COOPERATIVE AGRICULTURAL EXTENSION • UNIVERSITY OF CALIFORNIA

Agricultural Briefs

SACRAMENTO COUNTY

1977 - SAMPLE COSTS TO PRODUCE CANNING TOMATOES AND CULTURAL PRACTICES

Soil Requirements: Grown on a wide variety of soils. Must be free of injurious salts, disease, four feet or more in depth, and have good moisture holding capacity. Should not be grown where Rhizoctonia, Fusarium, Verticillium or Phytophthora have been a problem.

Planting Dates: February through May. Schedule planting to assure about the same acreage available for harvest each week. Plant when the true leaf is about 0.5 inches long in the seedlings of the previous planting.

Harvest Dates: August, September, or until stopped by rain in the fall, usually October.

Varieties: VF-7879, VF-317, U.C. 82, VF-134 (Hard to harvest if you do not have updated shaker on machine) U.C. 82, a new variety, generally higher yielding than VF-7879 but with lower solids. It has a deeper root system than VF-7879, could possibly cut water off sooner.

Seeding Rate: 0.5 to 1.0 pounds per acre, either machine drilled solid and thinned to 9 - 12 inches between plants, or clump planted 5 seeds every 9 - 12 inches; rows 5 feet apart.

Fertilizer: Preplant nitrogen of 100 to 150 lbs/acre. A combination of 8-24-5 at a rate of 25 gal/acre or equivalent dry fertilizer placed 1 inch to the side and 1 or 2 inches below the seed will help to get plants off to a good start.

Irrigation: Plants must have adequate water at all times but the soil moisture should be exhausted at harvest time. Four - 5 acre feet of water usually applied. Over-irrigation will cause root pruning and disease.

Weed Control: Tillam® applied preplant incorporated will give good control of nutsedge, and fair control of H. nightshade. Devrinol® and Trefmid® will give good control of annual weeds when applied preplant incorporated in a band. Trefmid® should not be used with early plantings; root pruning will occur under cool conditions. Treflan® will give good control of annual weeds when applied layby after thinning. Tillam® should be incorporated shallow (1 1/2 - 2 inches) for control of H. nightshade; and deeper (3 - 4 inches) for control of Y. nutsedge. Vegedex® should be used for control of dodder. Fields with resistant weed problems should be planted last when temperatures are warmer. Tillam® and Vegedex® do not last long and if used early, they will not give control when the weeds come later. Eptam® (a short residual herbicide) may be used layby; do not irrigate for 5 days after treatment.

Insect Control: Tomato f ·it worms require insecticide applications. Control of root-knot nematodes requires a rotation involving use of non-host crops between tomatoes, and application of a nematacide prior to planting. Dibrom® - Toxaphene® will give adequate control of insects.

cont'd.

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COOPERATIVE EXTENSION WORK IN AGRICULTURE AND HOME ECONOMICS, Division of Agricultural Sciences, University of California, U.S. Department of Agriculture and County of Sacramento cooperating

Disease Control: Root disease can be controlled somewhat by carefully controlling irrigations. Irrigate every other row, shorter runs, etc. Black mold can be controlled by 2 to 3 applications of Difolitan®. Current varieties are not resistant to Race II fusarium.

Ripening: Ethrel® can be applied at 5 to 20 percent pink to red fruit showing. A rate of 3 - 3 1/2 pts/acre is adequate to hasten ripening by 7 to 10 days.

1977 - SAMPLE COSTS OF GROWING CANNING TOMATOES
Bin & Bulk Harvest

OPERATION	Hours/ Acre	Labor	Fuel & Repairs	Materials Kind & Quantity	Total
SEEDBED PREPARATION					
Fall-					
Disc, plow & subsoil (CD) (150 acres) 3/7 at 1.60	0.69	2.48	11.91		$ 14.39
Disc 2x, subsoil 2x (CD) (200 acres) 4/7 of 0.90x2	1.03	3.71	12.72		16.43
Land plane 2 x (350 acres) (120 WD)	0.75	2.70	5.61		8.31
Spring-					
Disc 2x (120 WD)	0.60	2.16	5.22		7.38
Springtooth (94 WD)	0.12	0.43	0.81		1.24
Harrow & roll (94 WD)	0.17	0.61	0.90		1.51
List or ridge (120 WD) Pre-fertilize	0.25	0.90	1.57	150 lb/ac Aqua-Nitrogen $24	26.47
Move equipment, set-up, and service at 7% of operation time.	0.25	0.90			0.90
TOTAL					$ 76.63
PLANTING					
Sled, shape, incorporate (120 WD) Herbicide 2/5 area	0.40	1.44	3.45	Tillam 6#/ac $10.68 Devrinol 2#/ac 9.92	$ 25.49
Plant (2 men), starter (94 WD) fertilizer	0.33	2.38	2.39	Seed 1# @ $18/lb Starter fert. $23.40 25 gallons 8-24-5	46.17
Move equip., set-up & service at 10% of operation time	0.04	0.14			0.14 0.30
TOTAL					$ 72.10

Prepared by Jack P. Orr, Farm Advisor Sacramento County; with the help of Les Lyman, Harvey Lyman-Agricultural Service and Robert J. Mullen, Farm Advisor San Joaquin County.

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OPERATION	Hours/ Acre	Labor	Fuel & Repairs	Material Kind & Quantity	Total
GROWING					
Roll, Cultivate-sled & (94 WD) implements	1.00	3.68	7.39		$ 11.07
Thin-machine blocker (94 WD)	0.30	1.08	1.33		2.41
Tiller & lay-by herbicide (94 WD)	0.50	1.80	8.95	Treflan 1-1/2 pt/ac $6	16.75
Cultivate & furrow 1x	0.25	0.90	1.81		2.71
Hoe (trim & hoe)	15.25	45.76			45.76
Ditch-open & close 3x	0.12	0.43	0.84		1.27
Irrigate 10x	15.00	49.50		5 ac. ft. @ $8	
				siphon dams $40	89.50
				shovels $ 1.50	1.50
Insect control, seedling stage				1x Sevin mole 28 ft/ac $ 10.50 $7 + air app. $3.50 2/3 gal/ac	
Insect control, seedling stage				2x Dibrom-Tax 1.0 lb/A 12.00	24.00
Insect control,(worm control) Fungicide applied with insecticide				2x Difolitan 4 pts/ac 5.37 2x Air application 3.50	10.75 7.00
Ethephon				3.5 pts/ac $23.52 Air application 3.50	27.02
Whitner				$10/100 lb.	10.00
TOTAL					$260.24
MISC. OPERATING AND GROWING COSTS					
Labor transportation, Supervision, records, office, pick-up truck, interest on operating capital and roadways. 10% of all cultural costs above					40.89
Soc..Sec., workmans Comp, transportation, bonuses, housing, medical.				30% cash wages $122.21	36.66
TOTAL					$ 77.55
TOTAL CULTURAL COSTS					$486.52
Rent Share rent				17 1/2 - 22 1/2% based on 17.5 x 24 T/A x $0/A	$240.62

Cont'd.

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Bin & Bulk Harvest

Cont'd. *HARVEST (bulk)	Hours/ Acre	Labor	Fuel & Repairs	Materials Kind & Quantity	Total
1. Machine (harvester)	2.2		30.47 (13.85/m)		$ 30.47
2. Driver @ $4.25	2.1	11.48			11.48
3. Sorters - 14 @ $3.60	2.2	92.40			92.40
4. Sorter supervisor @ 3.60	2.2	7.92			7.92
5. Driver 1 1/2 @ $3.60	2.4	12.96			12.96
6. 5th wheel dolly 1 1/2	2.2		2.95		2.95
7. Tractor 1 1/2 @ $6.02	2.2		13.24		13.24
8. Mechanic & Supervisor @ $6.00	2.7	16.20			16.20
9. Misc.equip. disc, scraper water trailer, pick-up truck @ $22/hr day	2.2		4.84		4.84
10. Misc. supplies, drinks, goggles, $6.60/day				1.47	1.47
11. Inspection @ 16¢/ton					3.84
12. Social Sec, workman's comp, bonus, transportation @ 30% of cash wages of steady employee	48.56				14.57
13. Social Sec. workman's comp. ins. on sorters 10% of $92.40					9.24
14. Additional charges for seasonal labor, bookkeeping, $3/day/man 14 men x $3.60 =42 ÷ 4.5 ac/day					9.33
15. Toilets					1.00
TOTAL BULK HARVEST COSTS					$231.91
*Taxes on bulk harvest equipment 789 x 0.93 = 733.77 x 25% = $183.54 assessed value x 0.13 (eliminate tractors, trailer & forklift adds tractor & 5th wheels) (Sacto. Co. tax rate) Taxes based on 1976 equip. cost.					$ 23.86
Assessments					4.37
TOTAL CASH COSTS					$987.28
Management - 5% of 25 tons/acre @ $55.00					66.00

INVESTMENT	Per Acre	Annual Cost Depreciation	Interest	
Buildings	$ 36.00	$ 1.20	$ 1.44	
Equipment (bulk harvest)	554.37	69.80	22.20	
	$590.37	$77.00	$23.64	94.64
TOTAL COST PER ACRE BULK HARVEST				$1147.92
Cost per ton at 30 tons/acre yield				38.26
Cost per ton at 25 tons/acre yield				45.91
Cost per ton at 20 tons/acre yield				57.39