



'Frontenac'



'Marquette'



'La Crescent'



'Frontenac gris'



'Frontenac blanc'

Wine Grapes

The University of Minnesota is recognized as one of the top wine grape research programs in the country, with the goal of developing high-quality, cold-hardy, and disease-resistant wine grape cultivars. The wine grape breeding program began in the mid-'70s, and in 2000 an enology lab and research winery opened at the Horticultural Research Center.

Today more than 12,000 experimental vines are cultivated on 12 acres. Thousands of seedlings are produced each year using a diverse genetic base that includes classic *Vitis vinifera* cultivars, quality French hybrids, and hardy, disease-resistant selections based on *V. riparia*, Minnesota's native grape.

Currently, more than 100 U of M selections are in advanced tests, as well as more than 400 named varieties and selections from other breeding programs around the world. In addition to cold hardiness and disease resistance, viticultural traits such as productivity, cluster size, growth habit, bud

break, and ripening times are evaluated.

When a new grape is released, nurseries get a well-tested selection that has been evaluated for 15 years or more. The cross for 'Marquette' was made in 1989, and it was introduced as a new variety in 2006. It is now extensively planted throughout the Midwest and New England.

Several white-fruited mutations of 'Frontenac' and 'Frontenac gris,' sold as 'Frontenac blanc,' are the newest wine grapes derived from the University of Minnesota "Frontenac family."

Several versions of 'Frontenac blanc' have been discovered independently by grape growers and nurseries. Trials so far indicate they have the same outstanding vine traits of 'Frontenac' and are ready for harvest several days earlier. Various

mutations are being evaluated by the enology program to determine whether they differ in winemaking character.

The enology project works closely with the breeders by producing numerous experimental wines from test cultivars each year. The project helps wineries by determining optimum processing methods for both new and existing cultivars, and provides local support for the technical needs of the developing Minnesota wine industry. Researchers also work to characterize the components of new grapes.

WINE GRAPE CULTIVARS	YEAR	TYPE	FEATURES
Frontenac	1996	Red and rose' wine, port	Vigorous and very disease resistant. Wine has flavors of cherry and plum. Can be high in acidity.
Frontenac blanc	2012	White wine	White-fruited sports of Frontenac and Frontenac gris with earlier harvest date.
Frontenac gris	2003	White wine	Vigorous and very disease resistant. Wine has a characteristic peach flavor. Can be high in acidity.
La Crescent	2002	White wine	Very cold hardy. Wine has flavors of apricot, citrus, and tropical fruit. Moderately disease resistant.
Marquette	2006	Red wine	Resists downy and powdery mildew, and black rot, with open, orderly growth habit. Wine has complex notes of cherry, berry, black pepper, and spice on both nose and palate.

1989: Cross made for 'Marquette'

1996: 'Frontenac' released

2000: Enology lab and research winery opens

2002: 'La Crescent' released

2003: 'Frontenac gris' released

2006: 'Marquette' released