



Lean Growth:

- * **Key in determining value at slaughter**
- * **More efficient than accretion of fat**
- * **Closely associated with body protein deposition**

Determining Lean Gain Rob Fischer, PhD.

There are several factors that directly affect the profitability of commercial swine operations. These factors include the pig's genetic potential, feed intake, environment, management practices, feed ingredient price and availability, and market access and price. Each of these factors must be considered in great detail to design the most optimal and profitable feeding and management system. The challenge for the producer is to manage all of these variables in such a way on his or her operation to optimize productivity and maximize profitability. As we all know feed costs represents 65 to 75% of the total cost of producing pork and the majority of this feed is fed during the grow-finish phase of production. Thus, the development of a nutrition and feeding management program for your operation is a must to increase the potential for profitability and the first

step in this process is understanding the lean gain potential of your pigs.

Lean growth, lean meat deposition in pigs, is associated with the efficiency of a swine operation for several reasons. First, lean percentage is a key component for determining the value of pigs delivered to slaughter. Second, lean growth is much more efficient than the accretion of body fat. It requires approximately four times the amount of energy to grow one pound of fat tissue as compared to the energy require to grow one pound of lean tissue. Lastly, lean growth is closely associated with body protein deposition. Body protein deposition is the most important factor that determines the amino acid and energy requirements in grow-finish pigs. There are several factors that increase or decrease the amount of lean growth and these factors will be

discussed in more detail in future articles. For this article, two major factors that affect the amount of lean gain deposited per day are age and gender. Lean gain deposition increases as pigs advance in body weight up to approximately 125 to 140 pounds, stays constant until 175 to 180 lb, and then continues to decline until slaughter. In contrast fat deposition increases with age, and fat deposition occurs at a faster rate as the pig nears maturity. A difference in rate of gain and composition of gain also exists between barrow and gilts. Barrows grow at a faster rate than gilts, but tend to deposit less lean. Thus, knowing the amount of lean a pig deposits at different weights and the differences between barrows and gilts on your operation will help to determine the daily requirements for amino acids and energy, which follow the same pattern as lean gain.

Inverted Eyelids in Sheep Mick

Harding, DVM

This time of year with the new lamb crop on the ground or on the way we receive occasional calls about pinkeye in lambs. While pinkeye caused by *Chlamydia* does occur, I find that a condition known as entropion to be far more common.

Entropion is distinguished by the inversion (turned inward) of the eyelids. The condition may occur in one or both eyes and affects both sexes. Most lambs are less than two weeks old when signs of the condition first appear. The inverted eyelids cause irritation and abrasions to the lamb's cor-

nea leading to massive tearing. The hair on the lamb's face below the affected eye(s) may become quite moist. This is often the first indication of a problem and leads to the immediate diagnosis of pinkeye as most producers with cattle are quite familiar with this condition. If not corrected the eyes become ulcerated, cloudy, and the lamb may end up blind.

The condition is not lethal, but affected lambs should not be kept as future breeding stock as a genetic component is suspected with white-face breeds tending to have an increased incidence.

Other environmental factors may play a roll such as extended use of heat lamps or fans. These may cause eyelid spasms that do not self-correct.

Entropion correction is most effectively done by placement of surgical clips below and parallel to the affected lid margin. Another option is the placement of 1 cc of a long acting tetracycline or penicillin below the affected eyelid returning the inverted eyelid to its normal shape. Correct the entropion and watch the pinkeye disappear.

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Calf Disease and Treatment Mick Harding,



In the battle against scours fluids are KEY! It may even be necessary to drench the calf up to 4 times a day. Entrolyte HE , Diaque or another electrolyte with 2 tbs of baking soda added to it is recommended. If there is no improvement the calf may need to be IV'd.

Crypto: Usually occurs at 3-18 days of age. It is characterized by scours that does not respond to antibiotic therapy. Recommended treatment is 2 grams of erythromycin once a day for 2-3 days. Affected

calves may need to be drenched with an electrolyte with baking soda added to correct the acid base balance.

E. Coli: Usually occurs between 1-4 days of age. It is characterized by watery diarrhea. Recommended treatment is Sulfadiazine/Trimethaprim 2 times a day for 3 -5 days.

Clostridials: A clostridial infection can occur at any age. Usually no scours are present. Abdominal distention is usually evident. Rec-

ommended treatment is 30 cc of C&D or BC&D Anti-toxin given orally along with penicillin or ampicillin 5 cc /100 lbs oral (may mix the above if so choose)

Cocci : Usually occurs at 30 days of age. It is typically characterized by bloody diarrhea and straining. Recommended treatment is Deccox for 28 days or 10 cc per cwt of Amprolium (Corid) given orally and Sustain III boluses.

Swine Morsels

Monte Fuhrman, DVM

We have finally begun to see some mycotoxin related problems in the field. Our regional corn seemed good at first. We didn't see any big blow-ups at the start of the "new corn" season, unlikely some states to the east of us.

Syndromes we have seen recently:

- * Feed refusal

- * Vulvae swelling
- * Vomiting
- * Ear necrosis (unknown mechanism of action)
- * Tongue necrosis (unknown mechanism of action)

I've not ever seen ergot or ergot-like toxicity in pigs until the last two weeks.

Primary treatment is removal of contaminated grains in feed. Secondary treatments include mold inhibitors, clays, silicates and ring disruptors.

My question is, "has some non-regional corn been purchased and blended in our area?" That would fit with observations now occurring.

*Talk to your
Sioux Nation
Field
Marketer
about
products
available to
deal with
mycotoxins in
the feed.*

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