

IRRIGATED CEREAL GRAIN PRODUCTION  
WESTERN RIVERSIDE COUNTY

The small grains - barley, wheat, and oats - are flexible crops and will grow on nearly any soil or under any situation suitable for any other type of crop. They are used in rotation with vegetables as "clean-up" crops. Grain is tolerant of alkali soils - especially California Mariout barley - and, in fact, is often used in early stages of land reclamation.

Yields vary widely, depending on management and soil. Over 4,000 pounds of barley per acre has been secured on better soils, with good fertility and adequate irrigation.

Grain can be planted following fall potatoes and previous to blackeye beans or hybrid field corn for silage. Grain hay can be made and harvested previous to planting hybrid field corn for grain.

PLANTING: Slightly different from dry-land recommendations.

Varieties: Barley: California Mariout, Arivat, and Atlas 46 are recommended.  
Wheat: Ramona 50, White Federation 38.  
Oats: Kanota oats are recommended. Ventura oats are also used but are not as productive and are susceptible to barley yellow dwarf disease.

Date: Irrigated grain is usually planted starting about November 15. However, Ramona 50 wheat or California Mariout barley should not be planted before December 15. Kanota oats or California Mariout barley are suggested where plantings must be made after January 15. Where possible, seed should be planted into moist soil. Depths of planting may vary from one inch to two and one-half inches.

FERTILIZER: Whenever grain follows grain with no legume between crops, 40 to 60 pounds of nitrogen per acre may be required for maximum yields. (60 to 80 pounds of nitrogen following milo or Sudan.) Grain following a heavily fertilized vegetable crop or, with exceptions, alfalfa, may need no fertilizer applications. Phosphate is needed on a few western Riverside County soils but is generally applied to the higher value crops in rotation with the grain.

IRRIGATION: In western Riverside County, rainfall is depended upon to supply a part of the water. Irrigation water may be applied before planting, and/or supplemental to the rain in the spring. It is desirable to have a good moisture supply in the soil from heading to maturity. A total of six to 12 acre inches may be applied in addition to rainfall.

DISEASES: Seed should be treated with Ceresan M for control of seedling diseases, smut of barley and wheat, and stripe of barley. There is no control for barley yellow dwarf disease.

WEED CONTROL: 2,4-D from six to 12 ounces acid equivalent per acre is used between the time the grain tillers and before heading. For tough weeds, the ester form of 2,4-D is used up to eight ounces per acre. Do not use the ester forms, however, if the amine or sodium salt forms will do the job. MCP, though more expensive, is safer than 2,4-D.

IRRIGATED CEREAL GRAIN  
IN  
WESTERN RIVERSIDE COUNTY -- 1959

SAMPLE COSTS OF PRODUCTION

Based on a yield of 3,500 pounds grain (barley) per acre.

	LABOR & EQUIP- MENT COST/Acre	MATERIALS KIND & COST/Acre	TOTAL COST/Acre
Disc-2x	\$ 3.00		\$ 3.00
Harrow (spring or spike)-1x	1.00		1.00
Furrow for pre-irrigation-1x	1.50		1.50
Pre-irrigate-1x <sup>1</sup>	1.25	4 in. water \$ 5.00	6.25
Plant	1.50	85 lbs. seed 4.25	5.75
Fertilize <sup>2</sup>		60 lbs. N 7.80	7.80
<b>TOTAL LAND PREPARATION AND PLANTING</b>			<b>\$ 25.30</b>
Irrigate-2x	3.00	8 in. water 10.00	13.00
Weed control-contract		2,4-D	2.50
<b>TOTAL GROWING PERIOD</b>			<b>\$ 15.50</b>
<b>TOTAL CULTURAL COST</b> (Land preparation, planting, plus growing period)			<b>\$ 40.80</b>
Rent - 1/2 year basis			18.75
Cash overhead (Office, car, phone, insurance, etc.)			6.00
<b>TOTAL CASH OVERHEAD</b>			<b>\$ 24.75</b>
<b>TOTAL CASH PREHARVEST COST</b>			<b>\$ 65.55</b>
<b>Harvest</b>			
Combine for bulk handling			8.00
Haul			3.50
<b>TOTAL HARVEST COST</b>			<b>\$ 11.50</b>
<b>TOTAL ALL COSTS</b>			<b>\$ 77.05</b>
<b>TOTAL COST PER 100 POUNDS</b>		<b>\$2.20</b>	

1 - Following potatoes and early rainfall, pre-irrigation may often be omitted.

2 - Fertilizer may usually be omitted or reduced after potatoes or alfalfa.

The above sample costs are based primarily on contract rates which include interest on investment and depreciation on equipment used. Efficient owner-operators will usually perform these operations for less than the above costs.

**PRICES:** The range in F.O.B. price per 100 pounds of grain reported by the Agricultural Commissioners' office from 1952 to 1958 are as follows:

Barley - \$2.19 (1957) to \$3.39 (1952); Wheat - \$2.92 (1958) to \$3.81 (1952); Oats - \$2.45 (1957) to \$3.70 (1952).

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