

## CORN SILAGE PRODUCTION

### PALO VERDE VALLEY - RIVERSIDE COUNTY

Corn silage acreage in the Palo Verde Valley has ranged from 1,000 to 2,500 acres during the past four years. Because of its high yield of good quality silage, corn silage is grown in preference to sorghum silage for an early silage crop.

SOILS: Corn grows well on medium to fine textured soils and does poorly on sandy or alkaline soils.

LAND PREPARATION: Corn is often planted flat or on very low beds so soil can be thrown to the young plants to cover weeds during the second cultivation. As corn is not sensitive to excessive water, but requires generous amounts of water, fields for field corn production need to be level enough to furrow-irrigate but need not be over-leveled. The soil should be chiseled or plowed before planting to insure deep water penetration but excessive tillage or tillage beyond that necessary to establish a stand may cause undesirable soil compaction.

VARIETIES: Texas 30 has been universally accepted. Funk G711aa shows promise.

PLANTING: Corn is planted in the moisture between February 10 and March 1. Later plantings are insect damaged. Corn does not come up well when planted dry and irrigated up. About 12 pounds of seed 2 inches deep in the moisture on 40 inch centers is recommended. Interplanting sorghum with corn shows great promise for producing a second crop in the fall.

FERTILIZER: Two hundred or more pounds of nitrogen applied one-half at planting and the rest before tasseling is a good practice. Frequent applications are better for sandy soils. When needed 0 to 60 pounds  $P_2O_5$  is adequate but corn seldom needs applications of phosphate.

IRRIGATION: Corn should not be stressed for water until harvest time. Irrigate frequently from tasseling to dent. Discontinue irrigation at the dent stage.

PESTS, DISEASES, AND WEEDS: When planted in the moisture in February, corn can be cultivated two or three times, throwing dirt to the young plants and covering up weeds until the corn is tall enough to shade out weeds. Disease is not currently a problem in the Palo Verde Valley. Blackbirds sometimes eat the germinating seeds, requiring replanting. Early planted corn is not seriously attacked by insects. Growers may obtain, upon request from the farm advisors' office, current insect, pest, and disease control guides.

HARVESTING: Corn silage is cut when 80% of the grain is in the dent and the moisture content in the plant as a whole is 70%. Most silage is cut and hauled to the pit by custom operation on a per ton basis. Yields range from 10 to 40 tons per acre but most yields over about 25 tons are too wet and of low quality.

HYBRID FIELD CORN FOR SILAGE  
IN  
DESERT VALLEYS RIVERSIDE COUNTY - 1962

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	\$ 5.00		\$ 5.00
List-1x	2.75		2.75
Pre-irrigate	.60		.60
Mulch	2.50		2.50
Plant	2.50	15 lbs. seed \$2.55	5.05
Fertilize	1.50	100 lbs. N 8.50	10.00
<b>TOTAL LAND PREPARATION AND PLANTING</b>			<b>\$ 25.90</b>
Cultivate-3x	\$ 6.50		\$ 6.50
Fertilize (side-dress)	1.50	100 lbs. N \$8.50	10.00
Irrigate-10x	6.00	Water 1/2 yr. 3.75	9.75
Ditch work	1.00		1.00
<b>TOTAL GROWING PERIOD</b>			<b>\$ 27.25</b>
<b>TOTAL CULTURAL COST</b>			<b>\$ 53.15</b>
(Land preparation, planting, plus growing period)			
Taxes and standby - 1/2 yr.			\$ 5.25
Cash overhead (office, car, phone, insurance, etc.) - 1/2 yr.			5.50
Depreciation on buildings and equipment - 1/2 yr			.25
Interest on investment on land, buildings, and equipment - 1/2 yr.			15.00
<b>TOTAL CASH AND NON-CASH OVERHEAD - 1/2 yr.</b>			<b>\$ 26.00</b>
<b>TOTAL PREHARVEST COST - cost per ton, grown \$3.15</b>			<b>\$ 79.15</b>
<b>Harvest</b>			
Cutting and hauling (up to 5 miles) @ \$1.90/ton	\$41.80		\$ 41.80
Packing	3.00	190 sq. ft. of polyethylene \$2.85	5.85
<b>TOTAL HARVEST COST</b>			<b>\$ 47.65</b>
<b>TOTAL ALL COSTS</b>			<b>\$126.80</b>
<b>TOTAL COST PER TON HARVESTED</b>			<b>\$ 5.76</b>

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

PRICES: The total costs above are incurred by an owner to get corn silage into his own silo. If the crop is sold for silage, current average farm prices in the Palo Verde Valley are about \$5 per ton standing in the field; the buyer would pay the harvesting costs.