183 Effects of increasing duration of feeding high dietary lysine and energy prior to farrowing on sow and litter performance under commercial conditions. Kiah M. Gourley¹, Analicia J. Swanson¹, Jason C. Woodworth¹, Joel M. DeRouchey¹, Mike D. Tokach¹, Steve S. Dritz¹, Robert D. Goodband¹, Brent Frederick², ¹Kansas State University, ²Christensen Farms

A total of 472 mixed parity sows were used in a study to evaluate the effects of supplying increased Lys and energy for the last 2 or 7 d before farrowing on sow and litter performance. On d 106 of gestation, sows were blocked by parity and weight and allotted to one of three corn-soybean meal-based dietary treatments, which included: 1) 12.5 g SID Lys and 6.5 Mcal/d ME from d 107 to 112 of gestation, then 28 g SID Lys and 9.4 Mcal/d ME until farrowing; 2) 12.5 g SID Lys and 6.5 Mcal/d ME from d 107 to 112, then 40 g SID Lys and 13.3 Mcal/d ME until farrowing; 3) 40 g SID Lys and 13.3 Mcal/d ME from d 107 until farrowing. Data were analyzed for treatment within parity effects using the GLIMMIX procedure of SAS. Sow weight gain from d 106 to 113 increased (P < 0.05) as the length of feeding increased SID Lys and energy increased. Sow backfat gain from d 106 to 113 of gestation increased (P < 0.05) in females fed treatment 3 vs. treatment 1. There was no evidence (P > 0.05) for difference in female BW or backfat loss from d 113 of gestation until weaning. Average total born and born alive piglet birth weight was greater (P < 0.05) in gilts fed treatment 2 or 3 vs 1, with no evidence (P > 0.05) for difference in average piglet birth weight in sows, or weaning weight in gilts and sows. Piglet survival after cross-foster to weaning was improved (P < 0.05) in sows fed treatment 2 vs. 1 or 3, but not in gilts. Providing high Lys and energy intake from d 107 or 113 to farrowing increased birth weight in gilts, while providing high Lys and energy intake from d 113 increased pre-weaning piglet survival in sows.

Key words: birth weight, lactation, gestation