

# FIELD CORN

## Sample

## Costs of Establishing

## Suggestions on Growing

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UC Cooperative Extension

A B O U T   T H E S E   C O S T   D A T A   - - -

The costs of production in any agricultural enterprise will vary considerably from ranch to ranch. The input and cost data in this booklet are sample costs. They are intended to be used only as educational guides in assisting you to appraise and plan your own crop and livestock program.

These cost data do not represent industry averages.

*Revised April 1970*

# SUGGESTIONS ON GROWING FIELD CORN

Roy M. Barnes - Farm Advisor

## SOIL REQUIREMENTS:

Corn can be grown on soils that grow good cotton, potatoes or alfalfa. Soils that contain medium to strong alkali will produce poor crops.

## VARIETY:

There are many varieties of corn on the market. Varieties may vary from very early, (120-130 days), to late (150-160 days). Several companies have varieties that perform well under Kern County conditions. It may be well to contact the local University of California Agricultural Extension Service office for performance records on corn varieties.

## SEED TREATMENT:

Most seed is sold pretreated for seed and soil-borne diseases.

## PREPARATION OF SOIL AND PLANTING:

Row width may be 36 to 40 inches. Corn, being a large seed, requires ample moisture during the 7 to 10 day germination period. A cotton planter with corn plates may be used. PLANTS SPACED 7-9" IN-THE-ROW HAVE GIVEN BEST YIELDS OF GRAIN.

## PLANTING RATE:

Normally, about 13 pounds per acre.

## SPACING OF KERNELS FOR VARIOUS POPULATIONS PER ACRE

<u>Row Spacing</u>	<u>18,000</u>	<u>19,000</u>	<u>20,000</u>	<u>22,000</u>	<u>24,000</u>	<u>28,000</u>
36 inches	9.7	9.2	8.7	7.9	7.3	6.2
38 inches	9.2	8.7	8.2	7.5	6.9	5.9
40 inches	8.7	8.3	7.8	7.1	6.5	5.6

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COST ANALYSIS WORK SHEET

SAMPLE COSTS TO PRODUCE FIELD CORN IN KERN COUNTY (Single Crop) - 1970

Based on man labor at \$1.90 and \$2.10 per hour, including compensation insurance and Social Security;  
Medium wheel tractor cash cost per hour \$1.40; Depreciation 70¢; Interest 30¢

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E. A. Yeary

Operation	Hours Per Acre	Cash and Labor Cost Per Acre			Sample Costs	My Costs
		Labor	Fuel and Repairs- Equipment	Materials and other Costs		
<b>Cultural:</b>						
Land preparation	2.0	\$ 4.20	\$ 2.80		\$ 7.00	
Plant and fertilize (2 men)	.5	2.00	.70	Seed: 13 lbs. @ 35¢ \$ 4.55	22.25	
				Nitrogen: 150 lbs. @ 10¢ 15.00	34.30	
Irrigation: 1 pre, 6 crop	7.0	13.30	3.00	Water: 3 ft. @ \$6.00 18.00	3.80	
Hoe	2.0	3.80			5.25	
Cultivate: 2 times	1.5	3.15	2.10		13.80	
Taxes					6.50	
Miscellaneous overhead		5.90	5.40		17.80	
<b>Total Cultural Costs</b>		<b>\$32.35</b>	<b>\$14.00</b>	<b>\$57.85</b>	<b>\$104.20</b>	
<b>Harvest:</b>						
Harvest			Contract: \$12.00 + 10¢/cwt.	\$18.00	\$ 18.00	
Haul			6,000 lbs. @ \$2.00/ton	6.00	6.00	
<b>Total Harvest Costs</b>					<b>\$ 24.00</b>	
<b>Total Cash and Labor Costs</b>					<b>\$128.20</b>	
			Cash and Labor Cost per cwt. @ 6,000 lbs. yield		<b>(\$ 2.14)</b>	
<b>Costs at Varying Yields</b>						
Pounds Per Acre	Total Cost Per Cwt.	<u>Investment</u>	<u>Per Acre</u>	<u>Annual Cost</u> Depreciation	Interest: 7%	
4,000	\$5.25	Land	\$800.00		\$56.00	
5,000	4.24	Irrigation System	200.00	\$15.00	7.00	
6,000	3.56	Tractor: 5 hrs.		3.50	1.50	
7,000	3.08	Equipment	20.00	2.00	.70	
8,000	2.72	<b>Total</b>		<b>\$20.50</b>	<b>\$65.20</b>	
		<b>TOTAL COST PER ACRE</b>				<b>\$213.90</b>
		<b>TOTAL COST PER CWT. @ 6,000 LBS. YIELD</b>				<b>\$ 3.56</b>

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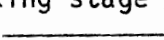
### PLANTING TIME:

Late March or early April plantings have produced best yields of grain. For ensilage, plantings may be made as late as June 15.

### PLANTING DEPTH:

Planting depth should be governed by soil moisture but should not exceed 2 1/2 inches.

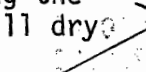
### FERTILIZATION:

Nitrogen is essential for high yields--150-200 pounds of actual nitrogen are recommended. Phosphate should be applied, if used on cotton or other crops. Application of fertilizer should be made at seeding time, if possible, to avoid pruning the important shallow roots. Applying fertilizer after the tasseling and silking stage is of no value. 

### IRRIGATION:

Corn requires ample moisture throughout its entire growth. Frequency of irrigation will depend upon the kind of soil. Usually, an irrigation every 10 to 12 days is required. Water may be withheld after ears have dented.

### CULTIVATION:

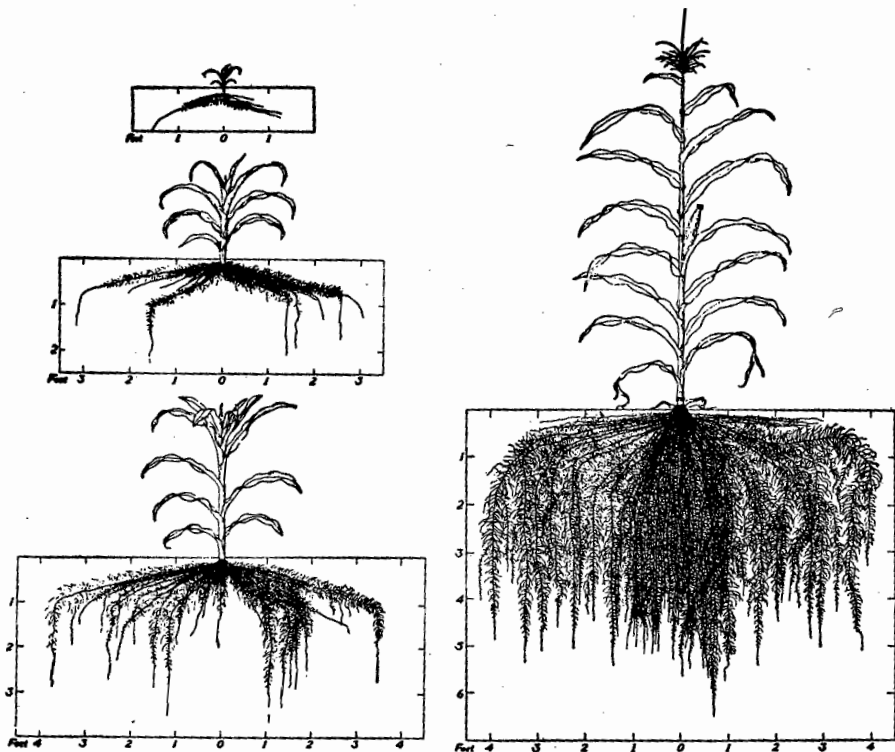
Cultivation is needed only for weed control. Shallow cultivation is best to avoid disturbing the important shallow roots; also, the soil will dry out as deeply as it is stirred. 

### HARVESTING:

Corn may be mechanically picked. Shelling may be accomplished simultaneously with picking. Corn is safe to store when the moisture is 15%. Normally, corn will shell about 80% grain from the ear.

## YIELDS:

With proper care and management, yields of 6,000 to 8,000 pounds of grain may be expected.



The stalk and root system of a corn plant in different stages of growth at the Nebraska Experiment Station. The roots do most of their spreading during early growth. After 6 weeks they move down to about 6 feet.