The Canby Red Raspberry

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Agricultural Experiment Station and the U. S. Department of Agriculture Cooperating
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Although red raspberries seem well adapted generally to western Oregon, there are in reality few varieties that can be successfully grown that will fulfill the requirements of both growers and consumers. Breeding for the purpose of obtaining varieties better able to meet these needs has been the objective of a cooperative effort of the Oregon Agricultural Experiment Station and the U. S. Department of Agriculture. A great many seedling red raspberries have been grown and various selections have been tested in many areas, particularly Clackamas County. As a result of the cooperative effort, a selection has been released for unrestricted trial and distribution and named Canby.

Canby red raspberries have attracted much attention because they are large, have good color and flavor, keep well as a fresh-market berry, and have very satisfactory quality in the frozen pack. At present no other red raspberry variety grown in Oregon has this combination of characteristics. When plants are well grown, their yields have equaled those of standard varieties. Growers who have tested the Canby believe that it will meet a present need for a variety having the combination of desirable qualities mentioned. Therefore, the Canby has just been named and released.

Origin

The Canby has been tested as Oregon 549 in the cooperative breeding project of the U. S. Department of Agriculture and the Oregon Agricultural Experiment Station at Corvallis, Oregon. It is a seedling of the cross Viking x Lloyd George made in 1933. Seedlings of this cross were planted in 1934 and one was selected as Oregon 549 in 1937. Since 1937 many tests have been made at Corvallis and in Clackamas and Multnomah counties, Oregon, and plantings have also been made at other places in Oregon and Washington.

Fruit Characteristics

The Canby raspberries appear to be especially well adapted for local markets and for long-distance shipment. In this respect, they seem definitely superior to those of varieties now grown in Oregon. Their bright, medium-light red color gives them an attractive appearance superior to that of Willamette berries. Canby berries also have been found to be among the best in retaining color, firmness, and texture after holding at room temperature for several hours and in cool storage for three days. They are superior to berries of the Washington variety, which are much too soft for local markets and long-distance shipment.

Canby raspberries are also much larger than Cuthbert or Washington, both of which average only about 2.4 grams per berry, while Canby averages 3 to 4 grams per berry. These berries are only slightly smaller than those of Willamette and Newburgh, which produce larger berries than other varieties now grown.

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The Canby originated and was tested as part of the small-fruit breeding investigations conducted jointly by the Division of Fruit and Nut Crops and Diseases, Bureau of Plant Industry, Soils and Agricultural Engineering, Agricultural Research Administration, United States Department of Agriculture, and the Oregon Agricultural Experiment Station.
Figure 1. Vigorous cane growth of the Canby Red Raspberry has been obtained under favorable growing conditions.

Figure 2. Fruiting habit of the Canby. Note that canes are completely free of thorns, greatly increasing the ease of picking.
Frozen-pack and canning tests have also been made for several years by the Food Technology Department of Oregon State College. Canby berries are considered suitable for canning, but they are not always rated best—chiefly because their light red color, when canned, is not so attractive as that of the darker Cuthbert, Washington and Willamette varieties.

Tests, however, show that Canby fruit is very satisfactory for freezing. In the frozen pack, it has color which is lighter red than Washington or Willamette, but darker than Newburgh. The general appearance has been good, but occasionally the berries are somewhat soft. The typical raspberry flavor is not quite so strong as in Cuthbert or Washington and, because the flavor is less intense, Canby is more pleasing to many people than Washington or Cuthbert. The flavor of Canby, however, is more characteristic than that of Willamette and the berry is less acid, a characteristic which makes its dessert quality definitely superior to that of Willamette.

**Plant Characteristics**

The canes are characteristically large in diameter, giving the appearance of stockiness. Most good canes range from 1/2 to 5/8 inch in diameter. Canby plants do not produce so many canes per hill as do the Cuthbert, Washington, and Willamette varieties, but when well grown the canes are straight and average nearly as tall, frequently being 8 feet or more in height and occasionally more than 10 feet. Absence of spines is a particular characteristic of this variety.

The large stocky canes produce flower and fruit buds closer together along the canes than do Cuthbert canes. Medium-long, strong-fruiting clusters are produced. They are not so long, however, and have fewer berries per cluster than those of the Washington.

The fruiting season of the Canby corresponds closely to the season of such varieties as Cuthbert, Washington and Willamette. Average date for beginning harvest at Corvallis was June 25 and the average ending date July 24. Canby, therefore, can be considered a mid-season variety.

Although the canes of Canby may be shorter than those of Washington and Willamette, and Canby produces fewer canes per hill, its fruiting habit is considered good. Under good growing conditions the Canby has made vigorous growth and has been fairly productive. In 1945 yields of 3 to 4 tons per acre were obtained at Corvallis on a planting previously damaged by flooding in 1942. Yields of 4 tons per acre in 1950 were obtained on a new planting and in that year Canby outyielded Washington and Newburgh but its yield did not equal that of Willamette. Yields of more than 3 tons per acre were obtained in 1951. At one location in 1952 the yield was less than 3 tons per acre, while Washington and Willamette yields were 5 1/2 tons per acre. The reduction in yield was due to many plants dying out. In another location very suitable for raspberries, Canby yielded nearly 7 tons per acre, outyielding both Washington and Willamette.

**Adaptation**

Tests have not been extensive enough to determine the climatic adaptation of the Canby. Trial plantings in western Oregon and Washington have shown its suitability for this area. Under several different soil conditions, however, tests indicate a definite preference for soils that are deep, open textured, and well drained, as well as fertile. These are the soil conditions under which all raspberries succeed best.

The Canby is definitely more sensitive to unfavorable soil conditions than most other varieties. It is similar to the Washington in this respect. Under poor soil conditions plants have died, sometimes within a year or two after planting and sometimes more slowly. Because of this characteristic, growers are warned that there is a possibility that the Canby might fail under poor soil conditions.

> NO PLANTINGS SHOULD BE MADE ON SOIL THAT IS HEAVY AND HAS A TIGHT CLAY SUBSOIL OR ON ANY SOIL THAT IS POORLY DRAINED.