

UNIVERSITY RESEARCH TRIAL DATA & KEY FINDINGS



TRIAL 4 - OKLAHOMA STATE UNIVERSITY ————— FORT SUPPLY, OK

Following the 2019-20 study, another two-year trial was conducted in 2021 and 2022 to further test changes in cattle performance with varying rates of supplementation. Treatments ranged from no supplement to 6 lbs of DDG cubes per hd/day.

2021	GROUP 1 - NO SUPPLEMENT CONTROL			GROUP 3 - SUPPLEMENTED 4 LBS/HD/DAY		
	GROUP 2 - SUPPLEMENTED 2 LBS/HD/DAY			GROUP 4 - SUPPLEMENTED 6 LBS/HD/DAY		
GRAZING DATA	IN WEIGHT	END WEIGHT	DAYS ON GRASS	ADG EARLY SUMMER	ADG LATE SUMMER	ADG TOTAL
GROUP 1	658	857	131	1.48	1.54	1.51
GROUP 2	654	926	131	2.15	2.11	2.17
GROUP 3	654	933	131	2.28	2.17	2.23
GROUP 4	651	952	131	2.32	2.35	2.34
FEEDLOT DATA	AVG IN WEIGHT	AVG OUT WEIGHT	AVG DAYS ON FEED	AVG DAILY GAIN	CONVERSION FACTOR	CONSUMPTION
GROUP 1	845	1576	189	3.88	5.86	2.66%
GROUP 2	909	1542	168	3.64	6.51	2.76%
GROUP 3	935	1533	183	3.28	6.63	2.50%
GROUP 4	951	1550	183	3.28	7.44	2.77%
CARCASS DATA	AVG HOT WEIGHT	PRIME	CHOICE	SELECT	OTHER	CAB
GROUP 1	1003	0.0%	65.79%	31.58%	2.63%	2.63%
GROUP 2	983	3.70%	51.85%	44.44%	0.0%	3.70%
GROUP 3	986	0.0%	77.42%	19.35%	3.23%	6.45%
GROUP 4	990	0.0%	76.67%	16.67%	6.67%	6.67%
	HOT CARCASS YIELD	YG 1	YG 2	YG 3	YG 4	YG 5
GROUP 1	63.64%	2.63%	34.21%	42.11%	18.42%	2.63%
GROUP 2	63.75%	3.70%	48.15%	37.04%	7.41%	3.70%
GROUP 3	64.32%	6.45%	35.48%	48.39%	9.68%	0%
GROUP 4	63.87%	10.0%	26.67%	50.0%	13.33%	0.0%



UNIVERSITY RESEARCH TRIAL DATA & KEY FINDINGS



TRIAL 4 - CONTINUED

FORT SUPPLY, OK

2022	GROUP 1 - NO SUPPLEMENT CONTROL			GROUP 3 - SUPPLEMENTED 4 LBS/HD/DAY		
	GROUP 2 - SUPPLEMENTED 2 LBS/HD/DAY			GROUP 4 - SUPPLEMENTED 6 LBS/HD/DAY		
GRAZING DATA	IN WEIGHT	END WEIGHT	DAYS ON GRASS	ADG EARLY SUMMER	ADG LATE SUMMER	ADG TOTAL
GROUP 1	654	904	123	1.99	2.08	2.03
GROUP 2	647	965	123	2.94	2.14	2.58
GROUP 3	650	998	123	3.29	2.25	2.83
GROUP 4	646	1023	123	3.56	2.44	3.06

FEEDLOT DATA	AVG IN WEIGHT	AVG OUT WEIGHT	AVG DAYS ON FEED	AVG DAILY GAIN	CONVERSION FACTOR	DMI
GROUP 1	950	1570	135	3.80	6.46	24.57
GROUP 2	990	1606	123	3.88	6.29	24.42
GROUP 3	1026	1565	117	3.46	6.89	23.86
GROUP 4	1028	1604	116	3.76	6.48	24.37

CARCASS DATA	AVG HOT WEIGHT	PRIME	CHOICE	SELECT	OTHER	CAB
GROUP 1	1023	3.7%	88.9%	7.4%	0%	14.8%
GROUP 2	1047	7.1%	78.6%	10.7%	3.6%	14.3%
GROUP 3	1019	6.7%	76.7%	13.3%	3.3%	16.7%
GROUP 4	1045	3.4%	82.8%	10.3%	3.4%	17.2%
	HOT CARCASS YIELD	YG 1	YG 2	YG 3	YG 4	YG 5
GROUP 1	65.16%	0%	22.2%	55.6%	22.2%	0%
GROUP 2	65.23%	0%	3.6%	53.6%	35.7%	7.1%
GROUP 3	65.07%	0%	16.7%	43.3%	33.3%	6.7%
GROUP 4	65.19%	0%	13.8%	44.8%	34.5%	6.9%

KEY FINDINGS

DAILY GAIN SPREAD

The potential point of diminishing profitability is more visible in this trial as the difference in ADG between groups decreases with each increase in supplementation rate.

IMPACT ON CONVERSION

Cattle fed 6 lbs. did not consistently gain or convert better than other fed cattle, potentially indicating the added supplementation did not improve feedlot performance. This could show the same point of diminishing return seen on grass.

POUNDS TO SELL

The high supplement rate in Group 4 pushed cattle to be large going into the feedyard, thus they were larger at finishing and yielded a larger carcass.