Volume 1, Issue 2

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ATLANTIC SWINE RESEARCH PARTNERSHIP INC.

ASRP Research News

UPDATE: Paylean™ Study in Finishing Pigs

Paylean™ has been available since the summer with a claim to improve performance of pigs in the finishing phase. The active ingredient is Ractopamine HCl, a repartitioning agent, which works by redirecting energy to muscles to maintain the lean growth of pigs. To realize the effect, adequate nutrition must be available for the pigs to respond to Paylean™. For more details, please contact Elanco Animal Health at www.elanco.com.

This summer, when it became available, we placed 2 pens (50 pigs) on a ration with the 5 g/tonne dosage of Paylean™ and left 2 pens as control on the same diet. We fed a commercial ration and began treatment 4 weeks before barn closeout. All pigs were weighed when we began Paylean™ treatment and again prior to shipping. Carcass data was received from the grading probe, followed by an examination of loins in the cutting room. The results were as shown in the Tables.

It appears, from this study, that the use of Paylean™, did significantly improve growth rate in pigs close to market, and thus may be of benefit in closing out pens and/or barns. There were no statistically significant differences in carcass or pork quality, but with the small sample size, the trends apparent in the data may become significant in a larger study.

Carcass Results

	Paylean	Control
Index	110.75	109.78
Lean yield	60.30	60.12
Back fat	19.71	19.80
Loin depth	62.40	61.68

Growth and Efficiency Results

	Paylean	Control
Start weight	105.29 kg	102.29 kg
End weight	118.61 kg	115.35 kg
Dressed weight	97.73 kg	95.07 kg
ADG	1.087 g/d	0.860 g/d
Dress-out %	82.39 %	82.41 %
Feed conversion	2.96	3.01

Pork Quality Results

	Paylean	Control
Reflectance	52.77	48.45
pH	5.81	5.75
Marbling	1.7	2.0
Muscle firmness	2.2	2.2
Fat firmness	2.7	2.0

In this study Paylean™, when used according to label directions and with a diet that allowed an expression of its effects, appeared to improve growth rate of pigs when shipping to market, and did not have detrimental effects on carcass or pork quality.

If any producers have research ideas that they would like to put forward either talk to your ASRP representative, or e-mail me at Hurnik@upei.ca.

Thank you,

Daniel Hurnik

Comments from the Research Chair

Swine Influenza – Primer and Update

Influenza has been all over the news in the past several years, and has caused panic in people, which has led to chicken and duck culls and disrupted poultry production in affected regions. At the same time, we have known that other strains of influenza have circulated among people and animals without generating undue attention. Influenza can affect swine herds and causes significant problems in some regions. In Atlantic Canada, there are some preventative steps we could take to minimize problems in our swine herds. Some ideas we could consider are at the end of this article.

There are many strains of influenza that can affect birds, people and other mammals. Every 20 years or so a new strain develops making people sick around the world. In the past 100 years the epidemics have been in 1918 (H1N1 strain), 1957 (H2N2), 1968 (H3N2) and 1977 (H1N1). The current bird strains (H7 and H5) circulate among birds and occasionally spill over to people and cause human disease. So far these strains do not spread easily from human to human, but the fear is that the H5 strain could be the next pandemic with severe disruption to our societies. More people died from influenza in 1918 than in the whole First World War. Individually there is not a lot we can do other than let our medical professionals make contingency plans and to prevent bird strains from mixing with mammalian strains.

As far as pigs go, they can pick up and circulate the strains adapted to mammals. For example the classical swine influenza is the H1N1 strain that has adapted to pigs. Regions with active swine influenza have herds where pigs develop a fever, go off feed, and develop a dry cough sometimes followed by complications such as bacterial pneumonia. Fortunately in some regions the H1N1 strain of swine influenza has not been active and those herds have not had to deal with this disease.

In 1998 in the southern US a new strain of influenza was detected and created problems in both turkey and swine farms. This H3N2 strain still caused fevers and pigs off feed but the disease was more severe because it was a new strain with little immunity in the pig population. Since 1998 the new virus has spread throughout North America again causing problems in both swine and turkey herds. It looks like this H3N2 strain can be isolated from pigs, turkeys and in one case both a farmer and his pigs. H3N2 has also been known to appear in other species such as mink.

So far, in the Maritimes we have not seen the H3N2 strain in swine, but we should be aware of it in the neighborhood and perhaps consider preventative measures. Things to think about are:

- If purchasing new pigs consider the health status regarding swine influenza.
- Be aware of neighbouring farms and species that are there. Influenza can spread by direct contact or by aerosol and turkeys and mink have been recognized as potential carriers.
- Minimize visitors to those that need to see the pigs and prevent entry to anyone sick with the flu.
- Barn staff should consider being vaccinated annually for the "flu".

Daniel Hurnik (Hurnik@upei.ca)

PROGRESSIVE BIOACTIVES INC. - Making a Good Thing Even Better…

Progressive BioActives Inc. (PBI) has been supplying its proprietary immunostimulant, YBG, to the local swine industry for the past 2 years. Recently, a discount was offered to Maritime pork producers in recognition of the collaborative support provided by ASRP members through the research lead by Dr. Dan Hurnik at ASRP.

PBI has announced a further price break for ASRP members who are willing to collect some basic data. The price break will be in the form of an R&D rebate cheque paid directly to producers. This rebate will reduce the effective cost of the product for ASRP members to $6.24/kg of premix (discounted from $10.40/kg).

PBI's all natural product, YBG (to be branded ProVale™) offers many benefits including; improving passive immunity through the colostrum, accelerating the development of the piglet's immune system and boosting vaccine performance. ProVale™ can play an important role in disease management for the natural pork initiative. For more information on the product or the R&D discount, contact PBI at: 902-367-4998 or email: info@progressivebioactives.com.

Summary of USDA Hogs and Pigs Report

Excerpts from Glenn Grimes and Ron Plain
http://agebb.missouri.edu/mkt/bull8c.htm

October 2, 2006

- Live hog demand weakened some in the first few months of 2006 from a year earlier. We believe a significant portion of that demand loss was due to the very low chicken prices early in 2006. Chicken prices have not fully recovered at the current time and that is one reason to have some concern.
- We have no concern about slaughter capacity this fall and winter unless we lose a big plant for some reason. On September 12 we set a new record high day for slaughter under Federal Inspection at 419,151 head. When Triumph Pork at St. Joseph, gets both shifts up to capacity, we believe slaughter capacity will be about 426 thousand head per day.
- It now looks like hog slaughter in 2006 will be about 1 million head above a year earlier and the sixth consecutive year for growth in pork production. We believe the odds are high for 2007 to again show increases in pork production from the previous year. If this 7 years of growth in pork production occurs, it will be the longest growth period on record and raises questions about the production cycle. At least, if we still have a pork production cycle, it is much longer than in the past.
- The price cycle so far is tracking relatively close to history. The up leg of the current cycle was due to a growth in live hog demand and not due to a reduction in pork production.
- Probably the largest challenge hog producers will face in the next few years is grain price increases due to the demand for corn to produce ethanol. Remember for each $0.50 change in corn price per bushel it increases or decreases the cost of producing hogs about $2.50 per cwt.

For further details, the full report is available on the United States Department of Agriculture (USDA) website at: http://usda.mannlib.cornell.edu/MannUsda/viewDocumentInfo.do?documentID=1086.

Maritime Pork Value Chain Assessment

With funding from the PEI ADAPT Council, ASRP recently worked with PEI Pork Plus Inc. to look at potential value chains for the Maritime provinces that could increase the value of our pigs. Here are some key points summarized from the Executive Summary in the report:

- *Smaller producers face serious challenges in determining how they can fit into integrated supply-chain structures. Higher revenue may be possible in value-added niche markets where consumers pay higher premiums for differentiated products.*
- *Consumers have diverse preferences. Some consumers are demanding novel food attributes above and beyond food safety; these may include animal welfare, organic, environmental responsibility, locally produced…*
- *Future growth potential for North American animal production may exist in value-added, branded, or packaged products. Government regulators and trade negotiators need to work closely with the food manufacturing and food service industries to assure a sound policy.*

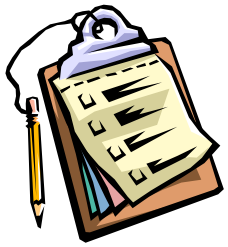
The 200-page report includes the following sections: Executive Summary (English and French), Introduction, The Future of Food Animal Production in North America, Canadian Export Markets, Consumer Preferences, Cost of Production, Market Pricing, Legislative Environment, The "Natural" Claim, Overview of the Global Market for Organic Food and Drink, The Smithfield System, The Danish Pork System, The United States Pork Niche Market Phenomenon, Case Study of Alternative Pork Production Models in Iowa, The Value of Potential Pork Differentiation Options, Niche / Premium Pigmeat Market Opportunities in Europe and Relevance for Prince Edward Island, Potential Business Structures, Pork Producer Ownership Review, Breeding Stock and/or Weaner Sales and Appendices.

The final report on the Maritime Pork Value Chain Assessment will be available free of charge to producers in the Maritimes. For non-Maritimers, a copy of the PDF file will be available free of charge - a paper copy can be purchased for $20. If you would like to receive a copy of the report, contact Janice Murphy at janmurphy@upei.ca.

ASRP Research Priorities

We need your help to re-assess ASRP's research priorities. Please rank our existing priorities from 1 to 5:

____ Reducing cost of production
____ Nutrition with a key emphasis on reducing feed cost
____ Herd health
____ Environmental management
____ Greenhouse gas mitigation strategies



If there are any other priorities that you would like to see added, please list and rank them below.

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If you have any other comments about ASRP's research program, please share them below.

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Send responses to Janice Murphy: E-mail: janmurphy@upei.ca
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Putting research into practice.

Check us out on the web!

http://www.asrp.ca

Our mission is to empower Maritime swine producers to participate in the research and innovation needed to face present and future challenges. Our key research priorities are:

- *Reducing cost of production*
- *Nutrition with a key emphasis on reducing feed cost*
- *Herd health*
- *Environmental management*