Some New Plum Varieties in California

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In the period 1952–54 the California Experiment Station and the United States Department of Agriculture introduced six shipping plum varieties adapted to California producing areas. They were: Burmosa, Redheart, Laroda, Redroy, Queen Ann, and Nubiana. It is of interest to note the trends in their utilization and market performance.

Since the introduction of these varieties, several factors favored commercial planting of plums, and encouraged growers to try new varieties.

First, shipping plum acreage was expanding, particularly in the San Joaquin and Sacramento Valleys; this was partly due to the attractiveness of plums as compared to alternative tree crops on land removed from other agricultural enterprises; i.e., cotton. Second, some of the better plum varieties were in surplus production, so that varieties ripening at different times proved attractive. Third, several minor varieties were rapidly disappearing because of consistently low returns, hence new varieties appeared to be worth the risk as commercial ventures. These factors stimulated above average acceptance of new varieties. However, these new plantings should still be considered experimental from the commercial viewpoint, and a similar review ten years hence may not substantiate the present trend.

Two of the six varieties, Redheart and Redroy, have not been planted in substantial numbers, and are omitted from the statistical material below. For comparative purposes, the 13 leading shipping plum varieties are included in the accompanying tables, in order of decreasing total acreage.

Table 1 shows the 1960 status of the 13 leading varieties as measured by total plantings. The four new varieties have attained 7th, 8th, 10th,

Table I. Bearing and non-bearing acreage standing in 1960.[1]

Variety	*Bearing*	*Non-Bearing*	*Total*	*Per-Cent Non-Bearing*
Santa Rosa	8,289	1,708	9,997	17.1
Duarte	3,137	117	3,254	3.7
Beauty	2,095	155	2,250	6.9
Late Santa Rosa	1,300	515	1,815	28.4
President	1,462	106	1,568	6.8
El Dorado	1,023	342	1,365	25.0
NUBIANA	300	887	1,187	74.7
LARODA	383	803	1,186	67.7
Tragedy	669	270	939	28.7
QUEEN ANN	388	386	774	49.8
Kelsey	675	61	736	8.3
BURMOSA	526	85	611	13.9
Wickson	421	16	437	3.7

[1]Source: California Fruit and Nut Acreage. California Crop and Livestock Reporting Service, USDA Statistical Reporting Service and California Department of Agriculture, Bureau of Agricultural Statistics. June, 1961.

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and 12th acreage positions in the six to eight years following introduction. While these positions are substantial (the California Tree Fruit Agreement statistics lists 27 varieties plus an "others" category which encompasses some 25–30 minor varieties), it is evident that they are still relatively minor varieties in relation to such leading ones as Santa Rosa, Duarte, Beauty, and Late Santa Rosa. The high percentage of non-bearing acreage may be expected to drop rapidly, especially with Nubiana, Queen Ann, and Laroda, which were practically non-existent in commercial plantings before 1954.

Table II shows the degree of continuing interest in these 13 varieties. Santa Rosa dominates the statistics, as befits its position as the outstanding and predominant variety. Nubiana and Laroda maintain strong second and third positions, with the exception of large planting of Casselman in 1961. (see footnote 1, Table II). Recent plantings of Burmosa have been small, which possibly indicates a "wait-and-see" attitude on the part of growers. For the three years shown, the four newer varieties together have accounted for 52, 40, and 33 percent of all plum plantings in California.

Table III is more complex, and is designed to show the impact of these new varieties on the shipping plum market and on plum growers. The 1960 production season was used as the base year because this was the latest year for which accurate bearing acreages were available. Certainly, the selection of another year, or a weighted average of several years, would markedly change the rank of some of the dollar values shown. For example, El Dorado is commonly a high-return variety, but in 1960 the average New York auction price received for this variety was relatively low.

Production figures are based on the combined statistics of the California Tree Fruit Agreement (Interstate) and California Fresh Plum Advisory Board (Intrastate) report of shipments, and are indicative of marketable production. For dollar values,

Table II. Nursery trees sold during last three seasons.[1]

Variety	1958–59		1959–60		1960–61	
	No. sold	*Per cent of total*	*No. sold*	*Per cent of total*	*No. sold*	*Per cent of total*
Santa Rosa	39,542	25.1	29,914		29,933	
Duarte	745	0.5	212		217	
Beauty	3,469	2.2	471		3,644	
Late Santa Rosa	11,883	7.5	10,994		8,204	
President	1,218	0.8	3,433		2,958	
El Dorado	9,473	6.0	10,782		4,151	
NUBIANA	34,413	21.9	21,649		19,210	
LARODA	35,976	22.9	17,579		16,542	
Tragedy	1,389	0.9	2,527		1,850	
QUEEN ANN	8,993	5.7	9,463		7,658	
Kelsey	1,876	1.2	3,507		3,182	
BURMOSA	461	0.3			3,160	
Wickson	———	——	1,260		545	

[1]Source: California Crop and Livestock Reporting Service, 1961.

Note 1: In 1959–60 3,010 trees (2.5%) and in 1960–61 26,347 trees (19.1%) of the Casselman variety were planted.

Note 2: For estimating approximate acreage, 100 trees/acre can be used for convenience.

Table III. Production in relation to bearing acreage in 1960.

Variety (1)	*Bearing acreage* (2)	*Yield in 4-basket Crates*[2] (3)	*Yield per acre (Crates)* (4)	*Price/crate* (5)	*Return price/acre* (6)
Santa Rosa	8,289	2,112,795	255	$5.30	$1352
Duarte	3,137	427,688	136	2.97	404
Beauty	2,095	587,284	280	5.01	1403
Late Santa Rosa	1,300	415,651	320	5.17	1654
President	1,462	371,770	254	5.74	1458
El Dorado	1,023	355,926	348	4.81	1674
NUBIANA	300	80,902	270	5.15	1390
LARODA	383	108,437	283	5.08	1438
Tragedy	669	64,367	96	4.46	428
QUEEN ANN	388	81,902	211	5.88	1241
Kelsey	675	121,187	180	6.35	1143
BURMOSA	526	111,714	212	5.58	1183
Wickson	421	99,051	235	4.98	1170
Totals & averages All production	23,268	5,297,403	228	4.73	1078

[1]Source of prices: California Tree Fruit Agreement, 1961.
[2]California Fresh Plum Advisory—statistics are in lugs. For purposes of this analysis, lugs and 4-basket crates are considered equivalent.

the weighted New York Auction price (as reported by the California Tree Fruit Agreement) is shown. Only a portion (5–20 percent) of the interstate shipments are sold on the New York auction. These values can be considered, therefore, as indicative of general rank only. Intrastate sales are included on the presumption that, in general, intrastate market receipts will differ mainly in the cost of shipping to eastern markets, although this is certainly not always true. Therefore, it is emphasized that while these calculations are useful in indicating rather gross differences, they are artificial. There is no way of knowing if these figures favor or penalize the new varieties.

It is evident that each of the four varieties produce adequately as measured by saleable packages per acre. Their rank may be expected to approach higher yields, since more of the plantings are in their early productive life as compared to the older standard varieties.

The New York auction prices have also placed these varieties among the better varieties. However, the weakness of using these prices to indicate returns has been mentioned.

The average price return per acre for 1960 is calculated as the product of columns 4 and 5 in Table III. It is evident that the returns from these 13 varieties as a group exceed the average returns of all plums shipped in California, even though the two low-return varieties, Duarte (low because of dollar value per crate) and Tragedy (low because of poor yield per acre), are included.

Although it is difficult to predict the future of new varieties released only six to eight years ago, these statistics do indicate that the market has accepted them in competition with older, standard varieties; that plantings have placed the new ones among the top half of the varieties grown in California; and that these four introductions will therefore retain important positions among the varieties grown in California for the next several years.

Specifically, Laroda and Queen Ann may increase in relation to Burmosa and Nubiana. The latter has shown a tendency to crack in sufficient amount to discourage new plantings. Burmosa, an early-ripening variety, may retain its present acreage status, but there is a better than average probability that the Burmosa acreage will increase slowly.

Since marketable production will increase as this new acreage comes into full bearing, per crate returns may decrease. However, increased production per acre, due to older tree age, will very probably offset lower per package returns, and therefore yield as much or higher gross return per acre.

Leo G. Klein (1912–1962)

Leo G. Klein, age 50, of the Department of Pomology of the New York Agricultural Experiment Station, Geneva, died at his home, Aug. 22, 1962. He was stricken while working in his garden among the gladioli that he loved.

Mr. Klein was born in Guelph, Ontario and obtained his B.S. degree in Pomology at the Ontario Agricultural College in 1936. He received his M.S. degree in Pomology at Cornell University in 1956. In 1949 he joined the staff of the New York Station at Geneva, as a Research Associate in Pomology, and remained there until his untimely death.

Mr. Klein was a key figure in the New York Station's apple breeding and variety evaluation program. His skill and knowledge in this area has won for him national recognition. One of the apples which he selected has just been introduced, the variety 'Wayne', an early Northern Spy type, which rates high for processing.

He has been an active member of the American Pomological Society for many years, and had been chairman of the Committee for Tree Fruit Exchange for the past three years. He did a fine job directing the Variety Roundtable discussion at the last annual meeting of A. P. S. at Toronto. Mr. Klein's death is a great loss to his colleagues, as well as to his family and friends.

Surviving him are his wife, Marie Barry Klein; a son Barry, 19; six daughters, Donna, 17, Mary Anne, 15, Susan, 13, Catherine, 9, Karen 6, and Heather, 4; his mother, Mrs. Mary Klein; and brothers and sisters in Guelph, Ontario.

Summer Apples for Kentucky

Summer apples can be profitable, although the demand for them is not great. What is more, they can be grown without some of the problems we face with the later varieties, according to C. S. Waltman, of University of Kentucky. He points out that they require less spraying, and are therefore cheaper to grow than the later sorts. Also, their crops are usually harvested before the trees are hurt by prolonged summer droughts. Summer varieties recommended by Professor Whitman, for Kentucky in order of ripening are as follows: Close (June 19–July 3), Redbird (June 25–July 10), Henry Clay (July 3–15), Transparent (July 3–20), Wrixparent (July 10–27), Lodi (July 12–25), Anoka (July 18–25), Melba (July 19–25), Polly Eades (July 26–Aug. 3), Red Gravenstein (July 25–Aug. 5), Early McIntosh (July 25–Aug. 2), and Imperial Rambo (Aug. 18–26).