

Agricultural Briefs

SACRAMENTO COUNTY

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SUGAR BEET PRODUCTION - 1975

Cooperative Agricultural Extension University of California

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 + 475 is available for control of Pigweed post-emergence. 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/ac Nitrogen preplant, 20 lbs. N and 46 lbs/ac P₂O₅ 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:

Mildew - 40 lbs/ac Sulfur when mildew first appears.

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-wintered 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.

SAMPLE COSTS TO PRODUCE SUGAR BEETS

Sacramento County - 1975

Yield/Ac: 24 tons @ 14% sugar
Price: \$36.00

Gross/Ac: ton \$864.00
Net/Ac: \$223.16

OPERATION	DATE	MATERIALS		Total Cost/Ac
		Kind	Quantity	
<u>Cultural</u>				
Disk 2x	Oct-Dec			\$ 4.00
Plow	Oct-Dec			4.00
Land Plane	Oct-Dec			4.00
Rip	Oct-Dec			4.00
Disk 2x	Jan-Feb			4.00
Harrow & Float	Jan-Feb			3.00
Bed up + Aqua	Feb-Mar	150 N @ 25¢/lb	\$ 37.50	
		Application	2.00	39.50
Herbicide application	Feb-Mar	Tillam @ 6 lbs/ac	9.78	
+				
Plant & Starter Fert-	Feb-Mar	Seed @ 5.0/lbs./ac	6.67	
ilizer application	April	4-10-10: 30 gal/ac	23.55	
		Application	4.00	44.00
Post Herbicide-appli.	Mar-Jul	Betenal 1 lb/ac + application	4.60/2.00	6.60
Layby Treflan	Mar-Jul	2 pts/ac + application	4.00/2.00	6.00
Cultivating 2x	Mar-Jul			4.00
Thin & Hoe	Mar-Aug			50.00
Siddress	Mar-Aug	30 lbs N @ 25¢-\$7.50/ appli.	\$2.00	9.50
Irrigation 7x	Apr-Aug	Labor-Water-Power	10.00	
Pest Control	Apr-Aug	Sevin bait Air+ Cutworms	3.00	13.00
		Metasystox(aphids)	10.00	10.00
		Sulfur 40 lbs + Application		6.00
TOTAL CULTURAL COSTS				\$256.60
<u>Harvest</u>				
Top	Aug-Nov			3.00
Dig	Aug-Nov	\$1.50/tcn		36.00
Haul	Aug-Nov	1.50/ton		36.00
TOTAL HARVEST COSTS				\$ 75.00
<u>Cash Overhead</u>				
Pick up - Misc.				1.00
Taxes on equipment				1.00
Rent 25% gross				216.00
Workman's Comp			2.50	
Soc. Security			3.50	6.00
TOTAL CASH OVERHEAD COSTS				\$224.00
TOTAL CASH COSTS				\$555.60
Management 5% of gross				43.20
Depreciation and interest for 1200 acres, \$150,000 equipment. 10 year life. (10% interest) Corn, Wheat, Sugar Beet, Tomato operation.				
For one year: Interest \$23.88		Depreciation: \$29.17		42.05
TOTAL COST/ACRE				\$640.85
TOTAL COST/TON				\$ 25.87