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Swine Newsletter - September 1, 2017 -

Management Strategies to Maximize Weaning Weight

Dear Pork Producer,

A traditional key performance indicator in sow units is weaned pigs per sow per year (PSY). In recent years the industry is considering weaning weight with the same level of importance. Heavier weaning weights are positively correlated with average daily gain (ADG), feed efficiency, and amount of saleable pork. Some swine managers are now setting targets for 365 lbs (180 kgs) of weaned piglets per sow per year. This figure is calculated based on 30 PSY with an average weaning weight of 13.5 lbs (6.0 kgs).

Current estimates of milk yield are up to and over 12 kgs of milk per sow per day. Many factors influence this number: health, environment (mostly temperature and ventilation), genetics, mammary gland stimulation (lactation length, number, and weight of the nursing piglets), nutrition, feed intake, body condition, and water intake.

Many producers are struggling to achieve good weaning weights. I want to discuss some strategies to help you produce nice large, even weight piglets.

- (1) <u>Number of Functional</u> teats as selection criteria for gilts-there should be 14 well spaced teats on a gilt.
- (2) <u>Select</u> gilts with high growth rates and breed them weighing more than 300 lbs (136 kgs) of live weight. This way, they will be about 400 lbs by farrowing. These larger gilts will loose less body weight during their first lactation and are able to retain weight during P2 and P3 lactations vs gilts bred at lighter weights. These sows will milk better and hence larger weaning weights.
- (3) Controlled weight gain in gestation

Excess weight in gestation limits feed intake during lactation and increases the nursing sows body weight lose. During the first pregnancy a gilt should gain around 80 to 100 lbs. From P2 through P6 about 35 lbs of weight gain is ideal.

A maximum of 8% average in older parity sows is considered the limit of body weight lose compatible with high performance.

Feeding protocol for the typical corn/soybean gestation diet requires adjusting the feed boxes to drop 4.0 lbs per day for fat sows, 4.5lbs per day for sows defined as in normal condition, and 6.0 lbs per day for thin sows. Also feed 6 lbs per day for normal sows during the last 2 weeks of gestation. Under this management, the sows will use 1,450-1,600lbs of gestation feed per sow per year. Farms facing issues of sow mortality, low weaning weights, and eventually increased weaning to estrus interval should compare themselves these targets.

(4) Lactation Challenge: Number/Weight of nursed piglets

Litter size (number and weight of the pigs nursed) is the major individual factor in determination of the milk production. Sows are able to react to a higher milk requirement by eating more feed. Suckled glands will be larger and more productive in subsequent lactations than un-suckled or poorly suckled glands. Current recommendations is to load every first lactation gilt with 12 strong and healthy piglets and to support that with proper feeding management, cooler rooms, limited cross fostering and water availability.

(5) Maximize Feed Intake in the Farrowing Crates

It is critical to prevent and/or to control situations leading to off feed sows. Proper hygiene measures associated around farrowing, such as room sanitation, a clean sleeving process, and individual treatment of fever and lameness are a must. To check the availability of fresh, cool and clean water is a daily duty in farrowing rooms, making sure the sows have a minimum water flow rate of 2 litre/minute.

I recommend a mild restriction of feed intake and increasing it over a period of 5 to 7 days, followed by full feeding from then through the end of lactation. Special feeders, 3X a day feeding etc can be employed to maximize feed intake. Self feeders increase the average daily feed intake by 7% and are less demanding in labour. No feeding protocol or feeder design will work unless qualified staff gets the sows up two or three times a day to stimulate them to eat. Other key duties are cleaning the feeders to prevent mold, adjust the heat lamps height or simply turn them off when needed, check room ventilation and temperature. Caretakers must be able to "read" the sow and piglet behavior and make adjustments to ensure the sows eat enough feed to wean healthy and heavy piglets. A way to stimulate the feed intake is to use wet feed, which is easily consumed by most of the sows but has to be handled very well to prevent a drop in the feed intake or feed refusal due to mold development.

- (6) <u>Limit the use of Farrowing Induction</u> to just critical sows (fat, older than P5 and lame). Studies show that every extra day of gestation allow the pigs to be born weighing an extra 0.15 extra lbs. These heavier piglets at birth have greater opportunity to vigorously suckle the teats, survive and gain weight and be weaned at heavier weight.
- (7) Use split nursing and limited use of Cross-fostering

We recommend no cross fostering after the birthday. We recommend evening up litter size according to number of available functioning teats. Split nursing should be intensively utilized to provide colostrum for every piglet, particularly in farms with high number of average born alive. Utilizing a heated box, split the litter in two halves and then alternate each one in 60 minute nursing intervals to maximize colostrum intake. Mark the first 5 piglets in the plastic box, leaving plenty of room for the other 6-7 piglets to drink colostrum. Farms where the splitnursing has been fully implemented have seen increased survivability and weaning weight, and less variation in weaning weights.

(8) Additional Management to improve the weight and quality of the piglets

Drying at birth, prevent chilling (extra warmth), vaccines, feed back 3 to 6 weeks before due date, washing and disinfection of the crates, proper age structure of the group (no more than 20% gilts, 18% P2, 52% of sows from P3 to P6 and no more than 10% of P7 and older sows), etc., are common sense management strategies.

(9) Longer Lactation: Wean Piglets 20 days or older

For every additional day in the farrowing room with their mother, the weaning weight increases an average of 0.56 lbs/day/piglet which in turn is related to a reduction in the age to market. Of course herd size, pregnancy rate and farrowing spaces determine weaning age. The old recommendation of 13 litters per crate per year (28 day turn overtime) still holds true.

The above is a summary of a presentation I attended a while ago. Reg