

File Maduab

A THREE YEAR RANGE FERTILIZATION TRIAL USING COWS AND CALVES TO MEASURE PRODUCTION
WAYNE FULTON RANCH - MADERA COUNTY

(1)

	1957-58 Season				1958-59 Season				1959-60 Season			
	TREATMENTS				TREATMENTS				TREATMENTS			
	Field A		Field B		Field A		Field B		Field A		Field B	
	Cows	Calves	Cows	Calves	Cows	Calves	Cows	Calves	Cows	Calves	Cows	Calves
Field size in acres	69		498		69		498		69		498	
Material: Pounds per acre - ammonium sulphate	359.4		None		351.3		None		338.6		None	
Nutrients: Pounds per acre - Nitrogen (N)	75.5N		0		73.8N		0		71.1N		0	
Phosphate (P ₂ O ₅)	86.3S		0		84.3S		0		81.3S		0	
Sulphur (S)	86.3S		0		84.3S		0		81.3S		0	
Total grazing days for season (1/13 to 4/9/59)	122	122	122	122	86	86	86	86	107	107	94	94
Total animal grazing days for season	3660	3050	8296	7808	2166	2080	4814	4520	3103	3103	7802	7708
Animal grazing days per acre	53.04	44.20	16.66	15.68	31.39	30.14	9.67	9.08	44.97	44.97	15.67	15.48
Average acres per animal	2.30	2.76	7.32	7.78	2.74	2.85	8.89	9.47	2.38	2.38	6.00	6.07
Total in weight in pounds	25945	4990	60240	13330	24735	4870	61010	12715	25855	6840	73040	20220
Avg in weight in lbs/animal	864.8	199.6	885.9	208.3	797.9	162.3	824.5	181.6	891.5	235.8	880.0	246.6
Total out weight in pounds	35065	10605	75080	28500	32200	8950	73500	21425	34075	14000	90285	37500
Avg out weight in lbs/animal	1168.8	424.2	1104.1	445.3	1038.7	298.3	993.2	306.1	1175.0	482.8	1087.8	457.3
Total gain in pounds	9120	5615	14840	15170	7465	4080	12490	8710	8220	7160	17245	17280
Avg daily gain in lbs/animal	2.49	1.84	1.79	1.94	3.45	1.96	2.59	1.93	2.65	2.31	2.21	2.24
Lbs of beef produced per acre	132.2	81.4	29.8	30.5	108.2	59.1	25.1	17.5	119.1	103.8	34.6	34.7
Lbs of beef gained per acre from fertilization	102.4	50.9	--	--	83.1	41.6	--	--	84.5	69.1	--	--
Market value of beef in ¢/lb	15¢	28¢	15¢	28¢	18¢	30¢	18¢	30¢	16¢	28¢	16¢	28¢
Gross grazing income per acre	\$19.83	\$22.79	\$4.47	\$8.54	\$19.48	\$17.73	\$4.52	\$5.25	\$19.06	\$29.06	\$5.54	\$9.72
Fertilizer cost/A	\$9.88		--		\$9.13		--		\$8.80		--	
Application cost per acre	\$1.00		--		\$1.00		--		\$1.00		--	
Total fertilization costs/A	\$10.88		--		\$10.13		--		\$9.80		--	
Net grazing income per acre (fertilization costs subtracted from gross calf income)	\$19.83	\$11.91	\$4.47	\$8.54	\$19.48	\$7.60	\$4.52	\$5.25	\$19.06	\$19.26	\$5.54	\$9.72
Net cow and calf profit per acre from fertilization	\$18.73		--		\$17.31		--		\$23.06		--	
Net calf profit/A from fert.	--	\$3.37	--	--	--	\$2.35	--	--	--	\$9.54	--	--
Cost/lb of total extra beef	7.10¢		--		8.12¢		--		6.38¢		--	
Cost/lb of extra calf beef	21.38¢		--		24.35¢		--		14.18¢		--	