Quality Evaluation of Fresh, Canned and Dried Plum Varieties in Oregon*

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Prunes are becoming an increasingly popular fruit and new varieties now being evaluated may broaden the versatility of the fruit through new flavors, better size, and better production characteristics. Most of the prunes grown in the Northwest are the popular dual-purpose Italian variety. Some of the earlier ripening strains of Italian such as Richards and Milton are favored in the early ripening districts for fresh fruit shipment. In the major production areas of Western Oregon the Italian variety has been a mainstay of the industry for over fifty years. However, it has certain disadvantages which have plagued growers for years. Italian prunes usually ripen in late September when pickers are scarce, and after fall rains set in. Rains, in addition to making orchards muddy, encourage brown rot. Also, Italian prunes tend to have a rather acid flavor, while many consumers prefer a sweeter taste. Another limitation is that flesh of the fruit often clings to the seed.

The objectives of the variety testing trials in Oregon are to find new varieties with the following characteristics: (1) sweetness and palatability; (2) early ripening, preferably about September 1–5; (3) freestone type flesh easily separated from the stone; (4) a greater degree of brown-rot resistance; and (5) better processing quality, especially drying ratios.

Total solids of plums is quite important to processors because it affects drying ratio. The ideal variety for processing should have a high total solids, purple color and glossy appearance. Prunes that have a high water content in the firm-ripe stage do not dry well.

Canned plums were rated on the basis of four quality factors—flavor, texture, juice color and general appearance.

Data on some of the more outstanding varieties are tabulated in Table 1. Several older varieties are included for purposes of comparison. Among the outstanding varieties in these tests were Parson, Stanley, Merton, Milton Early Italian, and Moyer Perfecto.

Apricot Breeding in California

Improved varieties of apricots are badly needed for the San Joaquin Valley of California, says Dr. John Weinberger, U. S. D. A. fruit breeder of Fresno, California. High temperatures in the Valley when apricots are maturing is causing a browning of the flesh near the pit of varieties now being grown. A second need is for varieties with a capacity for retaining their firmness as they ripen. Present varieties are too soft for shipment when picked almost ripe, and have to be harvested so green that they never do ripen properly.

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Table 1. **Summary of Quality Evaluation of Fresh, Canned and Dried Plum Varieties in Oregon.**

Variety	Approx. ripening date	Fresh plums at time of processing			Canned plums		Dried prunes			
		Total solids	Sugar to acid ratio	Drying* ratio	Eating quality	Appearance	Flavor	Ranking** of cooked prunes	Count of conditioned dried prunes per pound	General acceptance of packaged dried prunes
Merton	9/1	18.8	37.5:1	4.5:1	fair	fair	acid	3.5	62	good
Parson	9/1	19.5	39.4:1	3.7:1	poor	fair	subacid	3.6	62	very good
Stanley	9/10	15.4	56.2:1	4.2:1	good	outstanding	sweet	2.3	41	good
Miller Sweet	9/5	18.9	40.3:1	3.8:1	poor	fair	sweet	2.6	53	good
Milton Early Italian	9/5	21.2	48.4:1	3.3:1	very good	very good	acid	2.5	69	good
Demaris	9/10	16.8	41.8:1	3.9:1	fair	fair	acid	2.9	56	fair
Richard Early Italian	9/10	19.2	38.5:1	3.5:1	poor	poor	acid	1.9	57	fair
Brooks	9/15	15.4	24.1:1	4.1:1	fair	poor	acid	3.1	37	good
Noble	9/12	22.1	45.5:1	3.3:1			sweet	2.2	34	good
Moyer Perfecto	9/30	20.3	33.3:1	3.3:1			sweet	2.5	38	good
Imperial	9/10	23.7	47.2:1	2.8:1			sweet	2.1	47	good
Italian	9/20	20.2	17.8:1	3.5:1	good	very good	acid	2.3	53	fair

*Ratio of weight of fresh product required to make one pound of the dried.

**Ranked from 1, poor, to 5, excellent, in quality on fine quality factors (flavor, texture, juice color, appearance and general appearance).