

A Sampling of Wine Grape Cultivars Being Tested by The University of Nebraska Viticulture Program

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Brianna named in 2002, Brianna is an Elmer Swenson introduction (ES 7-4-76). It is a cold-hardy white winegrape that is easily managed in the vineyard and appears to tolerate 2,4 D drift. It can be made into a pleasant semi-sweet white wine with tropical fruit aromas in the bouquet.

Cayuga White was introduced in the early 70's. It displays many of the characteristics of *Vitis labrusca* including its leaf shape and growth habits. It produces large full clusters on vigorous vines. Cayuga White (as is the case for Edelweiss) should be picked before it is fully ripe. Wines made from fully ripened grapes lack refinement and often display labrusca characteristics. More testing is required to determine hardiness, but it has looked promising in our research vineyards.

Chambourcin own-rooted and grafted on 3309 Couderc are in our research plots. Both are doing very well and shows promise for warmer parts of Nebraska. It is a red winegrape that has long loose clusters that will ripen later in the season. It appears to be more cold hardy than *vinifera* but is less hardy than some other French-American hybrids such as Marechal Foch. It is a cultivar with outstanding wine quality.

Chardonel is a white winegrape with a Chardonnay character. It was introduced in 1990, resulting from a cross of Seyval x Chardonnay, originating in Geneva N.Y. Clusters of Chardonel are medium in size and the berries are slightly loose within the cluster. Could easily be trained on a single high cordon system or a Geneva Double Curtain. It has been reported to be very productive in Missouri, producing 5 tons/acre or more but has been less reliable in our trials, with some vine losses and sub-par yields.

Corot Noir tested as NY 70.0809.10, is a moderately hardy, vigorous vine that is very productive. The clusters are larger than those of Concord, with similar-sized berries. Disease tolerance is fair, but requires a standard spray program. Budbreak is later than Concord, GR7 or Maréchal Foch. Wine quality is considered to be very good, with deep red color and cherry and blackberry aromas.

Crimson Pearl 2009 Tom Plocher release from a cross between MN 1094 and ES 4-7-26. This is a sister seedling with Petite Pearl and has the hardiness of the Plocher grapes and demonstrates good disease resistance. This red cultivar produces black grapes but a lighter juice than Petite Pearl with similar tannins in the skin. No hybrid or native flavors are found in the wine.

Cynthiana (synonym: **Norton**) is the grape that Missouri vineyards have planted in the greatest acreage. This vine is slow to start, but catches up rapidly, producing an abundance of clusters. The grape clusters are small, but numerous, producing a wine that is dark red with a full body. Vines in the research vineyards frequently show 2,4-D damage but it appears to have limited effect on the plants themselves. Trellis systems used to support Norton can be as simple as a Single High Cordon or a Geneva Double Curtain. This is a cultivar to consider for trial plantings in southeastern Nebraska.

De Chaunac (Seibel 9549) is a French-American red hybrid that has performed very well in Nebraska vineyards. It is hardier and more resistant to disease than many other French-American hybrids and has been made into excellent deep red, full-bodied wines. It usually bears well on secondary buds, often producing nearly a full crop following the loss of primary buds to low temperatures. Smallish berries are borne on medium-sized, somewhat loose clusters.

Delaware is pink-skinned hybrid grape, thought to be derived from *Vitis labrusca*, *V. aestivalis* and *V. vinifera*. It is an attractive grape in the vineyard and its wine is pleasant, fruity, and essentially devoid of the “foxy” characters associated with many *V. labrusca* - derived cultivars.

Edelweiss (ES 40) was bred by Elmer Swenson and introduced by the University of Minnesota in 1980 and has become very important to Nebraska’s wine industry. Vines show strong vigor in our research sites, producing large loosely formed clusters of white grapes. The best wines made from these grapes are picked at 14.5 – 15.5 °Brix level, sometime around the first week in August in eastern Nebraska. The plant is very disease resistant and somewhat 2,4-D tolerant.

Frontenac (MN 1047) is a potentially high yielding later ripening red winegrape introduced by the University of Minnesota in 1995. It will produce a loose, medium-to-large cluster of blue-black medium sized grapes. It appears that over-cropping could become a concern and cluster thinning may be necessary, both for fruit quality and vine vigor for the coming season. It has exhibited good disease resistance, but is one of the first to show leaf phylloxera, which does not appear to significantly slow the plant’s growth.

Frontenac Blanc is a mutation of Frontenac Gris. This white fruited version of the Frontenac family produces a classic white wine without the “pinking” color that Frontenac Gris can produce. The Frontenac Blanc plant has all the same characteristics of the other two Frontenacs and would perform best on a high wire trellis system. Harvested early, the fruit can produce a Sauvignon Blanc style wine or left longer can produce a more typical Riesling style wine.

Frontenac Gris is a bud sport (mutation) of Frontenac. The vine is similar, nearly identical, to Frontenac, but the fruit is grayish in color when ripe. It has been made into excellent, fruity off-dry and semi-sweet white wines.

GR7 now renamed “**Geneva Red**” is a vigorous cultivar released by Cornell at the request of several wineries in New York. A cross between ‘Buffalo’ and ‘Baco Noir’, its primary use is as a blending grape, providing a depth of dark red color and moderate tannin structure that is superior to either Baco Noir or De Chaunac. In our trials, it has been productive, cold-hardy and moderately disease tolerant.

Itasca, released in 2017, is the fifth cold-hardy wine grape released by the University of Minnesota. Itasca fruit is used for dry white wines that are similar to Chenin Blanc. Wine is straw in color with pear, floral and mineral notes with a long finish. It has a high resistance to diseases and phylloxera and has shown good cold hardiness. Vines have a semi-upright growth habit but it is recommended to be grown on a high wire trellis system, although a low wire upright system may be advisable depending on the soil fertility. Clusters are medium to large with moderate production per vine.

Lacrosse (ES 2-9-4) is one of many introductions by Elmer Swenson, a private breeder from Osceola, Wisconsin, that have been so vital in the establishment of a wine industry here in Nebraska. This 1983 cultivar is disease resistant and tolerates 2,4-D; it is also very winter hardy. The vines have proven to be

of medium vigor and very productive, producing a tight medium size cluster of white skinned grapes. It is a versatile grape that can be made in a wide range of wine styles of excellent quality.

La Crescent (MN 1166) is a white winegrape that has shown good vigor in our research plantings. Long, somewhat loose clusters of small berries turn golden in color as they ripen. Excellent fruity wines have been made from this 2002 introduction. Pre-harvest “shelling” is a problem in some years.

Lemberger is a red *vinifera* cultivar and (if you can get past its name) makes a top quality wine. For the first several years in our trials, it appeared to withstand the cold weather at our three eastern research sites, with good vine vigor and fruit set. However, we have experienced plant losses in recent years, mostly from cold damage and/or crown gall. Powdery mildew has been a problem but a good spray program should be able to control this. It produces nice long large clusters on vertically growing plants. It must be grafted on a phylloxera-resistant rootstock.

Leon Millot (Kuhlman 194-2) produces small, somewhat loose clusters of blue-black berries that are among the first to ripen in the season. This cold hardy cultivar could be a useful variety for most areas in the state including western Nebraska. It produces a quality wine that is good for blending.

Maréchal Foch (Kuhlman 188-2) is relatively cold-hardy and is one of the most popular and widely planted French-American red winegrape hybrids in the Midwest. Bred by Eugene Kuhlman in Alsace, it is named after a famous French World War I general and resulted from a *V. riparia* – *V. rupestris* hybrid crossed with *V. vinifera* `Goldriesling`. Clusters are small, often tight, but can be highly flavored. Jancis Robinson says “It produces fruity, non-foxy wines with a very loose...similarity to Pinot Noir.”

Marquette tested as MN 1211, originated from a cross of MN 1094 with Ravat 262. Marquette is easily managed in the vineyard, has moderate disease resistance and can be vinified into a complex fruity wine of excellent color. It breaks bud somewhat early in the spring about the same time as Maréchal Foch.

Niagara was introduced in New York in 1872. It is a vigorous, productive vine and is reputed to withstand cold temperatures. We have not noticed any disease problems with it, or little if any 2,4-D damage. More research is necessary to determine the potential usefulness of Niagara.

Noiret (NY 73.0136.17), recently introduced by Cornell, is moderately winter hardy and resistant to powdery mildew, with other diseases readily managed by a standard spray program. The wine can be of deep red color, displaying raspberry, green and black pepper aromas.

Petite Pearl (TP 2-1-24) is a Tom Plocher release. Cold hardiness to -32° F and high disease resistance are just two of the reasons to plant Petite Pearl grapes. More importantly, it has low acid levels, making it an ideal red wine grape for the Midwest. Wine is dark red garnet in color, has complexity in aroma and flavor, with soft mid-mouth tannins. The vine has a trailing growth habit and needs little shoot management. A high wire trellis system works well with this grape. The plant has a late season bud break and bloom thus often avoiding late spring frost or freezes. It produces small compact clusters commonly setting three clusters per shoot.

Prairie Star (E.S. 3-24-7) released in 2000. White fruit, medium to large berries with open clusters that are medium in size. Vigorous open vine growth that performs best on a high wire trellis system. Cluster thinning is not necessary. Moderately susceptible to diseases but susceptible to injuries from 2,4-D and dicamba. Fruit can run 21° to 22° brix with a non-foxy finish. Most years it is used as an ideal blending grape but is capable of producing a stand alone varietal wine.

Riesling is the classic *Vitis vinifera* white winegrape popularized in Germany and more recently in the Finger Lakes Region of New York State. In the Midwest it must be grafted to resist Phylloxera (3309C has worked well in S.E. Nebraska) and is only suited to warmer sites. Wine quality has been excellent, but the vines must be sprayed for powdery mildew.

Sabrevois (E.S. 2-1-9) from the same cross that produced St. Croix. Black fruit is small to medium in size with small to medium clusters that are loose but well filled. A vigorous vine that would require a high wire trellis system. Wood hardens early in the fall and has only been injured in the most severe of winters. Good disease resistance, but can have a problem with phylloxera. Juice is not deeply pigmented but wine can be very dark in color. Sugar content rarely exceeds 20° Brix and wines can have a pleasant berry like fruitiness in the nose and mouth. Wines tend to lack body and tannin but are well balanced and low in alcohol.

Seyval Blanc (Seyval, Seyve-Villard 5276) is a French-American white winegrape developed by Seyve-Villard about 1930. It is moderately cold-hardy, medium in vigor and has good vineyard characteristics making it easy to prune, manage and harvest. It can be made into a variety of wine styles, employing malolactic fermentation in oak or in stainless steel, fruity and flavorful on its own or suitable for blending with other white winegrapes.

Saint Croix (ES 2-3-21) is another grape developed by Elmer Swenson that is also important to Nebraska's wine industry. It is a vegetatively vigorous red winegrape cultivar that produces medium sized slightly loose clusters of grapes. Because of its vegetative vigor, it is important to leave a sufficient number of buds to encourage good crop production levels to balance this potentially excessive vegetative growth. In the research vineyards it has shown moderate to good disease resistance and excellent cold hardiness.

Traminette is a cross between Joannes Seyve and Gewurztraminer released by the New York Agricultural Experiment Station in 1996. Wine made from this grape is very similar to that of Gewurztraminer. This year the plant has performed very well at our Kimmel location. At the other locations the fruit set hasn't been quite as good, although plant growth has been good. The poor fruit set may be attributed to climatic conditions. We are encouraged with what we have observed so far, especially by the excellent wine quality.

Valiant was introduced by R.M. Peterson, South Dakota State University, and is among the most cold-tolerant grapes grown in Nebraska. It matures very early and produces attractive blue-black berries borne on compact 4-inch clusters. It is considered to be an especially good juice grape.

Valvin Muscat has been tested as NY 62.0122.01 and has been marginally hardy in our tests at our Nemaha and Nebraska City research vineyards. It is suspected of being susceptible to Phylloxera and should be grafted onto rootstocks such as 5C or 3309 Couderc. Wine quality has been reported to be excellent, with distinctive fruity muscat aromas and flavors reflective of its muscat parents Muscat Ottonel and Muscat du Moulin.

Verona a 2003 Tom Plocher selection from a 1997 cross of Troubadour x E.S. 5-4-16. Has good winter hardiness, has shown some injury in very severe winters. Has a later bud break and ability to hang later in the fall because of its foliage having some resistance to fall frost. Fruit is black and capable of producing a deeply colored dry red wine with soft tannins.

Vidal Blanc (Seyve-Villard 12375) has been a major player in Michigan for more than 25 years. It's a later budding and ripening grape with a reputation for being a consistent producer. This should be a plus for Nebraska's unpredictable spring and fall climate. It is also a grape that makes a better wine when harvested before full maturity at no more than 22 °Brix (although late harvested Vidal is made into an exceptional ice wine in Ontario). Fruit clusters are large and open so far in our plantings and show little to no signs of any disease or insect problems.

Vignoles (Ravat 51) has been a good performer and has shown promise the last several years. It has been relatively cold hardy so far but produces smaller clusters. Yields may be only moderate, but the wine quality is high. Grape clusters are generally compact and tight, making them susceptible to bunch rots, so close observation will be necessary.

