

# Grape Variety Situation In Oregon And Evaluation Of Recently Introduced Varieties

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The varieties of grapes grown in Oregon are to be found in two groups; first the American grapes, especially the *Vitis labrusca* and its hybrids, and second, the European grapes, or *Vitis vinifera*. American grapes can be grown in any section in Oregon where it is possible to grow grapes; while European grapes generally grow in only a few of the warmer, better favored sections. Only the very earliest of these European varieties and the American-European hybrids can be grown in the cooler sections of the state.

In districts like the Willamette Valley in western Oregon the choice of commercial varieties is restricted almost altogether to American grapes, or to the earlier European varieties or to inter-species hybrids.

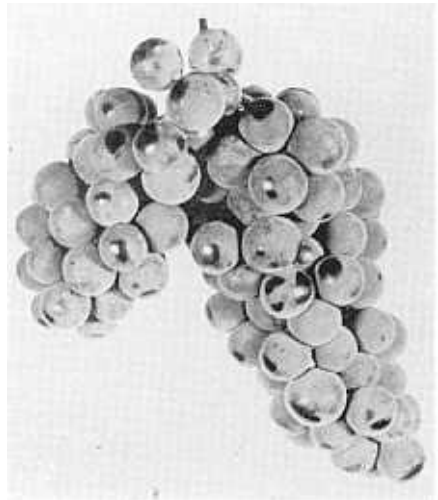
In districts like The Dalles, Grants Pass, the Milton-Freewater area, the Umpqua Valley, or the Rogue River Valley, the European grapes can be grown commercially to a certain extent provided they are not later in maturing than the late mid-season grapes grown in California. In those districts proved to be adapted to European grapes, a few of the better varieties of table grapes are likely to be profitable over a period of years. These varieties, as a means of extending the season of the same varieties produced in California, will find

even then a local market only.

Even with the high transportation charges on California grown grapes, the certainty of a crop and the heavy yields of California vineyards place the grower in Oregon under a handicap. Growers in Oregon must expect greater chances of destruction of crops from fall rains or mildew than do the growers of the same varieties farther south.

## Recommended Varieties for Cooler Sections

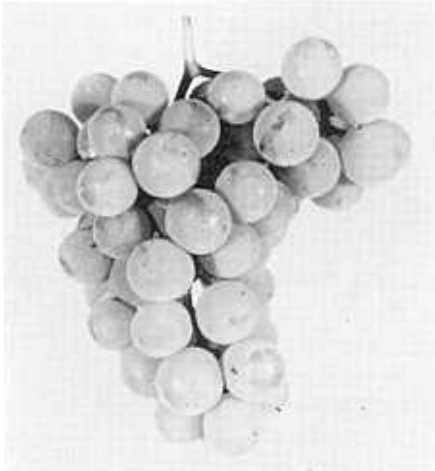
For commercial plantings in the cooler districts, the Campbell Early can be recommended as the leading variety. Of next importance and following closely will be the Concord, followed



Campbell Early is a leading blue grape in the cooler districts of Oregon

by the Niagara. For home use the Campbell's Early will again rank first, followed by Concord, Worden, and Delaware. The Worden and Agawam, although very desirable in quality, have other characteristics less suitable for commercial plantings.

For those desiring a European variety the Chasselas Golden (Sweetwater or Chasselas Dore) is the best for the cooler sections. A new hybrid variety, the Seneca, appears to give very good promise for a white-fruited variety preceding Chasselas Golden. The Red Chasselas has not been tested very extensively, but it appears promising as a red or pink variety. Either of these varieties, though not firm enough for any considerable shipping, is satisfactory for home use or a distinctly local trade. The quality is inferior to that of the better European table grapes but these varieties are desirable because they rate as the earliest of the European grapes,



Niagara is one of the best green grapes for commercial plantings or home use.

and from that standpoint are valuable in the cooler districts.

#### Varieties for Warmer Sections

In districts growing the European grapes commercially, the Golden Muscat and the Flame Tokay are the proved varieties and should be considered first. Other varieties being grown more or less frequently are Ribier, Reising types, Rose of Peru, and Thompson Seedless. Black Hamburg and Black Muscat are seldom grown in Oregon. These latter varieties rarely develop good quality. The growing of European grapes in any but the most favored sections is not a commercial business, however, and for home use is only for those that like to test out things for themselves.

#### Evaluation of Principal Varieties American (*V. labrusca*) and Hybrids.

(1) **Campbell Early (Island Belle)**—Vines vigorous, hardy, very productive. Clusters variable, from medium to large, compact. Berries medium to large, roundish, dull dark or purplish black with heavy bloom. Skin tough, does not crack easily. Quality excellent. Early to mid-season. Becomes marketable early, but will hang on the vine and improve in quality over a considerable time; ten days to two weeks ahead of the Concord. Will stand handling and shipping well on account of the tough skin. Keeps well in storage.

(2) **Concord** — Vine hardy, vigorous, productive. Bunches uniform, large and compact. Berries medium to large, roundish, black, with blue bloom. Skin average toughness, will crack during rain. Quality good, ripe mid-season. In

many places in Oregon Concord fails to ripen as well as it should. It is an old standard variety comprising the biggest part of the new commercial plantings for juice purposes. In the Station test plots the Campbell Early has surpassed it in yield and excellence. Concord is about the latest variety that can be grown and matured in districts like the Willamette Valley.

(3) **Delaware**—Vine somewhat lacking in vigor, although in some heavy soils it tends to make vegetative growth at the expense of fruit production. Always very hardy and moderately productive; slightly subject to mildew. Bunches small and compact. Berries are small, roundish, quite red, thin lilac-colored bloom. Skin thin, moderately tough. Quality excellent. Early, a little later than the Campbell's Early. This variety usually bears too light a crop of small grapes to be considered a commercial variety, but is excellent for home use.

(4) **Niagara**—Vine fairly vigorous, less hardy than Concord, productive, somewhat subject to mildew. Bunches large, fairly compact. Berries large, yellowish green, thin, gray bloom. Skin tender, but does not crack as easily as Concord. Quality excellent. Mid-season, about with Concord. One of Oregon's best green American grapes.

(5) **Worden** — Vines vigorous, hardy, productive. Bunches, large, compact. Berries dark purplish to black. Heavy blue bloom. Skin tender, cracks badly. Quality excellent. Ripens early to mid-season between Campbell Early and Concord or close to Concord. Quality probably best of the blue grapes, but skin is so tender and the keeping qual-



Golden Muscat, a *labrusca-vinifera* hybrid, produces large clusters of tender, green grapes. Although difficult to produce on a commercial basis this variety is gaining in popularity in Oregon.

ity so poor that the Campbell Early supplants it in many commercial plantings. Berries shatter from bunches.

(6) **Golden Muscat** — Vine vigorous and relatively hardy. Berries large and moderately firm to soft. Skin tender and tends to crack. Bunches very large, compact and uniform. Some sun-scorching of fruits. Subject to mildew and botrytis rot. In spite of possible difficulties this variety is becoming quite popular in Oregon.

#### European (*V. vinifera*).

(1) **Black Hamburg** — Vines vigorous. Clusters very large. Berries variable, small to large, roundish, moderately firm, dull, dark color. Distinct muscat

flavor. Early to mid-season. Generally considered too soft in Oregon for shipping any great distance. Ripens after Rose of Peru.

(2) **Chasselas Golden (Sweetwater)** — Vines vigorous, hardy for this group and productive. Somewhat affected by mildew. Bunches medium sized, compact. Berries medium in size, yellowish green, slightly affected by rain. Quality only fair to good. Season, a little later than the Concord (6-10 days). This has been the most successful all-round European grape grown in the Station variety test vineyard and one of the few that can be generally grown in the Willamette Valley or in similar locations.

(3) **Flame Tokay**—Vines vigorous, not too hardy. Clusters large, very compact. Berries large, firm, red color. Late mid-season. One of the best commercial grapes for these sections in Oregon growing European grapes. Chief difficulties are ripening after fall rains start and pale colored fruits if there is an excess of foliage under Oregon conditions.

(4) **Rose of Peru**—Vine vigorous and relatively hardy. Clusters large but tending to be loose. Berries large, round, reddish black, firm, resembling Black Hamburg. Ripens early, mid-season, being one of the earliest ripening commercial varieties in Oregon. One of the better grapes for those sections in Oregon growing European grapes.

#### Promising New Hybrid Varieties

(1) **Seneca**—Among the many hybrids

being tested this hybrid of Lignan Blanc x Ontario introduced by the New York State Agricultural Experiment Station appears most promising. Vine is vigorous, hardy and not particularly susceptible to mildew. Clusters are medium to large, tending to be a little loose. Berries are green to yellow, medium in size with small seed. Quality is excellent. Yield has been only medium. The excellent quality and earliness of this variety makes it appear quite promising, in spite of its moderate yielding ability.

(2) **Sheridan**—This hybrid of Herbert x Worden appears promising in western Oregon. The vine is vigorous and hardy. Bunches large to very large, fairly uniform and compact. Berries black, large as Campbell Early and ripening with or slightly after Concord. Keep well in storage. May be recommended for areas where Concord succeeds.

(3) **Fredonia**—This cross of Champion x Lucile appears fairly promising in the Station variety testing vineyard. Vine is vigorous and hardy. Clusters are variable and fairly loose and straggly. The berries are black, large and covered with a heavy gray bloom. Quality is excellent. Yield is good. One difficulty is that the berries shatter easily. Has possibilities for a home or local market grape. Season three weeks before Concord.

TABLE 1—Grape Variety Test Data on Recent and Standard Varieties Under Oregon Conditions.

VARIETY	SEASON + or - Concord	CLUSTER			
		Small (5) Medium (3) Large (5)	Loose (1) (Med (3) Comp (5)	Large (1) (Med (3) Short (5)	Narrow (1) Med (3) Broad (5)
Athens.....	+ 5	4	2	3	1
Atoka.....	-13	3	5	3	5
Baco No. 1.....	-19	5	5	3	
Bride.....	+ 9	5	3	1	2
Brocton.....	+ 7	1	3	1	3
Bronx Seedless.....	+ 3	1	1	1	3
Caco.....	+ 9	4	3	3	1
Campbell Early.....	-12	1	3	1	3
Captain.....	+10	3	5	3	3
Chasselas Red.....	-10	4	2	3	1
Chasselas Golden.....	-10	3	2	3	1
Concord.....	0			3	5
Concord Seedless.....	0	5	3	3	1
Croatian.....	+10	3	5	3	5
Delaware.....	- 8	5	4		1
Delicatessen.....	-11	1	4		
Diamond.....	-10	3	4	3	5
Dunkirk.....	+ 9	5	3	3	1
Early Muscat.....	-22	1	1	1	
Eden.....	- 7	3	1	3	3
Empire State.....	0	3	3		
Fredonia.....	-19	4	1		
Garrett's Worden Sport.....	- 7	3	3	3	5
Golden Muscat.....	+ 7	1	3	1	5
Hector.....	+ 9	3	3	1	3
Keuka.....	+10	3	4	2	3
Lignan Blanc.....	0	5	5	3	3
Muscat Hamburg.....	+10	1	2	3	5
Niagara.....	- 7	3	3	3	
Ontario.....	-15	3	1	3	
Oriental.....	+10	3		2	
Ripley.....	+ 2				
Seibel 128.....	0	4	5	3	3
Seibel 1000.....	-15	5	3	3	
Seibel 2056.....	+10	2			
Seibel 6339.....	-15	4	3	3	3
Seibel IXX.....	- 7	4	3	1	3
Seneca.....	-35	3	1	3	3
Sheridan.....	+ 5	3	3	3	5
Urbana.....	+10	2	3	2	5
Wapanuka.....	+ 8	3	3	3	3
Wayne.....	- 5	3	3	3	3
Westfield.....	-10	3	5	1	1
Worden.....	- 8	3	3	3	5
Yates.....	+10	2	2	3	5

FOOTNOTE—The following comments will clarify the information on season of ripening in the above table.

Where a minus sign precedes a number it refers to the number of days before Concord, at which a variety ripens.

A plus sign likewise refers to the number of days after Concord, at which a given variety matures. These figures are necessarily approximations and vary from place to place and season to season.

TABLE 1—Grape Variety Test Data on Recent and Standard Varieties Under Oregon Conditions.

VARIETY	BERRY				PULP	
	(Blue (1) Red (2) White (3) Green (4)	Large (1) Med (3) Small (5)	Oblate (1) Round (2) Oval (3)	Soft (1) Med (2) Firm (3)	Sweet (1) Med (2) Tart (3)	
Athens.....	1	2	2			
Atoka.....	1	5	2			
Baco No. 1.....	1	5	2	1		
Bride.....	2	3	2	1		3
Brocton.....	4	1	3	1		1
Bronx Seedless.....	2	3	3	3		2
Caco.....	2	3	2	3		2
Campbell Early.....	1	1	2	1		2
Captain.....	1	3	2	1		
Chasselas Red.....	2	4	2	2		
Chasselas Golden.....	4	4	2	1		
Concord.....	1	3	2	2		
Concord Seedless.....	1	5	2	2		2
Croatian.....	2	3	3	1		3
Delaware.....	2	5	2			
Delicatessen.....	1	3	2			
Diamond.....	4	3	2			
Dunkirk.....	2	4	2			
Early Muscat.....	3	1	3	1		1
Eden.....	1	3	2	2		3
Empire State.....	4	3	2	2		1
Fredonia.....	1	1	3	2		
Garrett's Worden Sport.....	1	1	2	2		
Golden Muscat.....	4	1	3			
Hector.....	2	3	2	1		3
Keuka.....	2	4	3	1		2
Lignan Blanc.....	1	3	3	3		
Muscat Hamburg.....	1	3	3	3		
Niagara.....	4	3	3	2		1
Ontario.....	3	3	2	1		2
Oriental.....	2	3	3	2		3
Ripley.....	4	3	2	2		1
Seibel 128.....	1	5	2	1		2
Seibel 1000.....	1	5	2	1		2
Seibel 2056.....	1	3	2	1		3
Seibel 6339.....	1	5	2	1		2
Seibel IXX.....	1	5	2	1		
Seneca.....	4	3	3	2		1
Sheridan.....	1	1	3	2		1
Urbana.....	2	4	3			
Wapanuka.....	4	3	2	1		
Wayne.....	1	3	2	2		
Westfield.....	1	3	2	3		
Worden.....	1	1	2	2		2
Yates.....	2	1	2	2		2

TABLE 1—Grape Variety Test Data on Recent and Standard Varieties Under Oregon Conditions.

VARIETY	SKIN			FLAVOR		
	Thick (1) Med (2) Thin (3)	Adheres (1) Partial (2) Free (3)	Tough (1) Med (2) Tender (3)	Sweet (1) Med (2) Tart (3)	Flat (1) Foxy (2) Med (3) Vinous (4)	
	Athens.....	3	3	3	1	3
Atoka.....	3	3	1	1	1	
Baco No. 1.....	3	3	1	1	2	
Bride.....	2	3	1	1	3	
Brocton.....	1	3	1	1	3	
Bronx Seedless.....	3	1	3	2	3	
Caco.....	1	3	1	2	2	
Campbell Early.....	2	3	1	1	4	
Captain.....	3	3	2	3	1	
Chasselas Red.....		1	3	1	4	
Chasselas Golden.....	3	2	3	1	3	
Concord.....	2	3	1	2	2	
Concord Seedless.....	2	3	1	2	2	
Croatian.....	3	1	1	3	1	
Delaware.....	1	3	1	1	4	
Delicatessen.....	2	3	1	3	1	
Diamond.....	3	3	1	1	2	
Dunkirk.....	2	3	1	1	4	
Early Muscat.....	3	2	3	1	4	
Eden.....	1	3	1	1	3	
Empire State.....	1	3	1	1	3	
Fredonia.....	2	3	1	2	3	
Garrett's Worden Sport.....	2	3	2	2	2	
Golden Muscat.....	1	3	1	1	4	
Hector.....	3	3	2	2	3	
Keuka.....	1	1	1	2	4	
Lignan Blanc.....	1	2	1	1	4	
Muscat Hamburg.....	3	1	2	1	4	
Niagara.....	3	3	2	1	2	
Ontario.....	2	3	1	2	3	
Oriental.....	3	3	1	2	4	
Ripley.....	1	3	1	1	1	
Seibel 128.....	3	3	1	2	1	
Seibel 1000.....	3	3	1	1	1	
Seibel 2056.....	2	3	3	2	1	
Seibel 6339.....	2	3	1	2	1	
Seibel IXX.....	3	3	1	2	1	
Seneca.....	3	1	3	1	4	
Sheridan.....	1	3	1	1	1	
Urbana.....	1	2	1	1	1	
Wapanuka.....	3	3	2	2	1	
Wayne.....	3	3	1	2	1	
Westfield.....	1	3	1	1	1	
Worden.....	3	3	2	2	2	
Yates.....		3	1	1	1	

TABLE 1—Grape Variety Test Data on Recent and Standard Varieties Under Oregon Conditions.

VARIETY	SEED			BLOOM	YIELD	SOLUBLE* SOLIDS	COMMENT
	Small (1) Med (2) No. Large (3)		Heavy (1) Med (2) Light (3)		Heavy (1) Med (2) Light (3)	Per Cent at Maturity	Discard (2)
Athens.....	3	1-2	2		3	14.5	1
Atoka.....	3	2-3	1		1	15.5	2
Baco No. 1.....	2	1-3	2		1	21.7	2
Bride.....	1	2-4	2		3	14.3	2
Brocton.....	3	1-2	2		2	17.2	1
Bronx Seedless.....	-	0	3		1	18.0	2*
Caco.....	2	2	2		3	15.1	1
Campbell Early.....	3	2-3	1		1	15.4	1
Captain.....	3	2-3	2		2	13.7	2
Chasselas Red.....	2	1-3	3		2	17.8	1
Chasselas Golden.....	2	2-3	3		1	16.5	1
Concord.....	3	2-3	2		2	14.4	1
Concord Seedless.....	1	1-3	2		3	19.3	2
Croatian.....	3	1-3	1		2	10.6	2
Delaware.....	2	1-2	2		1	19.5	1
Delicatessen.....	2	2-4	1		1	14.2	2
Diamond.....	2	2	3		2	18.1	1
Dunkirk.....	3	1-2	3		3	15.5	2
Early Muscat.....	3	2	2		2	20.5	2
Eden.....	2	2-3	2		3	19.2	2
Empire State.....	2	2-3	2		2	18.7	1
Fredonia.....	2	2	2		2	14.5	1
Garrett's Worden Sport.....	3	1-3	1		3	12.9	1
Golden Muscat.....	3	2	2		1	19.5	1
Hector.....	2	2	2		2	18.2	2
Keuka.....	2	1-3	1		1	16.0	2
Lignan Blanc.....	3	2-3	1		2	17.1	1
Muscat Hamburg.....	2	0-3	1		2	15.7	2
Niagara.....	3	2-4	2		1	17.0	1
Ontario.....	2	2	2		3	15.2	2
Oriental.....	3	2-3	2		1	13.9	2
Ripley.....	3	2	2		1	17.5	2
Seibel 128.....	1	2-3	2		2	17.0	2
Seibel 1000.....	2	2	1		1	19.6	2
Seibel 2056.....	3	2	1		2	11.6	2
Seibel 6339.....	2	2-4	1		2	17.0	2
Seibel IXX.....	2	2-4	1		1	14.5	2
Seneca.....	1	2	3		1	24.0	1
Sheridan.....	3	2-4	1		2	16.4	1
Urbana.....	3	2	1		1	19.0	2
Wapanuka.....	3	1-2	2		3	10.8	2
Wayne.....	2	1-3	1		2	17.3	2
Westfield.....	2	2-3	1		2	20.1	2
Worden.....	3	2-3	1		3	13.2	1
Yates.....	3	2-4	1		2	17.0	1

\* Soluble Solids: Sugars determined by hand refractometer.