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The impact of gestation feeding on sow performance

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Introduction

Historically in our system we have maintained sows at a slightly higher back fat level (18-19 mm) with the belief that this would optimize the performance of our genetics. It was also believed that keeping sows on the slightly heavier side would help reduce sow mortality. In October of 2003, we aggressively altered our gestation feeding program going from an average daily gestation intake of 5.5 lbs. to 4.2 lbs. and a new back fat range of 15-17 mm. This was accomplished by reducing many sows that were at 4.5 to 5.5 lbs. during the first 12 weeks of gestation down to 4.0 lbs, and some as low as 3.5 lbs. We also went from a program of feeding 6.0 lbs. weeks 3 and 4 pre farrowing and 8.0 lbs. the last 2 wks pre farrowing down to 6.0 lbs. for only the last 2 weeks pre farrowing. Additionally, any sows still over conditioned were kept at 4.0-4.5 lbs. until farrowing. After a 3 to 4 month transition period subsequent performance results have been very encouraging (Table 1).

After 14 months of reducing gestation intake 80%+ of the herd was considered in good condition. The concern then shifted to sows getting too thin. Therefore we gradually raised the base level to 4.5 lbs (0.3 lbs. upswing

around December 2004, as shown in Figure 1). Today a majority of the herd is at a 4.5 lbs average setting and holding condition well.

Lactation intake has also improved substantially by around 2 lbs. per sow per day on average (11.9 to 13.9 lbs). This in turn has helped breed back and subsequent born alive numbers. Piglet wean weights have also increased by over 0.5 lbs per pig during this time (Figure 1).

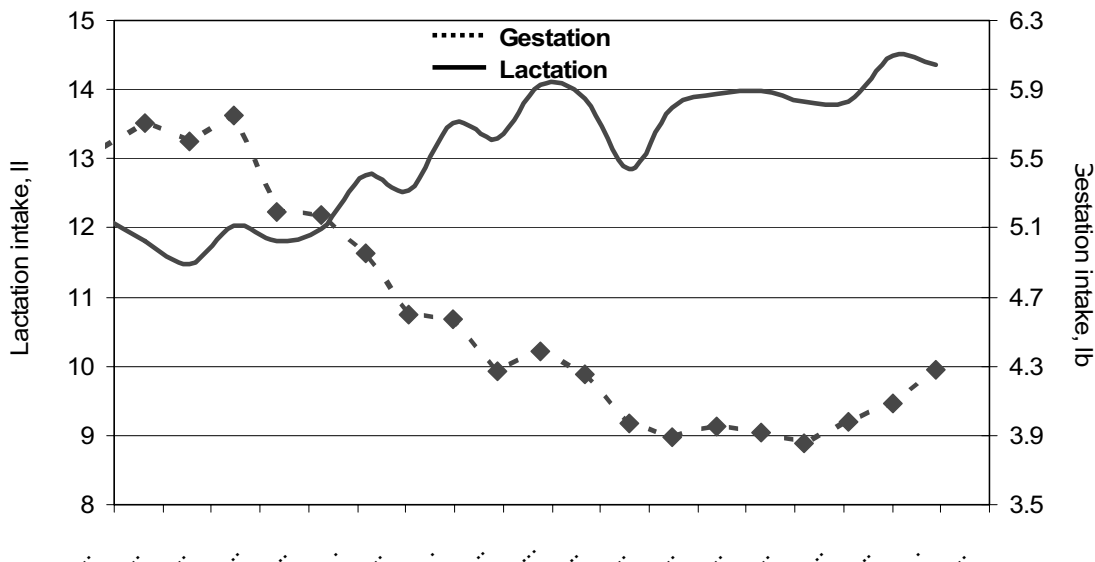
Going forward

Going forward we are looking at further improvements to the overall feeding program. We feel our program dur-

Table 1: Some selected performance numbers from Triagra, a 2200 sow farm.

Parameter	October 2003	April 2005
Farrow Rate %	77.3	90.4
Born Alive	9.8	11.7
Stillborns	1.4	0.7
Mummies	0.3	0.2
% Bred by 7 days	77.5	94.0
Wean to Estrus	7.7	5.2
Sow Death %	15.3	9.4

Figure 1: Relationship between gestation and lactation feed intake - Triagra



ing gestation is working well for a majority of the animals, however due to different genetic lines within the herds not all animals respond the same to the different feeding levels. Thus some lines must be reduced to 4.0 lbs. for a substantially longer time than other lines and some down to 3.5 lbs. for short periods of time.

Another continuing challenge is gilt size. Our current gilt breeding program is based on age rather than weight. While this has led to excellent results, we have not quantified the long term effects on the animals. This is something we will be looking to refine and improve upon in the future.

In conclusion, while we believe reducing the average gestation intake has greatly improved performance there have been other changes to the system as well. We have worked hard on improving the quality of gilt entered, along with improvements in our boar stud to help improve feet and leg issues and conformation. Thus we cannot say that gestation feeding alone has been the sole contributor of improved sow performance, but we feel it is one of the major contributors.

