



POINTS TO PONDER:

- Some management practices can increase embryonic mortality
- Decreasing stress during the first 42 days following breeding will increase conception rates
- Avoid ration changes in the first 42 days post breeding

INSIDE THIS ISSUE:

- Specials 2
Feed Intake 2

Herd Fertility by Mick Harding, DVM

Fertility level of the herd may be the hardest factor to evaluate. Herd fertility includes cycling status, compliance with protocols, embryonic mortality, body condition (nutrition level), and disease.

Fertilization rates are usually between 90 and 100% when semen is present at the time ovulation occurs. While fertilization usually takes place, conception rates (number of animals that conceive divided by number of animals inseminated) are usually around 60-70% **for natural service or artificial insemination (AI)**. Although nature (poor oocyte quality, disease, chromosomal abnormalities, etc.) contributes much of this loss, management practices can also increase embryonic mortality. Stress, particularly heat and shipping stress, can be detrimental to embryos and decrease pregnancy rates.

The natural losses from fertilization are beyond our

control. If a person understands fetal development, it is a miracle that any animal becomes pregnant at all. From day 1 of ovulation/fertilization to day 42 (definitive attachment of the embryo to the uterus)



there are any number of important stages of embryonic development that if disturbed will lead to pregnancy termination. Loss of pregnancy in this time frame usually results in return to estrus of the cow, rebreeding, and a later born calf if the cow eventually carries the next pregnancy to term.

Decreasing stress during the first 42 days following breeding is a factor we can help manage or control. If

we can avoid shipping AI'd stock within 42 days after AI we can increase conception rates. This is harder to do under natural service as stock should not be moved until 42 days after the bulls were removed. Ration changes should be avoided, especially a decrease in plane of nutrition, in the first 42 days post breeding.

In conclusion, the first 42 days following breeding are when crucial elements between the cow and the developing embryo are taking place. Minimizing stress thru decreased handling, movement, and adequate levels of unchanging nutrition should help improve our herd conception rates. A recent study indicates that just opening up a gate to turn newly AI'd cows out to pasture decreased conception rate in that group. This should reinforce the importance of the first 42 days of pregnancy.



**“Good health is
KING. Pigs
that are
compromised
by disease
infection will
grow slower,
consume less-
lean, and have
poorer feed
conversion...”**

July Specials!!

Silamax Innoculant

Benefits of Silamax:

- * Faster forage preservation
- * Less heating
- * Less seepage
- * Less dry matter loss
- * Longer bunk life
- * Higher animal production

Silamax comes in a dry and a liquid application.

Mention this ad and receive \$5 off Silamax.

Hay Max

Hay Max offers:

- * Consistent results
- * Allows you to bale hay at higher moisture for

higher feed value

- * Mold control
- * 30% higher leaf content
- * Bale any time of the day
- * Bales high as 30% moisture
- * More protein per acre

Mention this ad and receive 10% off Hay Max.

Swine Feed Intake (part 2) By Robert Fischer, PhD

Temperature:

Animals perform well within a certain temperature range referred to as the thermal neutral zone. The growing pig is most comfortable and will achieve the best performance at temperatures below 75 degrees Fahrenheit. The lower critical temperature declines from 65 degrees F at placement in finishing to 50 degrees F when the pig reaches a weight of 150 lbs. Pigs that are housed below the lower critical temperature will consume more feed to maintain their body temperature. The increase in feed intake is estimated to be approximately 0.03 to 0.05 pl per degree below 55 degrees F. Moderately low temperatures will not reduce growth rates, but because of greater feed consumption, feed efficiency will be poorer. If pigs are kept in an environment that is too hot, feed intake will be reduced by

approximately 0.03 to 0.04 lbs/d for every degree above 75 degrees F.

Humidity:

Average daily feed intake is also significantly reduced when the relative humidity in the barn is high. The effect of high humidity on FI, ADG, and FE is more pronounced during periods of high rather than low ambient temperature. In a study with growing-finishing pigs (55 to 235 lb), increasing relative humidity from 45 to 90% at a constant air temperature of 75 degrees F caused a significant reduction in FI and ADG. High humidity severely minimizes the ability of pigs under heat stress to dissipate the extra body heat through evaporation.

Space Allocation:

The floor space requirements for pigs depends on their body size, which can be related to body weight. A 240 lb pig has a floor space requirement of approximately 8.3 ft squared,

whereas a 265 lb pig requires 8.9 ft squared. Lowering the amount of space per pig below the required amount will reduce performance. For each 3% reduction in space, daily gain and daily feed intake will change approximately 1% for pigs raised in fully slatted barns.

Health:

Good health is KING. Pigs that are compromised by disease infection will grow slower, consume less lean, and have poorer feed conversion compared to healthy pigs. Poor health status decreased daily gain, feed intake, feed efficiency, lean deposition, and feed intake by approximately 23, 10, 15, 12, and 23% respectively. Maintaining biosecurity, through cleaning between groups of pigs and careful, daily animal observation, combined with early treatment can help. Look for the conclusion to this article in next month's newsletter.

1-800-658-3629