

MORE TWO YEAR OLD COWS BRED IN THE FALL WHEN SUPPLEMENTED WITH BYPASS PROTEIN

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⇒ Key Words: Young Cows, Supplementation, By-Pass Protein, Native Range

The effects of cow age and the amount of bypass protein in supplements fed to young beef cows with calves on side grazing dormant rangeland was investigated. Forty-eight 3 year old and forty-five 2 year old beef cows grazing in the same pasture were randomly assigned to two protein supplements. Supplements were control (CON, .791 lbs/hd·d⁻¹ CP: .278 lbs/hd·d⁻¹ UIP) and high UIP (.791 lbs/hd·d⁻¹ CP: .396 lbs/hd·d⁻¹ UIP). Supplements were formulated to be isoenergetic and to maintain ruminal function. Cows were individually fed both supplements at 7.5 lbs per feeding twice a week. Cow weight, body condition score (BCS), calf body weights, milk production, and length of anestrus ($P>0.15$) were similar for cows fed both supplements. More 2 year old cows fed UIP supplement were pregnant in the fall than cows fed CON (91 vs. 72%, $P=0.11$). Seventy-nine percent of the 3 year olds were pregnant regardless of treatment. The 3 year old cows had a shorter anestrus period compared to the 2 year olds (84 vs. 117 days, $P<0.01$). Reproductive performance is summarized in table 2. The older cow's calves weighed more than the younger cow's at weaning (467 vs. 553 lbs, $P<0.01$). Neither cow age nor supplement had an effect on milk

yield. Three year old cows did not respond reproductively to increased amounts of UIP. More two year old cows fed UIP were pregnant in the fall. The additional bypass protein was provided at an additional cost of \$0.56/head for the year. Costs of supplementation (both protein and mineral) are presented in Table 2.

Table 1. Percent cows pregnant in fall and days of anestrus.

	2 yr. olds	3 yr. olds
CON	73% 117 days	79% 86 days
UIP	91% 117 days	79% 82 days

Table 2. Cost of protein and mineral supplements for the year.

	2 yr. olds	3 yr. olds
CON	\$24.44	\$19.75
UIP	\$25.00	\$20.42