

INFLUENCE OF EARLY WEANING, FALL ENERGY SUPPLEMENTATION AND WINTER/SPRING PROTEIN SUPPLEMENTATION AS SINGULAR OR COMBINED TREATMENTS ON THE PRODUCTIVITY OF RANGE COWS

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(Key Words: Range Livestock, Supplemental Feeding, Early Weaning)

At the Corona Livestock and Range Research Station 190 crossbred cows are being utilized in a 2 x 2 x 2 factorial experiment to examine the effects of early vs normal weaning (late August vs mid-October), fall energy supplementation (low level of high energy supplement fed for about 45 days vs no supplement) and late winter-spring supplementation (high protein supplement fed post calving for about 100 days vs no supplement) on cow productivity and reproductive performance. About one-half of the cows were added to the experiment in the fall of 1992; preliminary results are available from the remaining cows. Early weaning of calves, especially when combined with fall energy supplementation increased cow weight gain during the fall and improved their body condition going into winter. However, fall pregnancy rates by cows were not influenced by treatment combinations of fall and winter/spring supplementation in the presence or absence of early weaning. There is some evidence from this study that winter/spring protein supplementation may stimulate earlier rebreeding of cows after calving. At the normal weaning date in 1992 (October 14), calves weaned early (August 20) averaged 68 lbs lighter in body weight than those weaned at the normal date.

EFFECT OF GOSSYPOL ON GROWING HOLSTEIN HEIFERS

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(Key Words: Whole Cottonseed, Dairy Heifers, Growth)

Fifteen holstein heifers, 3 mo old, were randomly assigned to 0, 15 or 30% whole cottonseed (WCS) diets, to determine the effects of whole seed (gossypol) on growth and development. Remainder of the diets was comprised of alfalfa hay, corn grain, soybean meal, molasses and dicalcium phosphate to provide diets that were isonitrogenous, isocaloric and balanced for calcium and phosphorus. Diets were provided as percent of body weight to maintain uniform consumption across all treatments. Heifers were fed individually at 6 a.m. and 5 p.m. daily in randomly assigned stalls, but were placed in a dry lot with free access to water and salt for the remainder of the day. Poloxalene was provided to heifers showing bloating symptoms. Heifers fed 0 WCS exhibited more intensive bloating than heifers on 15 or 30% WCS diets. Height at withers, heart girth measurements and heifer weights were recorded every 28 days. The experiment was conducted on the NMSU Livestock Farm (October 1991 to December 1992) with Holstein dairy heifers from weaning until pregnancy.

Average initial weight was 199 pounds and average final weight was 771 pounds. Average daily gain (434 days) was not different for the three groups. Increase in height and