Wean-to-Estrus

The average wean-to-estrus interval (WEI) on commercial farms is approximately 5 days with most sows bred within 7 days of weaning (Knox et al., 2013). Due to the energy and amino acid demands during lactation, many sows and gilts will have lost weight (body condition) during lactation. Large losses in body condition can potentially lead to a prolonged WEI in parity 1 and 2 females (Vargas et al., 2009). Although limited research exists on feeding strategies during the WEI, recent research has found little to no impact of increasing feed intake of a gestation diet or feeding a lactation diet between weaning and rebreeding (Graham et al., 2015; Almeida et al., 2018; Tables 1 and 2). Therefore, when transitioning into the WEI, it is recommended that weaned sows be provided 6 to 8 lb/d of the gestation diet to restore body reserves, then transition to gestation feed allowances based on body condition (Figures 1 and 2).

References

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Table 1. Effects of wean-to-estrus feeding level on post-weaned sow performance[1]

	Feeding Level (lb/d)		
Item	6	8	12
ADFI, lb[2]	5.9	7.8	11.4
Wean-to-Estrus interval, d	5.1	5.0	4.9
Conception rate, %	95.6	95.6	94.7
Subsequent total born, pigs/sow	14.3	13.9	13.9

[1]Adapted from Graham et al. (2015)
[2]Values differed significantly ($P < 0.01$)

Table 2. Effects of feeding level and diet type on post-weaned sow performance[1]				
Diet Type:	Gestation		Lactation	
Feeding Level:	6	8	6	8
Wean-to-estrus interval[2]	4.3	4.1	4.1	4.3
Total born, n	15.0	15.4	15.1	15.1
Born alive, %[3,4]	92.2	91.7	91.7	89.9
Litter born alive weight, lb[5]	37.7	39.5	39.0	37.9
Individual born alive weight, lb	2.73	2.87	2.87	2.84

[1]Adapted from Almeida et al. (2018)
[2]Feed type × Feed amount (P = 0.021)
[3]Feed type (P = 0.080)
[4]Feed amount (P = 0.070)
[5]Feed type × Feed amount (P = 0.084)

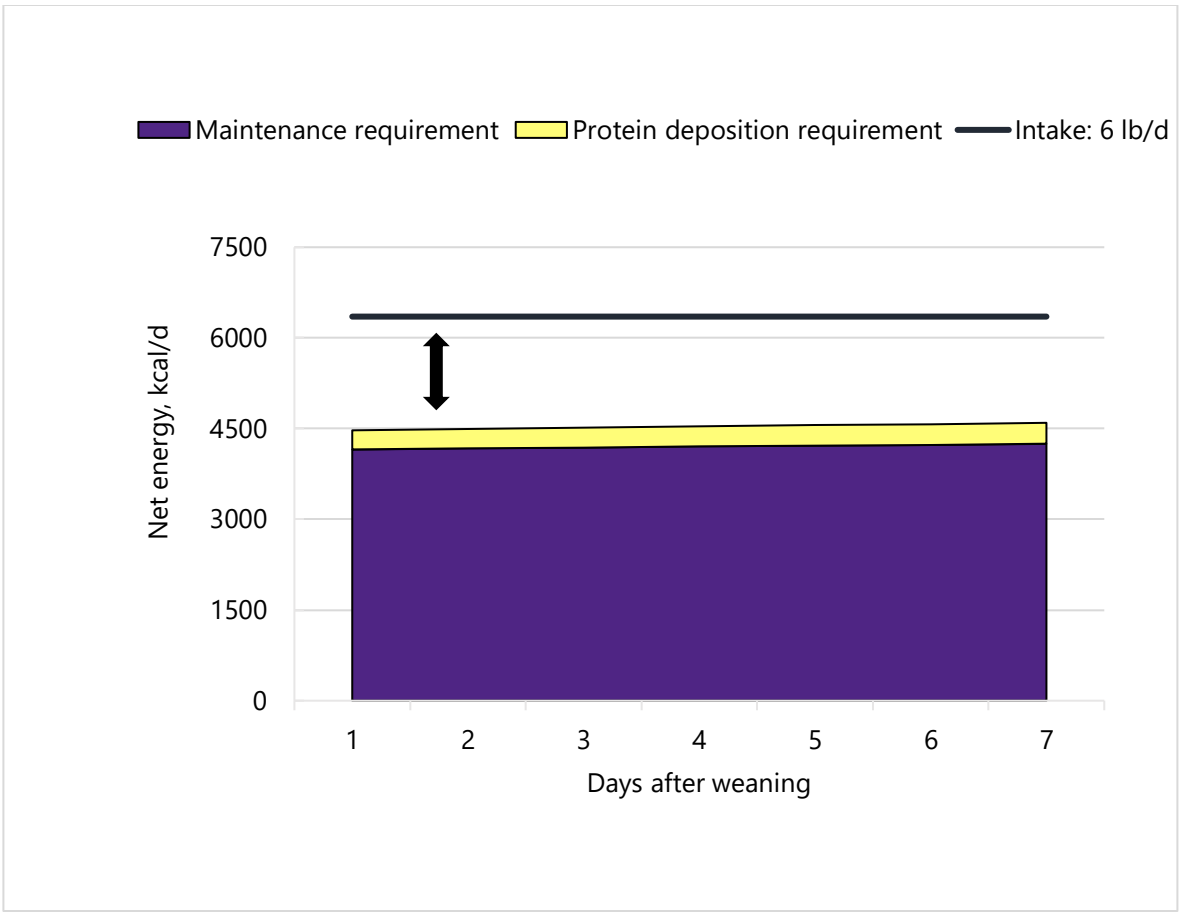

Figure 1. Estimated daily maintenance energy (NE) requirements and feed intake in the wean-to-estrus interval (Adapted from NRC, 2012). Arrow indicates energy left over for recovery of body reserves.

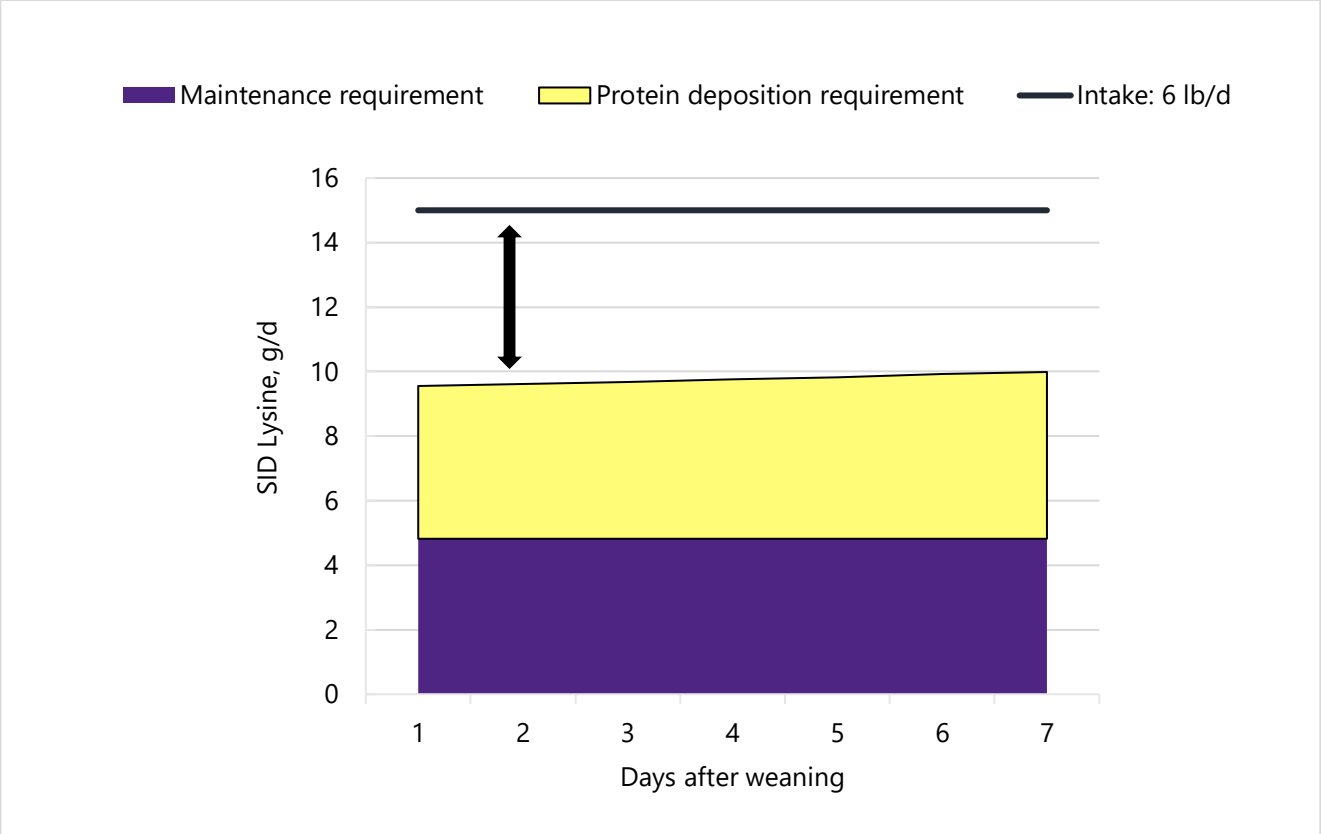

Figure 2. Estimated daily standardized ileal digestible (SID) lysine requirement and feed intake in the wean to estrus interval (Adapted from NRC, 2012). Arrow indicates energy left over for recovery of body reserves.