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'Norton' and 'Cynthiana'—Premium Native Wine Grapes[1]

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Abstract

A historical review is presented of the origins and impact on the Midwest wine industry of two native grape cultivars: 'Norton' and 'Cynthiana.' Both cultivars are considered to be principally *Vitis aestivalis* Michx. and exhibit similar characteristics of high levels of disease resistance combined with excellent fruit quality for winemaking. 'Norton,' and to a lesser extent 'Cynthiana,' achieved broad acclaim prior to Prohibition but nearly disappeared during the ensuing abandonment of vineyards. A recent revival of production of these two premium native grapes has resulted in medal-winning wines from Missouri and Arkansas wineries.

The development of commercially profitable grape cultivars from native American species has been a cornerstone of the eastern American wine industry, particularly in those states where *Vitis vinifera* L. often succumbs to winter injury or endemic diseases. Two such cultivars, 'Norton' and 'Cynthiana,' both considered to be largely *Vitis aestivalis* Michx. selections, are historically described as mainstays of red wine production in the middle south and Midwest states (1, 11, 15, 18). Isidor Bush, in the 1883 edition of his popular, illustrated, descriptive catalogue, declared that 'Norton,' with its "twin sister" 'Cynthiana,' was "the most reliable and best red wine grape of America." (4). Currently, 'Norton' is at the forefront of the renaissance of premium red wine production in Missouri. Recent vintages of 'Norton' and 'Cynthiana' have won medals for Missouri and Arkansas wineries in regional and national competitions.

'Norton,' also called 'Norton's Virginia' or 'Virginia Seedling,' is a vigorous vine that is relatively cold hardy and virtually disease-free (8, 11, 15). George Husmann, a pioneer of midwestern viticulture, preached its adaptability to various soils, from alluvial bottoms to gravely slopes. However, its ultimate success in a location depends upon a favorable climate providing a long, warm fall for fruit ripening and sufficient vine hardening off (11).

Compact clusters of small, black, 'Norton' berries ripen late, about one week before 'Catawba' (10). The dark green pulp is only moderately juicy, but the flavor is rich and spicy and sugar content can exceed 20° Brix. At the peak of its popularity, 'Norton' wine was considered as equal to, if not better than, the best Port or Burgundy (10) and received high praise from European wine experts (2). It was described as deep-colored, full-bodied, and astringent, with a unique (and pleasant) flavor (11, 15). Today's 'Norton' wines are most often produced in a claret style, commanding premium prices in local markets.

The vegetative characteristics of 'Cynthiana' have been described as practically indistinguishable from those of 'Norton.' (8, 11). However, Hedrick (8) indicates that 'Cynthiana' vines are more particular about soil type, preferring sand or gravelly loams and not thriving on clays or limestone soils.

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By most accounts, 'Cynthiana' offers higher fruit quality than 'Norton' (2, 8, 9, 11). The berries are somewhat larger and earlier maturing, and the pulp has more juice and is sweeter (11). 'Cynthiana' fruit has less intense flavor and lower astringency than 'Norton.' It produces a dark red, full-bodied wine, described as having a spicy but delicate aroma. Most sources have judged 'Cynthiana' wine superior to that of 'Norton' (4, 8, 11). In a comparison against eight samples of 'Norton,' 'Cynthiana' was declared the "best red wine on exhibition" at the 1865 Missouri Horticultural Society meeting (11).

The origins of both 'Norton' and 'Cynthiana' have been debated since the time of their introductions. William Prince, the Long Island nurseryman, reported in 1830 the receipt of 'Norton's Virginia Seedling' directly from Dr. Daniel N. Norton of Richmond, Virginia (19). Prince reported the cultivar to be a hybrid seedling resulting from a chance pollination of 'Bland' by a nearby vine of 'Miller's Burgundy.'

A conflicting story is told by F. W. Lemosy, who claimed that his father, Dr. R. A. Lemosy, discovered the vine on Cedar Island near Richmond, Virginia in 1835 or 1836 (5). Several years later, he brought the discovery to the attention of Dr. Norton, who transplanted the vine in his own garden and developed great interest in its winemaking potential.

Unfortunately, neither of these accounts is likely to be accurate. As early as 1857, the Pomological Society of Georgia contested Prince's hybrid origin of 'Norton' on the basis that it bore no resemblance to its reputed parents, but rather seemed to be of the species *V. aestivalis* (21). Other viticulturists agreed that the hybrid origin reported by Prince was incorrect, but opinions varied on its true species makeup (8, 16, 20). Today, 'Norton' is generally considered to be a natural hybrid of *V. aestivalis* and *V. labrusca* L. (6).

Lemosy's account is discredited by the discrepancy between Prince's report of receiving 'Norton' prior to 1830 and Lemosy's claim that his father discovered the vine around 1835. The true origin of 'Norton' will probably remain unknown.

The origin of 'Cynthiana' is equally obscure, but less controversial; it is generally believed to have been found in the wild in Arkansas (8, 11). Prince popularized the variety in the 1850's and sent cuttings to Husmann in Missouri in 1858 (3).

At the time of its popularization and again upon its recent revival in Missouri, viticulturists have argued whether 'Cynthiana' is actually the same cultivar as 'Norton.' Clearly, from the descriptions and testimonials cited previously, the two cultivars are distinctly different, despite nearly identical vegetative features and similar fruit characteristics. Most early viticulturists came to this conclusion after observing the cultivars growing near each other (8, 9, 11).

The debate continues today, with many viticulturists concluding that there is no apparent difference between the two cultivars, despite the claim of most Missouri vintners that their product is 'Norton,' whereas other Missouri and Arkansas wineries produce 'Cynthiana' wines. Resolving the debate is complicated by the fact that Prohibition caused abandonment or removal of many wine grape vineyards, and relatively few vines of these cultivars survived to the time of the recent revival of the Missouri wine industry. As a result, most modern Missouri and Arkansas vineyards can trace their 'Norton' or 'Cynthiana' vines to one of only two sources (7). A lack of original vineyard records prevents identification of these vines. Recently, isozyme analysis was applied to 12 samples of 'Norton' and 'Cynthiana' collected throughout Missouri and Arkansas (7). The analysis failed to identify any significant difference be-

tween the samples, but this is not conclusive proof that today's 'Norton' and 'Cynthiana' are one and the same.

The initial popularity of wine produced from these two native grapes began with local recognition of the outstanding quality of Dr. Norton's homemade claret. His success, coupled with Prince's published description of 'Norton' in 1830, led to its adoption by commercial wineries. Virginia claret became famous during the latter half of the nineteenth century, with Monticello's Norton Claret winning a gold medal at Vienna in 1873 and a silver medal at Paris in 1878 (1).

Production of 'Norton' inevitably spread to other wine regions, but success eluded northern growers because of the long growing season required to properly mature the berries. By 1880, 'Norton' was a highly recommended red wine cultivar across the South and Midwest, including Georgia, Virginia, Missouri, Arkansas, Kansas, Alabama, Kentucky, and Texas (13).

Missouri eventually became renowned for 'Norton' wines, despite the dire proclamation of Ohio's most prominent viticulturist. Nicholas Longworth, in 1850, declared that 'Norton' was worthless as a wine grape because of the vine's difficult propagation, marginal ripening, and low yields in his location (12). Missouri growers, however, persevered in their efforts with 'Norton,' especially the well-known growers around Hermann: Husmann, Poeschel, and Rommel. The first Missouri 'Norton' wine was the product of the celebrated viticulturist, Jacob Rommel (18).

'Cynthiana' also achieved considerable popularity and acclaim in the post-Civil War era, particularly in Missouri and Arkansas. A Bushberg Vineyards (MO) 'Cynthiana' vintage was awarded First Medal of Merit at the 1873 World Exposition in Vienna (4).

Prohibition virtually destroyed the burgeoning eastern wine industry, including that in the major centers for 'Norton' and 'Cynthiana' production: Virginia and Missouri (1, 18). Following repeal, the wine industry was very slow to redevelop and apparently only a few Arkansas wineries continued production of 'Cynthiana' wines. The Weiderkehr and Post wineries of Altus, Arkansas traditionally based their business on native cultivars, including 'Cynthiana' (1). Both wineries can claim over a century of continuous operation and continue to grow and produce medal-winning 'Cynthiana' wines.

Missouri wineries have promoted the greatest revival of quality 'Norton' and 'Cynthiana' wines; the cultivars are once again claiming preeminence in the state's premium red wine market. 'Cynthiana' and 'Norton' are the most popular cultivars in new vineyard plantings, because demand for the grapes far exceeds current supplies (17).

Wines made from 'Norton' and 'Cynthiana' are receiving broad acclaim from a new generation of wine enthusiasts. A silver medal was awarded to Stone Hill Winery (Hermann, MO) for a Norton Hermann, at the 1989 International Eastern Wine Competition. Hermannhof winery, also of Hermann, and Blumenhof Vineyards (Dutzow, MO) have recently won silver and gold medals, respectively, in national competitions for their 'Norton' and 'Cynthiana' vintages. Experts declare that these two native American cultivars represent the region's greatest potential for dry cellar-aged wines that can compete with the finest wines of the world (1, 14).

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Book Review

Selekciya Yabloni (Apple Breeding), 1989, by E. Sedov with coauthors, published by Agropromizdat, Moscow, U.S.S.R.

E. Sedov is acknowledged to be one of the foremost authorities in apple breeding in the Soviet Union. As a result of his 35 years association as the advisor of fruit breeders of the Orel Zonal Fruit and Small Fruit Experiment Station, perhaps the most prominent team of breeders in Central Russia is gathered.

Written in the Russian language, this 256-page text is an up-to-date book which will capture the interest of the western researchers. The following subject matter is divided into six chapters: 1) Modern breeding objectives. Intensifying of the breeding processes; 2) Development of a desirable apple-tree character, so-called compact types, correlated with fruiting precocity, productivity and good quality fruit; 3) Breeding of winter hardiness; 4) Breeding of Disease Resistance; 5) Breeding of high vitamin C and other foodstuff compound contents; 6) Breeding for obtaining polyploids.

According to authors there are good opportunities for breeding compact type apple-trees, disease resistant, winter hardy and with high vitamin C content. I'd like to add that most recently (1989) three scab resistant apple cultivars 'Imrus,' 'Chistotel' and 'Orlovski Pioner' were released by Orel Experiment Station. 'Imrus' and 'Chistotel' are winter cultivars and the third is a fall cultivar. They are the first scab resistant apple cultivars of the Soviet breeding program.

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