as with small fines of 1000 Euros there is not much of a deterrent to comply. This is especially true for producers in southern Europe where expected compliance is 30% compared to 90% by the Danes and Dutch. “All in all the market will prevail”, says Sheldon.

Sheldon is a convert when it comes to group housing. Despite the UK’s pig production never fully recovering from making this move toward group housing, Sheldon has seen the positive effects in this own herd. Sheldon presented his production data

showing a 92% farrowing rate, selling 25.5 pigs/sow/year, and a feed usage of 1.24 tonnes/sow/year. The big benefit that he did not predict was the negligible cull for mechanical injuries, like vaginal injuries. “I will never go back to stalls,” Sheldon stated emphatically. When converting stalls to group housing Sheldon had good advice for producers. “A lot of UK producers did not do the conversions right. Don’t just cut the back off the stalls, invest in people and skills so they can adapt to the new system and give the sows lots of space, in excess of 40 ft<sup>2</sup>/sow.”

So what went wrong in the UK and how did the consumer feel about the change to group housing? In the end, noted Sheldon, the consumer really didn’t care about the stall ban, as product on the supermarket shelf could not be identified as coming from group housed sows. For producers it has been costly on both ends of the production system. Under investment in grow-finisher facilities during the stall retrofit period has led to lower finisher performance and now housing that is now in need of urgent updating.

Talking about some of the other issues facing EU producers, Sheldon also noted that castration is slated to be outlawed across the EU by 2018. “It is driven by the retailers; the market will move faster than the legislation, and I expect we will even see countries like Germany stopping castration”, says Sheldon. When it comes to confinement during farrowing Sheldon notes there is no legislative timetable and the level of uptake of loose farrowing is very low. He feels that outdoor farrowing sows is a UK distraction only and not expected to be adopted elsewhere. Tighter controls on veterinary medicines will also come with published usage data and vets will only be able to prescribe but not sell drugs.

### Future opportunities

Sheldon see good opportunities for pork across the EU and the world. “Pork is one of the good guys when you talk about animal protein”, he says. Sheldon talked about how he sees the trend in production in Europe unfolding over the next few years. He envisions sow populations in Southern and Eastern Europe trending down. Germany will also reduce numbers. Sow populations in Denmark and The Netherlands will increase as they move towards farrow-to-wean production and out of finishing. “It is a bit confusing” says Sheldon, “I wouldn’t say there is a generalized exit but you will see a 2-3% reduction overall”.

Sheldon summed up by talking about the BPEX marketing program and the success of the Red Tractor Brand (<http://www.redtractor.org.uk/processors-packers-brands>) with its assured standards in food production and origin. Most sectors from bread to pork now participate in the program that sees product on the shelf identified with the Red Tractor label. Now on £30B of UK food products in 2012 it is highly supported by producers and widely accepted by consumers. ■

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## Canadian pork sector's competitiveness



**In contrast to Europe, where does the Canadian swine-pork industry stand relative to its current competitiveness? Since the emergence of the Canadian pork sector as a large net exporter of pork in the 1990's, the industry's focus has been on its competitiveness position. The questions keep being asked and agricultural economists keep trying to determine the best answers. Economists at organizations like Canada's George Morris Centre ([www.georgemorris.org](http://www.georgemorris.org)) have done extensive work looking at the competitiveness and feasibility of hog production and processing in both Western and Eastern Canada. Al Mussell knows all too well some of the financial considerations in evaluating the competitiveness of the Canadian industry. Mussell is currently a Senior Research Associate at the George Morris Centre and a person that has considerable expertise in farm management and farm income policies. He closed this breakout session with a good discussion on the hog sector's financial situation and where he sees it headed.**

Mussell said 2012 was another disappointing year of returns for the Canadian pork sector and unfortunately caps a six-year period in which four years had some very penetrating losses. Past research suggested a powerful competitive advantage in Western Canada and parts of Eastern Canada. "We have to ask ourselves - Are we missing something here?" says Mussell. For Mussell the findings do not square up with the recent experience. In finding the answers, Mussell suggests we need to evaluate what the industry's financial indicators tell us regarding the current malaise.

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**"With red meat production, feeder livestock moves to feed not vice versa"**

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According to Mussell the term competitiveness is rarely defined. "We compete for market share, we compete for inputs. As we generate earnings at what point are we competitive for the right people?" asks Mussell. Mussell noted that historically the hog sector focused on feed costs as a driver of operating costs, i.e. competitiveness. Feed costs

were 50% and now they are 75% of our costs. "With red meat production, feeder livestock moves to feed not vice versa. Least cost regions are able to compete under this scenario and this places Canada in a positive light", he says.

Mussell's group constantly track a number of inputs like the Lethbridge Barley-Omaha Corn Spread and the Chatham Ontario Board Corn Basis. They see a seasonal trend but at certain times inputs like Chatham corn do not follow Chicago corn. "We see corn in Western Ontario being the cheapest. You would not know it but we should be competitive", says Mussell. "What are we missing?" At the George Morris Centre, Mussell and his group have been focusing on analyzing operating costs and returns. They have seen a significant drawdown in hog farm equity positions and drops in cashflow. "We have Stats Canada data only to 2010 and from that we see from 2000-06 hog farms built equity", says Mussell. "In 2007-10 they gave it all back".

For Mussell the cashflow concerns on farms can be attributed to a number of factors such as the feed price spike in 2008 due to the US ethanol mandate, H1N1 in 2009 and the

CONTINUED ON PAGE 48

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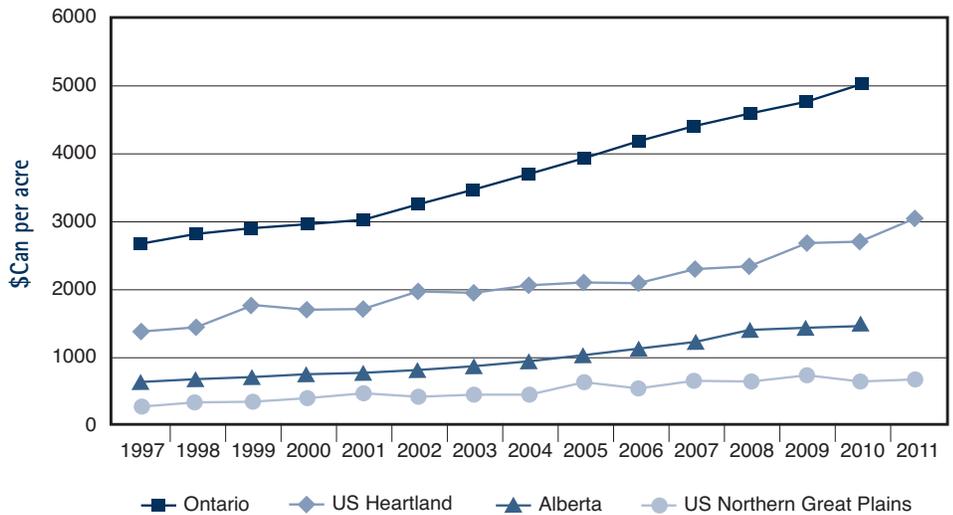
Competitive Canadian pork production Continued

2010 drought. This all drew down cash reserves. Mussell noted this isn't distributed evenly across farms (diversified versus non-diversified). Farms growing feed can sell grain for cash if they don't use it. Farms purchasing complete feed have bigger and different concerns noted Mussell. He also points out that specialized hog farms are generally larger in scale and actually do get the benefit of economies of scale.

How did we get here?

From 1990 to 2005 the Canadian sow herd had some impressive growth rates, 3.2% per year and more than 500,000 sows in total. Mussell felt this could not have been sustained from land-based operations. Asset inflation has been an issue in places like Ontario and Alberta with the average value of land per acre trending up and the

Figure 1: Average value of land and buildings per acre, all farms



Source: Statistics Canada, USDA-ARMS data, GMC calculations, Market Value, Unaudited

gap between these and comparables in the US Heartland and Northern Great Plains widening (Figure 1).

"The debt to equity ratios tell us we are more leveraged now", says Mussell. His analysis shows that there is more volatility in Canada than in the US and that Canadian asset values look inconsistent with operating earnings. He notes that the continual losses have depleted equity and reduced the borrowing capacity of farms. Mussell points out farms need to be able to manage cash and deal with increased volatility and watch the balance sheet more closely. He sees the business risk management (BRM) programs in place not designed for several years of volatility. "Is there a need to restructure? But towards what?" says Mussell. "We think Western Canada and parts of Eastern Canada are good places to raise hogs. I don't have the answers but we need to look at the financial situation and how it influences our competitiveness", he summed up. ■

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## BREAKOUT SESSION

## Conversion of gestation stalls

Summarized by Audrey Cameron, Alberta Pork

**Animal welfare assessment systems in the EU, US and Canada**

Due to changing societal values and concerns, animal welfare is increasingly seen as an important attribute of the overall food quality concept, which comprises nutritional value, taste, health, safety and ethics, says Dr. Renée Bergeron from the University of Guelph. This has led to the development of new animal welfare standards, implemented through legislation, codes of practice and quality assurance programs, she notes. As a result, measurement of welfare is receiving more attention and a number of methods have been developed to do this. She examines welfare assessment programs in several countries.

**How is welfare defined?**

Dr. Bergeron first defined animal welfare in terms of the Five Freedoms established by the British Farm Animal Welfare Council in 1993: Freedom from hunger and thirst; freedom from discomfort; freedom from pain, injury and disease; freedom to express normal behaviour and freedom from fear and distress.

When assessing animal welfare at the farm level, it is important to consider input-based measures or resources and management-based measures - such as environment, housing, feed and water, and temperature - as well as output-based measures or animal-based measures such as body condition score, health, injuries and behaviour. Dr. Bergeron compared three assessments that have been recently developed to assess pig welfare at the farm level: The European Welfare Quality® Program; the American PQA Plus® Program and the Canadian Animal Care Assessment (ACA™) Program.

The Welfare Quality Program relies on animal-based measures and corresponds to four main goals: Good feeding, good housing, good health and appropriate behaviour. The assessment is time consuming and therefore costly.

The American PQA Plus® Program relies heavily on output-

based measures and less on animal-based measures. It comprises 10 "Good Production Practices" and an evaluation of 12 principles related to swine care, 10 of which are assessed and rated as "acceptable" or "develop and implement action plan".

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**"Quality assurance programs are practical tools to demonstrate to consumers that producers care about their animals"**

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The ACA™ Program was developed under the leadership of the Canadian Pork Council. The current program includes mandatory and shaded questions. Since January 2012, producers must comply with the mandatory questions in the ACA™ to be certified under Canadian Quality Assurance (CQA®), which is the food safety component of the program. Compared to the other two programs, the ACA™ relies heavily on input-based measures and uses very few animal-based measures.

Despite the variation between programs and assessment results, quality assurance programs are practical tools to demonstrate to consumers that producers care about their animals and are also an important asset for the industry by serving as educational tools for our producers. ■

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Conversion of gestation stalls *Continued*

## Lessons learned from a decade of transitioning sow farms from stalls to pens



According to Dr. Thomas Parsons from the University of Pennsylvania, if you plan on building a new sow facility or upgrading an existing facility, you will likely have to choose between gestation stalls and group housing systems. Is there a single formula for transitioning a sow farm from sow stalls to group housing? The answer, he says is “no”. There are several viable alternatives for producers to consider, and each system has its strengths and weaknesses, he notes. Assessing all options that best match your needs is a prerequisite to this transition process. Dr. Parsons shared a few alternatives and important management practices to consider when transitioning to group housing. First of all, he advises, consider which group housed sow system will meet your basic needs for maintaining or improving your herd productivity. Economic considerations are also an important aspect, including the cost of the technology and feed utilization, he believes.

## Understanding pen gestation

Dr. Parsons defined some terms used when considering group sow housing systems:

**Group size:** Small group size systems (from 5 to 20 sows) house sows of similar size and age that have comparable feed requirements. Normal group size systems (from 50 to 70 sows) usually correspond to a specific breeding group or the capacity of a particular feeding unit. Large group size systems (greater

than 100 sows) are meant to prevent, minimize or eliminate the development and enforcement of a rigid social hierarchy.

**Group structure:** Group structure can be static. An “all in, all out” system, left intact for the duration of gestation, is designed to stabilize the social hierarchy of the group, but drop-outs will reduce the efficiency of space utilization. A dynamic group consists of a ‘continuous flow’ system which works best with a large group of sows. Replacing 10-20% of the animals in the group on a weekly or bi-weekly basis interrupts the social

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order if it was strongly established. Consequently, this type of group requires some alterations to management protocols since the breeding group holds multiple stages of gestation.

**Timing for group formation:** Sows bred in stalls and released into the group as soon as they are out of standing heat (pre-implantation) eliminates the potential for injury from riding each other while in heat. This system works well with a large group as the social hierarchy in the group is minimal; despite that, Dr. Parsons mentioned that skirmishes should not have a negative impact on the free floating embryos prior to implantation. Another approach is maintaining the sows in stalls until they are confirmed pregnant (approximately 35 days) and the implantation is completed before mixing sows to reduce the risk of negative impact on their reproductive performance. More than 1/3 of the animals are housed in stalls at any one time.

### Alternative systems

Some group-housed sow feeding systems can create competition between animals. Floor feeding and trickle feeding are two of them. With floor feeding, as the name suggests, the animals eat on the floor, though in some systems short stalls or stanchions can be provided to decrease aggression. This type of feeding works best in small groups of sows (6 or less). Some inconsistencies can be seen in body



Segregation of gilts from older sows is an important consideration in ESF systems

condition as a result of individual feeding not being an option and conflict related to social hierarchy issues. Social hierarchy issues can be managed by feeding many times per day. Sows need to be grouped according to their nutritional requirements. This system can result in greater feed usage on a per sow basis; however, cost of equipment, space requirement and maintenance are similar to a stall facility.

Trickle feeding decreases the risk of aggression between sows because feed is dispensed at a rate slower than the slowest sow can eat. Individual feeding is also absent in this system and animals must be grouped according to size.

Housing sows in small groups has been the most successful for this system.

The non-competitive feeding systems include the following: Cafeteria-style feeding stalls, free access stalls and electronic sow feeders. In the cafeteria style system, sows are moved once a day to a specialized area in the barn and locked into crates where feed is dropped. All sows remain in their crates until the last sow finishes eating. Individual feeding is limited but can be achieved manually. This system is considered inexpensive to implement as the feeding equipment is limited to one area of the barn. It is also very labour-intensive as sows must be moved one pen at a time.

CONTINUED ON PAGE 52

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## Conversion of gestation stalls *Continued*

The free access stall system allows animals to move freely in an open area and access feeding stalls at will. The system allows the sow to lock and unlock the stall as she enters and leaves it. There is also the option to individually feed animals as they tend to go back to the same stall. This option is more expensive than other systems as up to 30 additional square feet per sow is needed; the stalls also have a lot of moving parts which increase the maintenance cost. Electronic sow feeding (ESF) allows for computer-controlled individual feeding and management. All animals are identified with a microchip electronic tag which allows precise control of daily feed intake and decreases feed wastage. Reliable and durable feeding stations are essential for the success of this system.

**"Electronic sow feeding (ESF) allows for computer-controlled individual feeding and management"**

### Experience with electronic feeding

Dr. Parsons provided additional information on ESF from his experience over the last decade at Penn Vet Swine Teaching and Research Center (PVSTRC) feeding over 70,000 sows with ESF on 40 farms in 11 different states, on farms ranging from 100 to 10,000 sows. He mentioned that the ESF is "the crate alternative with the greatest upside potential for productivity and profitability" despite the fact that it requires the most changes in standard operating procedures to fully realize its potential.

He underlined in his presentation a number of key considerations when working towards conversion. The first aspect is parity segregation; making sure that gilts are kept separate from higher parity sows. Segregating smaller parity 1 sows with gilts can also be performed to reduce stress and competition.

The second consideration is group structure. According to his experience, group structure will depend on farm size.

Dynamic groups are used for herds of 1200 sows or less and static groups for herds of 2800 or more. Herds with sizes in between these can use some combination of static and dynamic groups to optimize animal flow and productivity.

The third aspect is type of group formation. He mentioned that both pre-implantation and post-implantation systems can maintain good production. One of the PVSTRC best ESF herds achieves 28 to 30 pigs weaned per sow per year using a pre-implantation system.

Pen design is the fourth element, as ESF systems also require the management of social hierarchy in the gestation pen. Many factors need to be considered: Space allowance, feeder capacity, pen size, pen shape, pen dividers, solid laying areas and water placement. The PVSTRC - designed pens have 18 to 20 sq ft per sow with approximately 75 sows per feed station. They also favour pens with 2 to 3 feeders or 150 to 225 sows per pen. The PVSTRC believe that in a pen containing 100 sows or more the social hierarchy is not well defined and maintained, which makes introduction of new animals easier. Rectangular pen shapes were also preferred. This shape assures an adequate flight distance for a sow to escape her aggressor. The feeder is positioned on the long wall to accommodate automated sorting of animals from the pen. The amount of perimeter is increased with this shape of pen and allows sows to lie along the perimeter as they like to lie against something. By adding a pen divider along the back wall to create 'bedrooms' it also increases the perimeter of the pen which promotes lying patterns and the development of sub-populations. The PVSTRC also recommend the lying area flooring to be solid. They prefer the water to be placed close to the entrance and exit of the feeders to discourage animals from sleeping in these areas and creating congestion around the feeders.

Training of pigs is also an important aspect, but training of people is the most important, Dr. Parsons concludes. People make the most difference; staff need to be enthusiastic and committed to the project and must take ownership of the ESF and the individual animals being fed. ■



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## BREAKOUT SESSION

# Reducing antibiotics: A matter of dollars & sense

Summarized by Christina Carley, Alberta Pork

## Why we should reduce antibiotic usage and ways to do it

Antibiotics are important not only for animal production, but also human health, notes Dr. Robert Desrosiers, with Boehringer Ingelheim.. However, he says, there are major concerns over antibiotic use in animal production due to the potential for veterinary pathogens or commensals to become resistant to antimicrobials and, through the food chain, passing this resistance to human pathogens. Despite no solid evidence to prove this suggestion, pressure from not only the public, but the human medical field will continue to increase for reducing antibiotics in animal production in the future, particularly when successful strategies for reducing antibiotic use have proven successful elsewhere, Dr. Desrosiers believes. There also exists a need within the livestock industry to safeguard the long term effectiveness of the antibiotics we currently have, because the possibility of new molecules being introduced in the future are slim. He explores the reasons behind why reducing antibiotics in production should be an industry goal and suggests different ways to accomplish this.

### Where does North America stand?

In order to gauge the effectiveness of various strategies to reduce antibiotic use, it is important to determine what our current usage is in comparison to other countries. As it stands, there exist no accurate data or studies to determine just how much and what forms of antibiotics are currently being used in North America. This highlights a need for industry to determine where Canada's antibiotic usage rate stands.

### What have other countries done?

Denmark initiated steps to reduce its antimicrobial consumption in pork production by phasing out antibiotics specifically used for growth promotion. Figure 1 shows the antimicrobial consumption in Danish pork production from 1992 to 2008. By 2000, they had eliminated using antimicrobials for growth promotion, and by 2008, decreased their overall use of antibiotics to less than 50%. Therapeutic use of antibiotics did start to increase slowly after 2000, so as

a method to try and keep the use of antibiotics low, in 2010 they implemented a 'yellow card' program that mandates producers and veterinarians to work together to maintain lower antimicrobial consumption on farm. Although not solely as a result of the yellow card system, Danish figures show an encouraging 19% decrease in pig antimicrobial consumption in 2011.

In 2009, the Netherlands also established goals regarding antibiotics use in animal production. The first was to reduce antibiotic usage by 20% in 2011 and by 50% in 2013. Through an emphasis on biosecurity, nutritional strategies and vaccination, 2011 saw a decrease in overall usage of 32% by the five livestock sectors. Specifically for pork production, they have decreased their daily dosages (per sow and piglets) from 25 daily dosages per year in 2009 to 13 in 2011, and from 16 to 8 daily dosages per year in finishing pigs

These examples from Denmark and the Netherland demonstrate that on a national basis, it is possible to

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implement collective guidelines, programs and regulations to reduce the use of antibiotics.

### Ways to reduce antibiotic usage in swine production

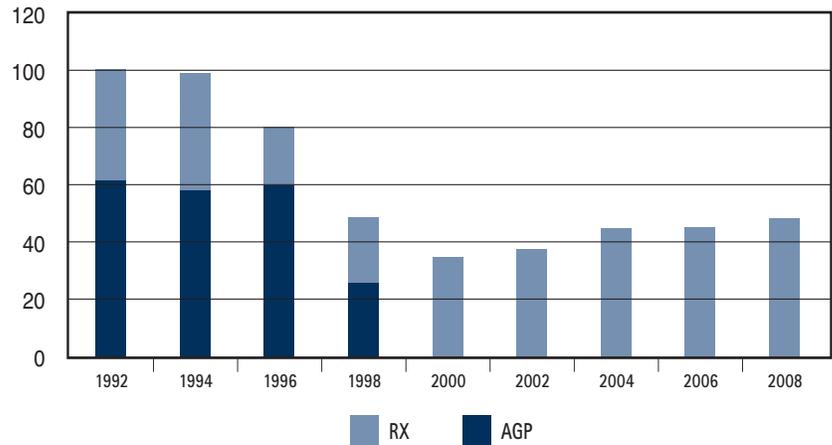
#### Health improvement and maintenance

The most effective way of reducing the use of antibiotics is to improve herd health status and, once achieved, to maintain it through practices such as biosecurity. An example given was one where the producer improved his herd health status by implementing a program based on early weaning, vaccination and medication. Utilizing the opportunity of a new facility, the producer populated the new building with only the “clean piglets,” followed by strict biosecurity protocols. As a result, all 5 organisms originally vaccinated for were eliminated from the herd.

#### Management

Dr. Desrosiers described two finishing systems receiving pigs from the same breeding/nursery unit, one operated all-in, all-out by building and the other all-in, all-out by room. Pigs in

Figure 1: Therapeutic (RX) and growth promotion (AGP) antimicrobial consumption (mg antibiotics per kg of pig) in Danish pigs from 1992 to 2008



the barn that was operated all-in, all-out by building needed no antibiotic treatment. Diagnostic results suggested that PRRS was circulating in pigs housed in the all-in, all-out by room barn and that Mycoplasma was also present. Different ways of managing the same pigs produce different results in terms of health status and in terms of need for antibiotic supplementation, he concluded.

CONTINUED ON PAGE 56

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## Reducing antibiotics: A matter of dollars & sense Continued

### Weaning age

In a study done by Alban et al (2010), it was found that it required three times the amount of antibiotics to control diarrhoea than to control respiratory diseases in weaned pigs. The known correlation is that the younger the weaning age, the more frequent the development of diarrhoea. Thus by weaning at an older age, producers reduce their need for antibiotics and it also enhances performance.

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**"Pigs in the barn operated all-in, all-out by building needed no antibiotic treatment"**

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### Feed and water ingredients

Many studies have concluded the positive impact of numerous feed and water ingredients as alternatives to antibiotics. Oregano oil, as an example, when added to feed and water to prevent haemorrhagic bowel syndrome and/or intestinal torsion resulted in a decreased mortality rate when compared to a control group.

### Season

Closer examination of data collected over an 8 year period by the Iowa State University Veterinary Diagnostic Laboratory revealed that cases of

enzootic pneumonia were three times higher during the months of September - October as opposed to February - June. With this information, antibiotic programs can be tailored to be deployed only during the high risk periods, thereby decreasing their use overall.

### Genetics

Studies completed in Denmark reveal the possibility of using genetics to raise pigs that are less dependent on the use of antibiotics. Raised in the same farrow to finish farms and environment, progeny from certain boars demonstrated a higher resistance to disease and a lower mortality rate when compared to others in both the nursery and finishing stage.

### Gender

Numerous studies have found that female pigs are less susceptible to disease and have a higher survivability rate than male pigs. In a study that looked at half a million pigs, the mortality rate for gilts receiving no antibiotics was lower (4.26%) than barrows receiving antibiotics (6.41%). By segregating the female and male pigs, producers can reduce antibiotic use in at least half of the pigs.

### Parity segregation

Parity segregation refers to the practice of raising piglets born from gilts separately from piglets born from

sows. Piglets born from gilts may require more antibiotics as they are more susceptible to certain conditions or diseases than piglets born from sows. In this sense, producers can tailor their antibiotic programs to meet the needs of gilt litters while eliminating unnecessary antibiotics in sow litters, which can reduce antibiotic use, in some cases, by 75%.

### Individual treatments

One reason for Denmark's ability to utilize less antibiotics in pork production is their treatment of individual animals as opposed to a whole population treatment customary in North America. Instead of treating all the animals through feed or water, which in some situations has proven to be less effective and more costly, Danish producers will often treat individual animals or pens.

### Vaccines

Using vaccines to prevent disease is a preventative measure to help reduce the use of antibiotics.

### Choice of antibiotic used

Not only is the amount of antibiotic used important, but also what type of antibiotic is used. As mentioned previously, it is critically important for both animal and human health that the effectiveness of the antibiotics currently available are safeguarded and used with long term effectiveness in mind.

### Conclusion

Irrespective of the potential impact on human health, there are benefits for the livestock industry of reducing antibiotic use. Not only will this safeguard the longevity of the antibiotics currently in use, but it reduces costs and could provide a comparative advantage when it comes to finding new markets both locally and globally. ■



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## Feed additives and feeding strategies to replace antibiotics

Newly weaned pigs are highly susceptible to enteric disorders immediately after weaning, points out Dr. Martin Nyachoti, from the University of Manitoba. Post weaning diarrhoea can lead to an interruption in the digestive capacity which can further lead to decreased growth performance, he says. To overcome this problem, diets include highly digestible ingredients and sub-therapeutic levels of antibiotic growth promoters are used. However, with the increase in public pressure to reduce the use of antibiotics, alternative feeding strategies for piglets at this stage are in need of exploration, Dr. Nyachoti suggests. He reviews various strategies that can be used to avoid the use of antibiotics in nursery pigs.

### Feed additives

There are a number of alternative feed additives for newly weaned piglets which include spray dried porcine plasma, acidifiers, high levels of zinc and copper salts, probiotics, prebiotics, nucleotides and nucleotides-rich products, essential oils, egg yolk antibodies, lysozyme and herbs and spices. Although some of these alternatives have been shown to be viable replacements for antibiotics, other side effects of their

application have caused concerns, for instance, environment pollution as a result of high levels of zinc, copper and acidifiers. Another is the implication for human health of using swine plasma in pig diets.

### Zinc Oxide

It has been shown that utilizing Zinc at levels of up to 3000ppm has proven to be effective at both preventing and

CONTINUED ON PAGE 58

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## Reducing antibiotics: A matter of dollars & sense Continued

curing post-weaning diarrhoea. It has been theorised that Zinc acts as a growth promoter by increasing the stability of the intestinal microbiota and heightening the animals' defense mechanism in the small intestine. The negative aspect of Zinc Oxide use is its impact on the environment.

### Organic acids

After weaning, pigs are often unable to maintain a sufficiently low gastric pH, due primarily to the change in diet and an inability to produce enough acid. By adding organic acids such as citric, fumaric, lactic and formic acids to the post-weaning diet, the gastric pH is returned to a lower level, resulting in the control of pathogen growth and optimal nutrient digestion. Although effective as an alternative to antibiotics, this method can be inconsistent.

### Pre- and probiotics

Probiotics are live microorganisms that, when administered in certain amounts, can positively influence the health of their host. The organisms primarily used are bacillus, yeast and lactic acid-producing bacteria (eg. Lactobacillus). Their health benefits include stimulation of healthy microbiota, prevention of enteric colonization by pathogens, lowering of pH, improving nutrient digestive capabilities and enhancing gut tissue maturation and integrity. Similar to organic acids, studies have demonstrated that there is potential for inconsistencies in results when using probiotics.

Prebiotics are selectively fermented ingredients whose purpose is to stimulate and create bacteria associated with a healthy gut. In this capacity, prebiotics can aid in the prevention of intestinal colonization of pathogens, thereby maintaining the necessary composition of bacterial microbiota. Combining pre- and probiotics may offer enhanced health benefits for the newly weaned pig.

### Antibodies

The use of antibodies against specific pathogens can control the impact of those diseases. They prove to be most effective when used to specifically target a known pathogen responsible for diarrhoea.

### Nucleotides and nucleotide-rich products

Nucleotides are low-molecule-weight intracellular compounds found in all living cells and play an integral part in structural, metabolic, energetic and regulatory functions. Although high concentrations are found in sow's milk, it has been theorised that the natural supply is insufficient for stressful situations such as weaning. Adding dietary nucleotides to the post-weaning diet will aid in the uninterrupted development of the gastrointestinal tract and immune functions of the intestines.

### Diet manipulation strategies - Dietary protein content

Customarily, post-weaning piglet diets contain high levels of crude protein which the piglet is not able to completely digest. This leads to the fermentation of protein and the creation of toxic substances, such as ammonia, in the digestive tract which can contribute to the development of post-weaning diarrhoea. The use of a low protein, amino acid supplemented diet has proved effective in reducing the concentration of protein fermentation products and consequently numbers of pathogenic bacteria.

One concern with using low protein diets is the possibility of compromising the growth performance of the piglet. Early studies have shown that if correctly balanced with synthetic amino acids, growth performance and health can be maintained. ■



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## BREAKOUT SESSION

# Limits and measures of biological performance

Summarized by Bernie Peet

## Managing people and pigs to maximize performance

What is the difference between farms with average performance and those that have consistently outstanding production figures? Nebraska veterinarian Larry Coleman attempted to answer this difficult question by comparing two herds in his own practice, one producing 24 weaned pigs per sow and the other 33. The two farms are virtually identical in all respects and, interestingly, both have very stable crews and managers with over 25 years of experience. So what is it about the higher performing unit, which Dr. Coleman calls a 'world class farm,' that makes it so good? The big difference, says Dr. Coleman, is the people. In his presentation, he analyses exactly what it is about the farm staff and management that makes this farm so special.

The operation in question is an 11,000 sow commercial farm that produces over 9,000 pounds of pork per mated sow. This production level is accompanied by 95% farrowing rates, 2% stillbirths, 5% PWM, and a weaning average of 13.0 pigs. Also, 97% of weaned pigs are marketed, with less than 2% not being sold as full value pigs. With that level of production, the farm has received scrutiny from numerous other systems asking, "What is the secret to your success?"

## Challenges in the farrowing room

Dr. Coleman outlined the challenge of managing the pregnant sow as she enters the farrowing room and gives birth. He described the work of the farrowing attendant, a man called Oscar. "Oscar has



a complex job and he treats it as such. If you talked to Oscar you would discover that not only are his hands involved in this process, but so are his heart and his head," he says. "Oscar cares about

the sow and the piglets and, as a result, he is emotionally involved in the outcome." Every sow presents a different problem, which often requires a unique intervention technique. "Veterinarians can outline various protocols for attending sows, but it is the stockman involved in the process that will decide what needs to be done," he says. "Oscar's team is achieving world class results, losing one or maybe two pigs per every one-hundred piglets born. The norm in North America's industry is a loss of eight to ten piglets per every one-hundred pigs born."

The second challenge faced in the farrowing room is that of the newborn piglets and

CONTINUED ON PAGE 60

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## Limits and measures of biological performance Continued

the risk of them becoming chilled. “Unfortunately, our swine industry generally does not recognize the magnitude of the problem of newborn pigs getting cold (hypothermia),” comments Dr. Coleman. “This chilling hinders the piglet’s attempt to suckle and receive the necessary colostrum. Ultimately, he will succumb to the many problems that are a direct result of his failure to receive this life-giving first milk.”

Dr. Coleman described the work of the person responsible for day 1 piglet care, a man called Edwin. “What does Edwin, along with his team, accomplish?” he asked. “To start, they take each wet piglet and hand dry him off with a towel. Then, working quickly, they make arrangements for each piglet so he can successfully deal with competition from his litter mates. And, whenever possible, they move piglets to suitable moms. This involves the procedures that

we call sizing, sorting, cross fostering, and split suckling. They make sure that every pig is in a family situation that is conducive to his success.”

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**“Unfortunately, our swine industry generally does not recognize the magnitude of the problem of newborn pigs getting cold”**

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Dr Coleman stresses that, while it is possible to define management protocols in detail, unless Edwin and his team are emotionally involved in the process, even they will fail. “They will fail because every situation presents a unique set of problems that will have to be dealt with by people who care and are using their heads to make suitable arrangements for each and every piglet born,” he explains. “No protocol can motivate a person to do this.”

## Leadership makes the difference

Dr. Coleman went on to describe the work of Jose, the farrowing leader. “If you were to take a job in his farrowing house, you would find that Jose expects you to be a world class farrowing assistant,” he says. “However, he would be very patient while teaching you how to accomplish this task and you would be treated more like a volunteer than an employee. While learning the techniques, you would see how compassionate Jose is about his belief that no pig should be left behind, and that the idea of killing low birth weight pigs is ridiculous to him.”

“Ultimately, you would realize that Oscar and Edwin have been inspired by Jose, and that they bought into the concept that Jose has often verbalized to them, which is the fact that they are capable of being the best in the world.”

The farm manager, Dana, is responsible for the crew of 20 staff and has been in the industry for 30 years. “If you met Dana, you would notice his smile and that he would like to build a relationship with you. Dana is the first person to arrive each day, and he greets every employee by name,” notes Dr. Coleman. “Many of the people on the farm have a great deal of respect for Dana, because he has developed them into one of the best farms in the world, and because he treats everyone with great respect.”

But, says Dr. Coleman, while good production does depend on having a good manager, that is not ‘the secret’, because a great manager is hired by the owner or group of owners. “If you talk to Dana, he would tell you that his owner has never turned down a proposal which he has presented that would be good for his team or the pigs at his farm, in spite of financial constraints at different times of the market,” he explains. “This owner would tell you that a ‘least cost’ strategy is doomed to fail when it is applied to

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## Limits and measures of biological performance Continued

building systems for pigs that have to compete on a worldwide basis.” He has frequently communicated that he would like every obstacle removed which inhibits the happiness of people or pigs. In fact, he would say that it is his job to remove any barriers to this goal, adds Dr. Coleman.

### Emotional engagement

“The people taking care of the pigs are emotionally engaged in what they are doing - using their heads, hearts, and hands to care for the pigs - because they believe the owner

cares about and respects them. This is the secret, the leadership of the owner,” Dr. Coleman says. “This caring behaviour is modelled from the top down to the bottom of the organization. Throughout the organization, you will find caring people using their hearts, heads, and hands to perform at their maximum potential. In many of the farms that I visit, the employees are only using their hands, and for that reason these farms will never produce world class results.”

“Owners need to understand that they need to be involved in giving the team at the farm everything they need to be successful,” Dr. Coleman stresses. “They should not expect employees to manage around difficulties they face on the farm. Rather the owners need to be directly involved in removing the difficulties.”

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**“People have to know that they are valued for their contributions and that they have been given responsible roles”**

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“People have to know that they are valued for their contributions and that they have been given responsible roles,” Dr. Coleman continues. “They need to know that upper management feels that they are capable of achieving good results and have the freedom to achieve those results. This philosophy of management creates a ‘low-fear, high trust’ work environment where people are willing to try new things without worrying about “getting in trouble.” In this system, he says, employees are held responsible for results, but not necessarily for procedures. The foundation of the culture in an organization which follows this philosophy is respect.

“Managing people and keeping them emotionally engaged can be challenging,” concludes Dr. Coleman. “Interestingly, the key to success is in treating others as we ourselves would like to be treated. How simple a formula!” Yet, he says, it leads to a profound truth for our industry; employee engagement is a direct result of owner/senior team actions which result in farms that have a winning plan combined with world class managers who know to care for their employees. ■

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## Measuring performance and decision making



Most pork producers use a computer-based herd recording program, but how many make full use of its capabilities? Most people monitor some key performance indicators, but often don't know which factors influence them or how their production numbers compare with other, similar, farms. Freemont, Nebraska-based Swine Management

Services (SMS) takes data from more than 800 farms and 1.4 million sows, with 24 different herd recording systems, and crunches the numbers in considerable detail, to show producers how they can improve and where they stand relative to their peers. Ron Ketchem, co-owner of SMS, describes how he analyses the data and points out some of the key management areas that impact breeding herd performance.

Tables 1 and 2 are summaries of SMS data for the 52 weeks ending on June 29, 2012. The range in size of farms is from 200 to 7,102 sows with most being independent pork producers. "It is very interesting to us to see the variation in production levels from farms at less than 15 pigs per mated female per year to 30+," comments Ketchem, noting that this data set includes 16 farms producing 30+ pigs over the last 52 weeks. "We have also been tracking the changes in production numbers since 2005 with pigs weaned per mated

Table 1: SMS Performance data 52 weeks average - 2012 summary

	Top 10%	Top 25%	All farms	Bottom 25%
Number of farms	79	198	793	198
No. mated females	110,241	338,252	1,372,937	339,218
Pigs weaned/mf/yr	29.42	27.97	24.73	21.11
Litters/mf/yr	2.49	2.47	2.37	2.23
Wean to 1st service interval	5.53	5.93	6.74	7.75
Percent served by day 7	91.4%	90.8%	88.4%	85.1%
Percent repeat services	4.1%	5.1%	8.0%	11.1%
Farrowing rate	90.5%	88.6%	84.9%	79.6%

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5.5	39.87	63.96	100.09
6	43.49	69.77	109.19
6.5	47.12	75.59	118.29
7	50.74	81.40	127.39
7.5	54.37	87.22	136.49
<b>CENTS PER KWH RETURN ON INVESTMENT IN MONTHS/YEARS</b>			
4.5	1.7	1.1	0.7
5	1.5	1.0	0.6
5.5	1.4	0.9	0.6
6	1.3	0.8	0.5
6.5	1.2	0.7	0.4
7	1.1	0.7	0.4
7.5	1.0	0.6	0.4

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## Limits and measures of biological performance Continued

Table 2: SMS Performance data 52 weeks average - 2012 summary

	Top 10%	Top 25%	All Farms	Bottom 25%
Total pigs born/female farrow	14.44	14.2	13.37	12.55
Pigs born live/female farrowed	13.21	12.93	12.1	11.24
Pigs weaned/female farrowed	11.8	11.33	10.53	9.68
Piglet survival, %	83.20	81.40	79.80	78.00
Average gestation length	115.91	115.87	115.9	115.85
Average age at weaning	19.1	19.38	20.17	20.45
Average parity	2.61	2.66	2.66	2.54
Sow mortality, %	6.00	6.30	7.70	8.20

female per year for All Farms going from 21.28 to 24.31 pigs giving a gain of 3.03 pigs, and with the Top 10% going from 24.72 to 28.60 pigs," he says. "Pigs weaned per female went from 9.17 to 10.42 pigs with the Top 10% weaning 11.63 pigs."

Ketchem feels that the key drivers of the number of quality pigs weaned are wean to 1st service days, farrowing rate, total pigs born, piglet survival (100 – stillborns and pre-weaning death loss), female death loss %, and mated female non-productive days.

### Influencing wean to 1st service interval

Table 3 shows data from 602 farms that wean over 20 pigs per mated female, sorted by wean to 1st service interval. "Wean to 1st service interval influenced pigs weaned per mated female, percent bred by day 7, percent repeats, farrowing rate and total pigs born," Ketchem explains.

**"Sows should be bred immediately they are in standing oestrus, and not delayed for a period"**

In order to improve wean to first service interval, he suggests feeding sows more aggressively in farrowing starting the

day of farrowing and using an ad-lib feeder. He also advises that weaned sows are given extra feed until they are bred, to give a flushing effect, and that daily boar exposure is started the day sows are weaned. Finally, he says that sows should be bred immediately they are in standing oestrus, and not delayed for a period.

### What influences farrowing rate?

Farrowing rate is strongly related to breeding herd output, says Ketchem. "Farms with a farrowing rate of 90+% weaned 26.10 pigs per mated female per year versus <75% at 20.40 pigs," he explains. "Average farrowing rate has improved by 5.2% between 2005 and 2011 when it was 84.9%."

Ketchem suggests that AI technicians should be given good training and be well supervised in order to get the best conception rates. He also advises planned breaks to prevent fatigue. Analysis of records related to the technician, time of day, semen batch can be used to identify areas for improvement.

"Semen management is an important component of farrowing rate, Ketchem believes, noting that SMS data has shown large differences between different batches of semen. "When the semen arrives, always record the batch number and check

**Table 3: 602 farms over 20 pigs weaned / mated female / year – Ranked by wean to 1st service interval**

	Top 10%	Top 25%	Top 50%	Total farms	Bottom 50%	Bottom 25%	Bottom 10%
Wean to 1st service interval	5.2	5.5	5.9	6.9	7.9	8.8	10.1
Pigs weaned/mated female/year	25.91	25.45	25.17	24.47	23.82	23.69	23.53
Bred by 7 days, %	93.60	92.50	90.30	85.90	81.80	78.70	75.00
Repeat services, %	6.80	6.60	7.40	8.00	8.50	8.60	9.50
Farrowing rate, %	85.70	86.10	85.40	85.10	84.80	85.30	84.60
Total born	13.48	13.29	13.22	13.09	12.97	13	12.95
Piglet survival, %	79.90	80.10	80.20	79.80	79.50	79.00	79.40
Weaning age	19.81	19.89	19.67	19.79	19.91	19.95	19.78

the temperature of semen bags on the outside and inside of the bag,” he says. “Also, record daily high/low temperatures in the semen cooler to monitor any fluctuation in temperature setting for the semen storage cooler. He advises rotating semen at least once per day and arranging storage of semen by delivery date so the older semen is used up first.

The semen temperature information is used to monitor semen quality and there should be less than 2-3 degrees of fluctuation in 24 hours, he notes. “Keep the semen storage unit in an air conditioned room at about 70°F in hot weather,” he advises. “Also, in order to more accurately measure semen storage temperature the remote probe from the high/low thermometer needs to be in a bottle of water to measure fluid temperature not air temperature.”

**What influences total pigs born?**

Over the last 7 years, total pigs born for All Farms increased from 11.70 to 13.20 pigs per litter. The Top 10% farms went from 12.41 to 14.18 pigs giving 1.77 more pigs. “A most



Semen management is an important influence on farrowing rate, says Ron Ketchem

influential number is total born for first litter gilts because the first litter determines the potential for lifetime production numbers,” Ketchem points out. “To get P1 females off to a good start, replacement gilts need to have at least one recorded skipped heat before breeding and if possible spend at least 14+ days in a gestation crate pre-breeding. In farms we work with we see gilts with at least 1 skipped heat having 0.20 to 1.0+ more pigs on their first litter.” With regard to management, he points to high lactation feed intake being crucial and also suggests increasing feed intake between weaning and breeding

CONTINUED ON PAGE 66

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**Limits and measures of biological performance** Continued

by 2 pounds per day. In addition, good stimulation by the AI technician during breeding has an impact, he adds.

**Improving piglet survival**

SMS measures piglet survival as 100% - (stillborn % + pre-weaning death loss%) rather than looking at stillborn and post farrowing deaths separately. He notes that the average percentage piglet survival peaked in 2007 and has been flat over the last five years, saying that this is likely due to the significant increase in litter size over that period.

“We suggest extending farrowing supervision to address stillborns,” he says. “Having someone attending sows farrowing for 18 hours per day - 5am to 10pm - will allow them to attend 87.9% of the farrowings.” He stresses the importance of reducing chilling of pigs by drying them with a towel or coating them with drying agents. “The normal rectal temperature of pigs is 102+ F at birth. Pigs that are not dried within 5-10 minutes lose 4+ degrees of body heat and can take up to 1+ hour to warm back up.” Ketchem feels that pigs with

a birth weight of less than 1.5 lbs should be euthanized and prefers to use a CO2 chamber for this on welfare grounds.

**Reducing female death loss**

In the SMS database sow death loss for the last 52 weeks averaged 7.7%, with Top 10% farms at 6% and the Bottom 25% farms at 8.2%. Ketchem notes that, a change of 1% in female death loss can influence pigs per sow per year by 0.25 pigs, so lowering female death loss by 4% equals 1.0 more pig per sow per year.

Tackling death losses involves more rapid identification and treatment of sick animals, Ketchem stresses. He advises improved staff training on how to spot sick or lame females and having written SOPs on how to handle and treat them. “Have your farm veterinarian provide a list of what antibiotics to treat sick females with and the correct withdrawal times,” he suggests. “Also, record detailed information on each treated female and have someone accountable for treatment records and doing the euthanizing of problem females.”

**Mated female non-productive days**

SMS uses mated female non-productive days in its records to make inter-farm comparison easier. “In a study of 66 farms in the USA and Canada the average for mated female non-productive days was 32.8 days with a range for individual farms from 19 to 49 days,” notes Ketchem. “If you use \$2.25 per day for open sows the cost is an average of \$73.80 per sow per year.”

To reduce NPDs, he advises that all second returns are culled, as their farrowing rate is likely to be little more than 50%, and consider culling some older first service returns if service targets can be met. He also suggests culling of non-cycling weaned sows and gilts after a certain period and culling all sows that have locomotion or lameness issues. ■

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## BREAKOUT SESSION

# Healthy pigs mean healthy profits

Summarized by Geoff Geddes, Alberta Pork

## Circovirus still packs a punch

**To paraphrase Mark Twain, accounts of the death of Circovirus have been greatly exaggerated. Francisco De Grau, Technical Services Manager of the Swine Business Unit at Merck Animal Health, talked about the past, present and future of the disease.**

### Past

It is believed that the family of virus causing Porcine Circovirus Associated Diseases (PCVAD) from the Circoviridae family originated more than 100 years ago. However, Porcine Circovirus type 2 (PCV2) was not discovered as a swine pathogen-causing disease until the early 90s.

Since then, PCV2 has been endemic in swine production, causing isolated cases of wasting disease in nurseries. It was not recognized until a new strain of PCV2 (PCV 2b) created an epidemic outbreak that caused severe economic losses from 2004 to 2006 in Canada and other pork producing countries.

### Present

Since the appearance of the commercial vaccines in 2006, the clinical cases of PCVAD have decreased worldwide. The PCV has changed from an epidemic to an endemic form, including both vertical and horizontal transmission. In the former, transmission can occur in utero or through infectious PCV shed in milk and colostrum, and shedding occurs even in vaccinated sows.

With horizontal transmission, shedding increases at the end of the nursery period and peaks at 12 – 18 weeks of age. It can be aggravated by co-factors such as host genetics, immune stimulation, management and the immune and infection status of the sow.

For many producers and veterinarians, the disease caused by Porcine Circovirus is seen as no longer an issue. Unfortunately, although the vaccines are very efficacious, the damage done to the immune system by subclinical PCV is often underestimated. Since PCVAD is multifactorial, its clinical expression on vaccinated pigs requires interaction between the pig's environment, the host immune system and the circulation of other disease-causing pathogens on the farm.

On the other hand, in high health pigs, clinical cases can occur if farmers stop vaccinating, with mortalities increasing as much as 20%.

### Future

The virus is adapting. There is evidence of new strains and strain combinations in the field. In addition, there is a shift in

the age of disease occurrence from the grower-finisher phase to the nursery phase, as it was during the 90s. There are also new reports of reproductive failures associated with PCV.

Fortunately, the PCV2 vaccination has been called “one of the most successful vaccines ever applied in pigs” (Segales, 2007). But whether it is used depends on the producer's perspective: Can he see beyond the cost of the vaccine to the potential saving of four dollars per pig when the disease is prevented? According to De Grau, it's akin to choosing between a \$15 gift certificate today or a \$20 certificate in a month. The answer may determine whether Circovirus plagues our future or becomes a thing of the past. ■



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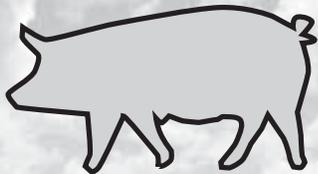
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## Healthy pigs mean healthy profits *Continued*

### Kill or be killed: Combatting swine disease in Canada

**Does Canada have a strategy on control and elimination of swine diseases? According to Dr. Doug MacDougald of South West Ontario Veterinary Services, the answer is no. Given that the last swine disease eliminated in Canada was Hog Cholera in 1962, MacDougald felt the time was right to look more closely at the problem and possible solutions.**

While the need for a disease-fighting strategy is nothing new, it took on added importance with the emergence of circovirus disease in 2005.

#### Cost

Today, that need is driven by PRRS. As the most expensive endemic disease in Canada, it costs the Canadian industry \$120-\$140 million per year or about \$5 per pig. In comparison, the cost of PRRS in the US is estimated at \$1 billion or \$10 per pig. They're significant numbers for an industry already faced with rising costs and unstable revenues.

Raising the stakes even higher is swine dysentery, which is re-emerging in Canada with an increased number of cases identified since 2009, predominantly in Western Canada. This disease has been increasing in the US industry since 2003 and has spread more extensively in the US swine population. The cost of swine dysentery is highly variable but estimated to be \$7 to \$8 per pig, and, compared to the US, we have limited choices in antibiotic control.

#### First steps

Given these costs, Dr. MacDougald suggested that there is a clear opportunity for Canada to push forward on a swine disease elimination strategy.

The first steps toward accomplishing this goal are already in progress, driven by the many PRRS regional control and elimination projects in the US and now Canada. In 2008 there was one regional project, while today there are approximately 20 in the US and 12 in Canada.

MacDougald views these initial regional control projects as a series of pilot projects from which much can be learned, not just about combatting PRRS but for other diseases including swine dysentery. As an illustration, he summarized the challenges and lessons from the Niagara regional control and elimination project.

#### Leadership

Leadership is essential in initiating a project, establishing funding and driving regional control and elimination programs. This leadership may come from producers, industry organizations, provincial marketing boards, experienced veterinarians or other sources.

#### Feasibility studies

Feasibility studies of a proposed area should include the assessment of physical and production related parameters, area leadership and producer engagement. Producer engagement and long-term commitment are extremely important requirements for a sustainable project.

#### Goals

Initially, focusing on communication, transparency and control in PRRS Regional Control programs will allow an area and the industry to learn from a variety of production dynamics, including areas with high pig density. Emphasis should be placed on reducing the risk of PRRS outbreaks. Engaging producers in the development of area-specific goals has significant value for both motivation and sustainability.

**Confidentiality/participation**

The veterinarian-client relationship is an important factor in engaging and maintaining a producer's participation and compliance.

**Motivation and engagement**

Maintaining producer motivation and creating a sense of involvement for all participants can be challenging. One solution is to hold small interactive group meetings with members of the PRRS working group with only the participating producers in the neighbourhood attending. This will facilitate open discussion among participants.

According to MacDougald, we must look for areas where we can provide education and understanding without overwhelming producers with science and jargon. Clearly defining site PRRS status and engaging producers in problem solving issues such as transport and pig flow are good examples.

Motivating producers who haven't experienced PRRS or a severe PRRS strain can be done by using economic data to outline the cost of PRRSV ("data talks"), including the cost (production and expense) of having field or vaccine strain PRRSV.

MacDougald advised using a trusted personal contact to discuss with the producer the importance of participating in the Regional Control project. The veterinarian-client relationship, the influence of area champions and relationships with service industry personnel are excellent options for securing a producer's participation and compliance.

**Communication**

Regular communication with the project producers and veterinarians is essential. It is important to demonstrate that the project is making a difference and to manage the expectations of all project participants. This can be accomplished in a number of ways:

- Collection of contact information for all area participants at the initiation of the project (fax/email/phone) and establishing communication pathways so that producers become used to information sharing such as status change bulletins, information updates and sampling tips
- Neighbourhood (cluster) meetings with focused outcomes intended to address the specific area risks and develop solutions.
- Open industry, producer and service provider meetings
- Project working group meetings, which include herd veterinarians, to discuss technical issues, area risks and next steps

**Sampling and diagnostic testing: On-going monitoring**

To improve long-term sustainability of the project, it is essential to identify and foster methods for on-going monitoring of the area that are inexpensive, simple

to use and target the high-risk, high-consequence sites.

**Data management**

A robust database using standardized definitions of the variables is essential. To this end, an integrated PRRS Regional control spatial database system is currently being developed. This will allow timely surveillance of different genotypes of PRRSV and their clinical impact in different age groups. It will also use all geographical, demographical, diagnostic, network and important biosecurity information for producers of every regional PRRS project.

Delivering a national disease control and elimination strategy is essential and will require strong and unified leadership to develop the vision, detail the strategy and build the tools from ongoing lessons learned. No small task, but given the choice of kill or be killed, which would you choose? ■

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Healthy pigs mean healthy profits *Continued*

## Swine Dysentery: The good, the bad and the ugly

**John Harding - Associate Professor of Swine Production Medicine – and his colleagues at the University of Saskatchewan have worked with pork producers, veterinarians, diagnosticians and the Canadian Swine Health Board to investigate and develop diagnostic and control strategies for swine dysentery.**

Since swine dysentery re-emerged in western Canada in 2009, Harding's team has investigated samples from 37 farms in western Canada, primarily in Alberta and Saskatchewan. The presence of one or more species of *Brachyspira* have been detected or isolated in 76% of farms. In the process, they have produced some important findings:

### 1. Discovery of a novel species: "Brachyspira Hampsonii"

By convention, swine dysentery is a disease affecting the large intestine (caecum and colon) caused by a bacteria; *Brachyspira hyodysenteriae* (Bhyo). After ingestion, Bhyo colonizes the colon causing mucohaemorrhagic diarrhoea within 1-2 weeks. In late 2009, pigs with mucohaemorrhagic colitis unrelated to Bhyo were identified in two Saskatchewan farms. Additional diagnostic testing revealed the presence of a novel species of *Brachyspira*,

temporarily named *Brachyspira* sp. 30446. Substantial evidence has been compiled by Harding and other researchers to propose and provisionally name a new species and demonstrate that it causes disease clinically and pathologically similar to swine dysentery.

### 2. Development of improved Brachyspira diagnostic tests

Since 2009, they have developed new PCR tests specific for the novel strains, and, with assistance of the Iowa State Veterinary Diagnostic Laboratory, implemented routine *Brachyspira* culture in WCVM's Molecular Microbiology Research Laboratory.

### 3. Biosecurity breaches are poorly understood

Except for farms that have been infected through contaminated pigs, they have been unable to identify specific biosecurity breaches explaining how most farms became infected with *Brachyspira*. Since the disease is transmitted by faecal-oral transmission, it follows that the farms were exposed to contaminated faeces or manure. Since many *Brachyspira* species are normal inhabitants of the gut of pigs and other birds and mammals, wildlife is a potential reservoir. To prevent the spread of the disease, they strongly encourage all producers to conduct a thorough review of their biosecurity procedures, including adoption of the National Biosecurity Standards developed by the Canadian Swine Health Board.

### 4. Most age groups can shed Brachyspira

With the exception of suckling piglets, all ages of pigs on infected farms can potentially shed *Brachyspira*. In a recent study, the prevalence of shedding was highest in grower pigs (21%), followed by finishers, sows and gilts (7-

9%) and nursery pigs (3%). Diagnosis however, is most difficult on sows and gilts, because few are clinically affected and adults likely shed lower numbers of organisms in faeces.

For this reason, determining if a sow farm is the source of infection can be difficult. In addition, feed medications can mask clinical signs and impede diagnostics. Breeding stock farms needing to declare freedom from pathogenic *Brachyspira* species of concern should remove all medications from grow-finish and breeding herd diets, monitor rigorously for diarrhoea and submit live pigs or tissues from affected animals for histopathology and microbiologic testing.

### Antibiotic treatment

At present, vaccines to aid in the control of swine dysentery are unavailable in Canada. Feed medications, primarily in grow-finish diets, are the mainstay of control programs. Various products have been used in western Canada with success including tiamulin, tylosin, salinomycin, virginiamycin and lincomycin. Herd eradication is possible for Bhyo, but is extremely intensive. Whether or not eradication is possible for novel pathogenic *Brachyspira* is unknown. While eradication offers the best means of long-term control, it is difficult to justify on individual farms unless the source of infection is known and biosecurity can be altered to prevent re-infection. Moreover, some farms may be contaminated with a number of different *Brachyspira* species, some of which may not cause severe disease. Clearly defining the objectives of an eradication program (i.e. elimination of diarrhoea or eradication of all *Brachyspira*) is essential.

While swine dysentery is bad news for producers, Harding and his team provided some good information for combatting it. And the alternative, to do nothing, is downright ugly. ■

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## BREAKOUT SESSION

# Unlocking genetic potential

Summarized by Bernie Peet

## Optimal sow management for optimal sow performance

Sow reproductive performance, as measured by weaning-to-oestrus interval, litter size and farrowing rate, varies considerably between countries, but even more so between farms within countries, notes Dr. Nicoline Soede, from Wageningen University in The Netherlands. While some of these differences can be attributed to genetics and climatic influences, the major factor causing differences in reproductive performance on farms is quality of management, she believes. In her presentation, Dr. Soede looked a number of aspects of management that impact performance.



Dr. Nicoline Soede, who gave the first annual George Foxcroft Honorary Lectureship at the 2013 Banff Pork Seminar, pictured with Dr. Foxcroft.

### Second litter syndrome

Traditionally, second litter syndrome, or the 'second litter dip', was almost always associated with an extended weaning-to-oestrus period after first weaning. But, notes Dr. Soede, today's sows have been selected for a short wean-to-oestrus interval and often only show reduced farrowing rate and litter size. "Recent research in France, found that 38% of the 842 farms studied had a second litter size of at least 0.2 piglets below that of the first parity sows," she explains. "If sows with a wean-to-oestrus interval of more than 7 days and those with a farrowing rate of less than 85% were included, then 79% of the farms were defined as having a second parity problem."

This decrease in performance is related to sow weight loss during lactation, Dr. Soede points out. "One research study showed that sows with a high lactation weight loss had a similar ovulation rate, but fewer viable embryos (14.9 vs. 16.8) at Day 35 of pregnancy," she notes. They also had fewer implantation sites (17.2 vs 19.5) than sows with a

low lactation weight loss, which indicates increased embryo mortality before implantation at approximately Day 15 of pregnancy as a problem." This confirms that lactation weight loss affects embryo quality, resulting from reduced follicle and oocyte quality, she says.

### Subsequent performance

The reduced reproductive efficiency of second parity sows might also lead to early culling, Dr. Soede suggests. "Researchers in the Netherlands studied the relationships

CONTINUED ON PAGE 72



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## Unlocking genetic potential *Continued*

between failure to farrow and litter size at second parity and reproductive performance in later parities," she says. "In these data, from 45,000 sows, a total of 15.7% of the second parity sows inseminated became repeat breeders. While being a repeat breeder in second parity did not affect litter size in subsequent parities, it was associated with decreased farrowing rate in parities 3 and 4." Also, second parity repeat breeder sows were, on average, culled 2 parities earlier (parity 5 vs. 7, respectively), compared with non-repeat breeders, Dr. Soede adds. Furthermore, the study showed that sows with a low second parity litter size also had a smaller litter size in parity 3 and above, compared with sows with a moderate or large litter size at second parity. "These data show that a large proportion of sows with poor reproductive performance in second parity are at risk of having

a poor reproductive performance in subsequent parities, resulting in earlier culling," concludes Dr. Soede.

### Solutions

"Since lactation weight loss is a crucial factor influencing reproductive performance in second parity sows, any management solution that leads to higher lactation feed intake will benefit the reproductive performance of second parity sows," Dr. Soede continues. She suggests a number of solutions including adequate gilt development to ensure a high feed intake capacity and a range of measures to increase lactation feed intake, such as improving water availability, optimizing room temperature to stimulate appetite and manipulation of piglet numbers and weaning age for gilt litters.

"Another approach is to allow sows

time to recover from the loss of weight during lactation before they are inseminated," Dr. Soede points out. "The normal wean-to-oestrus interval in contemporary sows is too short to allow for this recovery. Skipping breeding at first oestrus can improve pregnancy rates by 15% and subsequent litter sizes by 1.3 to 2.5 piglets, but increases

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**"Skipping breeding at first oestrus can improve pregnancy rates by 15% and subsequent litter sizes by 1.3 to 2.5 piglets"**

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the number of non-productive days by 21." She suggests that providing a shorter recovery period than a full cycle length, by administering a progesterone analogue (Altrenogest, Matrix®, Merck Animal Health) post-weaning, which delays the onset of heat hormonally, might be a more economic option. Treatment until 14 days after weaning has been shown to result in consistent and substantial improvements in performance, Dr. Soede notes. "In modern hybrid first litter sows with high lactation weight losses and short weaning to oestrus intervals, extending the period from weaning to first ovulation seems a promising route to improve reproductive performance," she concludes.

Another option for reducing the impact of second litter syndrome may be to stimulate body weight recovery during the subsequent pregnancy, Dr. Soede believes. "During the first two-thirds of gestation, the energetic demands for litter growth are low and young sows can use this period to recover from lactation weight loss," she explains. "Recent research in the Netherlands investigated whether a 30% increase in feed intake during the first month of second pregnancy increases litter size. In the first of two studies, the increased feed intake increased litter size by 2

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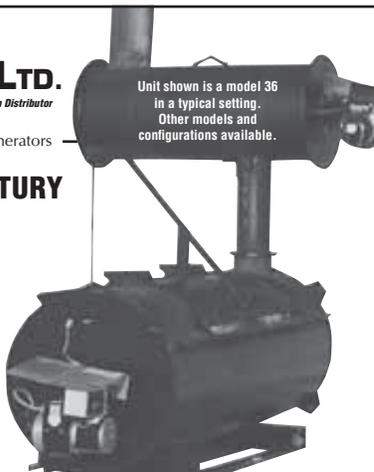


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piglets. However, in a second study aimed at investigating the physiological background of this increase, embryo survival was not affected.” Based on these and other data, she says, an increased feed intake during the first month of second pregnancy is certainly beneficial for body weight recovery and may also increase reproductive performance.

## Environmental challenges

Annual variation in reproductive function is mostly attributed to the negative effects of high temperature, although for countries with major annual changes in day length, such as Finland, the annual variation seems more related to this factor, Dr. Soede notes. “These annual changes may affect all aspects of reproductive function, including age at puberty, weaning-to-oestrus interval, farrowing rates and litter sizes,” she explains. “The mechanisms by which temperature affects reproductive functioning are diverse, but seem mostly related to a reduced feed intake or stress effects on the uterine contents.” She notes that optimization of management to maximize feed intake will help to mitigate the impact, but this will often not be sufficient to prevent a reduction in performance. “Interestingly, the Dutch breeding company Topigs is now evaluating genetic differences in heat

stress tolerance between sow lines, which may lead to sow lines that maintain their reproductive performance in high temperatures,” she adds.

## Future changes and challenges

Dr. Soede points out the large improvement in litter size that has occurred in recent years, which has been coupled with a higher death loss prior to weaning. “Increased mortality with larger litter sizes is related to the reduction in birth weight and the increased variation in birth weight within litters,” she says. “The attention of farmers is, therefore, more and more shifting to the early post partum period, aiming for improved piglet survival.”

The move towards group sow housing in the EU could, potentially, impact reproductive behaviour, however Dr. Soede believes that this is not necessarily the case, pointing to research studies that show similar performance between group housing and stalls. However, she says, the two major factors that may negatively influence reproductive functioning of group housed sows are insufficient feed intake, especially in low ranked and thin sows and chronic stress associated with grouping and being housed in groups. “These factors need specific attention, especially for gilts,” she stresses. ■



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# International Round-up

## Fish oil improves piglet growth

Recently published research data from France suggests that weaning weight can be improved by supplementing the sow's diet with fish oil in late gestation. The trial involved feeding sows three different sources of fatty acids, coconut oil, fish oil and shark liver oil from day 103 of gestation until farrowing at a rate of 70g/d.

This resulted in colostrum samples showing a similar fatty acid profile as the fat source but the different treatments significantly affected the growth performance of the piglets. At weaning, piglets from the fish oil treatment were 263 and 329 g heavier respectively than piglets from the shark liver oil and coconut oil treatments. This corresponded to 4.2 % and 5.8 % increases in daily gain in comparison to the shark oil and coconut oil treatments, respectively.

Neither performance parameters of the sows nor colostrum antibodies (IgG and IgA) concentrations were affected by the fat sources but this could be due to the short (12 days) feeding period of the fat sources. The researchers concluded that the results

indicated the importance of the fatty acid composition in colostrum on the growth of piglets and consequently the importance on the feeding of sows at the end of gestation.

## Up to 50 percent of the world's food wasted

A recent report by the British Institution of Mechanical Engineers has found that as much as 50 per cent of all food produced around the world never reaches a human stomach.

With UN predictions that there could be about an extra three billion people to feed by the end of the century and an increasing pressure on the resources needed to produce food, including land, water and energy, the Institution called for urgent action to tackle this waste. The report 'Global Food: Waste Not Want Not' found that 30 - 50 percent, or 1.2 - 2 billion tonnes of food is wasted. It noted that as much as 30 per cent of UK vegetable crops are not harvested due to them failing to meet exacting standards based on their physical appearance, while up to half of the

food that's bought in Europe and the USA is thrown away by the consumer. That leads to the potential to provide 60-100 per cent more food by eliminating losses and waste while at the same time freeing up land, energy and water resources.

"The reasons for this situation range from poor engineering and agricultural practices, inadequate transport and storage infrastructure through to supermarkets demanding cosmetically perfect foodstuffs and encouraging consumers to overbuy through buy-one-get-one free offers," says Dr Tim Fox, Head of Energy and Environment at the Institution of Mechanical Engineers.

"As water, land and energy resources come under increasing pressure from competing human demands, engineers have a crucial role to play in preventing food loss and waste by developing more efficient ways of growing, transporting and storing foods," he points out. "But in order for this to happen Governments, development agencies and organizations like the UN must work together to help change people's mindsets on waste and discourage wasteful practices by farmers, food producers, supermarkets and consumers."



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## Managing without growth promoters

A recently published brochure from the University of Illinois highlights strategies for managing weaned pigs without the use of antibiotic growth promoters (AGPs). "Strategies for managing weanling pigs fed no antibiotic growth promoters" is authored by Professor Hans Stein and is the third brochure in his "Swine Focus" series. He notes that there is a growing market in the US for pork raised without antibiotics, including certified organic pork.

"The goals of the producer should be to promote growth, reduce pigs' disease exposure, and increase their resistance to disease," says Dr Stein. "There are a number of measures producers can take to help pigs perform well in the absence of antibiotic growth promoters."

Strategies for managing weanling pigs without the use of AGPs include:

- Weaning practices – Segregated early weaning and all-in-all-out production reduces disease pressure
- Environmental controls – Keeping facilities at the proper temperature and avoiding crowding to reduce stress on pigs, while pest control reduces pathogen exposure
- Feeding pelleted or liquid diets – these enhance energy and nutrient digestibility and improve performance
- Restricted feeding – Feeding small amounts several times per day instead of giving ad libitum access to feed means that less undigested feed is fermented in the hindgut, which reduces the incidence of diarrhoea
- Feeding alternative cereal grains – Hindgut fermentation of specific fibres found in barley, naked oats, and oats may reduce pathogens and increase the concentration of favourable microbes
- Feed additives – Acidifiers, functional proteins, probiotics, prebiotics, copper, zinc, and

mannan oligosaccharides may improve pig health and growth performance

- Low protein diets – Reducing the amount of undigested protein that reaches the hindgut reduces microbial fermentation and diarrhoea

"If producers follow the guidelines, weaning pigs that are not fed antibiotic growth promoters can be managed without loss of performance," Dr Stein said. "Even pigs that are being fed AGPs would benefit from these measures." However, he adds, if no AGPs are used, production costs are likely to increase because some of strategies listed above add to diet costs.

Dr Stein's brochure can be downloaded from <http://nutrition.ansci.illinois.edu>

## Brits on the offensive over illegal pork

As the January 1st deadline for producers in the EU to have completed the transition to group housing came and went, it was clear that many, if not the majority of countries, had failed to meet the legislation, despite having a 10-year lead-in period. Britain's National Pig Association, which has been warning about this situation for a long time, launched a comprehensive attack on the situation, pointing out that up to 40,000 illegally produced pigs were entering the European food chain every hour.

"It makes a mockery of Europe's animal welfare legislation," says NPA chairman Richard Longthorp. "As the United Kingdom imports around 60 percent of its pork - much of it as processed food such as ham and bacon - shoppers will need to be very careful about what they choose from supermarket shelves and when eating out in restaurants."

NPA urged British shoppers who care about animal welfare not to buy imported pork or processed pork products such as bacon, until all European Union member countries have complied with the stalls ban. "The major British supermarkets have promised they will not sell pork from continental farms operating illegally but our concern is that in many cases these farms will

be difficult to identify and everybody admits that imported processed foods will be almost impossible to trace," said NPA general manager Dr Zoe Davies.

"Our advice to shoppers is always to look for the independent Red Tractor logo on the pack, which is an absolute guarantee that the product comes from a British pig farm where keeping sows in stalls has been banned for over a decade."

The data published by Brussels in December shows France is only 33 percent compliant with the European stalls ban, Germany only 48 percent and Ireland only 57 percent. Other countries unable to hit the January 2013 deadline include Belgium, Italy, the Netherlands and Spain.

In the New Year, the NPA website launched its "Wall of Fame (and Shame)" which lists food industry companies that have pledged to source their pork from compliant production systems and also includes a list of all the companies that have not made that pledge.

CONTINUED ON PAGE 76

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## Using nitrogen foam for euthanizing piglets

A new method of euthanizing young piglets - the use of nitrogen foam - is being tested at the Swine Research Centre of Wageningen University, the Netherlands.

The method uses a barrel, filled up with a layer of high expansion foam, which has big bubbles, completely filled with pure nitrogen. The animal is placed into the foam and covered with a layer of foam at least 60 centimetres deep, so it will breathe 98 per cent nitrogen. In this situation, blood oxygen diminishes very quickly and the animal very soon becomes unconscious. Because of the extreme oxygen deficiency death occurs within 1.5-2 minutes.

The method is not harmful or painful for the animal because the normal air

it breathes consists already of 80 per cent nitrogen, point out the researchers. Inhalation of nitrogen is therefore not stressful, whereas if high concentrations of carbon dioxide are used the animal will try not to breathe, which causes distress.

Because of the thick nitrogen foam layer and the high concentration of nitrogen it is certain that the animal will die. The possibility that the method fails and the animal regains consciousness and does not die, is almost zero.

The advantage of the use of high expansion foam is that the nitrogen gas is captured in the bubbles. Nitrogen is lighter than the surrounding air and would normally mix quickly with ambient air. To be sure that the nitrogen doesn't escape during the procedure there will always be a layer of 60 centimetres of foam above the animal.

In addition to measuring the effects on the animals, the reliability of the equipment

will be tested, and a standard operating procedure will be developed. Possible risks for the operators or to the environment will be examined. By the middle of this year the equipment will be tested, ready to use and will become available commercially.

## Turmeric stimulates nutrient digestion

Various herbs and spices have been shown to help improve digestion in the pig and have even been used as substitutes for antibiotic growth promoters. Turmeric, a yellow root grown in the tropics and, when dried and ground, used as one of the key spices in curry powder, may offer some benefits when added to pig diets, according to research work in Thailand.

Supplementing growing pig diets with 0.5%, 0.10% and 0.20% turmeric powder increased nutrient digestibility and gut cell wall



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health, they found. Also, the greater the level of turmeric, the greater the number of protuberant cells measured in the wall of the small intestine. These cells are associated with a high digestibility of nutrients which may account for the increased digestion of protein, fat and fibre shown as the level of turmeric in the diet increased.

The effect on increased fat digestibility was further supported when blood samples taken from 80kg finisher pigs fed turmeric over the growing finishing period (30-90kg), recorded greater levels of triglycerides and cholesterol concentrations with the higher levels (0.1 and 0.2%) of turmeric. This suggests greater 'fat' levels circulating in the blood, say the researchers. The blood samples also showed an increased immune system response with the 0.1 and 0.2% turmeric which may enable the pig to respond faster to an immune challenge. However, despite these histological changes and improved digestion, both grower and finisher pigs showed no improvement in performance with turmeric supplementation

### Worldwide demand the key to 2013 pork prices

Rabobank's latest research report on the global pork industry says that as a result of continuing high feed costs, the key success factor for the industry will be supply discipline in 2013 and beyond. While global pork prices have started 2013 at historically strong levels, the report says that it anticipates some weakness in prices in late Q1 and into Q2 due to pressures on production and limited growth in global consumption levels.

The pace of pork demand growth is the key unknown for industry margins in 2013, and is highly dependent upon economic growth in the developing world, it says.

"Strong Chinese demand ahead of the Chinese New Year in February supported global pork prices early in 2013," the report explains. However, price movements in China will be a key indicator for the year as we move into Q2. Global pork prices may come under slight pressure because production growth in China, the US, Brazil and Russia is expected to be higher than global consumption growth."

"Higher prices for pork are expected and necessary for 2013, as the drought in the US and Black Sea region last year has led to low inventories of feed crops, and adverse weather in pork-producing countries continues to limit production expansion," continues the report. "There is now no margin for error for world crop production, with pork production and pork pricing in the second half of 2013 highly dependent upon crop growing conditions. There is also uncertainty regarding the pace and magnitude of EU enforcement of the ban on sow stalls, which Rabobank forecasts will reduce the sow herd, keeping EU pork prices high."

However, Rabobank predicts that global prices will be at a lower average level than previously forecast, since the expected consequence of higher feed costs - herd

liquidation - has not occurred, as producers in the US have managed their risk by using futures contracts.

Rabobank analyst David Nelson said, "Despite the higher feed input costs, the US swine breeding herd has modestly expanded and large scale farming continues to develop at a rapid pace in China, Russia and Brazil. There seems to be limited opportunity for a significant increase in pork prices, given this expansion. Chinese hog supplies appear to be sufficient, but recovery in the Chinese economy could stimulate demand growth."

In developed pork markets, the challenge will come from managing soft demand and often excess capacity, Rabobank believes. As such, supply discipline will remain the key success factor for the pork industry's performance this year and beyond. ■

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# Ad Index

AFSC.....	22
Agri-Industry Workforce Development Initiative.....	62
Agrovision .....	10
Alberta Swine Genetics.....	60
Banff Pork Seminar .....	76
Barkman.....	71
Boehringer Ingelheim.....	9/45
Canada Farm Distributors.....	72
Canadian Bio-Systems .....	53
Canadian Centre for Swine Improvement.....	30
Canadian Nurs-ette Distributors .....	78
Canarm BSM.....	16
Carlo Genetics .....	77
Champion Alstoe.....	65
Crystal Spring Hog Equipment.....	31
DPI Global/MICRO-AID.....	43
Dupont Danisco.....	42
EastGen .....	78
Echberg Distribution.....	54
Elanco.....	5/69
Fast Genetics.....	23
GEA Farm Technologies.....	61
Genesis .....	2/14/20/44/70/80
Glass-Pac.....	6
Grand Valley Fortifiers.....	73
GSI Electronics Inc/Schauer.....	57
Halchemix Canada Inc. ....	4
Husky Farm Equipment.....	50
Hypor Swine Group .....	37
ITSI.....	36
Jefo .....	63
Kane Manufacturing.....	64
Kenpal Farm Products/dry START.....	56
Robb Lepp .....	66
Longarm.....	34

Magnum Swine Genetics .....	47/49/51
Masterfeeds.....	21
Maximum Swine Marketing.....	58
Merck Animal Health .....	27/79
Merial Canada Inc.....	19
MS Schippers.....	40
Novartis Animal Health .....	33
Nuhn Industries.....	52
Nutrition Partners .....	32
Parks Livestock.....	8
Parkview Pre-cast .....	28
Peak Swine Genetics.....	26
Pfizer Animal Health.....	15/41
PIC.....	7
PigWIN .....	68
Pork Chain Consulting .....	72
Prairie Swine Centre.....	20/28/44/55
Pro-Ag Products.....	13/29/59
Protekta Inc. ....	75
Ralco Nutrition.....	39
Sand Ridge Farm Ltd.....	38
Schauer Agrotrotronic GmbH .....	24
Sierens Equipment Ltd. ....	46
Signature Genes .....	17
Smart Sort Innovations.....	38
Sun-North Systems.....	48
Supp-Le-Milk.....	12
SwineBooks.....	18
Swine Breeding Management Workshop.....	74
Tomco Livestock.....	60
Topigs .....	11
Verus Animal Nutrition.....	25/67
Vétoquinol .....	35
Western Hog Journal .....	12/40/68

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2. Pointon AM, Byrt D and Heap P. Effect of enzootic pneumonia of pigs on growth performance. Aust. Vet. J., January 1985, 62(1): 13-18.

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