

**SACRAMENTO COUNTY**

March 1972

*Agriculture*

• Notes from the Sacramento County Farm Advisor •

## SUGAR BEET PRODUCTION

Soil Requirements: Deep, fertile, well-drained soils of organic or mineral type. Texture can range from sandy loam to clay. Avoid hardpan and claypan.

Planting Dates: February, March, April; during May in over-wintered areas.

Harvest Dates: September-November; March-May if over-wintered.

Varieties: New disease-resistant hybrids, furnished by contracting sugar company.

Seeding Rate: Mechanical thinning; plant 2 inches apart. Synchronous thinner; plant 2-3/4 inches apart. Final stand; plant 4-6 inches apart.

Thinning and Weed Control: Roneet or Tillam are available for preplant weed control. Betanal is available for post-emergence weed control of certain broadleaf weed species. Thin mechanically, 100-150 beets per 100 feet of row, not more than 20% multiples of three or more plants. Four cultivations are needed.

Fertilizer Requirements: 100-200 lbs./acre Nitrogen preplant, 20 lbs. N and 46 lbs./ac P<sub>2</sub>O<sub>5</sub> placed 3 inches below the seed at planting.

Irrigation: 2-1/2 - 3-1/2 acre feet needed. On peat, sprinkling or sub-irrigation; on mineral soil, sprinkling or furrow irrigation. Do not permit wilting.

Rotation: Four years between beet crops for good soil management and to control sugar beet nematode and sclerotium root rot.

Special Problems and Control Measures:

Salts -- Irrigate every other row or plant on slanted beds.

Yellows -- beet free period plus elimination of carrier plants; control of green peach aphid; plant in May in over-winter areas.

Sugar Beet Nematode -- rotation; fumigation second choice.

Insects -- army worms, cutworms, and darkling ground beetles -- insecticides.

Poor Stand -- maintain seedbed moisture, avoid severe wireworm and damping off areas, use only treated seed.

Inadequate Irrigation resulting in excessive wilting -- better management.

Late-emerging Weeds which reduce yield, cause harvest problems, and infest soil with weed seed -- better management.

Very Late Spring Harvest due to wet spring which ties up land, causes harvest problems, produces beet seed causing volunteer problem, and possibly lowers sugar yield -- better luck.

New Developments:

Yellows Control by resistant varieties and use of aphicides.

Complete Mechanization by planting to stand and mechanical thinning.

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SAMPLE COSTS TO PRODUCE SUGAR BEETS ON MINERAL SOIL  
Sacramento County, 1972

Yield: 20 tons at 14% sugar  
Price: \$13.37/ton  
Gross: \$267.40

Labor  
Common \$2.25  
Skilled \$2.50

Operation	Date	Materials Kind and Quantity	Total Cost/Acre
<u>Cultural</u>			
Disk 2 x	Oct-Dec		\$ 2.54
Plow	Oct-Dec		1.95
Land Plane	Oct-Dec		1.92
Disk 2 x	Jan-Feb		2.54
Harrow & Float	Jan-Feb		1.04
Pre-Fertilize	Feb-Mar	120 lbs. N at .08¢ & application .50¢	10.10
Furrow			.94
Seed - Fertilize Herbicide	Feb-Mar	Shaping, Starter 20 gals. 8-20-0 @ .40¢/gal. \$9.52 Herbicide: Roneet Band 1 qt/ac \$6.25 or Betanal Post \$6.00/ac Seed 2.5-4 lbs/ac @ \$1/lb = \$3.00	18.77
Thin	May-July	Mechanical thin	1.25
Hoeing	May-July	Depending on weeds controlled	15.00
Cultivating	May-July		4.38
Ditching	May-Aug		1.00
Irrigation	May-Aug	Labor-water-power- 5-8 times/season	38.50
Pest Control	Feb-Aug	Labor @ \$1.50 Dylox 2 lbs. @ \$1.20 Cutworm bait 30 lbs. @ 14¢	8.50
Workmen's Compensation			.63
Social Security 5.2%			.98
<u>TOTAL CULTURAL COSTS</u>			\$110.04
<u>Harvest</u>			
Top	Aug-Nov		2.18
Dig	Aug-Nov	Digging contract \$31.00	31.00
Haul	Aug-Nov	Contract @ .15¢/ton + .03¢/ton/mile 10 mi.	23.00
Workmen's Compensation			.14
Social Security 5.2%			.22
<u>TOTAL HARVEST COSTS</u>			\$ 56.54
<u>Cash Overhead</u>			
Pick up - Misc.			6.30
Taxes on equipment			1.00
Rent 25% gross			66.85
<u>TOTAL CASH OVERHEAD</u>			\$ 74.15
<u>TOTAL CASH COSTS</u>			<u>\$240.73</u>
		Cost/Ton \$12.03	
Management 5% of gross		\$13.37	13.37
Depreciation and interest on equipment for 700 acres \$151.00 per acre, 10 year life (\$16.61), 6% interest (\$4.98).			21.69
<u>TOTAL COST/ACRE</u>			<u>\$275.79</u>
<u>TOTAL COST/TON</u>			<u>\$ 13.78</u>