

SACRAMENTO COUNTY

March 1972

Agriculture

• Notes from the Sacramento County Farm Advisor •

CORN PRODUCTION ON PEAT SOILS

Soil Requirements: Fertile, fairly deep and well-drained soils of organic or mineral type.

Planting Dates: April 10 - May 20

Harvest Dates: October 1 - November 15 * Custom harvest usually costs \$5.50/ton

Varieties: Have been single cross hybrids. Superior performance of single cross hybrids the past few years has caused the rapid change from the 4-way crosses. Top producers include varieties G-4444, Pioneer 3567, Northrup King 1130 and Asgrow 70.

Seeding Rate: 10-15 lbs./acre depending on seed size, seed drop is usually 6-8 inches in the row resulting in stands 24,000 plants/acre. Populations of 28,000 plants/acre have resulted in higher yields, however, lodging may occur particularly if weed pressure is high.

Row Spacing: Generally 30 inches has resulted in the best economical spacing. 30 inch rows have out yielded 40 inch rows about 5%.

Fertilizer Requirement: Organic soil, 10-20 lbs. N with 13-26 lbs. P per acre (30-60 lbs. P₂O₅) under or 2 inches to one side of seed at planting, wet soil increases need for N; mineral soil, same starter fertilizer plus 100 lbs. of N pre-fertilized or sidedressed per acre.

Irrigation: 2½-3½ acre feet of water. On peat, sub-irrigate 4 times; on mineral soil, 5-8 irrigations.

Weed Control: Timely cultivation for watergrass and broadleaved species. 2,4-D for escaped broadleaves or Atrazine pre-emergence or early post-emergence when weeds are less than 1½ inches tall directed spray.

Insect Control: Mites, 1 lb. Kelthane when plants 3-4 ft. tall; aphids, natural enemies, insecticides not normally used.

Disease Control:

Sugar Cane Mosaic -- control Johnsongrass. It acts as a host for Sugar Cane Mosaic.

*Root and Stalk Rot -- avoid plant stress, use adapted varieties.

*Fusarium Ear Rot -- avoid irrigation during calm, hot, high humidity; weather during milk and dough stage; use adapted varieties.

*Head Smut -- provide favorable seedbed conditions, use adapted varieties, rotation, good weed control.

*Boil Smut -- provide favorable growing conditions, use adapted varieties, rotation, good weed control.

New Developments:

*Potassium fertilizer need found in some Delta fields, high potassium decreases stalk rot susceptibility.

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SAMPLE COSTS TO PRODUCE CORN ON PEAT SOILS

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Yield: 7,000 lbs. = 3.5 tons/acre

Tractor
50¢/hr. repair
70¢/hr. fuel

Labor
Common \$2.00
Skilled \$2.50

Price: \$2.60 per CWT = \$52/ton

Operation	Date	Materials-Kind and Quantity	Total Cost/Ac/Yr
Flood every 3rd yr.	Sept-Dec	6.57/ac	\$ 2.19
Disk 1 x	March		1.21
Flow	March		2.00
Disk 2 x	March		2.42
Landplane	March		2.00
Springtooth - Float Ringroller	Mar-Apr		1.50
Plant-Fertilize- Insecticide	Apr-May	Seed 16# @ 62¢/lb. - \$0.92 Fert. 8-24-6 with Zinc - 30 gals. 14.10, Insect. 1.5# Aldrin \$4.00	28.02
Cultivation 3 x			3.00
Spud-Ditching		\$24/mi 0.08 mi/ac	1.92
Irrigation 4 x			2.50
Miticide		Kelthane 1 lb/ac	4.21
Herbicide		Atrazine 1 lb/ac Spray film B	3.25
		Air application	2.25
Drain cleaning		Every 2 yrs. \$2/ac. every 2 yrs.	1.00
Workmen's Compensation			1.72
Social Security 5.2%			1.24
TOTAL CULTURAL COSTS			60.43
<u>Harvest</u>			
Harvest & Hauling 4 rows - Grower	Oct-Nov		10.50
Drying & Handling \$1.00/ton			3.50
Workmen's Compensation			.15
Social Security 5.2%			.11
TOTAL HARVEST COSTS			14.26
<u>Cash Overhead</u>			
Rent 30% of gross			55.20
Taxes on Equipment			1.00
Misc., ofc., etc.			1.00
TOTAL CASH OVERHEAD			57.20
TOTAL CASH COST		\$37.68/ton	131.89
Management 5% of gross			9.10
Depreciation and interest on equipment for 750 acres \$124.00 per acre, 10 year life (\$13.64), 6% interest (\$4.09).			17.73
TOTAL COST/ACRE			158.72
TOTAL COST/TON			45.35