

— cereal —

crops

sample costs

and

production



University of California
Agricultural Extension Service
Imperial County
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Cost Data Sheet No. 16

BARLEY, OATS, WHEAT--SAMPLE PRODUCTION COSTS
Costs based on custom rates and 1½ tons per acre yield

GENERAL INFORMATION

The foregoing sample costs are based on average production practices where grain follows grain or a short season summer crop. If the cereal crop follows cotton or early lettuce, the costs would be considerably less. For example, subsoiling (\$6.50), and mulching (\$2.50) could be eliminated, and fewer irrigations and less fertilizer would be required.

As yields increase, costs per cwt. decrease; e.g., at yields of 1½ tons the cost would be \$2.71 per cwt., and at 2 tons \$2.09 per cwt. (If costs for labor; land preparation, and materials remain constant.)

LAND PREPARATION

Where grains are to be planted in the mulch, the practice is to subsoil, border, and irrigate. Later disc, float, fertilize, disc, and float-corrugate. Next apply the pre-mulch irrigation and when dry enough, re-run borders, mulch, and plant.

PLANTING DATES, RATES, AND DEPTH

Optimum planting date for yields of grain are between November 25th and December 15th. Rates of seeding average 90 pounds per acre. November plantings, under optimum conditions, have been successful at 50 pounds per acre, but February and March plantings should be at 100 to 120

pounds per acre due to lack of tillering on late planted grain.

Seed should not be planted deeper than 3 to 4 inches if planted in the mulch. If the crop is to be irrigated up, shallow planting is best. This can be done by releasing all the tension on the seed furrow openers of the drill.

VARIETIES

Recommended varieties of barley are California Mariout, Blanco Mariout, Arivat, and Rojo. Rojo is difficult to thresh.

Indio, Curt, and Palestine oats are equal in yield performance. Kanota is recommended only for pasture or coarse hay.

Ramona 50 is the only wheat variety which yields consistently well.

FERTILIZATION

Imperial Valley soils usually contain sufficient phosphates for grain production. Cereals generally need added nitrogen at rates of 100 to 120 pounds per acre, depending on the previous crop. All nitrogen should be applied by the time stem elongation takes place. All sources of nitrogen are about equal if properly placed.

ITEMS	SAMPLE COSTS	
	Per Acre	Per Cwt.
LAND PREPARATION AND LABOR		
Subsoil or chisel 1x	\$ 6.50	
Disc 2x	4.00	
Border 1x	1.00	
Float 2, or float 1x and float-corrugate 1x	3.50	
Fertilize 1x (inject NH ₃ or spread dry formulations)	1.75	
Mulch 1x	2.50	
Plant	2.50	
Re-run borders 1x	.50	
Irrigate 8x (2x are ahead of planting)	6.00	
Ditch maintenance & miscellaneous	2.00	
TOTAL LAND PREPARATION & LABOR	\$ 30.25	\$ 1.21
MATERIALS		
Water (2.25 acre ft. @ \$2 per acre ft.)	4.50	
Fertilizer (100 lbs. of N as NH ₃ @ .06/lb)	6.00	
Seed (90 lbs. barley @ \$4.50/cwt.)	4.05	
TOTAL MATERIALS	\$ 14.55	\$.58
TOTAL PRE-HARVEST COSTS	\$ 44.80	\$ 1.79
HARVESTING		
Combine (\$3.00 per acre plus 10¢ per cwt. over 1 ton)	8.25	
Haul (\$2.25 per ton up to 15 miles)	2.75	
TOTAL HARVESTING	\$ 11.00	\$.49
CASH OVERHEAD (10% of above costs)	5.58	.23
LAND RENT	20.00	.80
TOTAL ALL COSTS	\$ 81.38	\$ 3.31

*Seed costs of oats and wheat average \$2 per cwt. more than for barley.

IRRIGATION

Pre-mulch irrigations should be heavy. Subsequent irrigations need be only sufficient to maintain good growth. Cereal crops should not be permitted to wilt after the jointing stages is reached, and irrigations should continue to the "stiff dough" stage.

In late planted cereals to be irrigated up, the first irrigation should be of short duration. Follow-up irrigation should not be made until after grain has emerged.

PESTS

Weed and insect pests occasionally reduce cereal crop yields. Costs for their control have not been included because they are not widespread practices. Chemical weed control costs \$3.50 per acre and one application of insecticides for aphid control costs from \$2.50 to \$3.00.

HARVESTING

Harvesting is by direct combine, and grain is dumped bulk into trucks which haul to the elevators. Combining usually begins in April and extends into May.

YIELDS

Seed yields per acre in 1960 averaged as follows: barley 2600 lbs., oats 2400 lbs., and wheat 2800 lbs. Yields over 3 tons of barley have been reported but are uncommon.

CONCLUSIONS

Unless some of the operations listed on page 2 can be eliminated, or the cost of some operations can be reduced, or better than average yields can be obtained, you cannot afford to grow barley, oats, or wheat. However, there is very little difference in expense to produce a 2-ton crop over the cost of producing $1\frac{1}{4}$ tons.

Yields in excess of 2 tons are not difficult to obtain, and at this point returns per acre begin to exceed costs of production.

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