

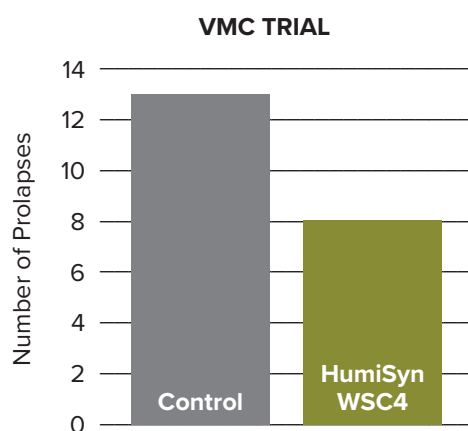
OBSERVED IMPROVEMENT IN SOW LIVABILITY BY DECREASING PROLAPSES WITH HUMISYN™ WSC4

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Sow mortality continues to be a significant cause of decreased revenue, concern for animal welfare, and diminished employee morale industry-wide. With 2023 sow mortality rates rising to over 15%¹ and 2024, trending closely behind, this is a problem on which our industry still should be focused on improving. Metafarms reported in 2023 that of the sows removed, 22.6% were due to prolapses². While we understand prolapses to be a multifactorial issue, *KENT* Nutrition's Innovative Solution's team has recently discovered a potential solution to help mitigate this industry-wide problem, HumiSyn™.

Innovative Solutions launched their Humic Substance platform called HumiSyn in January 2024. This proprietary combination of organic acids has been proven to help reduce mortality in health-challenged nursery pigs and finishing pigs^{3,4}. The key modes of action, proven through decades of research at *KENT* Nutrition and other published data, include reducing inflammation, optimizing immunity, improving collagen stabilization, and increasing levels of endogenous antioxidants.

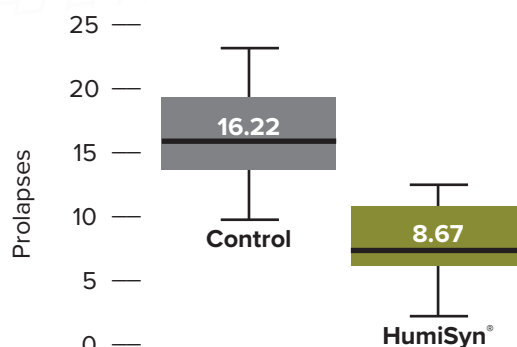
The team at Innovative Solutions, Drs. Aljets and Novak, Veterinary Medical Clinic (VMC), Williamsburg, IA, considered these features of HumiSyn WSC4 and hypothesized that sows subjected to heat stress in the summer could benefit from HumiSyn WSC4 and potentially help reduce mortality. HumiSyn WSC4 was administered in the water to a 2,700 head sow farm at two oz. per gallon (via medicator at 1:128 dilution ratio) for approximately four days in July when temperatures were ≥ 80 °F. During this period, the farm reported no sow mortalities in farrowing rooms. Three mortalities were recorded in gestation, which is below average based on records from the sow farm. Historically, an increase in sow mortality has occurred during seasonal high temperature events (≥ 80 °F) as indicated by farm records. Based on the low incidence of prolapses observed during this short time period, additional trials were designed to investigate further. A two-treatment study, control vs HumiSyn WSC4 was administered at a farm with a high prolapse incidence rate (15% total mortality with approximately half being prolapses). HumiSyn WSC4 was administered at two oz per gallon (via medicator at 1:128 dilution ratio) for the first seven days in the farrowing rooms, with a majority of sows farrowing one to four days post-loading. During the study period, incidences of prolapses were numerically reduced in the treatment group vs the control.



	# SOWS	# PROLAPSES	PROLAPSE RATE
Untreated	470	13	3%
Treated 1 day	40	0	0%
Treated 2 days	131	0	0%
Treated 3 days	125	3	2%
Treated 4 days	90	4	4%
Treated > 4 days	61	1	2%
Total Treated	447	8	2%



Since conducting the trial with VMC, additional producers have implemented HumiSyn in their sow farms. One producer is using HumiSyn WSC4 in the gestation barn for a minimum of ten days prior to loading sows in farrowing. He reports his 9,500 head sow farm had “a 53% reduction in prolapses.” Prolapses were reduced ($P < 0.001$) from an average of 16.22 per week during May to August to only 8.66 per week from September to November.



Using the product long-term in the sow farm might reduce mortality due to other reasons, which would be a reasonable hypothesis given the historical data of mortality reduction in nursery and finishing pigs. Additional observations from a Western Illinois producer using HumiSyn IFC4 (four lbs/ton in gestation feed and two lbs/ton in lactation feed) include a decrease in sudden deaths and a reduction in euthanasia of sows for any reason despite lameness at his sow farm. This producer is “happy with the results”, and he has additionally implemented an SOP to administer HumiSyn WSC4 in his nursery for 21 days at the recommended dose (eight oz per gallon via medicator 1:128 dilution rate).

For more information please contact your *KENT* Nutrition Group representative.

Sources:

- 1 www.nationalhogfarmer.com/livestock-management/u-s-sow-farm-production-update
- 2 www.nationalhogfarmer.com/livestock-management/u-s-sow-mortality-trends-continue-to-climb
- 3 Weber and Edmonds 2023. *Transl Anim Sci.* 2023 Oct 2;7(1):txad115
- 4 www.nationalhogfarmer.com/livestock-management/using-humic-substance-as-a-tool-to-improve-finishing-pig-productivity

