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Avocado Variety Trials

Progress report describes tree and fruit characteristics of four most promising varieties in test at Riverside

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Four avocado varieties—in an experimental orchard of 36 varieties at Riverside—appear to be promising for commercial plantings.

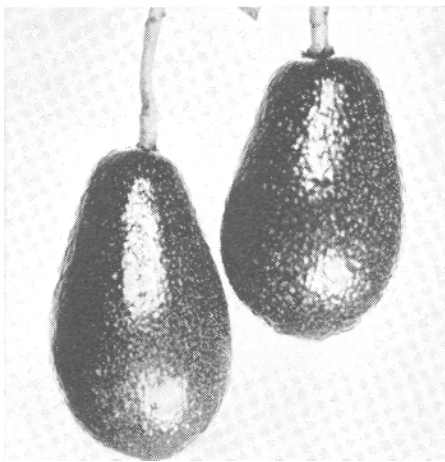
The variety trial was started in 1943 when 36 varieties including 16 strains of the Fuerte, were planted in virgin land. Since then, new varieties have been added and unsuitable ones discarded.

The tested varieties are kept under observation for a sufficient period of time to determine their behavior as to amount and regularity of fruit production, fruit quality, frost resistance, blooming period, and tree characteristics. Those found unsuitable for the climatic conditions at Riverside are topworked to a new variety or pulled out to make room for a replacement planting.

Three of the four varieties which appear to be most promising for commercial production are of the Mexican race— *Persea drymifolia*—the Duke, the Emerald, and the Zutano.

The fourth variety, the Hass, is of the Guatemalan race.

The Emerald avocado.



Duke

The Duke is an old variety, and has long been recommended for planting in the interior districts.

The tree is large, moderately spreading, and resistant to cold. The fruit is medium in size, somewhat pear-shaped, with a smooth green skin. The seed is of medium size and usually loose.

For the past season the fruit averaged 6.4 ounces, the seed one ounce, and the oil content 10.2%. The quality is only fair.

The season at Riverside is September and October. When mature the fruit drops heavily. Its main use will

continue to be for planting in the home garden.

The Duke may have some promise for limited commercial planting because of its earliness.

Emerald

The Emerald is of rather recent origin, 1928, and came from San Diego County.

The tree is tall and rather upright. It has been moderately hardy to frost at Riverside. The cold winter of 1948-49, with a low of 25°F, damaged about 20% of the fruit and caused only small damage to low-hanging foliage.

Top, the Emerald variety; bottom, the Zutano variety.



The attractive, bright green, pear-shaped fruit is of medium size. The fruit has averaged 7.5 ounces and the seed two ounces plus. The oil content averaged 19% for the season. The quality is good.

The season is December 15 to April. This variety has borne good crops rather regularly at Riverside. The Emerald appears to warrant consideration for planting in interior districts.

Zutano

The Zutano is from San Diego County and originated in 1926. The tree is tall, slender and upright. It is one of the cold resistant varieties and similar to Duke in this respect.

The fruit is pear-shaped, medium to large in size, and has a green skin fruit has averaged 10 ounces and the seed two ounces plus. The oil content averaged 14.5% for the season. The quality is good. The season is December 15 to February. It is the most consistent producer of good crops of all the varieties under test.

The Zutano can be recommended for the home garden and may have some commercial possibilities in the inland districts.

Before commercial plantings are made, the grower should investigate market outlets.

Hass Variety

The Hass comes from Orange County and is one of the newer varieties. The tree is large, moderately spreading, and— at Riverside—moderately frost resistant. During the winter of 1948-49 the tree suffered only slight leaf and twig damage. However, the fruit was severely damaged and about 90% of it dropped. The fruit is medium size, the skin pebbled and leathery, green colored early in season becoming black when ready to eat. The Hass avocado fruit has averaged seven ounces and the seed one ounce in weight. The oil content averaged 17% as early as April. The quality is good. The season at Riverside is from April to August. This variety has been a consistent producer of medium to heavy crops.

The Hass may be considered for commercial planting in the warm locations of the interior area.

Other Varieties in Test

The varieties included in the original planting that have been found to be poor producers under the conditions prevailing at Riverside are: E 28, Karen, Middleton, Leucadia, Gottfried, Frances, Nabal, MacArthur, Wurtz, Campbell, Encanada, Edranol, Taft, Hellen, MacPherson, and Kimmel. They include nearly one half of the original varieties. Of the remaining varieties of the first planting, several are in the doubtful class and need further observation.

The following varieties have been added to the orchard since 1943: Kimball, Sonora, Hartman, Courtright, GeHee, Rincon, Strong, Boley, Monica, Silliman, Santa Barbara, Routh, Mayo, Bacon, Tantos Fuerte, Harms, Wright, Geib, Dr. White, DeBard, Lois, Fuerte, Larry, and Wilhorne. None of them has been under trial long enough to draw definite conclusions.

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