Forage Research Update

North Dakota - Comparing Three Forage Types for Use in Swath Grazing

by B. Neville, G. Lardy, P. Nyren, and K. Sedivec, North Dakota State University

The first study was an evaluation of cow performance in a swath grazing system on three different forages: crested wheatgrass, big bluestem, and foxtail millet. Grazed native range was the control treatment. The second study determined intake, ruminal fermentation, and digestibility of these forages. For each of the swath-grazing treatments, non-irrigated pasture (30 ac) was divided into three 10-ac paddocks. Three native range pastures (40 ac) were used as the non-swathed grazed control. A cooked molasses block supplement was included with the big bluestem treatment due to low crude protein content of the forage.

Table 1. *In 2006, crude protein content of swathed forages and native range at Streeter, ND.*

Day	Big Bluestem	Crested Wheatgrass	Foxtail Millet	Native Range
1	8.0	13.7	12.6	11.3
8	7.0	14.6	9.3	8.0
16	8.9	15.5	9.2	8.5
24	7.7	14.3	9.2	8.2
31	7.9	13.0	7.9	7.7
37	7.2	14.2	8.5	8.3

Table 2. *Average daily gain (ADG) and change in body condition score (ΔBCS) of cows under swath-grazing and native range grazing at Streeter, ND, in 2005-2006.*

	Big Bluestem	Crested Wheatgrass	Foxtail Millet	Native Range
2005 ADG, lb/day	0.0	0.0	0.2	0.2
2006 ADG, lb/day	0.7	0.9	-1.3	1.1
2005 ΔBCS	0.2	0.0	0.0	-0.1
2006 ΔBCS	0.5	0.7	0.1	0.7

In the first study, cow performance was similar among treatments in 2005. In 2006, cows swath grazing big bluestem and crested wheatgrass increased in body condition, while cows swath grazing foxtail millet maintained body condition. In the second study, steers fed foxtail millet consumed more DM and organic matter than steers fed big bluestem, crested wheatgrass, and native range. Total tract organic matter, NDF, and ADF digestibilities were greater for foxtail millet compared with the other forages. From these results, swath grazing is an acceptable alternative to grazing native range for wintering beef cows in central North Dakota.