

CUCUMBERS FOR FRESH MARKET

Yields

Since 1967, yields of fresh market cucumbers in Ventura County have averaged between 600 and 900 30lb. boxes per acre. Yields of 800, 900 and 1000 boxes per acre are used as samples to demonstrate the effect of yields on cost per box.

Varieties and Seed

Poinsett 76 has become the standard variety. It is advisable to try test plantings of hybrid varieties. Some of them have advantages in disease resistance and tolerance to unfavorable conditions that more than justify the extra cost of seed. Gynoecious hybrids have few or no male flowers; so seed companies mix a small amount of seed of similar varieties that produce male flowers and provide the pollen for setting fruit.

Soil and Climate

Climate of the whole Oxnard Plain and the surrounding valleys is suitable for cucumber production. Temperatures very close to the coast are barely warm enough for cucumbers, so it is best to avoid fields within 5 miles of the coast for the earliest and latest plantings.

When to Plant and Harvest

Cucumbers require warm soil for germination and warm weather for satisfactory growth and development of fruits. The early plantings may be made in March and successive plantings may continue into August. Harvesting begins when enough of the earliest fruit has reached market size to justify cost of harvesting and continues until there is not enough fruit to cover the cost of harvesting.

Planting, Cultivation and Weed Control

Cucumber seeds may be planted in the moist soil of a well-formed seed bed from which it will emerge without irrigation. However, a more common practice is to rely on furrow or sprinkler irrigation for germination. The seed of open-pollinated varieties is planted at the rate of two or three pounds per acre. With precision planting the seeding rate can be reduced to one and one-half pounds per acre for the more expensive hybrid seed.

Cucumbers are usually planted on conventional vegetable beds with a center to center spacing of forty inches. The two rows planted in eighty inches are located near the shoulders of the bed on opposite sides of a pair of beds occupying eighty inches. The center furrow in this eighty-inch space is eliminated and this leaves the cucumber beds with center to center spacings of eighty inches. The spacings across the furrows, which also have a center to center spacing of eighty inches, is twenty-six inches. The spacing between rows on the bed is fifty-four inches. Soon after emergence the plants thinned to single plants about twelve inches apart.

When runners are a little over a foot long, the runners that grow into the furrows are moved by hand so as to direct them toward a center of the bed. This operation is called turning vines and usually needs to be done twice. Weeds are controlled primarily by early cultivation which takes out early weeds and creates a mulch of dry soil over most of the bed before it is covered with cucumber foliage.

Pollination

A cucumber fruit starts to grow before its flower opens, but growth will not continue unless the flower is pollinated. If pollination is incomplete, the fruit will not be straight and smooth. Although there may be enough honey bees in some locations for satisfactory pollination of small fields, there is a good chance of improving quality and yield by bringing in a hive of bees per-acre when the first blossoms open.

The greatest need for extra bees is in big fields and in fields of gynococious hybrids. Bees are most effective if hives are placed near the center of the field so that bees need not fly more than 400 feet to reach any part of the field.

Acres, Yields, and Prices as Reported by Ventura County Agricultural Commissioner

<u>Year</u>	<u>Acres</u>	<u>30-Lb. Boxes Per Acre</u>	<u>\$Per Box</u>	<u>\$Per Acre</u>
1971	704	600	2.07	1241
1972	677	783	2.31	1805
1973	655	793	2.45	1940
1974	471	709	2.31	1642
1975	392	838	3.13	2631
1976	459	828	3.60	2981
1977	552	864	4.17	3603
1978	578	867	4.83	4186
1979	600	736	4.82	3148
1980	829	597	4.27	2549
1981	925	704	5.53	3900
1982	921	493	4.19	2065
1983	598	543	5.19	2819
1984	789	561	4.77	2679

**MARKET CUCUMBERS
CASH FLOW INCLUDING LAND RENT AND SUPERVISION**

Mar.	Apr.	May	June	July	Aug.
<u>Start</u>					
\$780					
<u>Grow</u>					
\$500					
<u>Harvest</u>					
\$975					

LOW AND HIGH THURSDAY LOS ANGELES WHOLESALE MARKET PRICES
 FOR FRESH CUCUMBERS IN DOLLARS PER
 30 POUND CARTON OF 36 TO 42 FRUITS 1978 THRU 1984

DOLLARS PER 30 POUND CARTON OF 36 TO 42 FRUITS * AND : = .25

	0	2.5	5	7.5	10	12.5	15
JUN 78	#####	#####	#####	#####	#####	#####	#####
JUL 78	#####	#####	#####	#####	#####	#####	#####
AUG 78	#####	#####	#####	#####	#####	#####	#####
SEP 78	#####	#####	#####	#####	#####	#####	#####
OCT 78	#####	#####	#####	#####	#####	#####	#####
NOV 78	#####	#####	#####	#####	#####	#####	#####
00000000							
JUN 79	#####	#####	#####	#####	#####	#####	#####
JUL 79	#####	#####	#####	#####	#####	#####	#####
AUG 79	#####	#####	#####	#####	#####	#####	#####
SEP 79	#####	#####	#####	#####	#####	#####	#####
OCT 79	#####	#####	#####	#####	#####	#####	#####
NOV 79	#####	#####	#####	#####	#####	#####	#####
00000000							
JUN 80	#####	#####	#####	#####	#####	#####	#####
JUL 80	#####	#####	#####	#####	#####	#####	#####
AUG 80	#####	#####	#####	#####	#####	#####	#####
SEP 80	#####	#####	#####	#####	#####	#####	#####
OCT 80	#####	#####	#####	#####	#####	#####	#####
NOV 80	#####	#####	#####	#####	#####	#####	#####
00000000							
JUN 81	#####	#####	#####	#####	#####	#####	#####
JUL 81	#####	#####	#####	#####	#####	#####	#####
AUG 81	#####	#####	#####	#####	#####	#####	#####
SEP 81	#####	#####	#####	#####	#####	#####	#####
OCT 81	#####	#####	#####	#####	#####	#####	#####
NOV 81	#####	#####	#####	#####	#####	#####	#####
00000000							
JUN 82	#####	#####	#####	#####	#####	#####	#####
JUL 82	#####	#####	#####	#####	#####	#####	#####
AUG 82	#####	#####	#####	#####	#####	#####	#####
SEP 82	#####	#####	#####	#####	#####	#####	#####
OCT 82	#####	#####	#####	#####	#####	#####	#####
NOV 82	#####	#####	#####	#####	#####	#####	#####
00000000							
JUN 83	#####	#####	#####	#####	#####	#####	#####
JUL 83	#####	#####	#####	#####	#####	#####	#####
AUG 83	#####	#####	#####	#####	#####	#####	#####
SEP 83	#####	#####	#####	#####	#####	#####	#####
OCT 83	#####	#####	#####	#####	#####	#####	#####
NOV 83	#####	#####	#####	#####	#####	#####	#####
00000000							
JUN 84	#####	#####	#####	#####	#####	#####	#####
JUL 84	#####	#####	#####	#####	#####	#####	#####
AUG 84	#####	#####	#####	#####	#####	#####	#####
SEP 84	#####	#####	#####	#####	#####	#####	#####
OCT 84	#####	#####	#####	#####	#####	#####	#####
NOV 84	#####	#####	#####	#####	#####	#####	#####
DEC 84	#####	#####	#####	#####	#####	#####	#####

0 2.5 5 7.5 10 12.5 15

CUCUMBERS FOR FRESH MARKET

Yield: 800, 600, and 1,000 30-lb boxes/A

Land Use: 4 months

Plant: Mar, Apr, May, and June

Harvest: Jun, Jul, Aug, Sep, and Oct

	Labor Per Acre					Total Per A
	Tractor	Hr	Cost	Tractor & Machinery	Contract & Materials	
CULTURAL CASH COSTS						
Prepare Land and Establish Stand		8.77	\$68.34	\$62.89	\$31.41	\$162.64
Pre-Plant Fertilizer			Contract	400 Lb 16-20	70.00	70.00
Fumigate Soil			Contract		140.00	140.00
Seed				3 lb @ \$7.00	21.00	21.00
Sideress Fertilizer(Early)				60 lb N @ \$.41/lb	24.60	24.60
Thinning		8.00	56.08			56.08
Hoe		8.00	56.08			56.08
Turn Vines 2x		30.00	210.30			210.30
Cultivate(Late 1x)	65 HP	.26	2.22	2.43		4.65
Irrigation(Late 2x)		4.00	29.88	.98 .6A-Ft @ \$35	21.00	51.88
Sidedress Fertilizer (Late)	65 HP	.26	2.22	2.37 60 lb/A N @ \$.41 lb	24.60	29.19
Pest Control					50.00	50.00
Disc and Roll Refuse	160 HP2x	.38	3.24	8.64		11.88
Total Cultural Cash Costs		59.67	\$428.36	\$77.31	\$382.61	\$888.28

CASH OVERHEAD

Land Rent	@ \$56.25 per acre-month x 4 months	\$225.00
Taxes on Machinery	@ .31 per acre-month x 4 months	1.24
Supervision	@ 10.45 per acre-month x 4 months	41.80
General Expense	@ 4% of Cash Cultural	35.53
Interest on Operating Capital	@ 1.04% per acre-month	61.10
Total Cash Overhead		\$364.67
Total Cash Costs Except Harvesting		\$1,252.95

HARVESTING, PACKAGING, AND SELLING COSTS

Pick and Haul	\$1.20 x 800 boxes	\$960.00
Pack and Load	\$1.30 x 800 boxes	1,040.00
Sell	8¢ x \$5.00 x 800 boxes	320.00
Total Harvesting, Packaging, and Selling Cash Costs	\$2.80 Per Box	\$2,320.00
Total Cultural, Overhead, Harvesting, Packaging, and Selling Cash Cost		\$3,572.95

INVESTMENT OVERHEAD

Depreciation: Tractor & Machinery	\$31.82	Transportation & Shop	\$6.24	\$38.06
Intrest: Tractor & Machinery	\$20.36	Transportation & Shop	2.56	22.92
Total Investment Overhead				\$60.98
Total Cost Per Acre	@ 800 30 lb boxes/A			\$3,633.93
Total Cost Per Acre	@ 600 30 lb boxes/A			\$3,079.93
Total Cost Per Acre	@ 1,000 30 lb boxes/A			\$4,193.93

Total Cost Per Box	@ 800 30 lb boxes/A	\$4.54
Total Cost Per Box	@ 600 30 lb boxes/A	\$5.12
Total Cost Per Box	@ 1,000 30 lb boxes/A	\$4.19

EQUIPMENT LIST AND OPERATION COSTS FOR A 350-ACRE VEGETABLE FARM, VENTURA COUNTY, DECEMBER 1961

TRACTORS	Cash Cost/Hr	New Cost	Acres Per Year	Hours Per Yr	Life-Years	OVERHEAD COSTS				CASH COSTS PER ACRE	LABOR COSTS	
						DEPRECIATION Per Year	12.5% INTEREST Per Year	Per Hr	Per Hr			
160 HP MD	\$17.00	\$65,000	600	1,300	10	\$6,500	\$5.00	\$4,062	\$3.15	Hand	\$5.35	\$7.01
65 HP MD	8.00	48,000	750	850	14	1,286	1.50	1,125	1.32	Tractor	6.50	8.52
65 HP MD Big Wheels	9.06	24,500	2,500	850	14	1,750	2.06	1,531	2.06	Irrigator	5.70	7.47
Subsoiler, 5 Shanks, 7.5'	3.25	4,000	600	192	15	\$ 266	\$.44	\$ 215	\$.36			
Plow 5'18", 2-way 7.5'	4.58	9,000	750	240	10	900	1.20	562	.75			
Disc and Roller 13 1/2'	5.73	11,500	2,500	475	7	1,642	.66	709	.29			
Landplane 14'	3.85	17,000	1,500	270	15	1,133	.75	1,062	.71			
Drag Harrow 20'	1.00	1,800	1,200	156	15	120	.10	112	.09			
Field Cultivator 24'	1.10	4,000	1,200	336	15	267	.22	250	.21			
Harrow or Cultivate		1,000	3,500		10	100	.03	62	.02			
4 40-inch Beds (13.3')	.35	65 HP	2,450	637								
4 30-inch Rows (10')	.35	65 HP	600	204								
3 60-inch Rows (15')	.35	65 HP	450	104								
Sled, Shape Beds, Plant		12,000	750	293	10	1,200	1.60	750	1.00			
4 40-inch Beds (13.3')	6.60	65 HP	600	51								
3 60-inch Rows (tomatoes) (15')	6.60	65 HP	150									
Plant Beans 8 rows	.55	65 HP	2,500	34	15	167	.83	156	.78			
Side-dress fertilizer	1.10	65 HP	4,500	143	10	450	.82	281	.81			
TOTAL TRACTORS AND IMPLEMENTS		\$174,800	550			\$15,751		\$10,887				4.59
IRRIGATION												
Sprinkler System (1,000 gpm/10 Acres)		32,000	900	900	10	3,200	3.56	2,000	2.22			7.50*
2,000 Ft. gated pipe 8"		9,775	2,200	2,200	10	978	.44	611	.27			2.00
Irrigation pipe trailer		2,225	3,100	310	13	148	.05	139	.05			14.94
TOTAL IRRIGATION		\$44,000				\$4,326		\$2,750				7.50*
TOTAL TRACTORS, IMPLEMENTS & IRRIGATION		\$218,800				\$20,077		\$13,637				22.51*
TRANSPORTATION AND SHOP TOOLS												
Pickup 1/2 ton (2)		\$18,000			5	\$4,000		\$1,250				
Truck 1 1/2 ton		15,000			8	1,875		936				
Shop tools		5,500			10	550		344				
Tractor trailer		2,200			15	147		136				
TOTAL TRANSPORTATION AND SHOP		\$40,700				\$6,572		\$2,670				
MONTHLY CHARGE FOR DEPRECIATION AND INTEREST ON TRANSPORTATION AND SHOP						\$1.56/A-Mo		\$.64/A-Mo				
TOTAL ALL EQUIPMENT		\$259,500				\$26,649		\$16,307				

CASH COST CHARGED TO SUPERVISION
CASH COSTS COVERED BY GENERAL EXPENSE
(14% OF CULTURAL COSTS OR 4% OF CULTURAL COSTS AND HARVEST COSTS).

1-1/2.58 of 1/2 cost new
1/2 8.52 and 1 man @ \$7.01 per Hr.
1/2 07 per acre for trailer
1/2 32.00 per acre-inch for fuel

20 YEARS ON EQUIPMENT!
5(259,500) x .01 = \$3.31 per acre-month
4,200 acre-months

