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TWO NEW VARIETIES OF BLACKBERRY
THE PACIFIC AND THE CASCADE

by

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The western dewberry (Rubus macropetalus) or, as it is commonly known, "trailing blackberry," is generally considered to have the finest flavor of any blackberry. It is a native of the Cascade Mountains from northern California to British Columbia. Though selections from the "wild" from time to time have been grown under cultivation, no selection has ever been very productive. One reason for such lack of productiveness, is that the male and female blossoms are borne on separate plants and the selected plants had female flowers only. Plants bearing perfect blossoms are rarely found in the natural state. Other reasons for the low yields from native selections are the small size of the fruit and the susceptibility of this species under cultivation to the leaf and cane spot, Mycosphaerella rubi.

Some plants bearing perfect flowers and having plant characteristics which indicated that they were natural hybrids between this wild species and cultivated blackberries have been found growing in the "wild." A few private breeders have produced perfect-flowered plants by crossing selections of the wild species with certain cultivated blackberry or dewberry varieties.

In the breeding work carried on by the United States Department of Agriculture in cooperation with the Oregon Agricultural Experiment Station, many crosses have been made between selections of the trailing blackberry and several cultivated varieties. From the large number of hybrid seedlings grown, two selections have been made that are being recommended for trial both for home garden and for commercial uses in western Oregon and Washington. They have been named the Cascade and the Pacific. These new varieties are superior to selections from the wild in that they are perfect-flowered, productive, bear fruit of large size, and are more resistant to leaf and cane spot. The high flavor of the wild trailing blackberry characterizes both these two varieties, and it is largely because of their fine flavor that they have been named and introduced.

Studies made over a period of several years by the Food Industries Department on the canning and freezing qualities of these varieties have shown that they are among the best for such purposes. In jams and preserves they have attracted particular attention because of the fine flavor and attractive dark red color. Recent developments in the food industry are emphasizing juice and puree for flavoring. Since flavor is most essential in such products, these new varieties may become important for such purposes.

Pacific - Origin and Description

The Pacific (Ore. 163) originated from a cross between the Zielinski, a selection of the western dewberry or trailing blackberry (Rubus macropetalus), found in 1926 by B. C. Zielinski of Salem, Oregon, and the Logan. The Zielinski, which bears only pistillate or female blossoms, is productive only when plants with perfect or staminate (male) blossoms are in adjacent rows. The cross was made in 1932, and the Pacific was selected from the resulting seedling progeny in 1935.

The canes are more numerous and somewhat smaller than those of Logan, are grayish-green to red, and are covered with a medium heavy bloom. The prickles are stout, slightly less numerous than in Logan, and green tipped, with a reddish base.

The leaves are dark green, and remain on the canes well into the winter or much longer than those of the Logan.

Its blossoms are perfect, like those of the Logan, and are borne on medium to long laterals. The fruit is long, similar to that of the Logan in shape and size, very uniform, and attractive in appearance. The color is a glossy, very dark red to almost black. The flavor suggests the wild trailing blackberry more than it does Logan, although the acidity is much like that of the latter.

The ripening season of Pacific is about the same as that of Logan and Young. During the last four years, the first ripe berries have appeared between June 17 and June 29. The length of the ripening season is also similar to that of Logan and longer than that of Boysen, usually ending between July 15 and July 30. Its yield has been similar to that of Boysen when growing under similar conditions. However, since the season of Boysen is shorter, the yield per picking is usually not equal to that of Boysen.

Canning and freezing tests have been made each season since 1935. During this time, Pacific has been rated as one of the best for the frozen pack, and by many as superior to either Boysen or Young. In canning it has also been rated as among the best. It has been tested rather widely within the Willamette valley of Oregon, but only slightly outside this area.

Cascade - Origin and Description

The Cascade (Ore. 237), also from a cross between the Zielinski and the Logan, was selected in 1935 from the same group of seedlings as Pacific and is in general appearance similar to it. Like Pacific it has some of the characteristics of each parent.

The canes, like those of Pacific, are somewhat more slender and are more basal branching than those of Logan. The canes are grayish-green to red, the young ones having a light bloom which becomes medium to heavy on older portions and on the old canes. The prickles are numerous, slightly shorter than those of Logan, and about as stout. They are tipped with green and have a reddish base.

The leaves are small to medium in size, smaller than those of Logan. There is a slight pubescence on upper and lower surfaces. The leaves are medium-light green, being much lighter green and much deeper veined than those of Pacific. The leaves drop much more slowly in autumn than those of Logan and they develop less red color than those of Pacific.

The blossoms are perfect-flowered and are borne on medium-long laterals. The fruit is glossy and dark red to almost black. The berry is long, similar to that of Logan in shape and size, but somewhat less uniform than that of Pacific. In general, Cascade fruit does not equal well grown Logan in size. It is softer than Pacific or Logan and so may not be as satisfactory for the fresh-fruit market. Its fruiting season begins about with that of Pacific or Logan, but Cascade does not produce as many early berries as these sorts. It is earlier than Boysen, and its season ends about with that of Boysen.

Cascade exceeds Pacific in plant vigor. It makes an especially vigorous growth the first season after planting, and yields a good crop the following year. The tips of the canes root very readily, much more so than those of either Logan or Pacific. Because of the large number of canes, Cascade can be propagated rapidly. Its great vigor is associated with high yield which generally exceeds that of Pacific and sometimes that of Boysen.

Cascade has been quite widely tested and has met with favor in both western and eastern Washington and in Oregon. At the Irrigation Branch Experiment Station at Prosser, Washington, it has outyielded all other trailing blackberries.

Canning and frozen pack tests have been made during the past five seasons. While Cascade has shown up well in these tests each season, it has not been as outstanding as Pacific. The principal fault with Cascade has been its lack of firmness, resulting in a relatively poor appearance after freezing. Its flavor, however, is considered superior to that of Pacific, having less acidity and more of the wild blackberry flavor. Its superiority, however, is most evident in preserves and jams where flavor

and color are most essential. Should there be an increased demand for preserves, jams, juices, and puree, this variety should be widely tested.

Since its fruit is firm, the Pacific should be tried where fruit is to be grown for local markets, canning and freezing, uses in which a whole berry is desired. The Cascade should also be tried for the above purposes as there may be conditions where it may produce a firm berry. However, where a firm berry is not essential, as for juices, jams, and puree, the Cascade should be given first choice, since it seems to be superior in yield and flavor.

Both varieties are susceptible to leaf and cane spot but are much less susceptible than the wild berry. Spraying possibly might be profitable, but no tests have been made. Cultural practices should be the same as for Logan and Boysen. The cost of training the Cascade may be slightly greater because of the large number of long canes. No winter injury has been observed on canes of these two new varieties whether placed on wires in the fall or left lying on the ground during the winter. The recent winters, however, have been mild.
