'St. Croix'



Iowa State University

Synonyms: E.S. 2-3-21 (7, 10).

Pedigree: E.S. 283 (Minn. 78 x Seibel 1000) x E.S. 193 (Minn. #78 x 'Seneca') (10).

Origin: Osceola, Wisconsin. Bred by Elmer Swenson (7, 10).

Introduction: 1981 (7, 10).

Release: Plant patent 4928 assigned to Elmer Swenson in 1982 (10).

Type: Interspecific hybrid (includes V. labrusca, V. riparia) (10).

Color: Blue

Berry: Medium sized; spherical; tender and juicy (10). Very thin skinned and subject to leaking (4).

Cluster: Slightly cylindrical to conical; usually single shouldered and compact (8). clusters are medium in size (2). Average cluster weight in ISU trials in 2007 was .22 lb. (5, 6). Domoto indicated that berry set can be light (4).

Viticultural Characteristics: Vigorous and semi-procumbent growth habit (11). Domoto (4) reported that bud break occurs midseason. Also, it is prone to multiple bud breaks on nodes. It requires shoot thinning and removal of lateral shoots. He cautioned that it is slightly susceptible to injury from 2,4-D and moderately susceptible to injury from dicamba. Ninety nine days from bloom to harvest (3).

Disease/Pests: 'St. Croix' is considered moderately susceptible to Botrytis bunch rot, downy mildew and powdery mildew (1, 3, 4, 9); and slightly susceptible to anthracnose (1, 3). It is uncertain whether it is susceptible to black rot, crown gall and Phomopsis cane and leaf spot. It is not sensitive to injuries from sulfur and copper applications (4).

Wine Quality and Characteristics: According to Swenson (10), wines made by 'St. Croix' been compared to a light to medium burgundy with no foxy or *labrusca* flavor. Plocher and Parke (8) reported that acidity tends to be moderate, but grapes struggle to

'St. Croix'

make 20° Brix. They noted that juice is a pale rosé but the wines can be quite dark in color. Plocher and Parke also mentioned that it's not uncommon for it to lack tannins (which can be addressed by blending); be somewhat neutral or have a tobacco-like nose.

Season: Early Midseason (late August to mid-September in Wisconsin and Iowa) (5, 6, 11).

Cold Hardiness: Very hardy (below -20° F) (4). 'St. Croix' has survived -39° F on trellises with no winter covering with no apparent injury to trunks or buds (10), but according to Plocher and Parke (8), vines will typically survive mid-winter cold down to -25° F to -27° F without injury. They noted that the roots are a bit less hardy and need snow cover in really cold winters.

Use: Juice, table, wine.

Notes: Sister seedling to 'Sabrevois' and main red wine variety at many wineries in Quebec (8).

Literature Cited

- Bordelon, B, M. Ellis, and R. Weinzerl (editors). 2008. Midwest commercial small fruit & grape spray guide. (Univ. Arkansas Coop. Ext. Ser.; Univ. of Illinois Ext. ICSG3-08; Purdue Ext. ID-169; Iowa St. Univ. Ext. PM 1375; Kansas St. Univ. Ag Expt. Sta. & Coop Ext. Ser. S-145; Univ. of Kentucky Coop. Ext. Ser. ID-94; Univ. of Missouri, Missouri St. Univ. MX37; Univ. of Nebraska-Lincoln Ext.; Ohio St. Univ. Ext. 506B2; Oklahoma Coop. Ext. Ser. E-987; W. Virginia Univ. Ext. Ser. 865). On: <u>http://www.hort.purdue.edu/hort/ext/sfg/</u>.
- 2. Brooks, R.M., and H.P. Olmo. 1997. The Brooks and Olmo Register of Fruit & Nut Varieties. ASHS Press, Alexandria, VA, USA.
- Dami, I, B. Bordelon, D. Ferree, M. Brown, M. Ellis, R. Williams, and D. Doohen. 2005. Midwest grape production guide. Ohio State University Extension Publication 919-05. On: <u>http://ohioline.osu.edu/b919/0010.html</u>.
- 4. Domoto, P. 2008. Grape cultivars for consideration in Iowa. *On*: <u>http://viticulture.hort.iastate.edu/info/pdf/cultivars08.pdf</u>.

'St. Croix'

- Domoto, P., G. Nonnecke, D. Portz, L. Smiley, B. Havlovic, N. Howell, K. Pecinovsky, K. VanDee, and J. Hannan. 2008. Wine Grape Cultivar Trial Performance in 2007. Ann. Prog. Rept. 2007 for Hort. Res. Sta., ISRF07-36:39-45; Armstrong R&D Farm, ISRF07-12; Muscatine Island R&D Farm, ISRF07-20; Northeast R&D Farm, ISRF07-13; and Southeast R&D Farm, ISRF07-34. *On:* <u>http://viticulture.hort.iastate.edu/research/pdf/winegrapecultivar07.pdf</u>.
- Domoto, P., G. Nonnecke, D. Portz, B. Havlovic and N. Howell. 2008. Grape cultivar by management system trial performance in 2007. Ann. Prog. Rept. – 2007 for Hort. Res. Sta.; ISRF07-36:35-38; and Armstrong R&D Farm, ISRF07-12. On: http://viticulture.hort.iastate.edu/research/pdf/leopoldgrapecultivar07.pdf.
- 7. National Grape Registry (NGR) website: <u>http://ngr.ucdavis.edu/</u>. Supported by University of California Agriculture and Natural Resources, Services, and National Clonal Germplasm Repository of the USDA Agricultural Research Service.
- 8. Plocher, T., and B. Parke. 2001. Northern Winework. Northern Winework, Inc. Hugo, MN. p.156.
- 9. Reisch, B.I., R.M. Pool, D.V. Peterson, M.H. Martens, and T. Henick Kling. 2000. Wine and juice grape varieties for cool climates. Information Bulletin 233. Cornell Cooperative Extension. *On*: <u>http://www.nysaes.cornell.edu/hort/faculty/reisch/bulletin/wine/index2.html</u>.
- 10. Swenson, E. 1982. A grapevine named 'St. Croix'. U.S. Plant Patent No. PP4,928. (assigned to Swenson-Smith Vines, Inc.).