

Summer Squash Projected Production Costs 1989-1990

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

Yield - 500-20 lb. cartons per acre

Approx. 70 days to maturity.

OPERATION	CUSTOM RATE	MATERIALS		HAND LABOR		COSTS Per Acre
		Type	Cost	Hours	Dollars	
LAND PREPARATION						
Stubble disc	18.25					18.25
Disc 1x	9.50					9.50
Landplane 2x	10.00					20.00
Border, cross check and break borders	15.00					15.00
Flood		1/2 ac.ft.	5.50	1	5.50	11.00
Disc 2x	9.50					19.00
Fertilize	6.00	250# 11-52-0	33.75			39.75
List beds	18.50					18.50
Rerun beds	10.00					10.00
TOTAL LAND PREPARATION COSTS						161.00
GROWING PERIOD						
Plant & shape beds	19.00	Hybrid seed 2# @23.50/lb	47.00			66.00
Thin				8	46.00	46.00
Move bed top	15.75					15.75
Center beds	13.75					13.75
Cultivate 1x	16.00					16.00
Fertilize & furrow out 1x	11.00	80# N @ .31	24.80			35.80
Hand weed 1x				6	34.50	34.50
Irrigate 10x		4 ac.ft.	44.00	9	51.75	95.75
Pollination		1 hive/acre	18.00			18.00
Insect control 4x	5.00	Insecticides	36.00			56.00
Disease control 2x	5.00	Fungicides	20.00			30.00
Disc out beds	9.50					9.50
TOTAL GROWING PERIOD COSTS						437.05
GROWING PERIOD & LAND PREPARATION COST						598.05
Land Rent (net acres)						200.00
Cash overhead		12% of preharvest cost and land rent				95.77
TOTAL PREHARVEST COSTS						893.82
HARVEST						
Pick, haul, grade, pack and sell		500 cartons @	2.60 per carton			1300.00
TOTAL ALL COSTS						2193.82

PROJECTED INCOME ABOVE COSTS (PER ACRE)

	price/carton					Breakeven \$/box	
	3.00	4.00	5.00	6.00	7.00		
Cartons per acre	400	-734	-334	66	466	866	4.83
	500	-694	-194	306	806	1306	4.39
	600	-654	-54	546	1146	1746	4.09
	700	-614	86	786	1486	2186	3.88
	800	-574	226	1026	1826	2626	3.72

SQUASH CULTURE

1989-1990

YIELD: Acreage is usually below 500 and statistics on actual yields are not published. Typical yields ranges from 300 - 800 cartons per acre.

PLANTING DATES: Fall plantings are seeded in late August and September. Spring plantings are made in late December and early January for plantings. Open grown spring squash is planted in January, February and March.

VARIETIES: Dark green zucchini is the predominant type produced. Popular varieties include "Chefini", "Raven", "Ambassador" and "Onyx". "Dixie" is the main yellow variety and "Peter Pan" is a popular scallop type. Planting rates vary from 1 1/2 pounds seed/acre for hand planting with hill drops on 60 inch beds to 6 pounds for the machine planted crop.

SOILS: Squash is produced on a wide variety of soils. Fields should be low in salinity.

IRRIGATION: After planting, the beds are subbed past the seedline. Following emergence, irrigation may be used sparingly until flowering to maintain soil warmth and promote early production. Once fruit formation has started, the beds are kept moist.

FERTILIZERS: Two hundred fifty pounds of 11-52-0 should be applied before listing the beds. Up to 100 pounds of nitrogen may be sidedressed. Growers vary in fertilizer practices. Water-run applications of nitrogen fertilizers are often used. Care should be taken not to over fertilize yellow crookneck grown on sandy ground, as too much nitrogen can give the yellow fruit a green tinge.

PESTS & DISEASES: Squash leafcurl and lettuce infectious yellows are virus disease spread by the sweet potato whitefly, and have become serious problems in fall planted squash. All squash are affected; yellow crookneck, straightneck and scallop varieties are more severely injured than zucchini. Watermelon mosaic virus and zucchini yellows mosaic virus can damage any spring planted squash. There are no chemical control measures effective on infected squash, and control of the aphid vectors (after they have fed on squash plants) will not prevent infection. Floating row covers have been successfully used as insect excluders and have provided good virus control for both seasons. The cost for row covers is approximately \$800 per acre.

Other pest problems include: powdery mildew, leafminer, aphids, crickets, ground beetles, leafhoppers, mites, cutworms, birds, and rodents. Seed loss to birds or rodents can require extensive replanting. Poison baits are available through the Agricultural Commissioner's office.

HARVESTING: Squash is hand harvested. Zucchini fruits are selected when they are 8 - 10 inches in length. Fruits which grow too large are in less demand and, therefore, sell at lower prices. The squash is hauled in picking boxes to local sheds where the fruits are graded to size and quality and then packed in 18 to 25 pound cartons. Normal grades include extra fancy, medium, large and choice, depending on demand at harvest time.

SPRING SQUASH: South-sloped, 5-foot beds are frequently used for spring squash plantings. Brown craft paper is used to form a wind barrier and heat trap. It is fixed upright on the south shoulder of east-west beds with stakes, wire and arrow weed (brushing). Another method used is to support the paper with lath (staking). The lath are spaced one foot apart on both sides of the paper. The lath cost four cents each and last from 10 to 20 years. The 15 inch craft paper cost \$150/acre with installation and removal costing \$250/acre. Floating row covers are also used for early planting. The covers provide early season frost protection and a "greenhouse effect" which hastens crop maturity. These covers cost \$600-\$700/acre. Some growers use black plastic mulch to obtain early spring crops. The mulched squash fields are usually grown under drip irrigation. The plastic mulch cost \$150-\$200/acre with an additional \$50/acre for removal.

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
-----------------	---------------

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