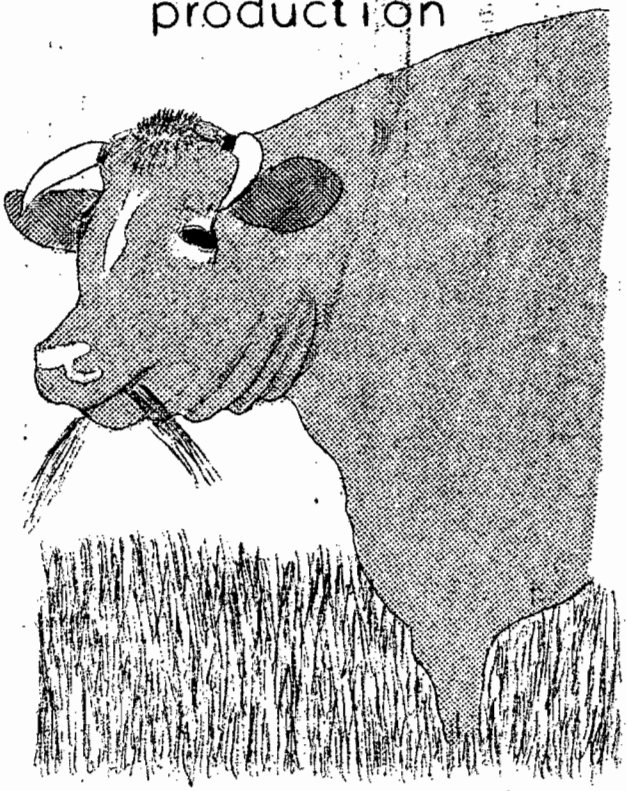
RY-SI-73

annual ryegrass pasture

sample costs and production



Agricultural Extension Service
University of California
Imperial County
Court House, El Centro

Cost Data Sheet No. 6
UC COOPERATIVE EXTENSION

ANNUAL RYEGRASS--SAMPLE PRODUCTION COSTS

Mechanical operation at custom rates. Labor at $2.70 per hour ($2.20 plus Social Security, unemployment insurance, and fringe benefits).

OPERATION	Custom Rate	MATERIALS Type	MATERIALS Cost	HAND LABOR Hours	HAND LABOR Dollars	SAMPLE COSTS Per Acre
LAND PREPARATION						
Disc 2x Deep	$3.50		7.00 (deep injection)			$ 7.00
Fertilize	3.00	100# N				10.00
Border	2.00					2.00
Float 2x	3.50					7.00
TOTAL LAND PREPARATION						$26.00
GROWING PERIOD						
Plant	4.50	seed 20 to 30#	9.00			13.50
Irrigate 11x		3.5 acre ft	8.05	3.5	9.45	17.50
Fertilize 3x		150# N@ .07	10.50			10.50
GROWING PERIOD						$41.50
GROWING PERIOD & LAND PREP. COSTS						$67.50
Land Rent						50.00
Cash Overhead - 15% of preharvest cost and land rent						17.63
TOTAL PREHARVEST COST						$135.13

Based on 800 pounds of beef produced per acre the cost per pound of gain would be

16.89¢

Cost per Cwt of Gain

Calculations below show the cost per cwt of gain at various stocking rates and rates of gain based on the sample cost sheet. The grazing period was assumed to be 180 days.

EFFECT OF AVERAGE DAILY GAIN AND STOCKING RATE ON COSTS PER CWT GAIN

Stocking Rate

(Steers per Acre)

Ave. Daily Gain	2.00	2.25	2.50	2.75	3.00	3.25	3.50	3.75	4.00	4.25	4.50	4.75	5.00
1.0	37.54	33.37	30.02	27.30	25.02	23.09	21.44	20.01	18.77	17.66	16.68	15.79	15.01
1.1	34.12	30.33	27.30	24.81	22.74	20.99	19.49	18.19	17.06	16.05	15.56	14.36	13.65
1.2	31.28	27.79	25.02	22.74	20.84	19.24	17.87	16.68	15.63	14.71	13.89	13.16	12.51
1.3	28.87	25.66	23.09	20.99	19.24	17.76	16.50	15.39	14.43	13.58	12.83	12.15	11.54
1.4	26.80	23.83	21.44	19.49	17.87	16.50	15.32	14.29	13.40	12.61	11.91	11.29	10.72
1.5	25.02	22.24	20.01	18.19	16.68	15.39	14.29	13.34	12.51	11.77	11.11	10.53	10.01
1.6	23.46	20.84	18.77	17.06	15.63	14.43	13.40	12.51	11.72	11.03	10.42	9.87	9.38
1.7	22.08	19.62	17.66	16.05	14.71	13.58	12.61	11.77	11.03	10.39	9.81	9.29	8.83
1.8	20.84	18.53	16.68	15.16	13.89	12.83	11.91	11.11	10.42	9.81	9.26	8.77	8.33
1.9	19.75	17.56	15.79	14.36	13.16	12.15	11.29	10.53	9.87	9.29	8.77	8.31	7.90
2.0	18.77	16.68	15.01	13.65	12.51	11.54	10.72	10.01	9.38	8.83	8.33	7.90	7.50

SOIL PREPARATION

A uniform seed bed is a prerequisite to a good stand. High spots in the field cause an uneven germination, irrigation and poor stands result. On land that has very little to no side fall the borders should be made relatively wide, normally 70 feet. If the field is not very level then borders need to be much narrower.

PLANTING RATES, DATES AND VARIETIES

Plant from 20 to 30 pounds of annual ryegrass per acre. Heavier rates may be needed on soils high in salt. Ryegrass may be planted from mid-September through November. Early plantings in September are excellent if weather has cooled down. Most any annual ryegrass variety does well in the Imperial Valley. When in doubt consu t your local farm advisor.

FERTILIZATION

Apply one hundred pounds of nitrogen as NH_3 preplant. Then apply fifty units of N as ammonium nitrate of NH_3 in the water after each pasturing or as needed.

Approximately 150 pounds of total N should be applied during the growing season. The amount to apply depends on the previous crop. Ryegrass needs a lot of nitrogen for economic returns but "don't overdo it" as nitrate poisoning may result. Toxic levels, when present, are normally found in rapidly growing plants. Imperial Valley soils usually contain sufficient phosphorous for ryegrass production, if phosphates have been applied to other crops in the rotation.

IRRIGATION

Ryegrass usually thrives under moist soil conditions. Usually quick applications of irrigation water are sufficient unless leaching of salts is intended. Ryegrass will need about eleven irrigations during the growing period.

WEED CONTROL

Weed control is not normally necessary in ryegrass pasture. 2,4-D gives excellent control of broadleaf plants if weed control measures are needed.

PASTURING

Normally it takes less than three months (approximately 75 days)

under good conditions from planting to pasturing ryegrass.

Ryegrass is normally pastured on a 28 to 40 day cycle. Four fields are pastured on a 7 to 10 day schedule. Stocking rate on the overall acreage will range from 3 to 5 head per actual acre planted. If only $\frac{1}{4}$ of the overall acreage is pastured at one time, the stocking rate for that area would be 4 x 3-5 cattle per acre or 12-20 cattle per acre.

Prepared by
Imperial County
Agricultural Extension Service
Staff
Revised August 1973