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COW-CALF GAINS FROM 'TAM-90' ANNUAL RYEGRASS OVERSEEDED ON TIFTON 85 BERMUDAGRASS AND STOCKED AT THREE RATES

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Background. Tifton 85 (TIF85) bermudagrass has shown to have significantly improved stocker and cow-calf gains compared to other bermudagrasses such as Coastal (COS) or common (COM). Resistance to cold temperatures and tolerance to an array of management scenarios continue to develop as acreage of TIF85 expands. The primary objectives of this experiment were to evaluate cow-calf performance and stand sustainability by overseeding TIF85 with 'TAM-90' annual ryegrass. The TIF-85 pastures were lightly disked and TAM-90 planted via drill at 30 lbs/ac in late October to early November. On Dec. 16, 200 lb/ac 21-8-17 was applied and nitrogen (N) was split applied on Jan. 14, Mar. 19, and Apr. 30 for an extra 160 lbs N/ac. On a 2004-basis, spread fertilizer costs would have been about \$ 239/ton for 21-8-17 (\$23.90/ac) and about \$245/ton for 34-0-0 (\$57.58/ac). Thus, the total fertilizer applied at 202-16-34 would cost about \$81/ac in 2004. Angus x Brahman (AxB) cows and their fall-born Simmental-sired calves (SIMX) grazed TAM-90-TIF85 pastures from Feb. 18 to May 23 (93 days). Cows and calves were removed from pastures about 3 weeks earlier than normal due to unseasonable dry conditions and the desire to use TIF85 pastures for a stocker grazing experiment. All calves were implanted two times pre-weaning with Ralgro, and calf ADG represents an average of both steers and heifers. Two replicate pastures of stocking rates designated as low (LO), medium (ME), and medium high (MH) were used to document cow and calf gain's. The LO and ME stocking rates were similar to those reported for COM and COS; however, the MH-TIF85 stocking rate pastures were not stocked to the extent of forage utilization as the high stocked COM and COS pastures.

Research Findings. The ADG for SIMX calves was 2.88, 3.18, and 3.60 lbs/da from TAM-90-TIF85 pastures stocked respectively at MH, ME, and LO stocking rates (Table 1). Corresponding AxB cow ADG was 0.43, 0.65, and 1.60 lbs/da for MH, ME, and LO stocked pastures. These 93-day ADG were within the same general performance level as cattle grazing TAM-90 overseeded on COS (companion paper). Growth of calves approximated that of TAM-90-COS from Feb-May; however, the final weights from TAM-90-TIF85 of 700 to 780 were lower than those of either TAM-90 or Apache arrowleaf clover due to the shortened grazing period (Fig. 1). Total gain per calf from MH, ME, and LO stocking rates were 268, 296, and 335 lbs, respectively. Stocking rates are expressed as either 1000 lbs = 1 animal-unit, or 1500 lbs = 1 cow-calf unit (Table 1). Using the 1500 lb expression, stocking rates were 1.08, 1.26, and 1.65

cow-calf units/ac, respectively, for LO, ME, and MH stocked pastures. Resultant calf gains were 362, 373, and 442 lbs/ac. The TIF85 bermudagrass stand was excellent on all pastures at termination of cows and calves grazing on May 23.

Application. Tifton 85 bermudagrass has been successfully used in overseeding programs using TAM-90 annual ryegrass wherein ryegrass was extensively grazed to the extent that it did not present a competition factor for TIF85 during May. Although TIF85 has shown to have excellent forage DM characteristics during the summer months, our observations would indicate that some short deferment period between the phase-out of ryegrass and on-set of exclusive TIF85 grazing may be warranted. The deferment period of 2 to 3 weeks, however, is controlled by April-June rainfall, fertility level, and degree of defoliation in April-May. Using 2004 fertilizer prices, fertilizer costs alone would have been \$ 0.2238, \$.2172, and \$.1833/lb calf gain for LO, ME, and MH stocked pastures.

Table 1. Cow-calf performance from TAM-90 ryegrass and Tifton 85 bermudagrass from Feb.18 to May 23 (93 days).

PASTURE	STK RTE	ADG		GAIN/CALF (lbs)	STOCKING RATE ¹		GAIN / AC ¹	
		COW	CALF		1000 lb. An-Unit	1500 lb. Cw-Clf	1000 lb. An-Unit	1500 lb. Cw-Clf
		---- (lbs/da) ----		----- hd / ac -----		----- lbs / ac -----		
T-85	MH	.43	2.88	268	2.48	1.65	665	442
T-85	ME	.65	3.18	296	1.88	1.26	556	373
T-85	LO	1.60	3.60	335	1.62	1.08	543	362

¹Stocking rates shown as either 1000 lbs = 1 animal-unit or 1500 lbs = 1 cow-calf unit.

Fig. 1. Growth in suckling calf body weight on Tifton 85 bermudagrass overseeded with TAM-90 annual ryegrass and grazed at medium high (MH), medium (ME), or low (LO) stocking rates.

