

Sow Livability Update

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Big Bug Day

December 2024



South West Vets



Topics

- Sow Livability Trends
 - Globally
 - Ontario
- Risk Factors
- Promoting Livability



Is Sow Mortality Only a Problem in North America?



Spain, Italy, Portugal

- 1,500,000 sows
- 9.9% (2018) to **16.4%** (2023)



Denmark

- 268,000 sows (108 farms)
- **15.1%** (2021-2023)

European Symposium of Porcine Health Management, 2024



Housing and Sow Mortality?

Scientific data is *not* consistent for any of:

- ESF vs. stalls
- Dynamic vs. static groups
- Mixing after breeding vs. after preg check
- Low vs. high square footage allowance
- Group size

- **Expert teams can manage any system**
- **Transition is generally difficult**
- **Further epidemiological information is needed**



Brazil

2023, 42 farms, 160,000 sows

Housing	% Mortality
Stall	12%
Group, floor fed	13.5%
Group, shoulder stall	12.6%
Group, ESF	14.3%



Denmark

2023, 108 farms, 268,000 sows

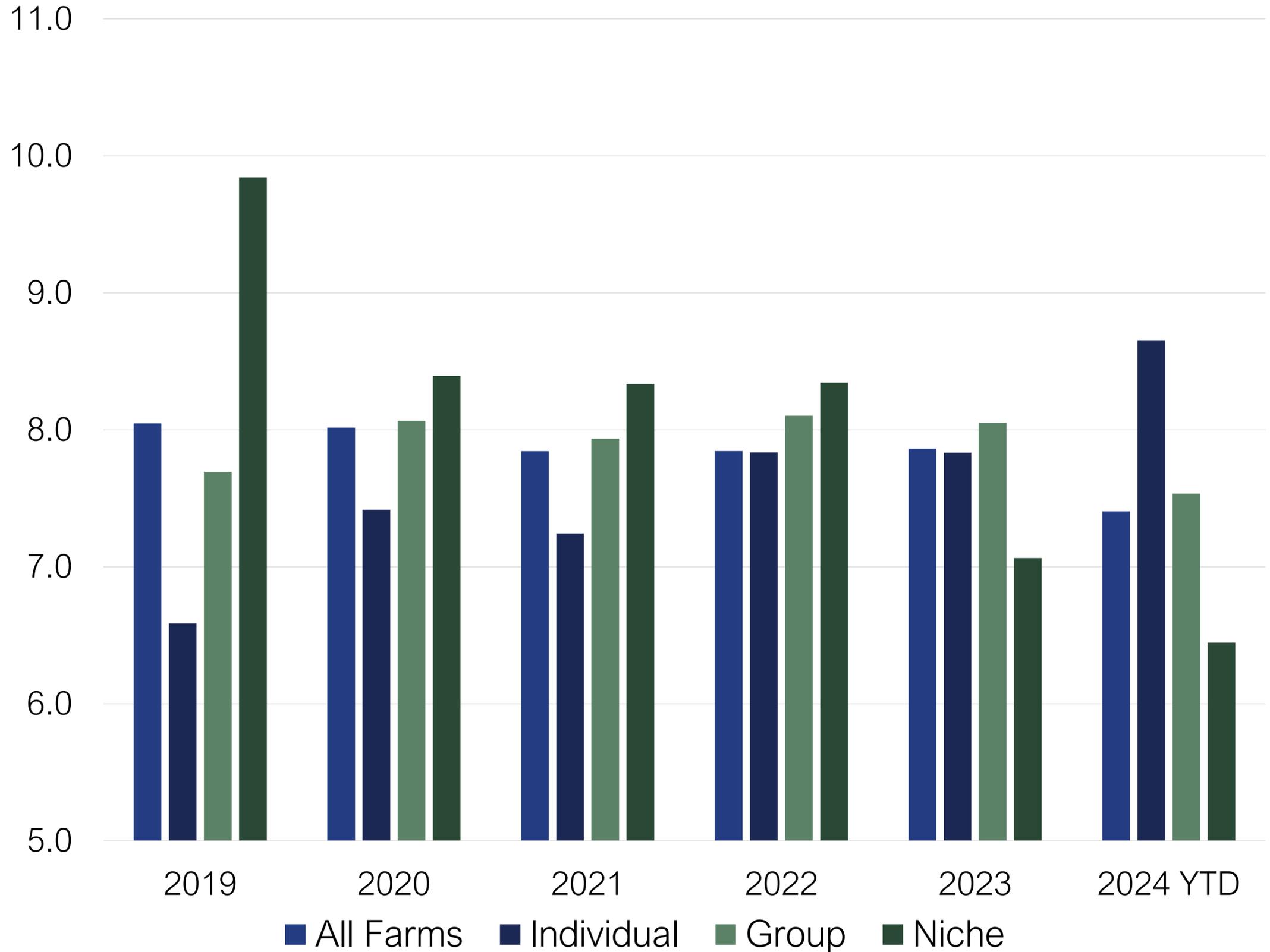
Housing	% Mortality
Floor or long trough fed	14.7%
Free-access stall	12.9%
ESF	14.7%



Sow Mortality Recap

What's happened in Ontario since last year?

Ontario Sow Mortality, %

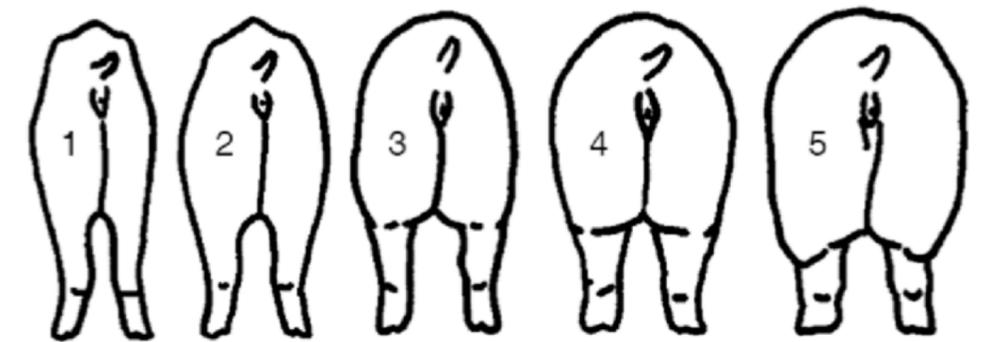


Causes of Sow Mortality

	2022	2023	Jan-Sept 2024
Unknown	39%	32%	25%
Sudden Death	19%	21%	24%
Lameness	16%	18%	18%
Prolapses (POP)	12%	13%	14%
Total Deaths	10,297	10,928	8,714

Sow Mortality Risk Factors

- Herd size – larger herds > smaller herds
- Season - Summer > Winter
- Sow housing: Group housing > Stalls
- No in-feed antibiotics > feed antibiotic
- Body condition score (BCS)
 - Both heavy and light gilts have short lifespans
 - BCS impacts other sow mortality causes (LAMENESS, POP)
- PRRS+ and Mhp+ herds
- *Water treatment – herd level (POP only)*
- *Perineal score – individual sow level (POP only)*



Score	Condition	Detection of ribs, backbone, "H" bones, and "pin" bones
1	Emaciated	Obvious
2	Thin	Easily detected with pressure
3	Ideal	Barely felt with firm pressure
4	Fat	None
5	Overly fat	None

How can we promote sow livability?



Gilts

- Age and Weight at breeding
- Unfamiliar with setting and process
- Crate-training gilts is essential
- Growth curve of gilts
 - Need to avoid vices
 - Imperfect gilt rearing options
 - GILT WEIGHT & CONDITION AT BREEDING IS A CRITICAL CONTROL POINT



Sow Livability and Performance based on: WEIGHT at Gilt Service

Herd 1: 53% of gilts bred in target weight window

Category	% removed for POP - Uterine	% removed for POP - Rectal	% removed for Lameness	Sudden death %	Stills (P1)	Mummies (P1)
Below weight (<135kg)	13	7	9	0	4.5	4.4
At weight (135-160kg)	4	3	2	5	4.5	3.2
Over weight (>160kg)	3	3	4	6	4.9	3.6

Sow Livability and Performance based on: WEIGHT at Gilt Service

Herd 2: 63% of gilts bred in target weight window

Category	% removed for POP - Uterine	% removed for POP - Rectal	% removed for Lameness	Sudden death %	Stills (P1)	Mummies (P1)
Below weight (<135kg)	0	6	11	3	3.5	6.6
At weight (135-160kg)	1	2	3	5	3.4	2.6
Over weight (>160kg)	2	2	4	5	4.0	2.7

Gilt AGE at First Service – Effects on Sow Retention

- Much more convenient than weight
- 16 herds, approx. 30,000 gilt entries with age at first service
- Retention tracked to: P1 farrowing, P2 farrowing, P3 farrowing (time-lag)
- No data on cause for removal

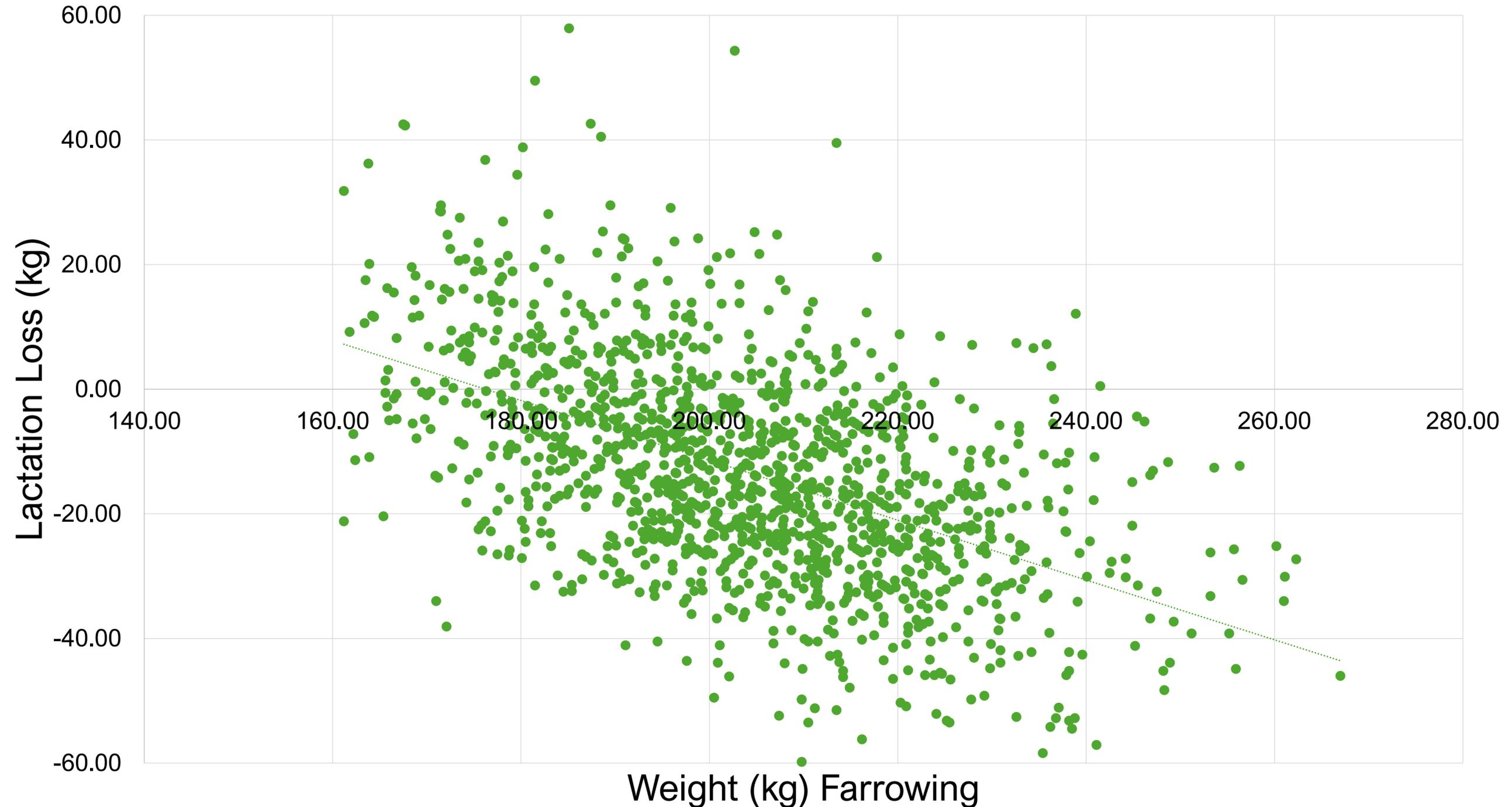
	% of gilt breedings	P1 % retention	P2 % retention	P3 % retention	P4 % retention
<200 days	16%	91	78	69	62
201-260 days	72%	91	76	65	56
>260 days	12%	89	71	60	50

Body Condition

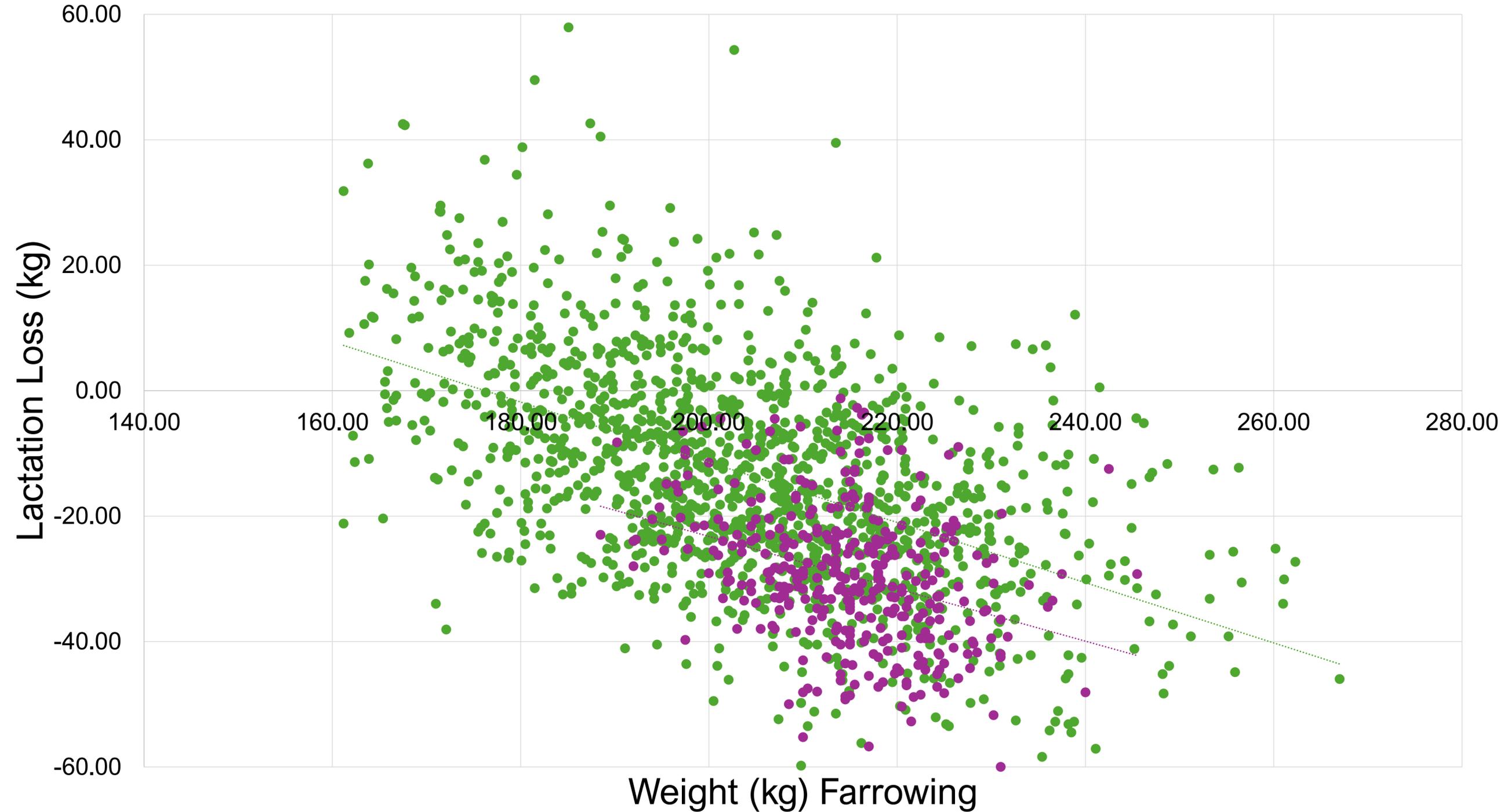
- Gilt and sow body condition has evolved over time
 - Selecting productive traits genetically:
 - Fast growth
 - Leanness
 - Feed efficiency
- Assessed at weaning/breeding & farrowing
 - Visual assessment, calipers, backfat testing, weigh scales



Heavier weight at P0 farrowing correlated with weight lost during lactation - low focus on gilt weight at breeding



Heavier weight at P0 farrowing correlated with weight lost during lactation - high focus on gilt weight at breeding



Risky Periods

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Each year, 34% or more of all sow deaths occur between day 106 of gestation and day 3 of lactation

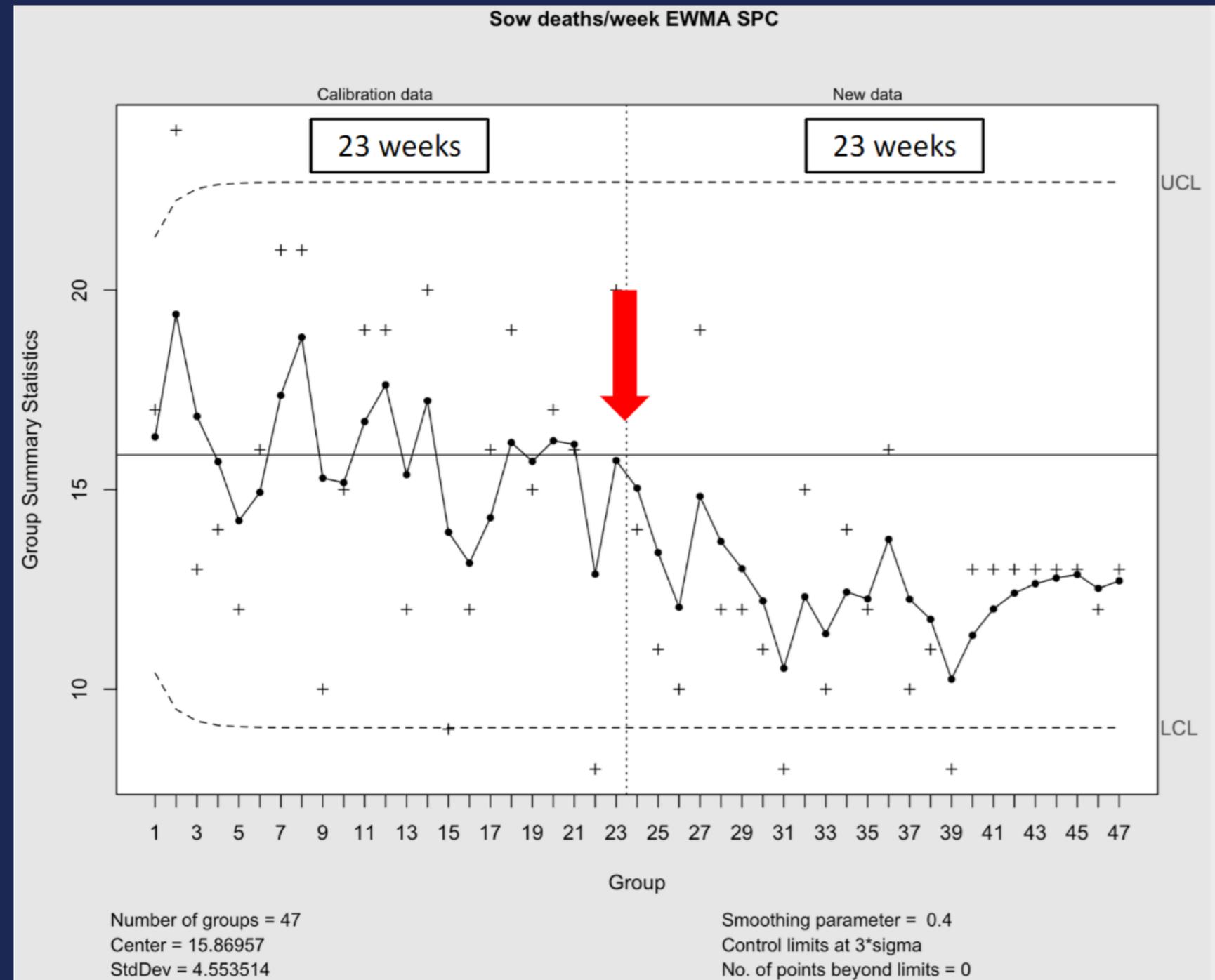
Late Gestation & Farrowing Time Period

- Lack of fitness at time of farrowing
 - Feet and legs
 - Body condition
- Metabolic and immune function changes
- Day 1 pig care – piglets only???



Iowa Select Farms: A Positive Case Study

- 4000 farrow to wean herd in US
- PRRS+, Myco+, IAV+, stall gestation
- Sow mortality 16.75%
- 2-week intensive sow care training: team choring by veterinarian and gestation barn manager
- 4.25% reduction in sow mortality, sustained through the end of the year



Iowa Select Farms: A Positive Case Study

1. Weekly sow mortality reports for all staff
2. Team choring
3. Hand-feed post farrow
4. ID at-risk sows in gestation
5. Special housing and care for above
6. Body condition scoring minimum 2x during gestation
7. Gilt development
8. Hoof trimming
9. Breeding chores – daily flash cards
10. Sow livability quiz – all staff

Strategies to reduce sow mortality

Iowa Select Farms' 10 action items to keep sows in the herd.



Ann Hess, Content Director

December 6, 2023

🕒 10 Min Read



National Hog Farmer, Dec 6, 2023



Key Takeaways

Sow mortality continues to be a global problem

- Production efficiency and cost
- Social responsibility

Ontario continues to defy global trends with lower average sow mortality rates

- Smaller farms
- Owner/operator effect
- Less severe PRRS than some areas



Key Takeaways

Opportunities to promote livability

- Gilts
- Body condition
- Late gestation & farrowing

Investments in stockperson skill and training pay off

- Replicate the owner/operator effect
- No such thing as 'un-skilled labour' - everyone on the farm is engaged in Sow Care - our staff are the key to success

Thank You.



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