

SOW MORTALITY

CAUSES AND INTERVENTIONS

Sow mortality is a large expense for any swine producer. Not only is there the initial loss of future marketable pigs, but the capital expense in replacing those breeding animals can be costly. The concern over sow mortality has recently increased with some farms reporting sow mortality rates of 15% or more. While specific causes of mortality may differ from farm to farm; it is imperative to start a systematic diagnostic intervention on your operation using the following strategies:

1. PROPER RECORD ANALYSIS
2. NECROPSIES
3. EVALUATING MANAGEMENT PRACTICES

**SMALL IMPROVEMENTS
ON SOW MORTALITY
CAN HAVE A LARGE IMPACT
ON FARM PROFITABILITY.**

**FOR EVERY 1% IMPROVEMENT IN
SOW DEATH LOSS, INCREASES
PIGS WEANED PER MATED FEMALE
PER YEAR BY 0.25 PIGS.**

Swine Management Services.



DNA multiplier study

85%

OF SOWS DYING AFTER
FARROWING WERE DUE TO A.
DYSTOCIA (RETAINED PIG).

This can create inflammation and higher rectal body temperature in sows which causes them to go off feed.

OF CYSTITIS AND PYELONEPHRITIS
(URINARY TRACT INFECTION) CASES HAVE
SECONDARY LESIONS ASSOCIATED WITH
RETAINED PIGLETS.

50%

BREAKDOWN OF CAUSES OF MORTALITY

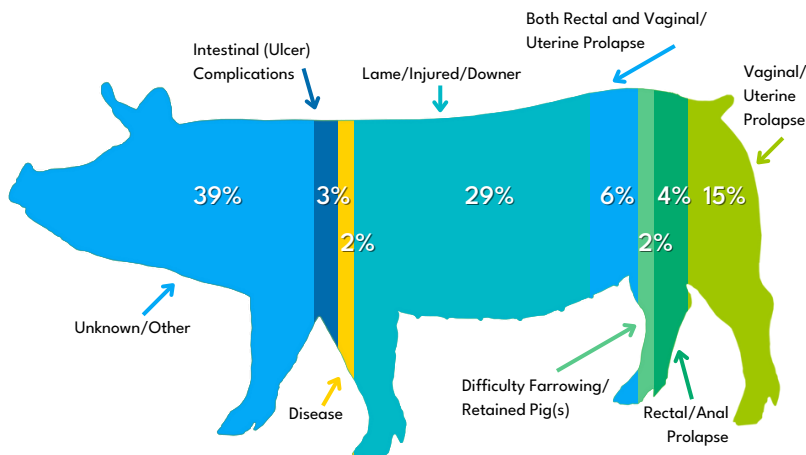


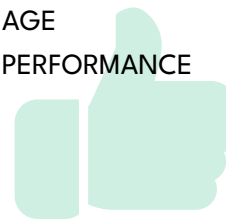
Figure 1. Yearly mortality reported to the Iowa Pork Industry Center's Pelvic Organ Prolapse project through March 1, 2019

WAYS A SOW LEAVES THE HERD

When making a culling decision, it is always important to keep the farm breeding target in mind, to reduce stress on the pool of eligible gilts. Attempting to retain suspect animals that are afflicted with a disease or lameness issue is a large contributor to high mortality rates.

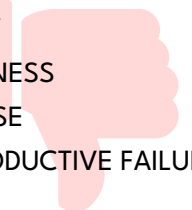
VOLUNTARY CULLING

1. AGE
2. PERFORMANCE



INVOLUNTARY CULLING

1. DEATH
2. DESTROY
 - LAMENESS
 - DISEASE
 - REPRODUCTIVE FAILURE



HIGHER
SOW MORTALITY

HIGHER
SELECTION RATE ON GILTS

**PROPER GILT DEVELOPMENT HAS
BEEN SHOWN TO IMPROVE LIFETIME
PRODUCTIVITY AND LIVABILITY.**

SCAN THE QR CODE TO VIEW
THE FIVE PILLARS OF REPRODUCTIVE CARE.



STRESSORS

IDENTIFYING COMPROMISED SOWS IN GESTATION AND FARROWING EARLY RESULTS IN IMPROVED OUTCOMES ATTENDING FARROWING TREATMENT INTERVENTIONS (IOWA STATE AND IOWA SELECT STUDY)

40%

OF DEATHS IN GILTS AND SOWS OCCUR IN THE WEEK BEFORE AND AFTER FARROWING, REGARDLESS OF PARITY.

- READYING THE BODY FOR BIRTH
- MOVING TO FARROWING ROOM
- CARDIAC ARREST
 - Gilts and sows have a small heart to weight ratio as they increase in parity and grow to a larger body size.



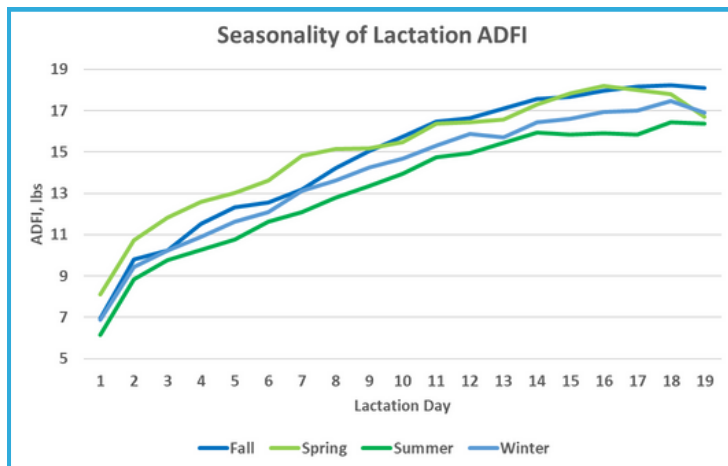
HEAT STRESS RELATED DEATHS TEND TO OCCUR WHEN THE OUTSIDE TEMPERATURE RISES ABOVE 90° F.

- NEWBORN PIGS REQUIRE 90-95°F AT FARROWING.
- 60-65°F IS OPTIMAL FOR SOW COMFORT.
- TEMPERATURE CURVES MAY NEED TO BE ADJUSTED BASED ON FACILITIES AND/OR ROOM.

HEAT STRESS LEADS TO REDUCE FEED INTAKE

FEEDING

- Increasing the particle size of ground corn in the gestation and lactation diets may also be beneficial if ulcers are apparent in the necropsied sows.
- Limiting off-feed events, even if events are for one day, can significantly decrease the mortality rate of sows.



Contact your DNA Genetics representative to learn more about sow mortality in your herd.

PELVIC ORGAN PROLAPSES (POP)

Pelvic Organ Prolapses (POP) are normally rare events in swine operations with an estimated incidence annualized rate of 0.5-1.0%. However, the incidence of POP has increased since 2014. During the same timeframe, data shows that DNA lines have seen a decrease. POP is currently a large driver of death loss and euthanizing of sows on farms today (Figure 1).

DNA GENETICS HERDS SHOULD AVERAGE BELOW 2% INCIDENCE RATES.

Correcting the **SOW BODY CONDITION SCORE** before farrowing, may play a role in enabling the body to fight off inflammation at a critical time in the sow's life.

The percentage of POP in a study by Iowa State University has been shown to be greater in thinner sows compared to sows in optimal body conditions ($P = 0.03$).

WATER TREATMENT has been shown to reduce the incidence of POP ($P < 0.01$).

MYCOTOXINS that exhibit estrogen like compounds may cause swelling in the reproductive organs which may increase the risk of POP on farm.

LAXATIVE USE may prevent constipation, lessen straining, and has shown some benefits to reducing prolapses.

To have a complete and effective intervention strategy regarding sow mortality producers need to necropsy sows and gather information systematically. While it may be difficult to do necropsies on large animals and hard to train farm staff the benefits outweigh the cost. Without this information it becomes harder to establish a direct cause and truly effect the issue.