

# Grape Varieties in the Pacific Northwest

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The Pacific Northwest comprises the states of Oregon, Washington and Idaho and the Province of British Columbia. The main grape growing areas and potential areas for grape production in this region have similar soil and climatic conditions. Except for Idaho, the coastal climate of this region is in direct contrast to its interior climate. Coastal conditions are usually mild with moderate to high rainfall, cloudy weather and winter temperatures above 0°F. The interior valleys have low rainfall, abundant sunshine during the growing season and are irrigated. However, winter temperatures may often drop to 0°F. and infrequently to -19 to -24°F.

Grapes are grown only to a limited extent in the coastal areas mainly because temperature and light are not always sufficient for the best grape production of any but the very earliest maturing types. East of the mountains there are suitable soils and climates for all varieties except those that mature late. Both *labruscas* and *viniferas* and their hybrids with varying degrees of winter hardiness are grown. To assure annual production, the vines of many of the *vinifera* varieties are covered with soil in winter. Disease and insect problems are similar on the coast and in the interior but vary in severity. The only regular pest control program necessary is to control powdery mildew on *viniferas* and on susceptible American hybrids and French hybrids.

In the past six or seven years, interest has developed in these areas for growing varieties for the production of table and varietal wines. This has come about because of the steady increase in demand for such wines

both in the United States and Canada. Also, suitable areas for grape production can be found between latitudes 42° and 50°, which are the same as those in France and a part of Germany where the noble varieties that produce the premium wines are grown.

Information on acreages, production, and varieties follows.

## Washington

This state is by far the largest producer of grapes in the Pacific Northwest, averaging 61,200 tons annually for the past five years. This production came from approximately 8,000 acres. New plantings of Concords during the past three years have increased this total to approximately 10,500 acres. Most of these vineyards are in the lower part of the Yakima Valley. However, there are limited acreages in the central part of the state and scattered plantings along the Columbia River and in the Okanogan Valley northward to the Canadian border. Approximately 100 acres of Campbell Early (called Island Belle locally) are to be found in the lower Puget Sound area near the coast.

Concords for juice provide 90% of the total grape production, while approximately 1½% is Campbell Early for a very limited fresh market. Varieties grown for home use are: Seneca, Delaware, Niagara, Interlaken Seedless, Fredonia, Van Buren, Worden, Portland, Ontario, Buffalo, Schuyler, Bath, Thompson Seedless, Black Monukka, and Cardinal.

Approximately 7.5% of the grape production is for wines. About 55%

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of the varieties used for this purpose are American or American hybrids such as Concord, Campbell Early, Diamond, Delaware, Fredonia, Brighton, Catawba, and Salvador. The remainder are viniferas. The most important of these are Muscat of Alexandria, Palomino, Thompson Seedless, Zinfandel, Cabernet Sauvignon, Perlette, Sultana, Carignane, White Riesling, Grenache, Pinot noir, Alicante Bouschet, Semillon, Malvoisie and Black Monukka. Small acreages are grown of Pearl of Csaba, Golden Chasselas, Black Muscat, Chasselas Rose, Red Malaga, Mataro, Chardonnay, Sweetwater, Tokay and Rubired. Varietal wines produced commercially in the state of Washington are Concord, Greenache, Semillon, Cabernet Sauvignon, Pinot noir, Golden Chasselas, Grey Riesling and Zinfandel.

#### British Columbia<sup>1</sup>

The south-central part of British Columbia, south of 50° latitude in particular, has grape areas climatically comparable to those in the state of Washington. However, temperatures may fall several degrees lower in winter in British Columbia, and Washington has large potential areas with more heat units and longer growing seasons.

British Columbia grape acreage has been increasing at an explosive rate. In 1966 approximately 61% of their 1864 acres was less than four years old. By the spring of 1967 over 400 additional acres had been planted, bringing the total up to an estimated 2300 acres. The total production estimated for 1967 was 3,750 tons.

<sup>1</sup>Grateful acknowledgment is made to John Vielvoye, Grape Specialist, Department of Agriculture, Kelowna, B.C. for providing information concerning the British Columbia grape industry.

With the exception of limited plantings in the coastal regions (approximately 100 acres), the grape area of British Columbia is located in the Okanogan Valley extending from the American border north above Kelowna to Winfield. Approximately 13% of the total grape production is marketed fresh, part of which is sold to tourists from roadside fruit stands. Varieties sold on the fresh market consist mainly of Patricia, Campbell Early, Concord and Sheridan. Some Fredonia, Worden, Schuyler and Bath are also marketed in this manner.

The other 87% of the grape production is used for making wine. The excellent market for wines in Canada has been responsible for the rapid expansion in grape acreage. Varieties being used to supply most of this production are: Bath, Siebel 9110, Siebel 9549, Seibel 10878, Diamond, Delaware, Riesling, Himrod, Interlaken Seedless, and Foch. Hardest of those listed are Foch, Bath, Diamond, Patricia, Concord, Campbell Early and Siebel 9549. Small quantities of many other hybrids and viniferas are being grown to test their adaptation.

#### Oregon

Oregon has approximately 300 acres of grapes widely distributed throughout the coastal areas, along the Columbia River, in the Milton-Freewater area in the northeast, and along the Snake River. As in Washington, Concord is the dominant variety and is found almost exclusively in the eastern part of the state. Varieties grown for local consumption are Campbell Early, Fredonia, Seneca, Niagara, Himrod, Interlaken Seedless, and Cardinal. About 20% of the grapes grown are for home use.

Interest in viniferas for varietal wines has resulted in a few plantings being made in the coastal areas of the Willamette Valley to the north and Roseburg to the south. Varieties being grown include White Riesling,

Pinot noir, Cabernet Sauvignon, Pinot Chardonnay, Sauvignon blanc, Pinot blanc, Gewürztraminer and Zinfandel.

### Idaho

Climatic conditions limit grape production in Idaho. Newly planted acreages of Concord are to be found in the extreme western edge of the

state bordering Oregon. Approximately 200 acres of this variety are being grown.

Some viniferas were at one time grown in the Lewiston area near the confluence of the Snake and Clearwater Rivers. Low winter temperatures some years ago largely eliminated these plantings.

## Effect of Alar on Bloom Date of Richared Apples\*

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Late spring frosts are one of the hazards confronting New Mexico apple growers. Orchard heating is generally required if full crops are to be obtained. A delay in blossoming of a few days may, in many years, reduce or eliminate the need for orchard heating. Rather extensive experimental work has been done with the growth retarding compound, N-dimethyl amino succinamic acid (Alar). It has been reported to suppress terminal growth of apple trees, increase red color and firmness of fruit, and reduce fruit drop. Limited reports indicate that Alar may be useful in retarding bloom. Fall applications of Alar delayed blossoming of Bartlett pears the following spring (2). Pre-bloom sprays of Alar resulted in one to three days in blossoming of apples (1).

On September 25, 1966, foliar sprays of Alar, at 4000 ppm, were applied to four 19-year-old Richared

Delicious apple trees. Four unsprayed trees were used as controls.

Observations of the time of bloom the following spring were made, and the results are presented in Table 1. Full bloom was considered to be the time when the maximum number of flowers were open, and petal fall when 75 to 80% of the petals had fallen. A delay of two to seven days in reaching various stages of flower development was observed on trees treated with Alar.

Visual estimation of the time of full bloom is difficult in most years. The flowers on the north side of the tree usually open first in this area, and those on the south side last. When the Alar treated trees were considered to be in full bloom (April 4), counts of spurs in pink, full bloom, and petal fall stages were made on three large branches selected at equal distances around the tree. The results are presented in Table 2. On April 4 the

Table 1. The Effect of Alar applied September, 1966 at 4000 PPM on retarding bloom of Richared apple trees. 1967

### Stages of Flower Development

Treatment	Green Tip	Pink	Full Bloom	Petal Fall	Last Bloom
Control	March 22	March 26	March 29	April 5	April 7
Alar	March 26	March 28	April 5	April 10	April 14

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