

Four new shipping freestone peaches for California

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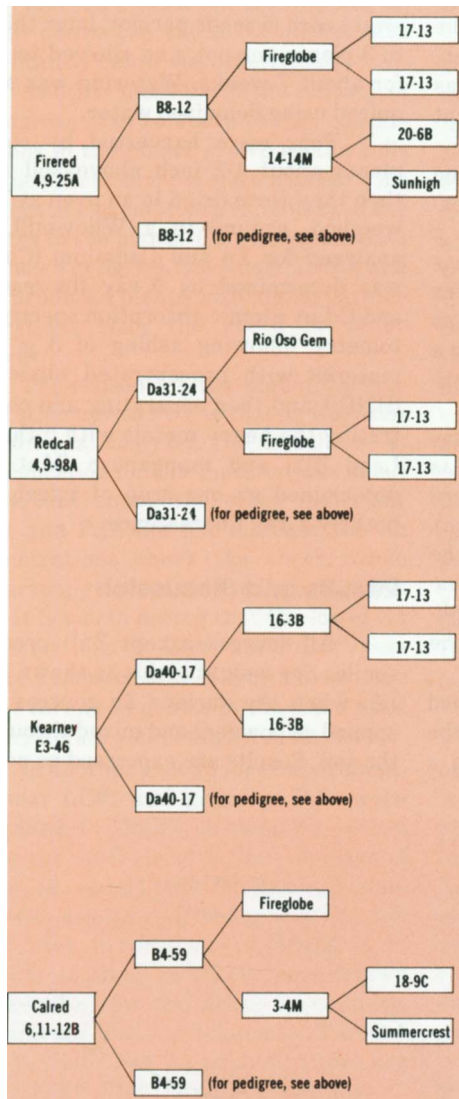


Fig. 1. Pedigrees of the four new peach cultivars.

| Phenological Data for the Four New Peach Cultivars and FAY ELBERTA for Five Years, 1972-1976, Kearney Horticultural Field Station | | | | | | |
|---|------|--------------------|-------------------|------------------|--------------------|----------------|
| Growth stage | Year | FIRERED 4,9-25A | REDCAL 4,9-98A | KEARNEY E3-46 | CALRED 6,11-12B | FAY ELBERTA |
| First bloom | 1972 | 2/28 | 2/28 | 2/29 | 2/27 | 2/27 |
| | 1973 | 2/23 | 2/24 | 2/24 | 2/23 | 2/23 |
| | 1974 | 2/27 | 3/2 | 3/2 | 2/27 | 2/27 |
| | 1975 | 3/4 | 3/5 | 3/5 | 3/3 | 3/4 |
| | 1976 | 2/29 | 3/1 | 3/1 | 2/29 | 3/1 |
| | Avg. | 2/27 | 3/1 | 3/1 | 2/27 | 2/27 |
| Full bloom | 1972 | 3/8 | 3/8 | 3/8 | 3/6 | 3/6 |
| | 1973 | 3/6 | 3/9 | 3/9 | 3/7 | 3/6 |
| | 1974 | 3/12 | 3/15 | 3/16 | 3/14 | 3/11 |
| | 1975 | 3/14 | 3/15 | 3/19 | 3/11 | 3/14 |
| | 1976 | 3/13 | 3/16 | 3/19 | 3/13 | 3/15 |
| | Avg. | 3/11 | 3/13 | 3/14 | 3/10 | 3/10 |
| First leaf | 1972 | 2/29 | 3/2 | 2/27 | 2/28 | 2/29 |
| | 1973 | 2/28 | 3/6 | 3/4 | 3/2 | 3/2 |
| | 1974 | 3/5 | 3/9 | 3/6 | 3/6 | 3/8 |
| | 1975 | 3/10 | 3/13 | 3/11 | 3/4 | 3/6 |
| | 1976 | 3/12 | 3/15 | 3/14 | 3/9 | 3/13 |
| | Avg. | 3/5 | 3/11 | 3/7 | 3/4 | 3/6 |
| Ripe | 1972 | 7/24 | 7/30 | 8/2 | 8/14 | 7/26 |
| | 1973 | 8/1 | 8/13 | 8/11 | 8/30 | 7/30 |
| | 1974 | 7/29 | 8/5 | 8/8 | 8/25 | 7/31 |
| | 1975 | 8/8 | 8/14 | 8/16 | 8/30 | 8/6 |
| | 1976 | 8/1 | 8/15 | 8/14 | 8/27 | 8/2 |
| | Avg. | 7/31 | 8/9 | 8/10 | 8/25 | 7/31 |

Firered, Redcal, Kearney, and Calred are four new freestone shipping peaches introduced by the University of California in 1977. All are highly colored clones, ripening in the above named sequence from about August 1 to August 25, as shown in the table. Their pedigrees are given in figure 1.

Firered and Redcal resulted from a cross made in 1960. The cross yielding Kearney was made in 1955, and that yielding Calred was made in 1962. All were first selected four years after the cross was made, and all were propagated at the Kearney Horticultural Field Station (KHFS) in 1965.

Grower-cooperative test plantings were authorized in 1972 and 1973. These plantings began fruiting in 1975. They have been productive and have received favorable grower reaction. Kearney is somewhat less colorful than the others, but it yields a good frozen product and will be useful for this outlet.

Phenological data for five years at the KHFS are given in the table, with similar data for Fay Elberta for comparison. Blooming and leafing data show these varieties behave similarly to Fay Elberta in their climatic adaptation. Redcal and Kearney apparently have a slightly higher chilling requirement, as they bloom and leaf out 1 to 3 days later than Fay Elberta.

Firered matures, on the average, with Fay Elberta—but is much more highly colored. Redcal and Kearney ripen nearly together, and 9 to 10 days after Fay Elberta; both develop a high red blush, Redcal more so than Kearney. Calred ripens about 25 days after Fay Elberta, and is also highly colored. All are of excellent eating quality, being mild, flavorful, and with good firmness and texture. The outstanding characteristic of these four clones is their high external red color which develops into an attractive blush by shipping maturity. In this regard, they are superior to other varieties in their season.

The trees have all exhibited good vigor, with an upright-spreading habit. They have been uniformly fruitful during their bearing years at the KHFS. Firered and Redcal particularly require adequate thinning to produce acceptable sized fruit, with special attention being given to the low, hanger wood. Kearney and Calred appear to have a slightly greater ability

than the other two to size large crops. All have consistently produced good to heavy crops with acceptable fruit sizes. Packed fruit has peaked at approximately 48 to 50 size (3 inch diameter).

All varieties have large, showy, pink flowers. Firered and Kearney have globose foliar glands; Redcal and Calred have reniform ones.

The following varietal characteristics require special attention. Firered, as already mentioned, will require adequate thinning on weaker bearing wood and low hangers. Redcal exhibits the same requirement and the fruit, if not well filled, may have a slightly protruding suture toward the apex. Kearney does not have as much red blush as the other three, and the fruit is slightly more elongated and irregular in shape. Calred ripens relatively late, and may not color well by shipping maturity in those seasons which are not conducive to color formation by all cultivars.

All of these varieties should be grown under a medium nitrogen fertilization program to achieve best color development. Trees grown under high nitrogen fertilization programs may not color fully, and may retain a greenish-yellow ground color when harvested at shipping maturity.

None of these cultivars will withstand prolonged storage at 32°F for more than 21 to 25 days. Kearney yields a very satisfactory frozen product; none are suited for commercial canning because of their high red color.

Patent rights to these peach varieties are owned by The Regents of the University of California. Qualified nurserymen may obtain licenses for propagating and selling Firered (Plant Patent 3,973), Redcal (Plant Patent 3,978), Kearney (Plant Patent 3,976) and Calred (Plant Patent 3,977) from the University of California Board of Patents, 485 University Hall, 2200 University Avenue, Berkeley, California 94720, phone (415)642-4777. In accordance with University policy, propagating material will be supplied only by the Foundation Seed and Plant Materials Service, at the University of California, Davis.

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