

The effect of feed intake on the hormonal, and reproductive performances of sows

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Abstract

This review aims to investigate the effect of feed intake on the hormonal and reproductive performances of sows. Lactation sows extremely lose weight, especially primiparous sows, as a result reduce subsequent reproductive performance. Feed intake related to litter size, weaning-to-estrus intervals, body recovery, and the level of hormones related to reproduction. The NRC (2012) recommendation of energy for a gestating sow is 6,015-6,150 kcal of ME/day, but nowadays the sow has a larger litter size so sows require much more energy. Several studies have found that increasing feed intake decreases embryo survival because high feed intake has a negative effect on reproductive hormones. However, some studies indicated that increased feed intake can increase embryo survival, fetal weight, the number of pigs born alive per litter, and litter weight at farrowing. Also, improved sow's weight gain and backfat thickness. The relation between feed intake and progesterone, luteinizing hormone, and insulin is an intersecting subject. Therefore, it is interesting to know whether feed intake in early gestation sows has any effect on hormones level, and improves the reproductive performance of sows and their progeny.

Keywords: feed intake, embryos survival, sows, hormonal, reproduction

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