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10/67

PU-SV-67-1

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PRUNE RAISING IN BUTTE COUNTY

PRUNING

Prune trees, especially older ones, are not pruned in very great detail. Removal of dead limbs and cross limbs is usually all that is accomplished. The early development of the tree, however, is quite important -- pruning heavy enough to avoid tree breakage with the crop but not overdone which results in stunted trees. Generally the "long pruning" method is practiced.

SPRAYING

Prunes are generally sprayed less than most other tree crops. A dormant or delayed dormant spray will control most scale types, aphid eggs, and twig borers with one spray. A second spray in the summer for mites and twig borer is generally necessary. Brown rot sprays during "popcorn" are also applied in some orchards.

FERTILIZING

Nitrogen applications in the range of 60-100 pounds of actual nitrogen are used in most mature prune orchards. Non-bearing trees generally have sufficient vigor without added nitrogen. In some areas potassium (potash) is deficient and must be added in massive doses. Generally 20 to 25 pounds of potassium sulphate per tree (one ton per acre) is drilled in the "drip zone" of the tree every five years. Heavy crops will rapidly reduce the K content of the tree if the trees are on marginal K land.

THINNING

Thinning by chemical (spray thinning) is carried on by some growers. It may be necessary, in heavy crop years especially, to reduce tree dieback under marginal potassium conditions discussed above. It is used only in a limited way up to now as the timing is somewhat difficult.

DISEASES

Prunes are plagued with diseases in some areas. Bacterial canker, where severe, is a serious threat. Oak root fungus will also attack prunes and is severe in some areas. Brown rot, while not killing the trees, can reduce the crop or make it unsaleable. Sprays are fairly successful against this problem. Ceratocystis canker is a common problem following shaker injury at harvest.

HARVEST

The greatest changes in the prune industry have come in the harvest operation. Most prunes are shaken mechanically from the tree and in many orchards are caught on catching frames. This enables two to six men to harvest the entire crop on a medium-sized operation. The greatest drawback has been the injury caused by improper and too rapid an operation of the shaker. Through this injury the ceratocystis invades, causing the loss of limbs.

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SAMPLE COSTS TO PRODUCE PRUNES

Butte County - 1967

Production data: 2½ dry tons (6.7 green
with 2.7 to 1 dry away)
90 trees/acre

Skilled labor: \$2.00
Common labor: \$1.75 (includes
social security and work
insurance)

Operation	Hours Per Acre	Cash and labor cost per acre			Total
		Labor	Fuel and Repairs	Materials Kind and Quantity Cost	
Cultural costs					
Prune 90 trees @ .35		31.50			\$ 31.50
Brush removal	1.5	3.00	1.80		4.80
Spray - Dormant	.5	1.00	1.90	6.00	8.90
Bloom - Captan	.5	1.00	1.90	4.80	7.70
Summer + Mites	.5	1.00	1.90	15.00	17.90
Fertilizer	.4	.80	.30	90 lbs. N @ 11¢	11.00
Irrigation - Ridge (3x)	.7	1.40	.85		2.25
Knock (3x)	.4	.80	.50		1.30
Irrigate(4x)	8.0	14.00		Water, etc.	22.00
Disc, cult., plane (6x)	3.0	6.00	3.60		9.60
Float (2x)	1.0	2.00	1.20		3.20
TOTAL CULTURAL COSTS		62.50	13.95	43.70	120.15
Harvest costs					
Rent bins (24 bins/100 green tons)				1.6 bin/acre @4.50	7.20
Spot bins	.2	.40	.15		.55
Shake and catch				12 bins @6.00	72.00
Load and haul	1.15	2.30	1.25		3.55
Dehydrate 6.7 ton				@18.50/ton	123.95
TOTAL HARVEST COSTS		2.70	1.40	203.15	207.25
Cash overhead					
Misc., office, etc.				16.00	16.00
Taxes				35.00	35.00
Rent					
TOTAL CASH OVERHEAD				51.00	51.00
TOTAL CASH COST		65.20	15.35	297.85	378.40
Management 5% of 2½ ton @ \$260 per ton					32.50
INVESTMENT					
	Per Acre	Annual Cost			
		Depreciation	Interest		
Land	1200	-	72.00		
Trees	1000	25.00	30.00		
Irrigation system	180	9.00	5.40		
Buildings	130	4.35	3.90		
Equipment	300	3.00	9.00		
Total:	2810	41.35	120.30		161.65
TOTAL COST PER ACRE					572.55
Cost per dry ton @ 2.5 dry ton yield					\$229.02

79.75
3330
85 m

572.55
35.00
149.65
32.50
195.00
550.4