

ST. CROIX (ES 2-3-21)

Hybrid Wine Red *Red Wine* Zone 3

St. Croix

General Information

- **Color:** Red
- **Primary Use:** Wine
- **USDA Winter Hardiness:** 3
- **Harvest Season:** Early Season
- **Growth Habit:** Semi Trailing
- **Vigor:** Very Vigorous
- **Sugg. Training System:** Top Wire Cordon
- **Sugg. Distance Between Vines:** 8 ft.

Disease Susceptibility

- **Downy Mildew:** moderately susceptible or sensitive
- **Powdery Mildew:** moderately susceptible or sensitive
- **Botrytis:** moderately susceptible or sensitive
- **Sulfur Sensitivity:** ?



Medium to large red fruit suitable for winemaking and dessert. Ripens in late August, hardy to -32 degrees F. * Patented variety – Price includes royalty to Elmer Swenson

<http://www.rakgrape.com/>

FRONTENAC (MN 1047)

Hybrid Wine Blue *Red Wine* Zone 3

Frontenac

General Information

- **Color:** Blue, Black
- **Primary Use:** Wine
- **USDA Winter Hardiness:** 3
- **Harvest Season:** Late Season
- **Growth Habit:** Semi Trailing
- **Vigor:** Very Vigorous
- **Sugg. Training System:** Top Wire Cordon
- **Sugg. Distance Between Vines:** 8 ft.

Disease Susceptibility

- **Downy Mildew:** slightly susceptible or susceptible or sensitive
- **Powdery Mildew:** moderately susceptible or sensitive
- **Botrytis:** slightly susceptible or susceptible or sensitive
- **Sulfur Sensitivity:** YES



Extremely winter hardy red grape variety that produces a full bodied wine of high quality. *Patented cultivar from the University of Minnesota Breeding Program— Royalty will be added to order.

FRONTENAC GRIS (MN 1187)

Hybrid Wine White *White Wine* Zone 3

Frontenac Gris

General Information

- **Color:** White
- **Primary Use:** Wine
- **USDA Winter Hardiness:** 3
- **Harvest Season:** Late Season
- **Growth Habit:** Semi Trailing
- **Vigor:** Very Vigorous
- **Sugg. Training System:** Top Wire Cordon
- **Sugg. Distance Between Vines:** 8 ft.

Disease Susceptibility

- **Downy Mildew:** slightly susceptible or susceptible or sensitive
- **Powdery Mildew:** moderately susceptible or sensitive
- **Botrytis:** slightly susceptible or susceptible or sensitive
- **Sulfur Sensitivity:** YES



A natural variant of Frontenac with light red/gray fruit. Frontenac Gris makes a white wine with a peach flavor and tropical fruit/grapefruit undertones. In all other respects, it is identical to Frontenac.*Patented cultivar from the University of Minnesota Breeding Program– Royalty will be added to order.

LOUISE SWENSON (ES 4-8-33)

Hybrid Wine White *White Wine* Zone 3

One of a long line of winter hardy hybrids developed by Elmer Swenson, Louise Swenson is a very cold-tolerant variety. It is reported cold hardy to an amazing -40 F. (-40 C.), with occasional winter injury in severe seasons. The grapes of the vine have naturally low-sugar, with only moderate acidity. This result of a cross between ES 2-3-17 and Kay Gray, is used to produce white wine, with a delicate aroma of honey and flowers. Due to its low natural sugar levels, wine made from Louise Swenson grapes tend to be light-bodied. Often fuller bodied wines are blended with wine made from Louise Swenson to make a more complete product.

LACRESCENT (MN 1166)

Hybrid Wine White *White Wine* Zone 3

LaCrescent

General Information

- **Color:** White
- **Primary Use:** Wine
- **USDA Winter Hardiness:** 3
- **Harvest Season:** Early Season
- **Growth Habit:** Semi Trailing
- **Vigor:** Medium Vigor
- **Sugg. Training System:** Mid Wire Cordon, Vertical Shoot Positioning
- **Sugg. Distance Between Vines:** 6 ft.

Disease Susceptibility

- **Downy Mildew:** moderately susceptible or sensitive
- **Powdery Mildew:** moderately susceptible or sensitive
- **Botrytis:** slightly susceptible or sensitive
- **Sulfur Sensitivity:** NO



This University of Minnesota selection has excellent winter hardiness and good wine quality. The wine has a distinct apricot-like flavor with good aromatics. It works well when blended with more neutral whites. It has moderate disease resistance and requires a standard spray program. Clusters are long and slightly loose turning golden brown when mature. *Patented cultivar from the University of Minnesota Breeding Program– Royalty will be added to order.

PRAIRIE STAR (ES 3-24-7)

Hybrid Wine White *White Wine* Zone 3

General Information

- **Color:** White
- **Primary Use:** Wine
- **USDA Winter Hardiness:** 3
- **Harvest Season:** Mid Season
- **Growth Habit:** Semi Upright
- **Vigor:** Vigorous
- **Sugg. Training System:** Mid Wire Cordon, Vertical Shoot Positioning
- **Sugg. Distance Between Vines:** 6 - 8 ft.

Disease Susceptibility

- **Downy Mildew:** slightly susceptible or susceptible or sensitive
- **Powdery Mildew:** slightly susceptible or susceptible or sensitive
- **Botrytis:** slightly susceptible or susceptible or sensitive
- **Sulfur Sensitivity:** ?



This Elmer Swenson selection produces a neutral white wine with good mouth feel and finish. In some years it has a strong floral nose. It is generally used as part of blend to help add body to thinner more neutral wines. It has excellent winter hardiness and moderate disease resistance. It trains well to a vertical shoot positioning system.

LANDOT 4511 (LANDOT NOIR)

Hybrid Wine Red *Red Wine* Zone 4

Landot 4511

General Information

- **Color:** Red
- **Primary Use:** Wine
- **USDA Winter Hardiness:** 4
- **Harvest Season:** Early Season
- **Growth Habit:** Semi Upright
- **Vigor:** Medium Vigor
- **Sugg. Training System:** Mid Wire Cordon
- **Sugg. Distance Between Vines:** 6 ft.

Disease Susceptibility

- **Downy Mildew:** moderately susceptible or sensitive
- **Powdery Mildew:** slightly susceptible or susceptible or sensitive
- **Botrytis:** moderately susceptible or sensitive
- **Sulfur Sensitivity:** ?

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At This Time

A very vigorous variety with good winter hardiness. It has a late bud break and an early maturity date. Good downy mildew resistance. This variety is not widely planted, but it has a following of loyal growers.

LEON MILLOT (KUHLMANN 194-2)

Hybrid Wine Blue *Red Wine* Zone 4

Leon Millot

General Information

- **Color:** Blue, Black
- **Primary Use:** Wine
- **USDA Winter Hardiness:** 4
- **Harvest Season:** Early Season
- **Growth Habit:** Trailing
- **Vigor:** Medium Vigor
- **Sugg. Training System:** Top Wire
Cordon, Cane Pruning
- **Sugg. Distance Between Vines:** 6 ft.

Disease Susceptibility

- **Downy Mildew:** slightly susceptible or susceptible or sensitive
- **Powdery Mildew:** moderately susceptible or sensitive
- **Botrytis:** highly susceptible or sensitive
- **Sulfur Sensitivity:** ?



An early-ripening black grape. The wine has a distinct berry aroma. Sister variety of Marechal Foch but earlier and more productive.

VALIANT (SD 7121)

Hybrid Wine Red *Red Wine* Zone 3

Valiant

General Information

- **Color:** Blue, Black
- **Primary Use:** Juice, Jelly, Wine
- **USDA Winter Hardiness:** 3
- **Harvest Season:** Early Season
- **Growth Habit:** Semi Upright
- **Vigor:** Vigorous
- **Sugg. Training System:** Top Wire Cordon
- **Sugg. Distance Between Vines:** 8 ft.

Disease Susceptibility

- **Downy Mildew:** highly susceptible or sensitive
- **Powdery Mildew:** slightly susceptible or susceptible or sensitive
- **Botrytis:** moderately susceptible or sensitive
- **Sulfur Sensitivity:** ?

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At This Time

A blue-black variety, Valiant is super winter hardy for the Northern states and Canada. It has small compact clusters of small berries, and ripens three weeks before Concord. *Patented cultivar from the University of South Dakota Breeding Program- Royalty will be added to order as follows: \$0.20 per vine.

CYNTHIANA (Norton)

American Blue Zone 4

Cynthiana (Norton)

General Information

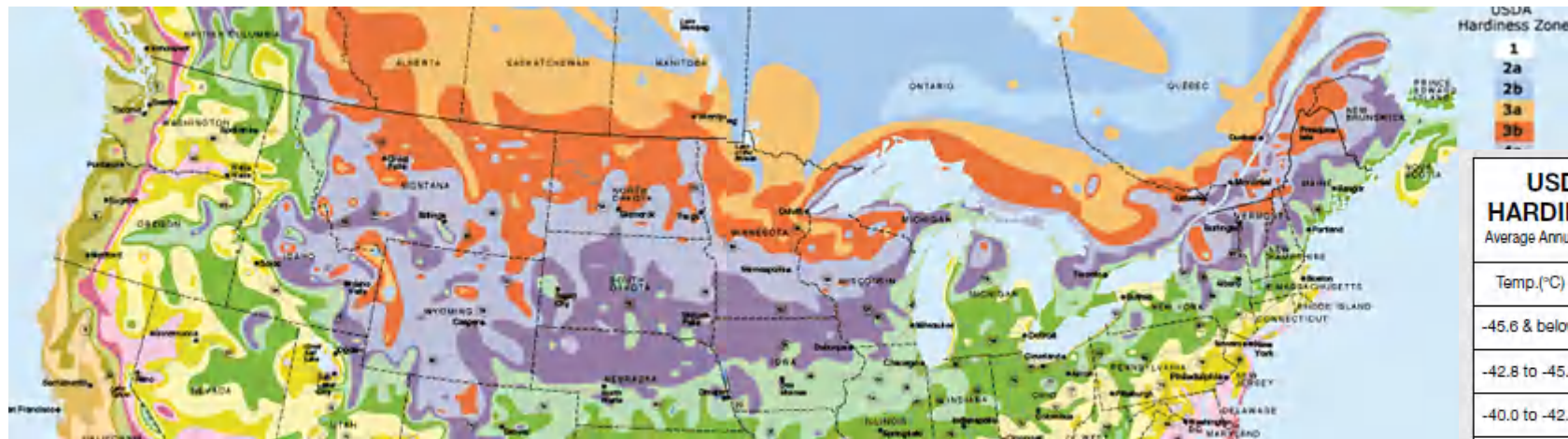
- **Color:** Blue, Black
- **Primary Use:** Wine
- **USDA Winter Hardiness:** 4
- **Harvest Season:** Late Season
- **Growth Habit:** Trailing
- **Vigor:** Vigorous
- **Sugg. Training System:** Top Wire Cordon
- **Sugg. Distance Between Vines:** 8 ft.

Disease Susceptibility

- **Downy Mildew:** moderately susceptible or sensitive
- **Powdery Mildew:** moderately susceptible or sensitive
- **Botrytis:** slightly susceptible or sensitive or sensitive
- **Sulfur Sensitivity:** ?



Small to medium clusters which bear firm, round, black berries. Ripens very late. Natural hybrid of Labrusca and Aestivalis; grown commercially in Arkansas and Missouri. Called the Cabernet of the Ozarks



USDA PLANT HARDINESS ZONES
Average Annual Minimum Temperature

Temp. (°C)	Zone	Temp. (°F)
-45.6 & below	1	Below -50
-42.8 to -45.5	2a	-45 to -50
-40.0 to -42.7	2b	-40 to -45
-37.3 to -39.9	3a	-35 to -40
-34.5 to -37.2	3b	-30 to -35
-31.7 to -34.4	4a	-25 to -30
-28.9 to -31.6	4b	-20 to -25
-26.2 to -28.8	5a	-15 to -20
-23.4 to -26.1	5b	-10 to -15
-20.6 to -23.3	6a	-5 to -10
-17.8 to -20.5	6b	0 to -5
-15.0 to -17.7	7a	5 to 0
-12.3 to -14.9	7b	10 to 5
-9.5 to -12.2	8a	15 to 10
-6.7 to -9.4	8b	20 to 15
-3.9 to -6.6	9a	25 to 20
-1.2 to -3.8	9b	30 to 25
1.6 to -1.1	10a	35 to 30
4.4 to 1.7	10b	40 to 35
4.5 & above	11	40 & above

