

annual
ryegrass pasture
sample costs
and
production



Agricultural Extension
University of California
Imperial County
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Cost Data Sheet No. 6

ANNUAL RYEGRASS PASTURE--PROJECTED PRODUCTION COSTS

Mechanical operations at custom rates. Labor at \$3.50 per hour (\$3.00 plus Social Security, Unemployment insurance, and fringe benefits).

OPERATION	Custom Rate	MATERIALS		HAND LABOR		SAMPLE COSTS Per Acre
		Type	Cost	Hours	Dollars	
LAND PREPARATION						
Disc 2x Deep	4.50					\$ 9.00
Fertilize	4.00	100# N	13.00			17.00
Border	4.50					4.50
Float 2x	4.00					8.00
TOTAL LAND PREPARATION						\$ 38.50

GROWING PERIOD

Plant	4.50	Seed 40# @ 18¢	7.20			11.70
Irrigate 1lx		3.5 ac ft	12.25	3.86	13.50	25.75
Fertilize 3x		200# N @ .13	26.00			26.00
GROWING PERIOD						\$ 63.45

GROWING PERIOD & LAND PREP COSTS

\$ 101.95

Land Rent (new lease)						80.00
Cash Overhead - 15% of growing, land prep and land rent						27.29
TOTAL PREHARVEST COST						\$ 209.24

Based on 700 pounds of beef produced per acre the cost per pound of gain would be:

29.89¢

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 150 days.

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

Ave. Daily Gain	Stocking Rate (Steers per Acre)													
	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	69.75	62.00	55.80	50.66	46.50	42.88	39.86	37.17	34.87	32.80	31.00	29.35	27.90	
1.1	63.41	56.40	50.66	46.09	42.27	39.04	36.20	33.80	31.70	29.85	28.16	26.69	25.36	
1.2	58.12	51.66	46.50	42.27	38.75	35.77	33.21	31.00	29.06	27.35	25.83	24.47	23.25	
1.3	53.65	47.66	42.88	39.04	35.77	33.00	30.64	28.62	26.83	25.24	23.83	22.60	21.46	
1.4	49.82	44.24	39.86	36.20	33.21	30.64	28.47	26.55	24.91	23.43	22.14	20.97	19.93	
1.5	46.50	41.35	37.17	33.80	31.00	28.62	26.55	24.79	23.25	21.89	20.66	19.57	18.60	
1.6	43.59	38.75	34.87	31.70	29.06	26.83	24.91	23.25	21.80	20.51	19.37	18.35	17.44	
1.7	41.03	36.45	32.80	29.85	27.35	25.24	23.43	21.89	20.51	19.30	18.23	17.28	16.41	
1.8	38.75	34.41	31.00	28.16	25.83	23.83	22.14	20.66	19.37	18.23	17.22	16.31	15.50	
1.9	36.71	32.64	29.35	26.69	24.47	22.60	20.97	19.57	18.35	17.28	16.31	15.45	14.68	
2.0	34.87	31.00	27.90	25.36	23.25	21.47	19.93	18.60	17.44	16.41	15.50	14.68	13.95	

GENERAL INFORMATION: The acreage and value for annual ryegrass pasture during the last four years are given below.

YEAR	ACRES	VALUE/ACRE
1971	21000	120.00
1972	27000	125.00
1973	29000	130.00
1974	17000	164.00

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 results. 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 40 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 consult your local farm advisor.

FERTILIZATION

Apply one hundred pounds of nitrogen as NH_3 preplant. Then apply fifty units of N as ammonium nitrate or NH_3 in the water after each pasturing or as needed. Approximately 200 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 nitrate 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 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 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 of 12 - 20 cattle per acre.

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Imperial County
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Revised September 1975

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Co-operative Extension work in Agriculture and Home Economics, Division of Agricultural Sciences, University of California and United States Department of Agriculture co-operating. Distributed in furtherance of the Acts of Congress of May 8, and June 30, 1914. J.B. Kendrick, Jr., Director, California Agricultural Extension