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Urea and soybean meal compared for cows on winter bluestem pasture

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Abstract

This test compared urea supplement (hand-fed), urea supplement (self-fed), and soybean meal (SBM) supplement (hand-fed) with cows on winter bluestem pasture. The supplements were formulated to supply the same amount of protein and total digestible nutrients. Salt was fed free choice with the hand-fed supplement.

Keywords

Cattlemen's Day, 1970; Report of progress (Kansas State University. Agricultural Experiment Station); 536; Beef; Urea; Soybean meal; Bluestem pasture

Urea and Soybean Meal Compared for Cows on Winter Bluestem Pasture 1968-1969 (Project 253)

R.W. Swanson and E.F. Smith

This test compared urea supplement (hand-fed), urea supplement (self-fed), and soybean meal (SBM) supplement (hand-fed) with cows on winter bluestem pasture. The supplements were formulated to supply the same amount of protein and total digestible nutrients. Salt was fed free choice with the hand-fed supplement.

The self-fed supplement presented many problems because limiting intake of the supplement to 3.0 lbs. per head per day required from .30 lb. to .85 lb. of salt per head per day.

Supplement compositions are shown in table 12; test results, in table 11.

The SBM supplement was superior to the urea supplements in maintaining cows' weight, percentage of calves weaned, and percentage of cows breeding back.

Self-feeding the urea supplement produced lighter calves and fewer cows breeding back than did hand-feeding the urea supplement.

Table 11. Results From Supplementing Winter Bluestem Pasture with Indicated Supplements

	Urea supplement	Urea self-fed	Soybean meal supplement
1968-Fall cows' wt., lb.	869	826	864
1969-Spring cows' wt., lb.	598	574	655
1969-Fall cows' wt., lb.	939	898	937
1969-% Calf crop weaned	87.5	87.5	91.7
1969-Adj. calf weaning wt., lb.	408	365	396
1969-% Cows bred	95.8	87.5	100

Table 12. Composition of Indicated Supplements

Urea supplement, lbs.		Urea self-fed, lbs.		Soybean meal supplement, lbs.	
Sorghum grain	940	Sorghum grain	625	Sorghum grain	655
Urea	42	Urea	28	SBM	327
Dicalcium phosphate	18	Dicalcium phosphate	12	Dicalcium phosphate	18
	1000	Salt[1]	335		1000
			1000		
Pounds of Supplement per cow daily	3.2		4.1		3.0

[1]Salt was used to limit consumption to 3 lb./head/day. Salt needed varied from .30 to .85 lb./head/day.