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'HORIZON' GRAPE

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2) which was made in 1945; the fruit was first described in 1951. It was first tested as NY 33472 and subsequently as GW7. Own-rooted vines were first planted in 1955 and vines grafted on Couderc 3309 rootstock have been under test since 1966. 'Horizon' has been available for testing from the New York State Fruit Testing Cooperative Association, Inc. since 1970.

DESCRIPTION

Vines of 'Horizon' are vigorous. Own-rooted vines and vines grafted on C. 3309 grown in phylloxera (*Phylloxera vastatrix* Planchon) infested soils have maintained annual pruning weights in excess of 2.5 and 4 pounds, respectively. It is, therefore, not necessary to graft 'Horizon' to a phylloxera-resistant rootstock, but improved vine size can be expected from grafted vines. The vines are winter cold hardy at Geneva, New York. Significant bud injury is rare; moderate to severe primary bud kill occurred following a temperature of -20 F in the winter of 1967-1968 at Geneva, but the vines were fully productive again in 1969. A low temperature of -10 F on Dec. 25, 1980 and subsequent winter temperature fluctuations caused only 10-20 per cent kill of primary buds. No trunk injury has been recorded. Vines have performed well in the Northeast but poorly in trials in Tennessee (2).

'Horizon' is slightly less resistant to powdery mildew (*Un-*

INTRODUCTION

'Horizon' (Fig. 1) is a high-yielding white wine grape that produces a neutral blending wine. It fulfills the need in the Northeastern United States for a winter hardy grape relatively free of cultural and enological defects.

ORIGIN

'Horizon' is a sister seedling of 'Cayuga White' (1), the first grape to be named at Geneva solely for wine use following the release of 42 table grape cultivars (3,4). The new grape resulted from the cross 'Seyval' x 'Schuyler' (Fig.

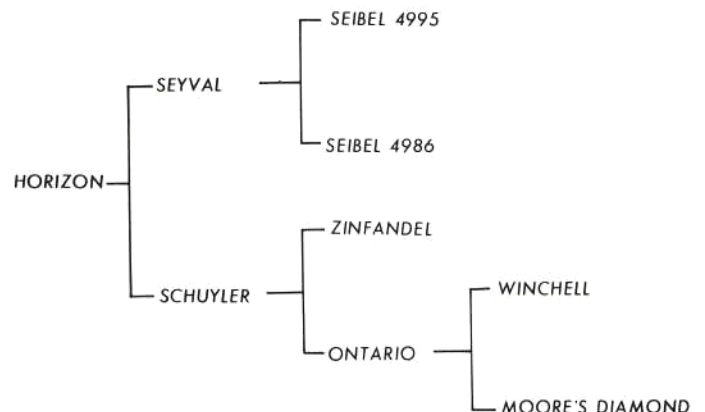


Figure 2.—Pedigree of 'Horizon', formerly GW7.

cinula necator Burr.) than is 'Concord'. A spray program sufficient to control powdery mildew and downy mildew (*Plasmopara viticola* Bui. and Toni) on 'Concord' is usually adequate for control on 'Horizon'. Sulfur may be used as recommended for disease control; very slight amounts of sulfur injury have been recorded following spray applications. The fruit are moderately susceptible to cracking and rot at harvest time.

'Horizon' (own-rooted) has had the fourth highest yield of fruit among 25 white wine selections, based on 3 years of data (1979-1981), in a yield trial run cooperatively with the Taylor Wine Company (Hammondsport, NY) and located at Dresden, NY. The mean yield for 3 years has been 5.9 tons/acre (range = 4.9-6.8, block mean = 4.0). 'Cayuga White' averaged 4.8 tons/acre (range = 3.9-5.5). All yields were limited by potassium deficiency in 1979 and 1980; actual yields will depend upon local conditions. 'Horizon' ripens about midseason, between September 20 and 30 at Geneva. The soluble solids and titratable acidity have averaged 17.8 ° Brix (during 18 years) and 6.9 grams per liter (during 9 years), respectively. Wine was first made in 1955 and has received favorable ratings, above 'Aurore' but below 'Cayuga White'. Wine is fruity with good body and balance. Most samples have been free of the American flavors of cultivars of *Vitis labrusca* L. and also free of flavors found in wines from many French-American hybrids (e.g. green or herbaceous flavors).

Flowers are perfect with upright stamens and bloom is midseason. Fruit clusters are medium-sized, moderately compact, and cylindrical in shape, borne two clusters per shoot. Berries are medium-sized, spherical, and light green. Crop is rarely produced on secondary or base buds.

AVAILABILITY

Vines propagated by both conventional and tissue culture methods are available from the New York State Fruit Testing Cooperative Association, Inc., Geneva, NY 14456.

LITERATURE CITED

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