

'Cynthiana' / 'Norton'



Iowa State University

Synonyms: 'Arkansas', 'Norton', 'Norton Virginia', 'Norton's Seedling', 'Norton's Virginia Seedling', 'Red River', 'Vitis Nortoni' (8)

Pedigree: Bland (*labrusca-vinifera*) OP x *V. aestivalis* 19 (probably not 'Bland' x 'Miller's Burgundy') (8)

Origin: The history of 'Cynthiana' / 'Norton' (hereafter called 'Cynthiana') has long been debated. Reisch et al. (9) indicated it is possible that 'Norton' and 'Cynthiana' originated from a single seedling vine, and that the cultivar was given different names, 'Norton' in Virginia and 'Cynthiana' in Arkansas.

They reported that the 'Norton' grape was originally distributed by Prince Nursery of Flushing, New York, in the early 1800's and was grown in Missouri in 1848. In addition, the 'Cynthiana' grape originated in the neighboring state of Arkansas sometime in the 1850s. They indicated it is possible that the 'Cynthiana' vine from Arkansas was actually a misnamed 'Norton' which was already well-known in the neighboring state of Missouri. Also possible according to Reisch et al. (9), the cultural differences noted in the early literature may indicate that 'Cynthiana' was a sport of 'Norton'.

Introduction: Placed in the American Pomological Society Fruit Catalog grape list in 1881(5).

Type: Interspecific hybrid (including *V. aestivalis*; *V. labrusca*) (8).

Color: Blue

Berry: Hedrick et al. (5) described the berries as small and round; blue-black and covered with a moderate amount of blue bloom. They reported the skin as astringent; tough and rather adherent to pulp, and containing a small amount of purple pigment. They noted that the flesh was dark green, translucent, juicy; tough and solid and describe the flavor as spicy and rather tart.

Cluster: According to Hedrick et al. (5), the cluster is small to medium sized; rather long, tapering to cylindrical; not very uniform, often single shouldered and compact. Average cluster weight is .16 lb (2).

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Viticultural Characteristics: According to Domoto (3), the vine is vigorous and has a procumbent growth habit. He added that it blooms late and that cluster thinning is not needed. Main (6) reported the vine prefers well drained sandy or gravelly loam soils and is not tolerant of wet soils. A week of soggy soil will turn the leaves yellow and stunt growth. Main also stated that the roots are very efficient in removing potassium from the soil, and therefore, potassium fertilizer should not be used unless potassium deficiency is seen in the vine. Morris et al. (7) found the combination of potassium fertilizer and cluster thinning on ‘Cynthiana’ resulted in increased juice pH and potassium. Main (6) indicated that severe magnesium deficiency has been seen in ‘Cynthiana’ and recommends pre-bloom foliar sprays as well as two or more additional sprays during the season. He added the vine is quite sensitive to 2, 4-D and may be sensitive to other commonly used fungicides and sprays should be used with caution. One hundred twenty five days from bloom to harvest (2).

Disease/Pests: ‘Cynthiana’ is rated as moderately susceptible to downy mildew; and slightly susceptible to black rot, Botrytis bunch rot, crown gall, Phomopsis cane and leaf spot, and powdery mildew (1, 2, 3). Bordelon et al (1) and Domoto (3) also rate it as slightly susceptible to anthracnose. It is sensitive to injury from sulfur and Domoto (3) noted that it is not sensitive to injuries from copper. It is attractive to birds (4).

Wine Quality and Characteristics: Produces a medium to full bodied dry red wine, with some fruity overtones. Main (6) reported that it tends to be high in titratable acidity (up to 15 g/liter); malate (up to 6 g/liter); and potassium (up to 6 g/liter); and has a high pH (> 3.5). Soluble solids can run somewhat high around 24°-26° Brix. He noted that it often has poor color in warm years along with aggressive seed tannin, small clusters, small berry size and low juice yields. Despite these features, and with proper management, Main confirms that an excellent wine can be made from ‘Cynthiana’ grapes. He said the primary focus of ‘Cynthiana’ wine production is to keep pH below 3.6 and improve wine structure.

Season: Late (only adapted to long frost-free sites of 180 or more days) (2).

Cold Hardiness: Moderately hardy (-10° to -15° F) (3).

Use: Wine

Notes: It won the “Best Wine of All Nations” at the Vienna World Exposition in 1873 and is often considered the “Cabernet of the Ozarks” (4).

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