CO-SV-54-3

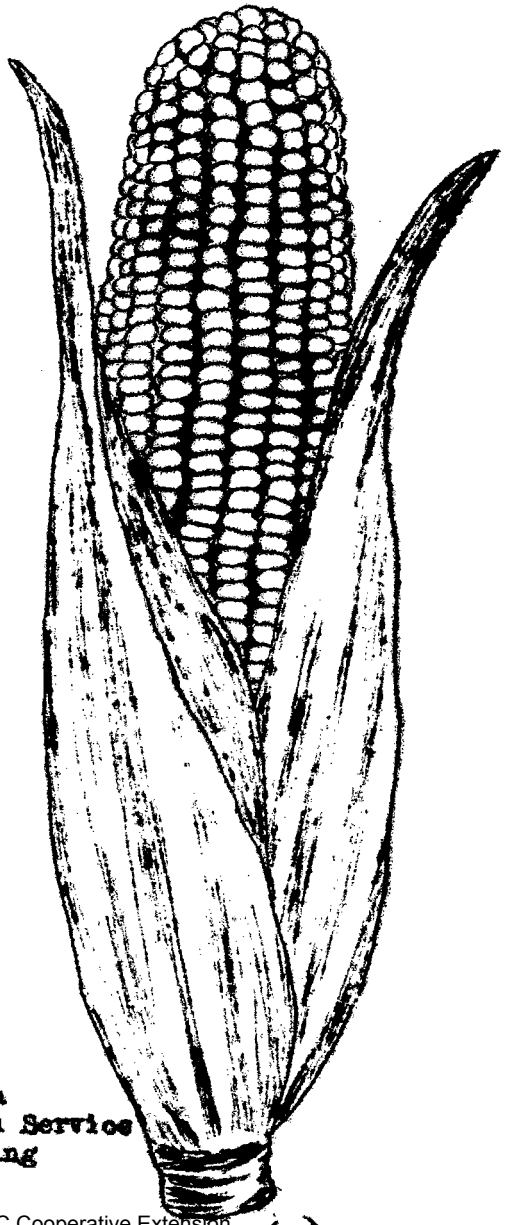
GROWING FIELD CORN

IN

SACRAMENTO COUNTY

ON

HARDPAN LAND



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6/54

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SACRAMENTO COUNTY

Field corn can be grown successfully on the terrace soils of Sacramento County. This is the hardpan and red soil area. In spite of its height, corn is not a deep rooted crop. It fits in well as a rotation crop on irrigated pasture land, especially when used for silage by the dairyman or stockman. It is also a good rotation crop for the ladino seed grower. Far more corn is fed as shelled grain in California than we produce in the State, therefore, the price and the outlook is favorable. However, farm storage may be necessary in order to realize a good price. Information on storage is available at your Farm Advisor's office.

VARIETY:

The variety selected depends on the date of planting and whether the crop is intended for grain or silage. Best yield is obtained if the maturity time of the variety is such that it matches the growing season remaining after planting. Choose from the maturity groups as follows:

PLANTING DATES FOR DIFFERENT MATURITY GROUPS

For Grain: Before May 1	May 1 - May 10	May 10 - May 20	May 20-June 1
For Silage: Before June 1	June 1-June 10	June 10-June 20	June 20-July 1
Maturity Time: Late	Medium Late	Medium Early	Early
Pioneer 302 De Kalb 1002 De Kalb 1022	De Kalb 666 Pfister 381 Vinton K22 Pioneer 300	Pfister 347 Pfister 383 Pioneer 352 Kingscrost K3A Kingscrost KY4 De Kalb 459	Kingscrost KS6

SEED TREATMENT:

Nearly all hybrid corn seed is already treated with a fungicide, (Arasan, Phygon or Spergon). Therefore, further fungicide treatment is unnecessary. Usually the seed is not treated with an insecticide. Where wireworms or seed corn maggots may be a problem, use lindane 25% at 3 ounces, or 75% at one ounce, per 100 pounds of seed.

FERTILIZER:

The crop needs at least 40 pounds of actual phosphate drilled under or near the seed at planting time and 100 to 150 pounds of actual nitrogen per acre. Following are some efficient fertilizer programs: (1) 200 lbs. of ammonium phosphate, 16-20, drilled ahead of the planter or with planter attachment and 300 lbs of amonium nitrate sidedressed at the first cultivation. (2) 85 lbs. of 11-48-0 drilled at planting time followed by 125 pounds of nitrogen as aqua ammonia or ammonia gas soon after plants are up. (3) Pre-fertilization with 130 lbs of actual nitrogen in any form and 225 lbs of single super-phosphate or 85 lbs of treble super-phosphate drilled at planting time.

LAND PREPARATION AND PLANTING:

A finely worked seed bed is not necessary. Listing out with shovels on the back tool bar ahead of the planter is a good idea: (1) It puts the seed down into better moisture. (2) Weeds in the row can be killed by throwing dirt into the furrows with the cultivator. Row spacing is 40" so a 2 row corn picker can be used. Space seed in the row 7 to 8 inches apart. Nine to twelve pounds of seed per acre will be needed. Plant into good moisture at a depth of 2½ to 3½ inches.

WEED CONTROL:

Timing of cultivations is important. Two or three cultivations will probably be needed. Cultivate for weed control only; cultivation does not save moisture. A selective spray may be needed for broad leaf weed control, especially dock or morning glory. Use one pound of 2, 4-D per acre by ground rig when corn is 16 to 24 inches high. Use drop nozzles to avoid spraying down on top of corn plants.

IRRIGATION:

For best yield, corn must have a very good moisture supply up to the time the grain starts to harden. Most water is needed at tasseling time. Nine or ten irrigations will probably be necessary, requiring about 2½ acre feet of water. Furrow irrigation is best but check irrigation can be used.

HARVEST FOR GRAIN:

A picker-sheller is most efficient, however, an attachment for an ordinary grain combine has been proven possible. Other methods are picking with a corn picker and hauling to a crib or sheller, or picking by hand and hauling to a crib or sheller. Harvest can be started at 25% moisture. Ear corn at this moisture can be cribbed provided the crib is not over 8 feet wide. However, shelled corn can not be stored over 15% moisture. Shelled corn can be dried commercially or it can be dried on the farm in a bin or building by forcing unheated air through the mass. The cost of the fan and air duct system is usually around 50 cents per hundred weight. Further information is available at your Farm Advisor's office.

HARVEST FOR SILAGE:

Corn is harvested for silage when the grain is beginning to harden and the lower leaves start to turn brown; proper moisture content is 60 to 70%. A field chopper is used and the chopped material hauled to the silo. Information on silos and making silage is available at your Farm Advisor's office.

WHAT WILL IT COST TO GROW FIELD CORN ON HARDPAN LAND
in
Sacramento, County.

Operations-
Based on 4,000 lbs yield, bulk handled
or
16 tons of silage

Labor $1.25 per hour
Irrigation labor @ $1.00 per hr.
20 H.P. tractor @ $1.00 per hr.

	Cost per Acre	
	Sample Costs	My Cost
Land Preparation:		
Plow-man, 20 HP tractor, 2-14" plow- 2.0 hours @ $2.40	$4.80	
Disk-man, tractor, 6' disk - .5 hrs @ $2.40	1.20	
Disk & harrow-man, tractor, disk and harrow -.6 hours @ $2.50	1.50	
Plant and Fertilize:		
Man, 20 HP tractor, 2 row-planter - 1.0 hrs @ $2.40	2.40	
Seed - 9 pounds @ 25 cents per pound	2.25	
16-20-0 - 200 lbs. @ $98. per ton	9.80	
Cultivate & Fertilize:		
Man, tractor, cultivator, fertilizer attachment 1.0 hours @ $2.60	2.60	
Ammonium nitrate - 200 lbs. @ $105. per ton	10.50	
Cultivate-man, tractor, 2 row cultivator - .8 hrs. @ $2.40	1.92	
Irrigate:		
Ten times - labor 15 hrs. @ $1.00	15.00	
Power for pumping 2½ acre feet	7.50	
Total pre-harvest	59.47	
Overhead, taxes, interest, misc.	22.50	
Grain production, harvest costs:		
Pick and shell	10.00	
Haul 2 ton @ $2.00 per ton	4.00	
Dry half of crop only 1 ton @ $3.50	3.50	
Total harvest	17.50	
Total cost per acre for grain	99.47	
Cost per cwt. (4,000 lbs.)	2.49	
Silage production, harvest costs:		
Chop man, tractor, chopper - 2.0 hrs. @ $7.50	15.00	
Haul man, tractor, trailers - 2.0 hrs. @ $5.00	10.00	
Unload 2 men, blower - 2.0 hrs. @ $4.00	8.00	
Total harvest	33.00	
Total cost per acre for silage	114.97	
Cost per ton (16 tons)	$7.19	