



## APPLICATIONS UNDER EXAMINATION

## GRAPEVINE

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(*Vitis*)

<b>Proposed denomination:</b>	<b>'Frontenac M1'</b>
<b>Trade name:</b>	Frontenac blanc
<b>Application number:</b>	06-5522
<b>Application date:</b>	2006/04/26
<b>Applicant:</b>	Ecole de viticulture et de vinification du Québec, L'Ascension-de-Patapédia, Quebec
<b>Agent in Canada:</b>	Variety Rights Management, Oxford Station, Ontario
<b>Breeder:</b>	Alain Breault, Ecole de viticulture et de vinification du Québec, L'Ascension-de-Patapédia, Quebec

**Varieties used for comparison:** 'Frontenac', 'La Crescent' and 'Seyval Blanc'

**Summary:** *The upper side of the mature leaf of 'Frontenac M1' is medium to dark green while it is dark green to very dark green for 'Seyval Blanc'. 'Frontenac M1' has a u-shaped base of the mature leaf while it is v-shaped in 'Seyval Blanc'. The petiole of 'Frontenac M1' is shorter than 'Frontenac' and 'La Crescent'. 'Frontenac M1' has a medium fruit cluster density while it is loose in 'La Crescent' and dense to very dense in 'Seyval Blanc'. The number of berries per fruit cluster for 'Frontenac M1' are few while it is medium in number for 'Seyval Blanc'. 'Frontenac M1' has a medium length peduncel of the fruit cluster while it is long in 'Frontenac'. The berry of 'Frontenac M1' is very short to short while it is short to medium in length for 'Seyval Blanc'. 'Frontenac M1' has a green-yellow mature berry skin colour while it is blue-black for 'Frontenac', green-yellow to amber for 'La Crescent and yellow-green for 'Seyval Blanc'. The bloom on the berries of 'Frontenac M1' is medium while it is weak in 'Seyval Blanc'. 'Frontenac M1' berries have a very high sugar content, while it is high in 'Frontenac' and 'La Crescent' and medium in the berries of 'Seyval Blanc'.*

#### **Description:**

**YOUNG SHOOT TIP:** opened tip with small leaves clearly separate, very weak to weak anthocyanin as stripes, none or very sparse prostrate or erect hairs present

**SHOOT:** dorsal and ventral side of internodes and nodes are green, absent or very weak anthocyanin colouration of buds, erect to semi-erect attitude

**WOODY SHOOTS:** circular to elliptic in cross-section, striate surface, yellowish brown, no lenticels, absent or very sparse erect hairs on nodes and internodes

**TENDRILS:** discontinuous, short

**YOUNG LEAF:** green upper side, absent or very weak anthocyanin colouration, absent or very sparse erect hairs between the veins, very sparse to sparse prostrate and erect hairs on main veins

**MATURE LEAF:** medium length, cordate to pentagonal, 3 to 5 lobes, medium to dark green upper side, flat to striate in profile, very weak to weak blistering on upper side, undulation of leaf blade near the petiole, short to medium length teeth compared to their width at the base, rectilinear shaped teeth, very open to opened petiole sinus, u-shaped base of petiole sinus, upper leaf sinuses open, v-shaped upper leaf sinuses, absent or very weak anthocyanin colouration of the main veins on upper and lower sides, very sparse to sparse prostrate hairs between the veins and on the main veins on lower side, very sparse to sparse erect hairs on the main veins on the upper side, sparse erect hairs between the veins on the lower side, very sparse to sparse erect hairs on main veins on the lower side, short to medium length petiole, none or very sparse prostrate and erect hairs on petiole

**FLOWER:** hermaphrodite

**FRUIT CLUSTER:** medium length, medium density, very low to low weight, small number of berries, medium length peduncle, weak lignification of peduncle

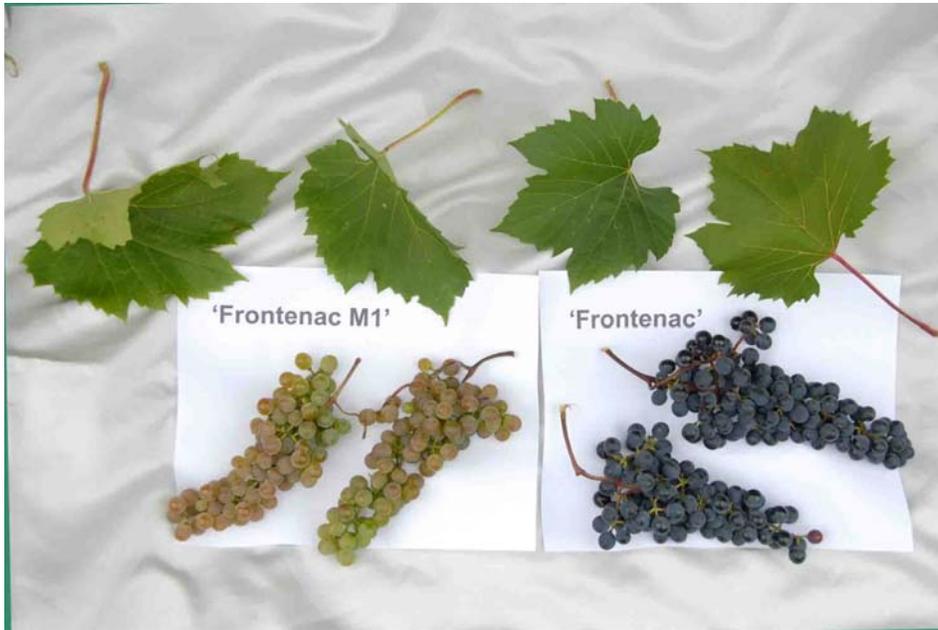
**BERRY:** very short to short, very low to low weight, uniform size, roundish, circular in cross-section, uniform green-yellow skin colour, medium bloom, thin skin, clear flesh, juicy, neutral flavour, medium firmness of flesh, very short pedicel, easy separation from pedicel, seed hilum colour visible, seeds present

**AGRONOMICS:** early time of bud burst, ripening begins medium to late, hardy

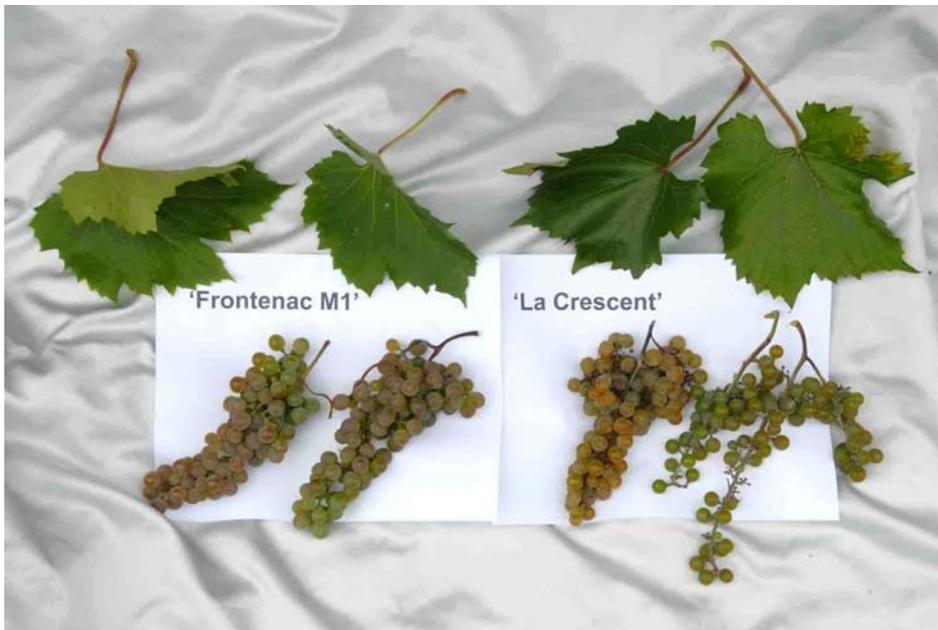
**QUALITY:** very high sugar content of must, very high total acid content of must

**Origin and Breeding:** 'Frontenac M1' was discovered as a single cane sport, bearing dull white coloured fruit of a plant of the bluish-black fruited grapevine variety 'Frontenac' in September 2005 at A&M Viticulture, St. Paul d'Abbotsford, Quebec. Selection criteria included fruit colour and superior wine traits.

**Tests and Trials:** Test and trials were conducted at A&M Viticulture in St. Paul d'Abbotsford, Quebec during the 2009 and 2010 growing seasons. Plants were grown as part of a production vineyard. Plants were spaced 1.2m apart within the row with a row spacing of 2.5m. 'Seyval Blanc' was grown in the vineyard of Vignoble Artisans du Terroir, St. Paul d'Abbotsford 1km from A&M Viticulture.



Grapevine: 'Frontenac M1' (left) with reference variety 'Frontenac' (right)



Grapevine: 'Frontenac M1' (left) with reference variety 'La Crescent' (right)



Grapevine: 'Frontenac M1' (left) with reference variety 'Seyval Blanc' (right)