

HYBRID FIELD CORN FOR SILAGE AND GRAIN  
DESERT VALLEYS RIVERSIDE COUNTY

Acreage in the Palo Verde Valley the last five years has ranged from 1,000 to 1,300 acres. Coachella Valley acreage has ranged from 120 to 1,800 acre. Tests by the Agricultural Extension Service in the Palo Verde and Coachella Valleys and field plantings in both valleys have shown that field corn may yield up to 100 bushels of corn per acre. However, results have not been consistent and insect control is a serious problem. More experience and test work is necessary before corn can be recommended as a grain crop. Field corn does appear to have a definite place in our valley agriculture as a spring silage crop. With good soils and intensive management 30 ton yields are obtained.

SOILS AND WATER: Corn prefers medium to heavy soils. Very light, sandy soils should be avoided. Also corn is not tolerant to alkali. Irrigation of field corn should receive special attention, especially from tassel to the dent stage. During hot weather, corn may need irrigation every five days. Stop watering after the kernels are in the dent stage.

GRAIN VARIETIES: No one variety has been consistently best. However, some of the varieties that have done reasonably well are: Ferry Morse, Funk G-29, Pfister 383, K-3A, Pioneer 352, DeKalb 1002, and Texas 30.

SILAGE VARIETIES: The late maturing varieties, such as Texas 30, Funk G-779, Mexican June, Pfister 484, have produced good yields of silage. As a general rule the later maturing varieties are the highest yielders. For every 10 days longer maturing, the yield gain will be one-quarter ton per acre.

TIME OF PLANTING: Four years tests and observations indicate that for a spring planting, February 10 to March 1 is best for both silage and grain. Fall plantings are not recommended because of heavy insect damage.

LAND PREPARATION AND PLANTING: Disc land two ways, list, pre-irrigate, harrow down ridges. Plant seed 2 to 2½ inches deep into moist soil. If planting for silage, set planter so that an average of one seed drops every four to five inches. For grain, the spacing in the row should be seven to eight inches apart. Row spacing should be 36 to 42 inches.

FERTILIZER: Corn is a heavy nitrogen user needing up to 200 pounds or more of actual nitrogen. Amount depends on history of ground. At least a part of the nitrogen should be applied early. Many growers like to broadcast and disc in 200 to 300 pounds of 16-20 prior to listing. Remaining applications are then applied by side-dressing or injecting either once or twice before corn tassels.

HARVESTING: Most harvesting for grain is now being done with a two-row mechanical corn picker. Some pickers are equipped with a sheller and the corn can be handled in bulk. Corn can be picked at 20 per cent moisture, but for safe storage should be down to 14 per cent. For silage, the corn should be harvested in the hard dough or dent stage. There are self propelled two-row silage cutters on the market. Most growers prefer to hire contract cutters to harvest the crop rapidly. Better silage can be made easier with rapid harvesting putting large volumes of material into the silo to prevent long exposure to the air.

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IN  
DESERT VALLEYS RIVERSIDE COUNTY -- 1959

SAMPLE COSTS OF PRODUCTION

Based on a yield of 22 tons per acre and 1/2 year land utilization.

	LABOR & EQUIP- MENT COST/Acre	MATERIALS KIND & COST/Acre	TOTAL COST/Acre
Disc-2x	\$ 4.50		\$ 4.50
Harrow-1x	1.00		1.00
List-1x	2.50		2.50
Pre-irrigate	.40		.40
Plant	2.50	15 lbs. seed \$ 2.55	5.05
Fertilize	2.00	100 lbs. N 10.00	12.00
<b>TOTAL LAND PREPARATION AND PLANTING</b>			<b>\$ 25.45</b>
Cultivate-3x	4.50		4.50
Fertilize (side-dress)	2.00	100 lbs. N 10.00	12.00
Irrigate-10x	4.00	Water. 1/2 yr. 6.00	10.00
Ditch work	1.00		1.00
<b>TOTAL GROWING PERIOD</b>			<b>\$ 27.50</b>
<b>TOTAL CULTURAL COST</b>			<b>\$ 52.95</b>
(Land preparation, planting, plus growing period)			
Taxes - 1/2 year			3.00
Cash overhead (Office, car, phone, insurance, etc.) - 1/2 year			5.25
Depreciation on buildings and equipment - 1/2 year			1.00
Interest on investment on land, buildings, and equipment - 1/2 year			18.50
<b>TOTAL CASH AND NON-CASH OVERHEAD - 1/2 year</b>			<b>\$ 27.75</b>
<b>TOTAL PREHARVEST COST</b>			<b>\$ 80.70</b>
<b>Harvest</b>			
Cutting			1.13
Hauling (up to 5 miles)			1.12
<b>TOTAL HARVEST COST</b>			<b>\$ 2.25</b>
<b>TOTAL ALL COSTS</b>			<b>\$ 82.95</b>
<b>TOTAL COST PER TON</b>		<b>\$3.77</b>	

The above sample costs are based on contract rates and include interest on investment and depreciation on equipment.

**PRICES:** The above reflect total costs which would be incurred by an owner to get corn silage into his own trench silo. If the crop is sold for silage, current average farm prices in the Palo Verde Valley are about \$4 per ton standing in the field; the buyer would pay the harvesting costs.

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