

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

Irrigated Barley Planted in Disc'd Cotton Land
Fresno County, 1960

Sample costs to produce irrigated barley in Fresno County following cotton, with minimum land preparation. Based on a yield of 3,000 lbs. per acre produced with two sprinkler irrigations.

	Sample Costs	My Costs	
	per acre	per cwt	per acre
		per cwt	per cwt
PRE-HARVEST CASH AND LABOR COSTS:			
Disc cotton field; 2 times at 3 acres/hr, 2/3 hr. man & heavy tractor	2.64		
Fertilizer: 60 lbs. N at 7¢ applied	4.20		
Plant: 4 acres/hr. - 100 lbs. seed at \$3.50 cwt	3.50		
1/4 hr. man & medium tractor	.65		
Irrigate: 2 times with sprinklers, apply 12" of water per time, power for 2 ft. of water at \$8.50	17.00		
Taxes: 50% of \$5.00	2.50		
Repairs to equipment except tractors	.50		
Misc. operating expenses	1.50		
Total Pre-Harvest Cash and Labor Costs	\$34.49	\$1.08	
HARVESTING COSTS:			
Custom harvest at \$3.50/acre plus 10¢/hundred lbs. over the first 1,000 lbs.	5.50		
Hauling: Field to storage at \$1.50 per ton	2.25		
Total Harvesting Costs	\$ 7.75	\$.26	
TOTAL CASH AND LABOR COSTS	\$40.24	1.34	
DEPRECIATION:			
Heavy tractor: 2/3 hr. at \$1.78	1.18		
Medium tractor: 1/4 hr. at \$.60	.15		
Equipment except tractors	.55		
Sprinkler Irrigation equipment: 1/4 of \$150.00 ÷ 10	3.75		
Well	1.25		
Total Depreciation	\$ 6.88	\$.23	
INTEREST ON INVESTMENT AT 6%:			
Heavy tractor: 2/3 hr. at \$.80	.54		
Medium tractor: 1/4 hr. at \$.30	.08		
Equipment except tractors	.10		
Irrigation system	4.50		
Well	2.50		
Land at \$300.00: 1/3 of annual cost	6.00		
Total Interest on Investment	\$13.72	\$.46	
TOTAL COSTS OF PRODUCTION	\$60.84	\$2.03	

Costs of Production Per Cwt. at Varying Yields

Yield - pounds per acre	2000	2500	3000	3500	4000	4500
Cost per cwt	\$2.95	\$2.40	\$2.03	\$1.76	\$1.57	\$1.41