

Agricultural Briefs

SACRAMENTO COUNTY

1977 - SAMPLE COSTS TO PRODUCE CORN ON PEAT AND MINERAL
SOIL AND CULTURAL PRACTICES

SOIL REQUIREMENTS: Fertile, well-drained soils of organic or mineral type.

PLANTING DATES: April 1 - May 20.

HARVEST DATES: September 15, November 15.

VARIETIES: Superior performance of single cross hybrids the past few years has caused the rapid change from the 4-way crosses. Top producers include early varieties- Pioneer 3780, Ferry Morse 770. Midseason varieties- Ferry Morse 767, PAG 520, NC+59. Late varieties- Northrup King PX-74 and PX-1541, Pioneer 3369A, Funks G-4507.

SEEDING RATE: 10-15 lbs/acre depending on seed size, seed drop is usually 6 - 7 inches in the row resulting in stands 24,000 to 28,000 plants/acre. Populations of 28,000 plants/acre have resulted in higher yields, however, lodging may occur, depending on the variety and if weed pressure is high.

ROW SPACING: Row spacing may vary from 30 - 40 inches. If sugar beets and tomatoes are part of the operation, 30 inch spacing is most economical; 30 inch spacing has resulted in better weed control from a wider spacing.

FERTILIZER REQUIREMENT: Organic soil, 200 lbs/ac 6-20-20; or 30 gallons 8-24-6 + Zn. Cold wet soil increases the need for Nitrogen. Mineral soil; same starter fertilizes plus 100 lbs. of Nitrogen pre-fertilized plus sidedress, 50 lbs/ac if needed. If potash levels are low, 400 lbs/ac should be applied broadcast and disc in. Potassium increases stalk strength of corn.

IRRIGATION: 2-1/2 to 3-1/2 acre feet of water. On peat, sub-irrigate 4 times; on mineral soil, 5 - 8 irrigations. Early irrigation is essential for high yields.

WEED CONTROL: Timely cultivation for watergrass and broadleaved species. 2,4D directed for escaped broadleaves or Atrazine + oil early post-emergence when weeds are less than 1-1/2 inches tall. Sutan plus gives excellent grass control preplant incorporated. Lasso gives good grass and broadleaf control, applied preplant incorporated. Eradicane may be used up to May 1, injury may occur if used after.

INSECT CONTROL: Mites, 1-1/2 quarts Kelthane/acre or Comite when plants are 3 - 4 feet tall.

DISEASE CONTROL:

Sugar Cane Mosaic - control Johnsongrass surrounding fields with Roundup® post-emergence. 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; do not allow field to stress.

HEAD SMUT - provide favorable seedbed conditions, use adapted varieties, rotation and good weed control. Boil Smut - use same control.

New Developments: Roundup® for ditch bank and roadside Johnsongrass control.

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COOPERATIVE EXTENSION WORK IN AGRICULTURE AND HOME ECONOMICS, Division of Agricultural Sciences,
University of California, U.S. Department of Agriculture and County of Sacramento cooperating

1977 - SAMPLE COSTS TO PRODUCE CORN ON PEAT AND MINERAL SOILS

| OPERATION | HOURS/ ACRE | LABOR | FUEL & REPAIRS | MATERIALS KIND & QUANTITY | TOTAL COST/AC ORGANIC SOIL | MINERAL SOIL |
|--|----------------|-------|-----------------------|---|----------------------------------|-----------------|
| Flood (every 3rd year) | 1.6 | 9.68 | 9.36 | Bulldoze levee up & down 19.04 ÷ 3 | \$6.34 | \$ |
| Disc 2x | 0.5 | 1.75 | 2.44 | | 4.19 | 4.19 |
| Plow | 0.4 | 1.40 | 1.89 | | 3.29 | 3.29 |
| Disc 2x | 0.5 | 1.75 | 2.44 | | 4.19 | 4.19 |
| Land plane 2x | 0.66 | 2.32 | 3.48 | | 5.80 | 5.80 |
| Rip 2x | 1.32 | 4.62 | 6.00 | | 10.62 | 10.62 |
| Spring tooth-float- ringroller | 0.1 | 0.35 | 1.22 | | 1.57 | 1.57 |
| Pre-fertilizer (N) | 0.25 | 0.87 | 1.55 + \$2 applic. | 150/lb ac N 25¢ = 37.50 | | 41.92 |
| Plant-fertilize- insecticide (2 men) | 0.4 | 2.80 | 1.88 | \$21 seed, \$23.40 starter, 10 lb Dy- fonate Prod/ac \$6.50 / acre | 55.58 | 55.58 |
| Herbicide preplant-disc 2x | 0.5 | 1.75 | 2.44 | Sutan or Lasso \$20 @ 4 lb/ac | 24.19 | 24.19 |
| Cultivate 2x | 0.4 | 1.40 | 1.58 | | 2.98 | 2.98 |
| Irrigation | | | | | | |
| 3x peat (spud ditch) | 1.0 | 3.50 | | Spud ditch 2.50/ac | 6.00 | |
| 10x mineral (irrigate) | 15.00 | 49.50 | | 5 ac ft @ \$8 = \$40 | | 89.50 |
| Cutworm control | | | | Sevin bait 30 lb/ac \$11.77 air applic. \$3.50 | 15.27 | 15.27 |
| Acaracide application (mite control) | | | | Kelthane 1.5 qt/ac \$6.94 + air \$3.50 | 10.44 | 10.44 |
| Atrazine + oil (post) Weed control | | | | 1.0 lb Atrazine \$3.30 + morac 2 qts 0.70 + air applic. \$3.50 | 7.50 | |
| Drain Maintenance | | | | | 2.00 | 2.00 |
| TOTAL | | | | | 167.26 | 271.54 |
| HARVEST | | | | | | |
| Harvest (own harvester) 5 - 26 ton loads/10 hrs 29 acres/day | 0.34 | 1.70 | \$1.82 fuel & repairs | | 3.52 | 3.52 |

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