

## Grape Varieties for South Dakota

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Before choosing a grape cultivar, note the following points:

- Determine how the grapes will be used, as different cultivars are recommended for juice, jam/jelly, or wine.
- Winter temperatures and other environmental factors in South Dakota limit grape production to hardy hybrid cultivars. The southern half of the state with its longer growing season and less damaging winter temperatures is more suited for grape production.
- Start with a small planting and observe the cultivar's characteristics and its interaction with the particular site before planting on a large scale.
- Except for the cultivar "St. Pepin," all the listed cultivars are self-fruitful.
- Purchase vines and cuttings from licensed nurseries to avoid importing insect and disease problems into South Dakota.
- Several of the cultivars listed are patented. If you purchase vines or cuttings from a licensed nursery the royalties have already been paid. If you are propagating your own materials for use within your vineyard, you are responsible obtaining a vineyard non-distribution license (<http://www.grapes.umn.edu/Licensing/index.htm>) and paying associated fees; contact your horticulture extension specialist or the SDSU Plant Science department for further information.
- If you plan to sell the grapes to a winery, it is highly recommended that you contact the winery or wineries prior to planting, as desired cultivars change over time.

### Red Wine Grapes

**Baltica** (also known as Hasansky Sladky and Varajane Sinine).

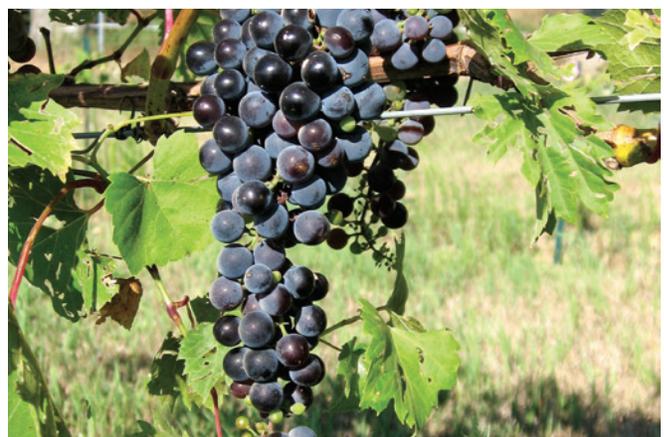
Excellent cold hardiness. Blue-skinned berry, low tannin, moderate acidity. Early bud break. Flavor profile best in climates with cooler summers; good for very short-seasoned areas. Small berries and small clusters.

**Wine:** Makes light, fruity wine with cherry aroma and brilliant red coloring, using whole-cluster fermentation.

**Frontenac** - Minnesota patented

Excellent hardiness. Excellent wine grape for this region, ripens mid-late September. Highly acidic: manage vines carefully to avoid fruit shading. High yield potential; may need to cluster thin to keep vine from overproducing. Slightly upright growth habit. Some resistance to downy mildew, phomopsis, and anthracnose, and the leaves but not the berries have some tolerance of 2,4-D; susceptible to foliar phylloxera.

**Wine:** High sugar and high acid. Deep garnet colored wine has cherry flavors with hints of black currant, but lacks tannins. Works well for port-style wines.



Frontenac

### Marquette - Minnesota patented

Somewhat less hardy than Frontenac, tends to break bud early enough to suffer spring frost damage in some areas. It has an open orderly growth habit. Good resistance to downy mildew, powdery mildew, and black rot. May need careful attention to irrigation and plant nutrition; trial plantings are recommended, as this variety flourishes on some sites but not others. Produces higher yields on high cordon training system.

**Wine:** Excellent red wine grape with high sugar and moderate acidity. Wine is ruby color with pronounced tannins and notes of cherry, berry, black pepper, and spice on both nose and palate.

### Petite Pearl

Hardy new red wine grape with lower acidity, good tannin structure, high sugar, and a low malic-acid level. According to the breeder, it has moderate growth habit, good mildew resistance and late budbreak. May be slow to establish.

**Wine:** Wine is garnet red with complex flavor including notes of clove, anise, celery and mushrooms.

### Sabrevois

Very hardy. Relatively early maturity. Small cluster and fruit; not high yielding. Vigorous vine with upright growth, but not drought tolerant. Good disease resistance to mildews and black rot. Moderate acid and low sugar fruit.

**Wine:** Berry-like flavors, low sugar content and low tannins. Develops objectionable flavors in overripe fruit.

### St. Croix

Trunk and buds are very hardy, but roots may be susceptible to cold damage in open winters. Vigorous, semi-procumbent. Mid-season bud break. Matures mid-September, low acid, may need cluster thinning to keep good sugar levels in years with good fruit set, requires shoot thinning; should be pruned to short canes. Moderate disease resistance.

**Wine:** Described as a light to medium burgundy. Moderately acidic, low sugar, low tannin fruit. Can also be used for juice or eaten fresh.

### New release to trial:

#### Crimson Pearl

According to the breeder, it has excellent winter hardiness, good disease resistance, relatively late budbreak (later than Marquette and Frontenac) but early ripening.

**Wine:** Less tannins than Petite Pearl and fruitier juice, with comparable acid.

### White Wine Grapes

#### Brianna

Hardens off well in the fall; hardy, though less so than Frontenac. White wine grape developed by Elmer Swenson. Berries are greenish gold to gold when fully ripe in early to mid-September. Best aromatics at 16-18 Brix. Sensitive to copper sprays, so may not be appropriate for organic production.

**Wine:** Wine is balanced with pineapple nose and flavor. Also makes a flavorful white juice.



Brianna

#### Frontenac Blanc

White sport of Frontenac, with yellow colored fruit. Vine characteristics similar to Frontenac.

**Wine:** Fruit has peach and tropical fruit aromas; good dessert wine.

#### Frontenac Gris – Minnesota patented.

A sport of Frontenac, with gray/light red fruit. It has growth habit and hardiness similar to Frontenac. It is a mid-season variety (late September).

**Wine:** Apricot, peach and orange skin aromas; good dessert wine.

### Kay Gray

Vigorous very hardy white grape, medium to large berries in small clusters. Cane prune, procumbent growth; harvest grapes before full maturity (15-18° brix).

**Wine:** Can have a flowery nose in a good year. The must is susceptible to oxidation; avoid exposing juice, must and wine to air.

### LaCrescent – Minnesota patented

Hardy white wine grape with St. Pepin as one of the parents. Ripens to golden-brown color. High vigor and moderate yield. Moderately susceptible to powdery and downy mildew, anthracnose and black rot. Hardiness somewhat variable, acclimates later than Frontenac and is sensitive to early fall freezes; budbreak is early. Very sensitive to dicamba injury. May be slow to establish.

**Wine:** Intense nose of apricot, peach and citrus. Fruit ripens early with high sugar, but acidity remains high and may need to be reduced during winemaking.

### Louise Swenson

Moderately hardy white wine grape (less hardy than Brianna). Tends to be smaller vines, low to moderately vigorous with trailing growth habit. Breaks bud relatively late in spring. May be sensitive to drought. Good resistance to black rot, downy mildew and phylloxera.

**Wine:** Delicate light-bodied wine with floral and honey aroma. Low sugar (under 20° Brix) with moderate acidity that does not need reducing.

### Swenson White

Moderately hardy white wine grape (less hardy than Brianna). Midseason bud break, but low productivity on secondary buds. Large berries and clusters; late ripening. Vigorous procumbent growth. Moderately susceptible to mildews; very susceptible to 2,4-D and dicamba.

**Wine:** Pronounced floral aroma. May have a slightly labrusca flavor if made from very ripe fruit. Tends toward lower sugar. Could do well for late harvest or ice wine.

## With winter protection, or only in warmest areas of the state:

### Edelweiss

Tends to be winter-damaged in most of the state, and the early bud break may lead to spring frost damage.

May be slow to establish. Most commercial growers in South Dakota have removed Edelweiss from their vineyards. Very early ripening, white grape produces large clusters.

**Wine:** When the fruit is harvested early, it can also make a sweet white wine with mild, fruity labrusca flavor; a signature wine for Nebraska. Also excellent for table, juice and jelly uses.

### La Crosse

Winter protection needed in most South Dakota locations. White wine grape with Seyval Blanc parentage and sibling of St. Pepin. Susceptible to black rot.

**Wine:** Good varietal or for blending with lighter wines.

### Prairie Star

Recent trials have shown moderate to severe winter damage, although it has also survived very low temperatures. Vigorous, semi-upright, with mid-season bud break. Variable fruit set. Moderately resistant to downy mildew and moderately susceptible to black rot and anthracnose.

**Wine:** Mostly for blending with lighter more aromatic white wines.

### St. Pepin

Needs winter protection in most SD locations; less hardy than Lacrosse. All female plants: requires pollen from another variety, which can limit yield. Vigorous open canopy. Early ripening, low acidity.

**Wine:** Makes fruity German style white wine. Also good juice or table grape.

## Table, Juice and Jelly Grapes

### Beta

Very Hardy. Vigorous vine (up to 20 ft. long); small berries. Blue/black. Flavorful jelly, acceptable juice.

### Bluebell

Very Hardy. Blue juice or fresh table grape, large berries, ripens mid-September. Juice is subject to browning, however blends well with Valiant. Vigorous vine, but may exhibit iron chlorosis at soil pH greater than 7.0. Cane prune - doesn't fruit on buds closest to cordons. Good disease resistance.

**Brianna**

See white wine grapes.

**Edelweiss**

See white wine grapes.

**Elvira**

Moderately hardy. White juice or wine grape. Has foxy flavor and is acidic.

**King of the North**

Very hardy. Very vigorous and productive. Blue, medium to large berries. Susceptible to downy mildew. Late ripening very acidic Concord style grape that originated in Wisconsin.

**Somerset Seedless**

Hardest of seedless grapes, similar to Brianna in hardiness. Moderately vigorous, procumbent vine. Resistant to most diseases, susceptible to downy mildew. Medium-red or pink small fruit with good strawberry-like flavor. Small to medium early-season clusters.

**Swenson Red**

Probably will need winter protection. Vigorous procumbent vine. Cluster thinning may be needed in years without winter damage. Highly susceptible to downy mildew. Red table grape, large berries, thin edible skin, seeded, fruit keeps well in refrigerator.

**Valiant**

Extremely hardy and productive. Blue. Good juice, jelly or table grape. Cane training systems recommended. This grape has a tendency to overbear; growers may need to cluster thin. Susceptible to downy mildew. High sugars and low acids; ripens very early. Cultivar licensed with the SD Landscape and Nursery Association.



Valiant

**Worden**

Hardy. Blue table and juice grape. Early ripening Concord seedling.