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HOG-UPDATE

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Highlights from the International Conference on Feed Efficiency in Swine

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Energy costs in an average swine diet account for 86% of the total diet costs. It has become increasingly important to recognize this cost. Superior management abilities will help allow producers to maintain profitability. In addition to the increase in energy costs, producers are being asked to raise hogs to heavier carcass weights.

POSITIVE PIG HANDLING

Positive pig handling has significant impact on ADG throughout the life of the pig. Trials have shown an improvement of 90 grams/day over a ten week period for positive pig handling techniques compared to negative handling techniques. (Gonyou et al., 1986) In addition, it has been demonstrated that pigs handled in a positive manner shortly after birth had an improved lifetime growth rate as opposed to non handled pigs.

Researchers suspect that oxytocin could be released by handling. One trial (Ferrarri et al., 2007) indicates neonatal oxytocin treatment decreases growth check post-weaning.

BARN TEMPERATURE

Thermal stress (excess heat or cold) is a major cause of lowered production in today's systems. The use of highly productive pigs has led to increased thermal susceptibility. This means producers need to minimize any thermal stress on the pigs.

We all understand the need to keep newly weaned pigs comfortably warm while allowing adequate air exchange. However it has been my experience that often producers keep grow-finish units too warm, which leads to increased humidity and pathogen loading in the air. Even in our Canadian winters, it is possible to ventilate an insulated hog barn to allow adequate air exchange while keeping the temperature in the pigs' thermoneutral zone without supplying supplemental heat. For pigs approaching 100 kg live weight, ambient temperatures above 18 degrees Celsius will lead to decreased intakes and growth (Renaudeau et al., 2011).

Approximate upper and lower critical air temperatures on different flooring

	Slatted Concrete Floor		Solid concrete Floor	
Weight lbs (kg)	Fahrenheit	Celsius	Fahrenheit	Celsius
10 (4.5kg)	86-90 F	30-33 C	82-88 F	28-31 C
20 (9kg)	77-82	25-28	72-79	22-26
40 (18kg)	66-77	19-25	61-75	16-24
70 (31kg)	63-77	17-25	57-75	14-24
200 (90kg)	59-75	15-25	54-73	12-23

Influenced by many factors including air movement, radiant heat, stocking density, energy intake, humidity, and bedding.

FEEDER MANAGEMENT

Because market weights are increasing, feeder design is changing to allow 15 inches feeder space per hog. As we feed more low energy value byproducts, pigs will spend more time at the feeder to meet their required intakes. This will lead to lower feeder capacity so we may need to increase feeder spaces.

The latest research indicates that where there is restricted feeder space it is important to run feeders fairly open as this will lead to improved ADFI and ADG. If there is adequate to excess feeder space, Dr. Mike Tokach recommends that feeders should be run tightly after hogs reach 150 pounds live weight to help improve feed conversion.

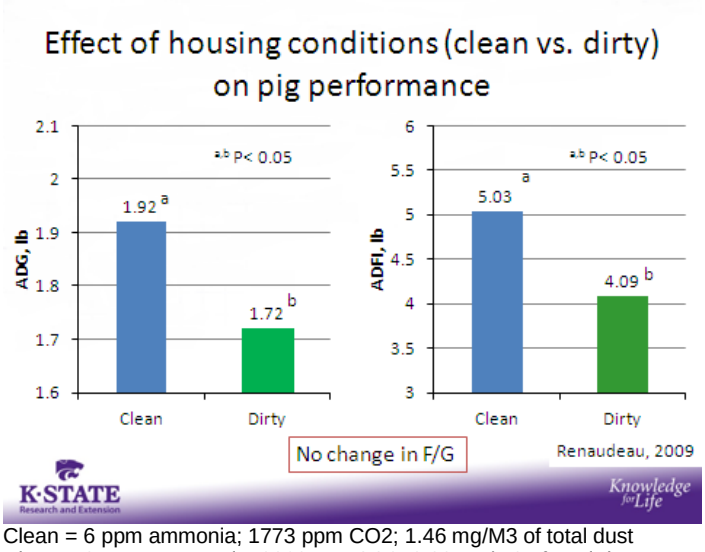
HEALTH STATUS

Health of pigs is the primary driver of feed intake, so it is important to know the herd health status when balancing diets. Pig lean deposition is influenced significantly by the health status of the herd, and a 10% increase in protein deposition represents a 5-6% improvement in feed efficiency (Delange et al., 2001, NRC 2012).

It is important to maintain herd health status through proper vaccination and medication programs. Work closely with your veterinarian. This is especially important with current feed costs.

BARN SANITATION

A trial done by D. Renaudeau published in 2009 shows the effects of clean vs. dirty housing conditions. Although there was no change in feed conversion, the ADG showed an improvement of over 90 grams for hogs housed in a clean barn compared to a dirty barn.



Clean = 6 ppm ammonia; 1773 ppm CO2; 1.46 mg/M3 of total dust
Dirty = 12.7ppm ammonia; 2268ppm CO2; 2.28 mg/M3 of total dust

PEN LOADING AND UNLOADING

Research shows that sorting into finishing pens based on weight will actually have a negative effect on average growth by as much as 4 lbs per hog (O'Quinn et al., 2001). For this reason it is suggested to not sort into tight weight categories, rather, let pigs flow through barn in groups determined at a young age.

Increased sorting of hogs prior to loading of barns showed a detrimental effect on feed efficiency in the same study. It becomes increasingly important to pull the first hogs early at shipping time as this will allow more feeder space for the other pigs and will improve feed conversion and ADG for the rest of pigs (Jacela, 2008). The first hogs will surprise you and shipping at the right weight for them will also lead to increased revenue on a carcass basis. Be diligent in getting the first pigs out of all pens.

NOTE: Premium rates are set for RMP livestock plans. Access on-line at:

www.agricorp.com/en-ca/news/Pages/RMP-livestock-premium-rates-set-2012.aspx

(also accessible on the link section of our website)

TOXIN LEVELS

Some clients have been reporting high vomitoxin levels in the corn this year (over 12 ppm). Success has been achieved on these farms with a variety of strategies.

The best strategy is always dilution. Several alternate ingredients are being fed in addition to corn. Look at wheat, wheat shorts, cereal fines or other small grains as diluents for toxin laden corn.

You can always talk to your BSC representative about other options. Please save the best corn for the breeding herd and nursery barns.

HOG UPDATE is published in the interest of helping hog producers become more profitable. We welcome your comments.
Also available on-line at www.bscanimalnutrition.com

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