

HYBRID FIELD CORN PRODUCTION FOR SILAGE
WESTERN RIVERSIDE COUNTY

Hybrid corn for ensilage has been grown on a relatively small acreage in western Riverside County, reaching, however, an acreage of about 3,500 in 1960. Recent experience has shown that with good management, 25 to 30 tons per acre of good quality ensiling corn can be produced.

SOILS: Sandy loam or heavier soil is preferred. Sandy soils are difficult to keep sufficiently wet. Alkali soils should be avoided.

PLANTING: Varieties: A large number of varieties have proven satisfactory for silage production. The variety selected by growers is dependent to a large extent upon those desired by livestock men when the grower plans to sell the crop.

Dates: Begin May 1. Poor ear production has been secured from plantings made after the 15th of June, especially with long season corns.

Land Preparation: The land should be pre-irrigated and to retain moisture should be worked into final seedbed preparation as soon as possible. Seed should be planted 2 to 3 inches deep into moist soil. Some plantings are made in a lister furrow and irrigated several times before re-furrowing.

Method: Plant about 20,000 to 25,000 seeds per acre. The pounds of seed per acre to do this depends on the grade and will vary from 12 to 18 pounds per acre. An expected mortality of 15 to 20 per cent will usually reduce the total plants per acre. Although row spacings of from 30 to 40 inches are used, the actual spacing chosen will depend upon the cultivation and harvesting equipment which will be used. In western Riverside County 32 inches is a popular spacing. Be sure to check with your commercial harvest contractor where the harvesting will be done by a commercial operator.

FERTILIZERS: A 20 to 30 ton corn silage crop will use about 160 pounds or more of nitrogen per acre. This much nitrogen is rarely in the soil even following a crop of alfalfa, and only a portion of the total fertilizer requirement after some heavily fertilized vegetable crops. Fertilizer should be applied at or soon after planting. On light soils, the second half of the total fertilizer requirement may be side-dressed previous to or shortly after the first irrigation.

IRRIGATION: An IMPORTANT RULE is: Never let corn run short on water. On some soils, irrigation may be needed every 7 to 10 days, especially from tasselling until the corn kernels begin to dent. Flat irrigation runs are desirable to permit thorough wetting of the corn ridge. Broad furrows are often useful in this regard. Under an ideal irrigation design, 2 to 2½ acre feet per acre may be adequate but on many soils, 3 or more acre feet may be necessary.

HARVESTING: Silage corn is harvested with row field chopping equipment. The recommended stage of harvesting is during the dent stage, but to complete harvesting of a large field, it may sometimes be necessary to begin in the early dent stage.

HYBRID FIELD CORN FOR SILAGE
IN
WESTERN RIVERSIDE COUNTY -- 1961

SAMPLE COSTS OF PRODUCTION

Based on a yield of 20 or 30 tons of silage per acre with water at \$10 or \$20/acre ft.

	LABOR & EQUIP- MENT COST/Acre	MATERIALS KIND & COST/Acre	TOTAL COST/Acre
Disc-2x	\$ 3.50		\$ 3.50
Furrow for pre-irrigation	1.50		1.50
Pre-irrigate	1.50		1.50
Plant & fertilize-one operation	2.00	15 lbs. seed \$ 3.75 80 lbs. N 11.20	16.95
TOTAL LAND PREPARATION AND PLANTING			\$ 23.45
Furrow & cultivate-1x	1.50		1.50
Cultivate-1x	1.50		1.50
Fertilize (side-dress with cultivation)-1x	1.50	80 lbs. N 11.20	12.70
Irrigate-10x	12.50	3½ ft. water @\$10/acre ft. 35.00	47.50
TOTAL GROWING PERIOD			\$ 63.20
TOTAL CULTURAL COST (Land preparation, planting, plus growing period)			\$ 86.65
Rent - 1/2 year basis			25.00
Cash overhead (Office, car, phone, insurance, etc.)			4.33
TOTAL CASH OVERHEAD			\$ 29.33
TOTAL CASH COST	20	30	
PREHARVEST PER TON)	Water @\$10/ac. ft. \$5.80	\$3.87	Per Acre \$ 115.98
	Water @\$20/ac. ft. 7.55	5.03	150.98
Harvest		20 Ton Yield	30 Ton Yield
Chop for Silage)			
Short Haul to Pit)	2.50/ton	50.00	75.00
(Less than 5 miles))			
Packing, etc.)			
TOTAL ALL COSTS (Cash Preharvest Cost plus Harvest Costs)			
Water @ \$10/acre ft.		\$ 165.98	\$190.98
Water @ \$20/acre ft.		200.98	225.98
TOTAL COST PER TON -			
Water @ \$10/acre ft.		\$ 8.30	\$ 6.37
Water @ \$20/acre ft.		\$10.05	\$ 7.53

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. Also, some land and cultural operations may be omitted on occasion.

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