

A productive vineyard requires much labour in the form of ploughing (twice a year), pruning, pest control, and picking. As in olive culture, most of the labour input is furnished "free" by members of farm families whose opportunity cost is low. But unlike olives, family heads play a more active role in managing their vineyards, since that is more justified from a profitability point of view.

#### Profitability situation

Due to the minimal commercial value of grapes grown in other districts, this study of profitability was restricted to vineyards in Bethlehem/Hebron grape corridor. The sample consisted of 15 farmers, 10 from Hebron district and 5 from Bethlehem. Due to marked differences in costs and returns of all three methods of grape cultivation, their profitability has been individually ascertained (7 creeping, 5 standing, 3 trellised). The results are summarized in Table (VII-8).

Unlike olives, land development costs of vineyards are too recent to ignore. Out-of-pocket cost items incurred in land development were added to pre-maturity costs and amortized on the life span of the vineyard.

Table (VII - 8)  
Profitability of grapes

	Unit	Trellised			Standing			Creeping		
		JD/unit	Quantity	Value JD	JD/unit	Quantity	Value JD	JD/unit	Quantity	Value JD
<u>Variable costs</u>				48.6			34.25			30.25
a. Labour - total				34.3			24.9			21.0
Ploughing	don	3.33	3	10.0	3.33	3	10.0	3.33	3	10.0
Pruning	man/day	3.00	1.5	4.5	3.00	1	3.0	3.0	2/3	2.0
Fertilization	"	1.60	1	1.6	1.6	2/3	1.1	1.6	2/3	1.10
Spraying	"	3.00	1	3.0	3.0	2/3	2.0	3.0	2/3	2.00
Thinning leaves	"	1.60	2	3.2	1.6	1	1.6	1.6	2/3	1.10
Picking & packing	"	(2.40)	1	2.4	2.4	2/3	1.6	2.4	1/2	0.80
		(1.60)	6	9.6	1.6	3.5	5.6	1.6	2.5	4.00
b. Materials - total				12.8			8.25			8.25
Fertilizers	kg	0.08	60	4.8	0.08	40	3.20	0.08	40	3.20
Pesticides				8.0			5.05			5.05
Sulfer	kg	0.17	25	4.25	0.17	15	2.55	0.17	15	2.55
Polidol	litre	5.00	0.75	3.75	5.00	0.5	2.50	5.00	1/2	2.50
c. Interest	%	10	1/3 year	1.5			1.1			1.0
Amortized Foundation costs				9.0			3.6			2.5
PRODUCTION COSTS - total				57.60			37.85			32.75
Marketing costs - total				28.00			15.40			7.12
Transportation	per ton	1.5	2	3.0	1.5	1.14	1.70	1.5	0.75	1.12
Commission	%	10	250	25.0	10	137	13.70	10	60	6.00
Boxes - provided free by commission agents										
TOTAL COSTS				85.60			41.45			33.25
TOTAL RETURNS	ton	125	2	250.0	120.0	1.144	137.0	80.0	0.75	60.0
NET RETURNS										
- family labour included				164.4			95.5			24.7
family labour excluded				193.4			112.5			48.7