

PRODUCTION COST STUDIES IN SACRAMENTO
AND SOLANO COUNTY - 1984

GENERAL REMARKS

The following crop production studies represent an average cost estimate to assist growers in economic management of their individual enterprises. Individual line items per study represent the average regional cost to accomplish the task. In this study five major crops grown in the region were analyzed. Also included are cost of production estimates of three alternate or double crops. Since the two county regions encompass both mineral and organic soil types, cost estimates are also provided for corn and wheat grown on either soil type.

The intent of this study is to supply growers, lending institutions, consultants, chemical advisors, UC Farm Advisors, and all interested persons with information concerning potential returns and line item cultural costs. Actual cost will vary from farm to farm and from grower to grower, due to different soil types, operational size, types of equipment used, rotational patterns, salaries and wages, water costs, etc. Provided with each study is a blank column for growers to insert their own cost for each item. The cost estimates provided represent only annual cash cost for each crop. Provided, but not included, in the total cash cost per acre is an estimate of the non-cash cost encouraged in the farming enterprise.

The authors wish to express gratitude to those growers, industry personnel, and interested individuals who assisted in providing cost information and review of this study.

PARAMETERS

Hypothetical Farm Operation

Crop	Acres
Canning Tomatoes	500
Wheat	500
Sugar Beets	500
Corn	500
Alfalfa	300

TOTAL	2300

Alternate or Double Crops

Safflower	300
Grain Sorghum	300
Pink Beans	300

EQUIPMENT -- \$750,000 investment in new equipment depreciated in 10 years. Interest rate at 12%.

PRODUCTION LOANS -- \$750,000 at 14% with annual payback, three times per year.

LABOR -- Cultural labor at \$5/hr., Irrigation Labor at \$4/hr.

BUILDINGS -- 2 metal type including shop, 5 grain storage bins, 1 pole type, 1 employee house, misc. storage (chemicals, etc.). Estimated value at \$186,000, \$165,000 loan at 12% for 30 years.

REPAIRS AND MAINTENANCE -- Based on total farm operation with each crop being charged a proportionate share.

IRRIGATION -- Amounts are based on the average amount of water applied to each crop. Valued at \$12.00/acre foot.

SHARE RENTS -- For the purpose of this study it is assumed that all crops are grown on leased ground. The following table represents the average share rent percentages for each crop.

<u>CROP</u>	<u>% SHARE RENT</u>
Canning Tomatoes	18
Wheat	33
Sugar Beets	20
Corn	25
Alfalfa	25
Safflower	25
Grain Sorghum	25
Pink Beans	20

INTEREST RATES -- Based on average rates charged by loan institutions as of August 1984. Included are variable rate loans that would change at pay-off time.

MANAGEMENT SALARY -- Owner/management income is calculated at \$50,000/year plus \$20,000 in benefits.

NOTE: This cost study was computed on a modification of the Crop Management System program supplied by PD, Inc., Fairfield, Ca.

1984 SAMPLE COST TO PRODUCE GRAIN SORGHUM

SOIL REQUIREMENTS - On highly productive organic and mineral soils as well as deeper upland soils.

PLANTING DATES - Main season is May 10 to June 15; double crop between June 15 and July 15. Soil temperature at planting depth should be over 65F. Poor polination can occur from night time tempatuers below 40F.

HARVEST DATES - September 15 to December 15.

VARIETIES - Check with your seed rep or local UC Farm Advisor for current recommendations for your area.

SEEDING RATES - Full season, 15 to 18 lbs/ac. Early maturing varieties for late plantings, 8-25 lbs/ac.

FERTILIZER - Organic soils 30-45 lbs P205/acre. Mineral soils, starter with N(P(and K if soil is very P deficient, 100 to 150 lbs N pre plant plus 30 to 45 lbs P205/acre.

IRRIGATION - 1.5 to 2 acre feet of water needed. On organic soils sub-irrigate. On mineral soils sprinkle, flood or furrow irrigate. Three to five irrigations needed.

WEED CONTROL - Cultivate 2 to 4 times. 2,4-D may be used for broadleaf weeds. Atrazine + oil is recommended for early post-emergence for both water grass and broadleaf weeds.

INSECT CONTROL - Greenbug can be a severe problem, especially when sorghum is young. Can be contolled with Systox or Di-Syston. Control not as essential once plants head out. Some varieties have greenbug resistance.

DISEASE CONTROL - Head smut - resistant varieties. Root rot and lodging - avoid moisture stress, especially in salt and alkali areas, use adapted varieties.

SAMPLE COSTS TO PRODUCE GRAIN SORGHUM

TYPE OF CROP.....= GRAIN SORGHUM	NUMBER OF ACRES.....= 300
YIELD PER ACRE....= 3 TONS	MARKET VALUE PER TONS..= 125
GROSS INCOME.....= 112,500.00	GROSS INCOME/ACRE.....= 375.00

EXPENSES

TYPE	PER ACRE	TOTAL	CHANGES
CULTURAL FUEL COSTS			
Stubble Chop	0.57	171.00	-----
Disc 2x	2.20	660.00	-----
Plow	2.75	825.00	-----
Level Plane 2x	2.72	816.00	-----
Preplant Nitrogen	0.75	225.00	-----
Floot/Harrow/Roll	0.75	225.00	-----
Plant	1.00	300.00	-----
Cultivate 2x	0.80	240.00	-----
Herb. Incorporate	2.22	666.00	-----
Drain Maintenance	5.00	1,500.00	-----
TOTAL ***	18.76	5,628.00	-----
IRRIGATION			
Irrigation 5x/#12/ Open/Close Ditches	36.00	10,800.00	-----
	2.00	600.00	-----
TOTAL ***	38.00	11,400.00	-----
CHEMICALS			
Nitrogen 150 lb/ac	34.50	10,350.00	-----
Atrazine+Oil/air	12.77	3,831.00	-----
Di-Syston/air	12.07	3,621.00	-----
Starter 6-20-20	46.50	13,950.00	-----
TOTAL ***	105.84	31,752.00	-----
HARVEST			
Combine (Fuel)	2.80	840.00	-----
Hauling (#5.50/T)	16.50	4,950.00	-----
TOTAL ***	19.30	5,790.00	-----

