

CR-SE-90

CARROTS PROJECTED PRODUCTION COSTS



IMPERIAL COUNTY 1989 - 1990

UC COOPERATIVE EXTENSION

Carrot Projected Production Costs 1989-1990

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

Yield--800 50-lb. Master poly containers/ac. (22.0 tons).

OPERATION	CUSTOM RATE	MATERIALS		HAND LABOR		COSTS Per Acre
		Type	Cost	Hours	Dollars	
LAND PREPARATION						
Stubble disc 1x	18.25					18.25
Subsoil	29.25					29.25
Disc 1x	9.50					9.50
Landplane 2x	10.00					20.00
Border, cross check & break borders	15.00					15.00
Flood		Water 1/2 ac/ft	5.50	1	5.75	11.25
Fertilize	6.00	450#11-48-0	61.00			67.00
Disc 2x	9.50					19.00
Triplane 1x	8.75					8.75
Fumigation	12.50	Fumigant	96.00			108.50
List	11.50					11.50
TOTAL LAND PREPARATION						318.00
GROWING PERIOD						
Incorporate herbicide	20.25	Herbicide	2.40			22.65
Plant	13.75	3.50# seed @ 42.00	147.00			160.75
Sprinkler irrigate						145.00
Cultivate 2x	10.75					21.50
Spike 2x	10.50					21.00
Fertilize & furrow out 2x	10.50	150 # N @ .31	46.50			67.50
Layby herbicide	8.00	Herbicide	7.60			15.60
Water run fertilizer		50 # N @ .31	15.50			15.50
Irrigate 7x		Water 5 3/4 ac/ft	63.25	9	51.75	115.00
Insect control 1x	4.50	Insecticides	8.50			13.00
GROWING PERIOD						597.50
GROWING PERIOD & LAND PREPARATION COSTS						915.50
Land Rent (net acres)						200.00
Cash Overhead-----		12% of harvest costs and land rent				133.86
TOTAL PREHARVEST COSTS						1249.36
HARVEST COSTS						
Harvest by machine, haul, and pack		800-50 lb. sacks @	4.00/sack (contract rate)			3200.00
TOTAL ALL COSTS						4449.36

PROJECTED INCOME ABOVE COSTS (PER ACRE)

price/master poly sack

	price/master poly sack					Breakeven \$/sack
	4.50	5.00	5.50	6.00	6.50	
poly sacks	700	-899	-549	-199	151	5.78
per	750	-874	-499	-124	251	5.67
acre	800	-849	-449	-49	351	5.56
	850	-824	-399	26	451	5.47
	900	-799	-349	101	551	5.39

CARROT CULTURE
1989-1990

<u>YEAR</u>	<u>ACRES</u>	<u>YIELD/ACRE (TONS)</u>	<u>VALUE/TON</u>
1988	12813	24.3	\$122
1987	12038	25.9	180
1986	10754	25.0	207
1985	9472	19.0	207
1984	7913	23.4	151

PLANTING DATES: Early carrots are planted the last week in August and early September. Later maturing carrots are planted in October and early November. Carrot beds are normally planted with six rows of carrots on 42 inch beds. Three rows are placed on each bed shoulder. Rows are usually 1 1/2 inches apart. Both natural raw seed and coated seed are used. Florida and Arizona compete in our carrot markets.

VARIETIES: "Long Emperor 58" is the standard open pollinated variety grown. Hybrid varieties are widely used. Cost of hybrid seed is about \$48 per pound. Carrots are seeded at a rate of 750,000 to 1,000,000 live seeds per acre. Germination usually runs 80% and seed counts may be 175,000 to 400,000 per pound. The seeding rate per acre is calculated accordingly.

SOILS: Carrots can be grown on many of the soil types in the county. Best root development is obtained in the lighter soils. Carrots should not be grown on stratified soils. If soils are too heavy, deformed roots will result. Roots will not develop good color if the soil stays too wet.

IRRIGATION: Carrots are sprinkler irrigated for stand establishment. Carrots germinate slowly, therefore, the beds must be kept moist to prevent crusting. Sprinklers also reduce the salinity in the seed beds as carrots are very sensitive to salt. Sprinkler costs include rent, in-and-out labor, maintenance and sprinkler operation.

FERTILIZERS: Previous crop history will help in determining fertilizer requirements. Phosphate is applied before listing at rates of 450 pounds 0-45-0 per acre. Two hundred pounds of nitrogen are usually ample. Preplant fertilizer should be disced into the soil before listing to prevent forking.

PEST CONTROL: Both preplant and layby herbicides are used. Consult your weed control farm advisor for additional information.

Crickets, grasshoppers, striped flea beetle larvae and cutworms can be a problem when seedlings emerge. Later, aphids, whiteflies and spider mites may attack the leaves. Cutworms and aphids may attack crowns. Powdery mildew needs to be controlled if it attacks early in the growing season. Nematodes must be controlled by fumigation and damping-off fungi by seed treatment. Cavity spot and forking disorders have become serious problems in some fields. At present crop rotation away from carrots is the only control. Root rot is usually absent under good cultural practices.

HARVESTING: The majority of the carrots are machine harvested, however, a small acreage is hand bunched. Harvesting takes place from December to June. Carrots are shipped with tops on (bunched carrots), in one pound cello bags or topped loose. Prices vary according to container size. Two sizes of cello carrots are packed including jumbos and standards. Jumbos are cheaper to pack, but the cost data does not allow for this reduction to be itemized.

GUIDELINES TO PRODUCTION COSTS AND PRACTICES
IMPERIAL COUNTY CROPS, CIRCULAR 104
 1989 - 1990

CUSTOM RATE CHARGES

HEAVY TRACTOR WORK

	<u>PRICE/ACRE</u>
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
List, and Rerun 80" Melon Beds	22.00
Reshape 80" Melon Beds	10.00
Landplane	10.00
Chisel	20.75

PLANTING AND CULTIVATING

Plant and Shape Melon Beds	16.75
Precision Plant 42" Beds	14.50
Plant Carrots	13.75
Plant Onions	16.75
Cultivate 4-Row 42" Beds	10.75
Cultivate Melon Beds	14.00
Spike and Furrow Out (2 row)	10.50
Lilliston	9.50
Furrow out alone	8.00
Move N-Side 80" Beds for Irrigation	9.50

INCORPORATING, BORDER AND BED WORK

Power Incorporate herbicides	20.25
Border, Cross checks and Break Borders	15.00
Bust Melon Beds	9.00
Roll Beds	5.00

FERTILIZER APPLICATION

Broadcast Fertilizer	6.00
Inject Fertilizer (Flat)	9.00
Fertilize and Furrow Out 42" Beds	10.50
Fertilize and Furrow Out 80" Beds	10.50

IRRIGATION

Custom Sprinkle	135.00-145.00
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MISCELLANEOUS

Motor Grader/Hour	42.75
Chop Broccoli, Corn Stalks, Etc.	10.00
Water truck/Hour	34.00
Cultipacker	6.00
Ground Spray Pesticides (4 Row)	7.00
Aerial Spray 5 Gal. (Insecticides)	4.50
Aerial Spray 10 Gal. (Fungicides)	5.00