

**Effect of Alternative Management Systems on Wintering
Beef Cow Performance in Southwest North Dakota
(ABSTRACT)**

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Winter Grazing is very important to farmers and ranchers in Western North Dakota. Ranchers can save money if there is a logical and economical way to feed and manage cattle. Winter grazing is becoming more and more acceptable because it can become very expensive to winter cattle for 5 months in a dry lot situation. The objective of this study was to relate cow performance with the economics of alternative winter-feeding methods by grazing standing corn, oat swaths, and oat hay in a dry lot. Cattle were weighed every two weeks and were assigned a body condition score. Stocking rates varied with year and treatment replicates and was estimated at the beginning of the grazing period to provide enough grazing pressure to remove 50% of available forage in 8 weeks. The oat hay feeding areas were mob grazed prior to the initiation of the grazing period to remove all grazable forage. Final body weights were affected by a year by treatment interaction ($P = .06$). However, in each year, corn provided the greatest amount of gain, swaths the least, and dry lot tended to be intermediate. Over the 8 week period, cattle on all treatments gained weight ($P < .01$). Overall, cattle maintained body condition in year 1 and lost body condition in year 2. Management systems affected body condition in both years ($P < .1$). In week 4, corn had the greatest body condition, swaths had the least, and the dry lot was intermediate. Body condition in week 6 was affected by a year by treatment interaction ($P = .06$). Corn had the greatest body condition in both years. Dry lot was least and swath intermediate in year 1, the inverse was true in year 2. Corn supported the greatest gain in body weight and condition. Oat swath grazing was generally comparable of oat hay. The two alternative methods of winter-feeding are viable for Western North Dakota ranchers. This study does not include expenses such as labor, cost of seed, or fertilizer.