

DATE COMPLETED

August 2025

OBJECTIVE

To determine whether sow and litter performance is improved by increasing daily crude protein or vitamin C intake during late gestation.

TRIAL OVERVIEW

- This trial included 1,527 sows, which produced 21,733 pigs during the summer of 2025 in a 5000-sow commercial farm.
- Sows were provided either a control diet (12.7 g SID lysine/day), a control diet + 907 mg/d of Vit C, or a control + 363 grams of top-dressed soybean meal beginning at 88 days of gestation.
- The additional soybean meal (SBM) resulted in 22 grams of SID lysine per day.
- Sows were weighed in and out of farrowing, and birth and weaning weights were collected on all pigs. A subsample of sows provided a blood sample for evaluation of hemoglobin (HB) content.

KEY TAKEAWAYS

- Neither additional lysine nor vitamin C improved farrowing duration, HB status, or wean to estrus interval.
- Additional nutrients did not improve sow or piglet livability.
- Pre-wean mortality was higher in the sows supplemented with SBM. This difference was primarily a function of additional laid-on events, which is difficult to rationalize as a result of the treatment.
- The average DNA 241 in the trial gained body weight during the lactation period (adding back the birth weight of pigs, placental and fluid weight nets a positive weight gain).

PRODUCER IMPLICATIONS

Based upon this trial, neither increasing amino acid density or adding vitamin C in gestation diets beyond current DNA recommendations elicits any performance improvements.

PRIMARY PERFORMANCE DATA

	Control 12.7 g SID Lysine/day	SBM 22 g SID Lysine	Vit C 907 mg/day	SEM	P Value
Sow weight change, lbs.*	-21.1	-21.4	-19.1	.901	0.141
Farrowing duration, min.	212.1	212.9	218.8	5.613	0.635
HB concentration, g/dl	10.3	10.0	9.8	0.197	0.169
HB allotment, g/dl	9.6	10.1	9.5	0.179	0.157
Sow removal, %	8.3	8.3	9.1	1.316	0.868
Wean to estrus, days	4.3 ^a	4.8 ^b	4.6 ^{ab}	0.138	0.015
Prewan mortality, %	10.7 ^a	13.5 ^b	11.2 ^a	0.428	0.001

*Sow weight change is calculated as the total sow weight (including litter weight) of the sow prior to farrowing minus the sow weight at weaning.

^a Means within the same row followed by a different superscript letter are significantly different at $p \leq 0.05$

For more information on this study, please contact your National Account Leader.