Sow Mortality Project Update: Sow Body Conditioning Score

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INTRODUCTION:

The Iowa Pork Industry Center at Iowa State University, with funding from the National Pork Board, initiated an industry-wide survey that involved U.S. swine breeding herds to identify potential risk factors that are used to prevent pelvic organ prolapses (POP). One of the factors evaluated was sow body condition during late gestation (just prior to or just after entering the farrowing room). In the pork industry, sow body condition has always been an important factor for producers to manage and a relatively easy technique is used to monitor body condition scores (BCS).

SCORING SYSTEM:

- A 3-point system to assess BCS was used in late gestation
- Assessed at approximately 110-115 days of gestation
- 62 commercial sow farms in U.S.
- Almost 5,000 sows scored

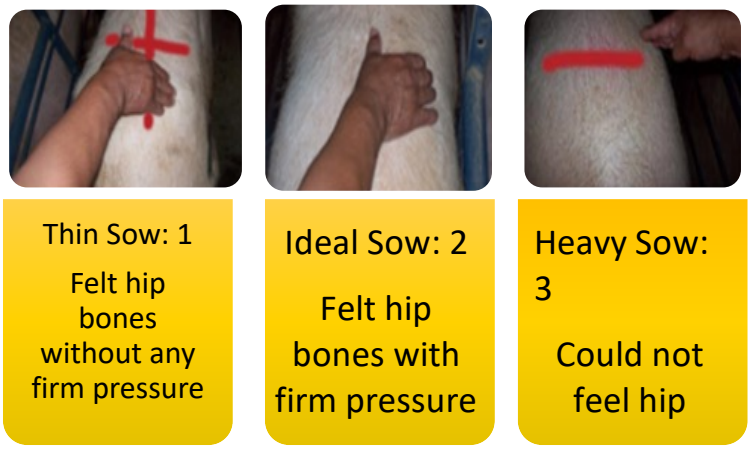


Figure 1 (above). 3-point system to assess BCS was developed by the Swine Medicine Education Center at Iowa State University.

	Total Animals Scored	Animals Prolapsed	Percent Prolapsed
BCS 1	884	21	2.4%
BCS 2	3,378	41	1.2%
BCS3	691	3	0.4%
Total	4,953	65	1.3%

Table 1. Summary of sows BCS and prolapses from the 62 farms in the U.S. A total of 884 sows were considered a BCS 1 (thin), 3,378 sows were a BCS 2 (normal body condition), and 691 sows were a BCS 3 (overweight).

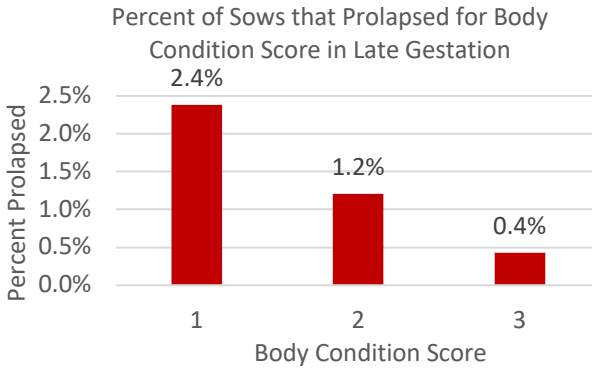


Figure 2 (above). Prolapse percent for each BCS of the 4,953 sows from the 62 farms in the U.S. When the measured sows were followed beyond farrowing, 65 of them prolapsed (1.3% of all animals scored). Twenty-one of the BCS 1 sows prolapsed (2.4%), 41 of the BCS 2 sows prolapsed (1.2%), and 3 of the BSC 3 sows prolapsed (0.4%).

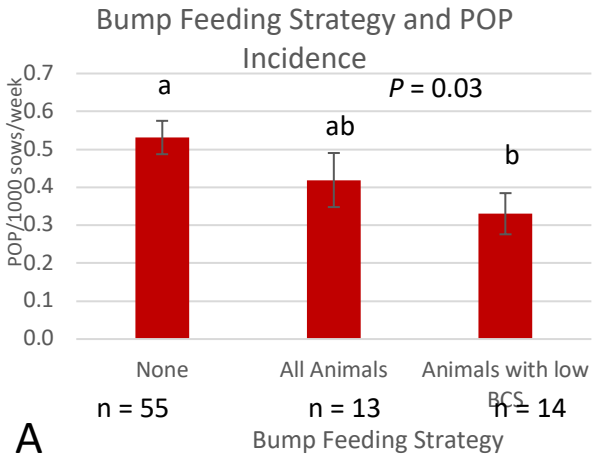
FEEDING STARTEGY AND PELVIC ORGAN PROLAPSE INCIDENCE:

The use of bump feeding in late gestation is a management strategy that was used on some of the farms in the study.

Farms either bump fed all sows, bump fed only sows with low BCS, or did not bump feed any sows

- Farms that did not bump feed had the equivalent of about 135 POP/year for a 5000 sow farm.
- Farms that bump feed their thinner sows had the equivalent of about 85 POP/year for a 5000 sow farm.

Farms that bump fed low BCS sows had lower prolapse incidence compared to farms that did not bump feed.



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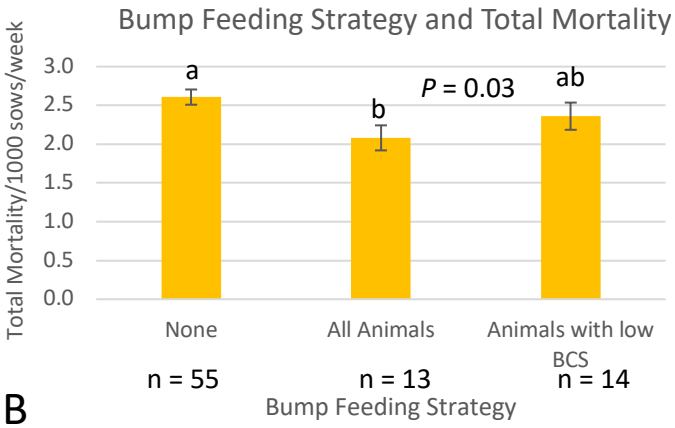

B

Figure 4 (below). Farms were categorized as either feeding less than 5 pounds per sow per day or feeding 5 pounds or more per sow per day in farrowing crates prior to farrowing. Differences in the number of gestating days in the farrowing crate were not taken into account. Farms that fed sows 5 pounds per head per day or more had a lower prolapse incidence compared to farms that fed sows less than 5 pounds per head per day.

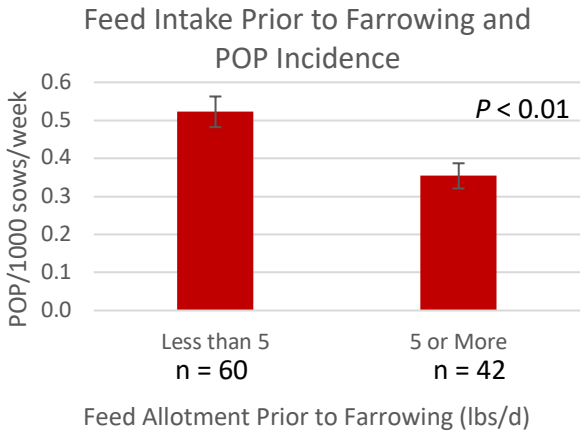

Figure 3 (left). Bump feeding strategy in late gestation and POP incidence (A) and total mortality (B). Farms either did not use bump feeding, bump fed all animals, or only bump fed those considered to have a low body condition score (BCS). Bars with different superscripts differ significantly ($P < 0.05$).

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