NORTH DAKOTA– Stockpiled Grass & Crop-Residue Grazing Reduce Cow Wintering Cost

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The two-year study evaluated three winter feeding methods for non-lactating, gestating beef cows during late fall and winter (November to April) to determine total grazing days, cow weight and body condition score (BCS) changes, postwintering reproductive performance, and wintering method economics. The objective was to determine the potential for reducing gestating cow winter feed costs for cows calving May-June grazing cover crops, corn, and sunflower residues, or stockpiled improved grass and corn residue.

A two-year, 134-day cow wintering experiment was designed to evaluate gestating cow overwintering methods/cost. The study consisted of 144 May-June calving crossbred cows, 3-10 years old. A control (C) group received hay only in dry-lot pens. One group grazed a seven species cover crop followed by corn and sunflower residues (CC-RES). A second group grazed stockpiled improved grass followed by corn stalk residue (GRAS-RES). Cows in all treatments received 1.74 lbs dry matter of a 32% crude protein supplement ($339.25/ton). After grazing ~50-60% of the available low-quality residue or stockpiled grass, cows received hay until the study ended in April. Overall, total gain for C, CC-RES, and GRAS-RES treatments were 205, 146, and 112 lbs. BCS for C and CC-RES cows increased 0.79 and 0.71 of a condition score/cow, but GRAS-RES group's BCS did not change (5.4). Reproductively, subsequent calving percentage was not influenced by treatment for the first, second, and third calving cycles, percent of non-pregnant cows, and total percent calving. Overwintering hay cost/cow were markedly different – C, CC-RES, and GRAS-RES were $172.51, $67.74, and $29.94/cow. Accounting for supplement, farming, and tax expenses, total wintering costs were $208.81, $140.59, and $73.33/cow. On a calendar year basis, C, CC-RES, and GRAS-RES cows grazed 7.6, 10, and 11.1 months of the year. Farmers considering winter grazing should proceed cautiously because ND winters are unpredictable and harsh. We suggest having hay on hand for 1-2 years as a precaution for weather conditions that preempt winter grazing.

Supplementing cows with a pelleted dried distillers grain with solubles (DDGS)-based protein-energy supplement extended grazing of low-quality forages, increased grazing days, and reduced amount of hay fed. Compared with feeding hay, grazing stockpiled improved-grass forages followed by corn residue reduced wintering cost 2.8 times ($135.48/cow). The wintering method did not affect reproductive performance.

See www.ag.ndsu.edu/publications/livestock/2017-north-dakota-beef-report/as1862.pdf for details, as well as other NDSU beef studies.