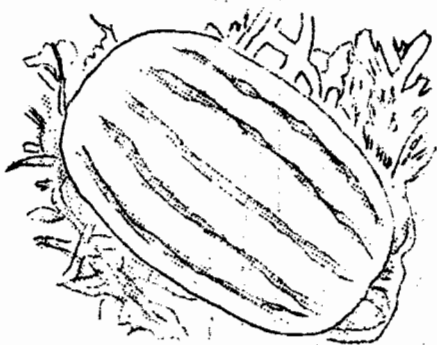


watermelons

sample costs

and
production



Cooperative Extension
University of California
Imperial County
Court House, El Centro

Cost Data Sheet No. 5

WATERMELONS--SAMPLE PRODUCTION COSTS--1982-1983

Mechanical operations at custom rates. Hand labor at \$5.50 per hour (\$4.30 plus Social Security, unemployment insurance, transportation, supervision and fringe benefits).

Yield--10 tons per acre. 120 days to maturity.

OPERATION	Custom Rate	MATERIALS		HAND LABOR*		SAMPLE COSTS Per Acre
		Type	Cost	Hours	Dollars	
LAND PREPARATION						
Subsoil	24.00					\$ 24.00
Disc 2x	8.00					16.00
Border, cross check & break borders	12.00					12.00
Flood		Water $\frac{3}{4}$ ac/ft	5.63	1	5.50	11.13
Fertilize	6.00	400# 11-48-0	52.00			58.00
Border disc & rerun	26.00					26.00
TOTAL LAND PREPARATION						\$ 147.13
GROWING PERIOD						
Fumigation	10.00	Fumigant	45.00			\$ 55.00
Plant & shape beds	14.00	Seed 2# @ 8.00	16.00			30.00
Pollination		1½ hives @ 18.50	27.75			27.75
Thin				8	44.00	44.00
Cultivate 4x	14.00					56.00
Fertilize & furrow out 2x	12.00	200# N @ 34¢	68.00			80.00
Weed 2x				6	33.00	33.00
Irrigate 6x		Water 3 ac/ft	22.50	7	38.50	61.00
Pest control 7x	4.50	Insecticides	80.50			112.00
Split beds 1x	10.00					10.00
GROWING PERIOD						\$ 508.75
GROWING PERIOD & LAND PREPARATION COSTS						\$ 655.88
Land Rent (net acres)						200.00
Cash Overhead--12% of preharvest costs & land rent						102.70
TOTAL PREHARVEST COSTS						\$ 958.59
HARVEST						
Pick, haul, sell, and load 10 tons/acre \$42/ton						\$ 420.00
TOTAL ALL COSTS						\$ 1378.59

Cost per ton = \$137.86 @ 10 tons/ac

* Includes shovel work, pipe setting and tractor work.

YEAR	ACRES	YIELD/ACRE (TONS)	VALUE/TON
1977	2300	8.8	\$ 89
1978	1790	13.0	166
1979	2781	10.2	95
1980	3633	11.0	154
1981	3732	9.8	172

PLANTING DATES: Watermelons are planted from January to March.

VARIETIES: Improved Peacock is the most popular variety. It has a dark green skin, brilliant red flesh and a tough rind, which makes it an excellent shipper. Picnic is a dark green-skinned, fusarium-resistant watermelon also being produced. It is similar to Peacock with high uniformity and very sweet flesh. Calsweet which has a red flesh and striped skin may also be used.

SPECIAL CULTURAL PRACTICES: Vine turning helps to keep vines on the high sloped beds used for early production. Covering the melons with vines helps to prevent sunburn. Some growers are using lower 40" sloped beds, planting alternately to reduce tractor expense. The beds are thrown together later during the season as the plant grows.

SOILS: Watermelons are best grown on non-saline, sandy loam or split loam soils. Soil temperatures of 95°F are optimum for germination. Black asphalt mulch and hot caps are also used to improve temperatures in the seedline.

IRRIGATION

After planting, the first irrigation should run until the beds are completely subbed. Following emergence, water may be withheld for long periods of time. Watermelons should not be stressed for water near harvest.

FERTILIZERS

Two hundred pounds of P₂O₅ are often applied preplant. Up to 200 pounds of nitrogen are later sidedressed in split applications. The preplant phosphate may be injected as 10-34-0 or phosphoric acid at planting.

PESTS AND DISEASES

Cutworms, aphids, spider mites, darkling ground beetles, leafhoppers, cabbage loopers, and leafminers are the most serious pests of watermelon. Bacterial

rind rot is the most serious disease. Watermelon mosaic virus can severely distort the fruit and vines, reducing yield. For latest information, consult your farm advisor.

HARVESTING

A sharp knife is used to cut melons from the vines. Pulled melons may crack open. Melons are picked on the basis of color change, thumping, and rind roughness. Color change is the most reliable. Loss of natural protection on the fruit can increase sunburn. Exposed fruit are covered with vines during the harvest period to prevent sunburning each time the field is harvested. A field may be covered more than five times to protect the fruit. Most fields are picked twice and some a third time depending upon market value and the degree of sunburned fruit. Some growers harvest watermelons with a special belt harvester. The fruit are hand

picked and then placed on the belt which transports them to the central part of the machine. The melons are sorted and packed in large, sturdy cardboard cartons.

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INCOME ABOVE ALL COSTS PER ACRE

Price Per Ton

Tons Per Acre	\$ 100.00	115.00	130.00	145.00	160.00
8	- 495	- 375	- 255	- 135	- 15
9	- 437	- 302	- 167	- 32	+ 103
10	- 379	- 229	- 79	+ 71	+ 221
11	- 321	- 156	+ 9	+ 174	+ 339
12	- 263	- 83	+ 97	+ 277	+ 457

To simplify our information, it is sometimes necessary to use trade names of products or equipment. No endorsement of named products is intended nor is criticism implied of similar products which are not mentioned.

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