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STOCKER SUPPLEMENTATION AND DAYS ON FEED AFFECT FEEDLOT PERFORMANCE AND CARCASS TRAITS

D. P. Hutcheson and F. M. Rouquette, Jr.

Background. Producers supplement stocker cattle grazing winter annual pastures for a variety of reasons which usually include animal health, weight gain, and/or economic benefit. A cooperative research trial between TAES-Overton and TAES-Amarillo used yearling 1/2 Simmental-1/4 Brahman-1/4 Hereford cattle (n=30) to evaluate the influence of sex, pasture supplementation, and days on feed on feedlot and carcass performance. The winter-born, fall-weaned steers and heifers were stockered on: (1) rye-ryegrass pasture; (2) pasture + 2 lb/hd/day corn ration; or (3) pasture + 4 lb/hd/day corn ration. Days on feed via individual feed monitoring devices (Pinpointer®) were about 120 vs. 145.

Research Findings. Feedlot performance and carcass traits are presented in Table 1 by sex, slaughter date, and pasture supplement. Differences due to sex were apparent in weight, gain, feed:gain, and percent USDA Choice at slaughter. The most notable effect of length of feeding period was a 35% increase in animals that graded USDA Choice. And, due to price discounts associated with heavyweight carcasses, these medium to large framed 20-month old cattle were approaching an optimum feedlot period after 145 days. Supplementation of a corn ration to calves grazing rye-ryegrass pastures did not affect any weight gains nor feed conversion. Backfat and USDA quality grade, however, were dramatically affected. The non-supplemented cattle had only 10% USDA Choice and 30% USDA Standard; whereas, the corn supplemented cattle did not have any USDA Standard carcasses.

Application. Data from the first year of a 2-year study allowed preliminary conclusions that encouraged the use of an energy supplement to calves grazing winter pastures. Animal performance from both pasture and feedlot showed no advantage of supplementing with more than 2 lbs/hd/day. Both the integrated operator and the exclusive feeder may opt to encourage supplemental feeding on pasture. The number of days on feed for calves that enter the feedlot at 960 lbs is somewhat limited due to carcass weight. Therefore, considerations may be given to feeding these types of cattle just long enough to reach the USDA Select grade rather than feed to USDA Choice.

Table 1. Feedlot and carcass performance of yearling calves that received supplement on pasture and were fed to two slaughter dates.

Item	Sex		Kill Date		Winter Pasture Supplement		
	Steer	Heifer	First	Second	Pasture Only	2 lbs corn per/hd/day	4 lbs corn per/hd/day
Number	16	14	16	14	10	11	9
Shipping Wt., lbs	1008[a]	925[b]	958	958	936	982	953
Arrival Wt., lbs	927[a]	852[b]	878	886	858	909	876
Shrink, %	8.1	7.9	8.3	7.6	8.4	7.5	8.0
Final Wt., lbs	1268[a]	1128[b]	1128[b]	1248[a]	1177	1205	1166
Days on Feed	123	137	122	143	140	121	134
Daily Intake, lbs	18.7	18.3	19.1	17.6	19.0	18.6	17.7
Daily Gain, lbs	2.78[a]	2.26[b]	2.39	2.55	2.64	2.47	2.27
Feed:Gain, lbs	7.26[a]	8.71[b]	8.33	7.91	7.81	8.0	8.61
Hot Carcass Wt., lbs	798[a]	714[b]	717[a]	782[b]	735	768	736
Dressing, %	63.0	63.2	63.6	62.6	62.4	63.8	63.2
Ribeye Area, sq. in.	14.2	14.2	14.0	14.4	13.8	14.4	14.3
Backfat, in.	.37	.33	.33	.36	.26[b]	.43[a]	.35[ab]
Yield Grade	1.9	1.8	1.65[a]	2.11[b]	1.61	2.0	2.0
Marbling	3.7	3.4	3.39[a]	3.70[b]	3.51	3.54	3.56
USDA Choice, %	25.0[a]	11.1[b]	0.0[a]	35.7[b]	10.0[b]	27.3[a]	11.1[b]
USDA Select, %	66.7	77.8	87.5[a]	57.1[b]	60.0[b]	72.7[b]	88.9[a]
USDA Standard, %	8.3	11.1	12.5	7.2	30.0[a]	0[b]	0[b]

[ab]Means with different superscripts are statistically different (P<.05).