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## Optimizing Pig Survivability with the Resources and Knowledge Available

Pig survivability is an important parameter to consider for maximizing farm productivity and efficiency, while improving animal welfare, in all phases of production. In 2018, Ross et al. estimated that approximately 33% of pigs born in the US do not reach market. Although there are many unknowns related to this topic, below are several factors to consider when developing strategies to help optimize pig survivability:

### Instill a good culture on farm

- One of the most (if not the most) important thing to do is to instill with employees the value of a good working culture.
- As a team, discuss potential obstacles that may be contributing to sow/pig mortality and outline a plan to best address them.

### Minimize disease pressure

- Economic losses associated to increased mortalities can occur and vary depending on level of immunity, disease strain, management strategies, etc.
- Develop, implement, and adjust vaccination and medication strategies to best prevent and/or reduce diseases in herds.
- Maintain good and simple biosecurity practices year-round for all production phases.
- Develop a robust, gilt acclimation program to help promote immune development towards existing pathogens in the herd and disease stability.

### Pig management (see figures A and B)

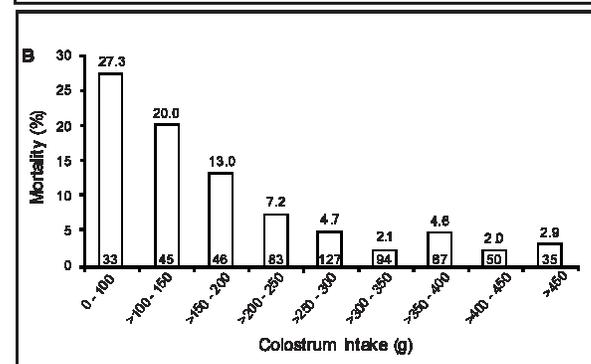
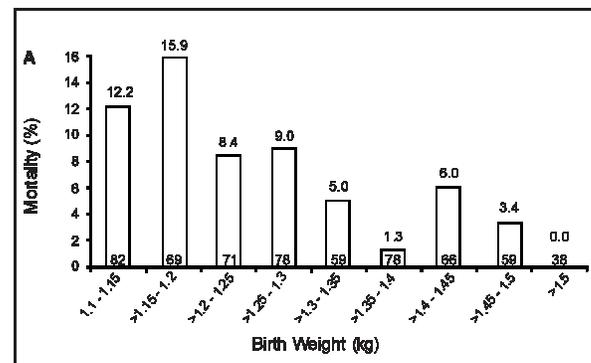
- Optimize day one care to promote good colostrum intake as this can influence pre-weaning mortality.
- Ensure that every pig is being evaluated and getting up daily.
- Monitor and adjust ventilation accordingly to provide an adequate environment.
- Several factors can influence post-weaning mortality, in which those related to birth weight, weaning age/weight, farrowing management, and season were suggested to have a higher influence compared to others. (Gebhardt, www.piglivability.org)

### Nutrition (see figure C)

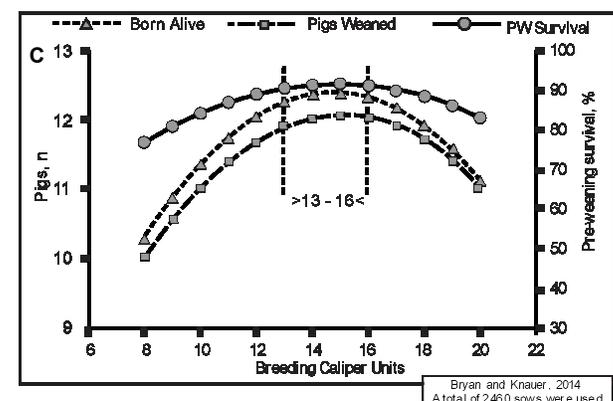
- Maintain adequate body condition as too heavy and light conditioned sows can have fewer pigs born alive and higher stillborn.

### Track and monitor

- Ability to recognize opportunities for improvements and assess changes post-interventions relies heavily on measurable parameters.
- As technology advances, production can be evaluated real-time, allowing for modifications to be made earlier.



Mortality of piglets until 42 days of age according to intervals of birth weight (A) and colostrum intake (B). the numbers of piglets are shown within columns. (Ferrari et al., 2014)



Bryan and Knauer, 2014  
 A total of 2460 sows were used

## Pig Ski Highlights

### Managing the high producing sow:

Kiah Gourley, a graduate student from KSU, presented on best feeding strategies for sows in farrowing prior to parturition based on her recent study.

- Key points driving sow feeding programs:
  - Simplification
  - Moderate impact of nutrition on birth weight
  - Maximize feed intake in lactation
- Goals of transition period feeding:
  - Meet changing demands of reproduction and lactation.
  - Supply nutrients to maximize piglet viability and survivability.
  - Improve quantity and quality of colostrum.
  - Supply energy without contributing to excessive body weight gain and backfat, negative lactation feed intake, poor milking ability, and reduced litter growth.
- Frequency or amount of feed prior to farrowing did not impact farrowing duration.
- Reduction in sow body weight and backfat loss during lactation for sows fed ad libitum.
- Improved piglet survival to weaning in sows fed 1.5 lbs/6 hrs (77.6% weaned) compared to sows fed 6 lbs/day (74.3% weaned) pre-farrowing.
- Farrowing assistance was lower in sows fed 1.5 lbs/6hrs (13.7%) pre-farrowing compared to sows fed 6 lbs/day (16.1%) or ad libitum (19.6%) pre-farrowing.



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### Integrating farm cultures:

Tim Schwartz from Schwartz Farms Inc. gave a presentation on how to best integrate farm cultures.

- Commitment from everyone is required and continuous effort to build and carry culture through is important.
- Ensure that employees know what is expected of them.
- Have a leader that listens, understands, responds, builds trust, and achieves results.
- Efforts to build a culture include annual company meetings, educational sessions, employee gatherings, and keeping track of culture progress over time via employee turnover rate, continuous engagement, employee promotions, etc.

### Vaccination reminder

Vaccination is key towards preventing Ileitis and Erysipelas disease. Clinical signs for these diseases are often more prevalent during the summer. Therefore, Ileitis and Erysipelas vaccines should be administered starting in February to help protect finishing pigs from these diseases during the heat of the summer.

***Please contact your SVC veterinarian with any questions!***

