

# ZUCCHINI SQUASH USING PLASTIC MULCH AND TUNNELS

SQ-VS-90

## Cost Analysis Work Sheet - 1990

Prepared by Pedro Ilic, Fresno County Farm Advisor

Sample costs to produce Zucchini Squash Using Plastic Mulch and Tunnels in Fresno County are based on 1,200 boxes per acre. Each box weighs approximately 28 lbs. Field labor is \$5.50 per hour cost to the grower reflecting 7.65% social security, 3.4% unemployment insurance and 11.3% workmen's compensation. The grower has invested in various specialized pieces of equipment to lay mulch, and build tunnels. Zucchini squash is planted 5' apart between rows and 2' apart in the row. This is one crop on a 80 acre farm, where raisin grapes and vegetables are produced.

### PRE-HARVEST COSTS:

	<b>Per Acre</b>	<b>Per Box</b>
<b>Land Preparation</b>		
3hrs. labor + tractor & implements	\$50.25	
Laser Leveling, Custom	\$75.00	
Weed Control (40gal. Methan Sodium @ \$5.00)	\$200.00	
<b>Sprinkler Rental</b>	\$345.00	
Labor to install (2hrs.)	\$11.00	
<b>Plastic Mulch</b>		
Plastic	\$171.00	
(1.5 hrs. labor + tractor & implement to install)	\$16.75	
<b>Drip Tape</b>	\$162.00	
<b>Fertilization</b>		
Preplant	\$68.60	
Application (5hrs. labor + tractor)	\$5.75	
<b>Post Planting</b>		
Nitrogen (200 lbs.)	\$84.48	
Planting (10 hr labor + 1.5 hr tractor & planter)	\$64.00	
Plants (3,360 - \$110/1000)	\$399.00	
<b>Tunnel Construction</b>		
Plastic material	\$280.00	
(12 hrs labor & 3 hrs tractor & implement)	\$84.00	
<b>Irrigation (PG&amp;E-\$50 @ 3 mnth.)</b>	\$150.00	
<b>Plastic Removal</b>		
Shredder Rental	\$11.25	
(1 tractor + labor)	\$11.50	
<b>Plastic Mulch Removal (drip tape)</b>		
(8 hrs . labor + 2 hrs. tractor)	\$56.00	
<b>Plastic Disposal</b>	\$60.00	
<b>Miscellaneous Expenses</b>	\$100.00	
<b>Office Expenses (6% preharvest costs)</b>	\$144.31	
<b>TOTAL PRE-HARVEST COSTS</b>	<b>\$2,549.89</b>	<b>\$2.12</b>

**HARVEST COSTS**

	Per Acre	Per Box
Picking	\$1,500.00	\$1.25
Boxes	\$840.00	\$0.70
Packing & Hauling	\$600.00	\$0.50
Transportation & Cooling	\$180.00	\$1.15
<b>TOTAL HARVEST COSTS</b>	<b>\$3,120.00</b>	<b>\$2.60</b>
<b>TOTAL CASH COST</b>	<b>\$5,669.89</b>	<b>\$4.72</b>

**DEPRECIATION**

Tractor 75 hp (large)	\$43.00	
Kubota tractor	\$50.00	
Tunnel machine	\$35.00	
Equipment - wire hoops	\$41.00	
Shed (other)	\$3.00	
Drip irrigation	\$70.00	
<b>TOTAL DEPRECIATION</b>	<b>\$242.00</b>	<b>\$0.20</b>

**INTEREST ON INVESTMENT AT 8%**

1/2 cost of \$30,000 for 80 acres	\$15.00	
Tractor, tunnel equipment, & wire	\$54.00	
Shed	\$2.00	
Drip irrigation (filters, mains, etc.)	\$28.00	
<b>TOTAL INTEREST ON INVESTMENT</b>	<b>\$99.00</b>	<b>\$0.08</b>
<b>TOTAL COST OF PRODUCTION</b>	<b>\$6,010.89</b>	<b>\$5.00</b>

Note: These costs are arrived through a careful review of activities a successful grower takes to produce zucchini squash using tunnels, mulches and drip irrigation. Weed control, in this case, is expensive but it was included as such since there is increasing interest in using this type in the field. However, for it to be effective, it must be sprinklered in with at least 1.5" of water. Rental of the sprinkler system is expensive and cost prohibitive if used in only 1 acre. Should the grower have used the sprinkler in more than one acre, the cost of using it per acre would have declined by half with the second acre, to a third with the third acre, and so forth. Of course, this cost would be minimized should the grower own a suitable sprinkler system he could use. There are other methods of controlling weeds which can be effective as well. Consult with your PCA or your local farm advisor for more information.