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The effects of stocking rate and corn gluten supplemental feed on the performance of young beef cows

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Key words : Beef cow , stockpiled forage , corn gluten feed

Aim A winter grazing experiment was conducted to evaluate the effects of stocking rate and corn gluten feed supplementation on forage mass and composition and the BW and BCS of bred 2-yr-old cows grazing stockpiled forage during winter .

Methods Two 12 2-ha blocks containing Fawn , endophyte-free , tall fescue and red clover were each divided into 4 pastures of 2 .53 or 3 .54 ha .Hay was harvested from the pastures in June and August of 2005 and 2006 , and N was applied at 50 .5 kg/ha at the initiation of stockpiling in August .On October 22 , 2005 , and October 20 , 2006 , twenty-four 30-mo-old Angus-Simmental and Angus cows were allotted by BW and BCS to strip-graze for 147 d at 0 .84 or 1 .19 cow/ha .Eight similar cows were allotted to 2 dry lots and fed tall fescue-red clover hay *ad libitum* .Corn gluten feed was fed to cows in 2 pastures to maintain a mean BCS of 5 (9-point scale) at each stocking rate and in the dry lots (high supplementation level) or when weather prevented grazing (low supplementation level) in the remaining 2 pastures at each stocking rate .

Results Mean concentrations of CP in yr 1 and 2 and IVDMD in yr 2 were greater ($P < 0 .10$) in hay than stockpiled forage over the winter .At the end of grazing , cows fed hay in dry lots had greater ($P < 0 .05$) BCS in yr 1 and greater ($P < 0 .10$) BW in yr 2 than grazing cows .Grazing cows in the high supplementation treatment had greater ($P < 0 .10$) BW than cows grazing at the low supplementation level in yr 1 .Cows in the dry lots were fed 2 ,565 and 2 ,158 kg of hay DM/cow .Amounts of corn gluten feed supplemented to cows in yr 1 and 2 were 46 and 60 kg/ cow and did not differ ($P = 0 .33$, yr 1 ; $P = 0 .50$, yr 2) between cows fed hay or grazing stockpiled forage in either year .

Conclusion Estimated production costs were greater for cows in the dry lots because of hay feeding .