

BARLEY COST ANALYSIS WORK SHEETS, FRESNO COUNTY - 1960

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Barley in Fresno County is the most important grain crop. It is produced in all areas of the county. Because of the widely variable conditions under which barley is grown, no one method of soil preparation, irrigation and management is applicable throughout the county.

The cultural practices and tools used will vary with soil type, crop sequence, rainfall and terrain. On the westside of the county, large acreages are planted following cotton with a minimum of land preparation. On the eastside foothill area, barley is dry-farmed. Cost analysis work sheets were prepared representing four methods of management practices in barley production.

Over 90% of the barley acreage in Fresno County is planted with California Mariout. It is a very early maturing variety with blue kernels.

Other varieties planted are:

Arivat a white seeded variety, medium early in maturity.

Blanco Mariout very similar to California Mariout except it is white seeded.

Barley is a cool weather crop. To obtain maximum yields in Fresno County, it should be planted between the second half of November through the first half of January. It can be broadcast, by aircraft or endgate seeders; or planted with a grain drill to a depth of $\frac{1}{2}$ to $1\frac{1}{2}$ inches. The seed should be treated with a fungicide such as Ceresan M, liquid Ceresan or Panogen according to manufacturer's recommendations.

Seeding rates of 60 to 100 lbs. per acre are commonly used. Late plantings and broadcast seeding will require the higher rates. When drilled early winter, 60 lbs. per acre is adequate.

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The most serious limiting factor in barley production in Fresno County is lack of moisture at critical times in the development of the plant.

Barley dry-farmed is at the mercy of the elements. The field is cropped alternate years and if rainfall or moisture conditions are favorable, yields of 1,800 to 2,500 lbs. per acre can be expected. During the fallow year, the field should be kept free of weeds to conserve moisture for the crop year. Under irrigation the amount of water to use and the timing will depend on the soil type and rainfall. A pre-irrigation, wetting the soil to a depth of 4 to 5 feet is desirable. If only one crop irrigation is planned, it should be applied at late jointing or when the plants are in the boot stage.

Fertilization of barley should be governed by the fertility of the soil, cropping sequence and rainfall or irrigation. Under dry-farm management, 20 to 30 lbs. of actual nitrogen per acre has given economical response. Irrigated barley produced the most economical yields when fertilized with 60 to 70 pounds of actual nitrogen per acre. The application of phosphorus may be profitable in some areas.

Black mustard, London rocket, wild radish, fiddleneck and wild oats are troublesome weeds in many areas of the county. Through proper rotation and management, weed problems can be minimized. For broadleaf weed control, 2,4-D or MCP at $\frac{1}{2}$ to $\frac{3}{4}$ lbs. active chemical per acre is recommended.

Yields as well as cost of production of barley will vary greatly from farm to farm. Land values, taxes, water and labor costs vary from one area of the county to the other. Hauling cost is influenced by the location of the field to the storage site.

Four sample cost analysis work sheets were prepared, and it is hoped that it will be useful when planning a cropping program, to estimate needed cash and to make production cost comparisons between two or more crops. In the preparation of this cost analysis work sheet, we assumed that good management practices were followed.

C O S T A N A L Y S I S W O R K S H E E T

Dry Land Barley, Fresno County, 1960

Sample costs to produce non-irrigated barley based on a yield of 1,800 lbs. per acre produced every other year. Man labor at \$1.05 per hour and equipment operator at \$1.30. Heavy tracklayer and medium powered wheel tractor.

	Sample Costs	My Costs
	per acre	per cwt
PRE-HARVEST CASH AND LABOR COSTS:		
<u>Crop year:</u>		
Disc: 2 times at 6 acres/hr./time, 1/3 hr. man & heavy tractor	1.32	
Plant: 4 acres/hr. ← Seed 80 lbs. at \$3.50 cwt	2.80	
Planting 1/2 hr. man & medium tractor	.65	
Fertilize: 20 lbs. N from dry material source	2.70	
1/6 hr. man & medium tractor	.43	
Taxes & misc. operating expenses	2.25	
<u>Fallow year:</u>		
Disc: 2 times at 6 acres/hr., 1/3 hr. man & heavy tractor	1.32	
Taxes	1.25	
Total Pre-Harvest Cash and Labor Costs	\$12.72	\$.71
HARVESTING COSTS:		
Custom harvest at \$3.50/acre plus 10¢/100 lbs. over the first 1,000 lbs./acre	4.30	
Hauling: Field to storage at \$1.50/ton	1.35	
Total Harvesting Costs	\$ 5.65	\$.31
TOTAL CASH AND LABOR COSTS	\$18.37	\$1.02
DEPRECIATION:		
Heavy tractor: 2/3 hr. at \$1.78	1.18	
Wheel tractor: 1/2 hr. at \$1.08	.27	
Equipment except tractors	.75	
Total Depreciation	\$ 2.20	\$.12
INTEREST ON INVESTMENT AT 6%:		
Heavy tractor: 2/3 hr at \$.80	.53	
Wheel tractor: 1/2 hr. at \$.30	.08	
Equipment except tractors	.30	
Land at \$100.00	6.00	
Fallow year: Land at \$100.00	6.00	
Total Interest on Investment	\$12.91	\$.72
TOTAL COSTS OF PRODUCTION	\$33.48	\$1.86

Cost of Production Per 100 Lbs. at Varying Yields

Yield per acre	1400 lbs	1600 lbs	1800 lbs	2000 lbs	2200 lbs	2400 lbs	2600 lbs
Cost per cwt	\$2.34	\$2.08	\$1.86	\$1.68	\$1.56	\$1.45	\$1.35