Calif. Univ. Agric. Ext. Serv. Sacramento county.
COOPERATIVE EXTENSION WORK IN AGRICULTURE AND HOME ECONOMICS
UNIVERSITY OF CALIFORNIA AND UNITED STATES DEPARTMENT OF AGRICULTURE CO-OPERATING

SACRAMENTO COUNTY Agriculture

March - 1965

• 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-winter areas.

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

Varieties: New disease-resistant hybrids, furnished by contracting sugar company. Soon all seed will be the monogerm type.

Seeding Rate: 4-12 seeds per foot of row (2½ to 7 lbs./acre); 4 seeds per foot if planting to stand; 8-12 seeds per foot if thinning.

Thinning and Weed Control: Use pre-emergence, soil-incorporated herbicide to minimize costly hand thinning and hoeing. Plant to stand or thin mechanically, 100 to 150 beets per 100 ft. of row, not more than 20% multiples of three or more plants. Four to eight cultivations are needed.

Fertilizer Requirements: Organic soil, 25 lbs. P/acre (60 lbs. P_2O_5), 2" under seed. Mineral soil, 80-160 lbs. N/acre; if P deficient also use 15-25 lbs. P/acre with 10-20 lbs. N/acre, 3" under seed.

Irrigation: 2½-3½ 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

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 possibly use of aphicides.

Complete Mechanization by planting to stand and mechanical thinning.

Prepared by Torrey Lyons and P. S. Parsons
Room 3020, Federal Building, 650 Capitol Avenue, Sacramento 14, California

SAMPLE COSTS TO PRODUCE SUGAR BEETS ON PEAT AND MUCK SOIL

Sacramento County, March, 1965

Yield: 20 Tons at 14% Sugar
Price: $ 12.64 per Ton
Gross: $252.80

Labor
Common $1.50
Skilled $1.75

Operation	Date	Hours Per Acre	Cash and Labor Costs per Acre: Labor	Fuel & Repairs	Materials: Kind & Quan.	Materials: Cost	Total
Cultural							
Flood every 3rd year	Sep-Oct	.3	$ .53	$ .75			$ 1.28
Disk 2X	Sep-Nov	.4	.70	1.06			1.76
Plow	Oct-Dec	.3	.53	.80			1.33
Landplane 2X	Jan-Feb	.6	1.05	1.50			2.55
Disk 2X	Feb-Mar	.4	.70	1.06			1.76
Harrow 2X	Feb-Apr	.2	.35	.30			.65
Plant, fert., herbicide	Feb-Apr	.8.	1.30	1.14	5# seed @ 70¢	$ 3.50	
					25 gal. 8-24-0 @ 40¢	10.00	
					3.2# Tillam @ $4.00	12.80	28.74
Thin & hoe	May-Jul	30.0	45.00				45.00
Cultivate 6X	Apr-Jul	1.2	2.10	1.74			3.84
Sub-irrig. 4X	Jn-Aug	1.6	2.40	.50	Spud ditches @ $18/mi.	2.50	5.40
Drain. Maint.	All year	.1	.15	.15	New ditches & cleaning, contr.	2.00	2.30
TOTAL CULTURAL COSTS			$54.81	$9.00		$30.80	$ 94.61
Harvest							
Dig	Aug-Nov	Contr.			20 tons @ $1.50	$30.00	$ 30.00
Haul	Aug-Nov	Contr.			20 tons @ $1.25	25.00	25.00
TOTAL HARVEST COSTS						$55.00	$ 55.00
Cash overhead							
Misc., ofc., etc.			5% of above costs				$ 7.48
Taxes on equip.							1.00
Rent			20% of gross				50.56
TOTAL CASH OVERHEAD							$ 59.04
TOTAL CASH COSTS							$208.65
Management 5% of gross							$ 12.64
Depreciation and interest on $93,000 investment in equipment for 750 acres $124.00 per acre, 10 year life ($12.40), 6% interest ($3.72)							$ 16.12
TOTAL COST PER ACRE							$237.41
COST PER TON @ 20 ton yield							$ 11.87