# DRY-FARMED CEREAL GRAIN - WESTERN RIVERSIDE COUNTY

Yields of dry-farmed cereal grain vary widely from year to year and from place to place in western Riverside County. During average rainfall years, yields of 1,000 to 1,500 pounds of barley per acre are produced in the San Jacinto Basin area on good land and more in higher rainfall areas such as the Beaumont-Banning area. Wheat and oats generally yield lower than barley but usually command a higher price. Most dry-farmed grain is farmed on a summer fallow system (one crop every other year).

SOILS - Sandy loam or finer textured soils are preferred to sands. Although barley, especially California Mariout and related cultivars, are more salt tolerant than other crops, yields may be reduced on saline soils.

LAND PREPARATION - The typical operation (except where stubble mulch tillage will be used) for summer fallowed grain is to disc in order to lay down the straw in the fall following harvest in previous summer. Plowing or chiseling is normally done in the spring when the soil is moist. Discing following the plowing and several rod-weedings over the summer period are used to eliminate summer growing weeds. Following rains, the ground is harrowed previous to drilling the seed.

PLANTING

Varieties: Barley - California Mariout and Arivat have been the most popular varieties but are being replaced with CM-67, Briggs, and Numar. Wheat - Siete Cerros 66 has shown better yields in UCR-Moreno station trials than the formerly popular Ramona 50 and White Federation 38. Oats - Kanota has been the most popular variety but Montezuma - a low shatter variety - has shown superior yields and equal quality in recent tests.

Dates: Plantings begin in November, usually following the first good rains, and should be completed by mid-December. Avoid planting California Mariout barley or Ramona 50 wheat before December where late spring frosts are likely to occur.

Rates: Seventy to eighty-five pounds per acre is the usual range for barley, sixty to seventy pounds for wheat, and seventy to eighty-five pounds of oats per acre for grain.

Method: Planting two to two and one-half inches deep to moist soil is preferred. When planting in wet soil, the more shallow the planting the better (1 to 1-1/2 inches). Seed should be treated to avoid seedling diseases and smut.

FERTILIZATION - Nitrogen applications following GOOD summer fallow conditions have not given consistent increases in yields except in very wet years. Thirty pounds of actual nitrogen from ammonia sources, i.e., sulfate of ammonia, should be applied to grain following grain two or more years consecutively. Phosphate has increased yields on dry-farmed grain in test plots in some parts of Murrieta and the north slopes of the San Jacinto river basin. Twenty to thirty pounds of $P_2O_5$ per acre should suffice on soils where phosphate is needed.

WEED CONTROL - Most broad-leaved weeds can be controlled with 2,4-D and other chemicals, but chemicals must be carefully timed and used to avoid injury. Consult your farm advisor for the latest University of California approved recommendations. Permits to use 2,4-D and related chemicals must be obtained from the Agricultural Commissioner's Office.

# DRY FARMED CEREAL GRAIN
## WESTERN RIVERSIDE COUNTY - 1973
## SAMPLE COSTS OF PRODUCTION

Based on a yield of 1500 pounds of barley per acre; summer fallow system (every other year production). Labor at $2.50/hr (including workmen's compensation and social security); 100 hp wheel diesel tractor at $2.50/hr, 40 hp wheel diesel tractor at $1.50/hr.

| Operations | Hrs/ Acre | Labor Cost | Equip Cost | Material Kind | Material Amount | Cost/ Acre | Total Cost/Acre |
|---|---|---|---|---|---|---|---|
| Plow (or chisel) 1X | 0.34 | 0.85 | 1.53 | | | | $ 2.38 |
| Disc 2X | 0.28 | 0.70 | 1.40 | | | | 2.10 |
| Rod Weed 3X | 0.3 | 0.75 | 0.35 | | | | 1.10 |
| Harrow (Spike) 1X | 0.12 | 0.30 | 0.30 | | | | 0.60 |
| Plant 1X | 0.12 | 0.30 | 0.89 | Seed | 75 lbs | $3.00 | 3.89 |
| Weed Control (Contract) Materials +Application | | | | | | | 2.50 |
| TOTAL CULTURAL COSTS | | | | | | | $12.57 |
| Combine (bulk) | 0.31 | 0.78 | 1.81 | | | | 2.59 |
| Haul 1500 lbs Contract at $2.50/ton | | | | | | | 1.87 |
| TOTAL HARVEST COST | | | | | | | $ 4.46 |
| Cash Overhead (office, accounting, auto, insurance, etc.) | | | | | | | 1.70 |
| County taxes (on equipment only) | | | | | | | 0.65 |
| Cash rent (2 years per crop at $5.00/yr) | | | | | | | 10.00 |
| TOTAL CASH RENT & OVERHEAD | | | | | | | $12.35 |

| | Investment Per Acre | Depreciation | Interest (at 7% of 1/2 original cost | |
|---|---|---|---|---|
| Buildings | $15.00 | $0.50 | $0.52 | |
| Tractors & Equipment | 52.00 | 5.20 | 1.92 | |
| | $67.00 | $5.70 | $2.44 | |
| TOTAL DEPRECIATION & INTEREST ON INVESTMENT | | | | $ 8.14 |
| TOTAL COST PER ACRE | | | | $37.52 |
| TOTAL COST PER 100 POUNDS | | | | $ 2.50 |

Prices per cut during the period of 1968-1973 inclusive, as reported by the Agricultural Commissioner's Office, have ranged as follows:

| | | |
|---|---|---|
| Wheat | $2.40 (1968) | $5.09 (1973) |
| Barley | 2.20 (1968) | 4.70 (1973) |
| Oats | 2.90 (1965) | 5.72 (1973) |



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