



SUGAR BEETS

PROJECTED PRODUCTION COSTS
1991 - 1992

IMPERIAL COUNTY

UNIVERSITY OF CALIFORNIA
COOPERATIVE EXTENSION

SUGAR BEETS

PROJECTED PRODUCTION COSTS

1991-1992

Mechanical operations at custom rates. Labor at \$5.75 per hour (\$4.50 plus Social Security, unemployment insurance and fringe benefits).

Yield--26.0 tons per acre.

OPERATION	CUSTOM RATE	MATERIALS		HAND LABOR		COSTS Per Acre
		Type	Cost	Hours	Dollars	
LAND PREPARATION						
Plow or Subsoil	24.75					24.75
Disc 2x	9.50					19.00
Build & Break borders	15.00					15.00
Flood		Water .9 ac/ft	10.35	1	5.75	16.10
Disc 2x	9.50					19.00
Fertilize	6.00	300# 11-52-0 .15/#	45.00			51.00
Float	8.25					8.25
List	11.50					11.50
TOTAL LAND PREPARATION COSTS						164.60
GROWING PERIOD						
Plant & Shape	14.00	Seed 4# @ 12.50/lb	50.00	1	5.75	69.75
Herbicide 2x	8.00	Herbicide	22.00			38.00
Thin	28.75	Machine (synchronous thinner) or handthin				28.75
Cultivate 3x	10.75					32.25
Fertilize 2x	10.00	160# NH3 @ .15/lb	24.00			44.00
Seed Control				11	63.25	63.25
Insect Control 4x	4.90	Pesticide	48.00			67.60
Disease Control 2x	4.90	Fungicide	18.00			27.80
Irrigate 12x		Water 5 ac ft	57.50	8	46.00	103.50
TOTAL GROWING PERIOD COSTS						624.90
GROWING PERIOD & LAND PREPARATION COSTS						789.50
Land Rent (net acres)						175.00
Cash Overhead	12% of preharvest costs & land rent					115.74
TOTAL PREHARVEST COSTS						1080.24
HARVEST COSTS						
Dig	2.35 per clean ton	Yield	26 tons per acre			61.10
Haul	2.54 per clean ton					66.04
Railroad freight	4.94 per clean ton					128.44
HARVEST AND FREIGHT COSTS						255.58
TOTAL COSTS -includes growing, harvest, and freight						1335.82

PROJECTED INCOME ABOVE COSTS (PER ACRE)

		-----tons/acre-----					
		20	23	26	29	32	35

price	35	-577	-501	-426	-350	-275	-199
per	40	-477	-386	-296	-205	-115	-24
ton	45	-377	-271	-166	-60	45	151
	50	-277	-156	-36	85	205	326
	55	-177	-41	94	230	365	501
Breakeven		63.84	56.80	51.38	47.08	43.59	40.69

SUGAR BEETS CULTURE

1991-1992

<u>YEAR</u>	<u>ACRES</u>	<u>YIELD/ACRE (TONS)</u>	<u>VALUE/TON</u>
1989	26,873	26.4	\$42
1988	37,669	24.2	38
1987	37,741	26.6	37
1986	33,200	25	37
1985	41,300	21	36

LAND PREPARATION: Pre-irrigation on flat ground rather than beds is less expensive, produces lower salinity and better soil condition in the planting bed. Most growers will subsoil and some will plow.

SEEDING RATE: Early plantings during extremely hot weather will require a higher seeding rate to achieve the proper stand. Planting when soil temperatures are high greatly increases the incidence of seed rot and seedling damping-off.

PLANTING DATES: The planting season begins August 20 and continues through October.

VARIETIES: The varieties resistant to infectious yellows virus should be planted. However, some attention should also be given to root rot resistance. New varieties with a higher degree of resistance to some diseases in the Imperial Valley are available. New varieties are being tested annually.

FERTILIZATION: Phosphate--broadcast before listing. Nitrogen--apply 1/3 of required amount with phosphate preplant, 1/3 at thinning and final 1/3 before mid-December. Late applications of nitrogen will reduce sugar percentage and purity. Ammonium nitrate is a good source of nitrogen for sugar beets.

IRRIGATION: Irrigation is by furrows. The crop is "irrigated up" initially and may require "watering back" within 4 or 5 days to get a stand. Never allow the crop to wilt or suffer from shortage of water. Ten to 20 irrigations may be required depending on soil type. Last irrigation should be applied at least 30 days prior to harvest.

PEST CONTROL: Pest populations vary from year to year and costs vary accordingly. A number of insects and diseases may be a problem during the growing season. Growers planting extremely early should exercise all caution against damage by inspecting fields often and carefully. Crickets, flea beetles and armyworms occur as seedling pests and are especially damaging in early plantings. From January to March the green peach aphid is a primary pest. Spider mites and leafhoppers occur as last season pests. Sweetpotato whitefly can be a pest as a vector of lettuce infectious yellows virus, but little can be done to control the problem. Avoid planting sugar beets near fall melons or cotton to reduce the effects of whiteflies as they migrate. Nematodes can be a problem. Nematode infested fields should be rotated to non host crops for several years. Growers should carefully clean all nematode infested machinery when moving between beet fields. Consult your farm advisor for registered chemicals for pest control.

Several weed control options exist, consult weed control farm advisor for current recommendations.

GUIDELINES TO PRODUCTION COSTS AND PRACTICES

Imperial County Crops, Circular 104F

1991-1992

CUSTOM RATE CHARGES

HEAVY TRACTOR WORK

PRICE/ACRE

Plow	\$ 24.75
Subsoil 2nd Gear	29.25
Disc, Regular	9.50
Disc, Stubble	18.25
Float	8.25
Triplane	8.75
List, Regular	11.50
Landplane	10.00
Chisel	20.75

PLANTING AND CULTIVATING

Plant and Shape Sugar Beet 40" Beds	15.50
Precision Plant 40" Beds	14.50
Plant	13.75
Cultivate 4-Row 30", 40" Beds	10.75
Spike and Furrow Out (2 row)	10.50
Lilliston	9.50
Furrow out alone	8.00

INCORPORATING, BORDER AND BED WORK

Power Incorporate	20.25
Scraper Borders	12.75
Border, Cross checks and Break Borders	15.00
Roll Beds	5.00

FERTILIZER APPLICATION

Broadcast Fertilizer	6.00
Inject Fertilizer (Flat)	10.00
Fertilize and Furrow Out 30", 40" Beds	10.50

IRRIGATION

Custom Sprinkle	\$130.00-140.00
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HARVEST

Swather	7.50
Rake	4.00

MISCELLANEOUS

Motor Grader/Hour	42.75
Chop Stalks, Etc.	11.00
Cultipacker	6.00
Power Incorporate Herbicides	20.25
Ground Spray Pesticides (4 Row)	7.50
Aerial Spray 5 Gal. (Insecticide)	4.75
Aerial Spray 10 Gal. (Fungicides)	5.00