



OARDC's Grape Research Program Aids Ohio's Wine Producers

The wine industry is a \$70-million industry in the state of Ohio, complemented by another \$10 million for juice grapes. The Ohio Wine Producers Association recognizes the Ohio Agricultural Research and Development Center (OARDC) as the major contributing factor in the success of the wine industry in our state.

The grape industry has had a long and rich history in Ohio, dating back to the early 1800s when the first Catawba grapes were planted in the Cincinnati area. By 1860, Ohio led the nation in the production of wine. Over the years, production shifted to the Lake Erie shore and to juice grapes, which was followed by a decline in acreage from 4,135 acres in 1959 to 1,776 acres by 1985.

Researchers at OARDC encouraged producers to plant French-American varieties of wine grapes in southern Ohio. These hardy grapes produce wines similar to the older European vinifera varieties. More importantly, these wine grapes are valued at two to seven times the value of juice grapes on a per-ton basis. The success of these French-American varieties in the south gave Lake Erie grape producers the confidence to plant them across the state. Each spring winemakers continue to plant French-American Hybrids and vinifera varieties.

Horticultural research has included experiments on juice-, wine-, and table-grape cultivars, rootstock-scion interactions, chemical growth regulators, nutrition, and cultural practices to improve wine quality. Rootstock interaction studies with White Riesling and Cabernet Franc identified rootstocks most adaptable to Ohio's soils and climate. Training systems that maximize exposure of the canopy and grape clusters to the sun have been evaluated for Pinot Gris and Seyval blanc.

Successful studies with soybean oil to delay spring bud burst and avoid frost resulted in the first commercial usage of this oil in the spring of 2003. Using results from these experiments, researchers made recommendations to save growers money while at the same time producing high-quality grape and wine products.

In the earlier years of Ohio's enology program, the mid-1960s, OARDC scientists emphasized evaluations of new grape varieties for their table-wine quality. From these tests, several grapes were recommended for making high-quality table wines in Ohio. Some of these varieties included Vidal, Seyval, and Vignoles.

More recently, investigations have been directed toward improving wine quality made from these grapes and some selected vinifera varieties that are new to our region. Especially successful have been wines produced from cultivars Pinot Gris and Cabernet Franc recommended in the mid-1990s by researchers. In the last two years, Ohio winemakers have garnered more than a dozen regional and national gold medals in national competition.

Presently research attention is focused on such vinification factors as grape maturity, yeast strains, juice clarification, wood aging, malolactic fermentation, must temperatures, and recognizing the effect of crop load on wine quality. Results of these studies are used by the grape and wine industry to select varieties to plant, yeast strains to use, and winemaking techniques that improve wine quality.

Ohio is poised to become one of the major wine regions of the world based on awards such as the gold and silver medal successes and Best in Show ratings in competitions that included the International Eastern Wine competition, the Los Angeles County Fairs 62 Wines of Americas Wine Competition and the prestigious San Francisco State Fair Wine Competition.

OBJECTIVES

The OARDC Grape Research Program has one main objective and that is to provide the best scientific and research-based information on all issues related to all areas of grape and wine-grape production that are unique to the state of Ohio, including cultural practices, variety selection, pest management, and cultural techniques.

CHALLENGES

Provide Ohio producers with the research-based information and technologies to make grape and wine production an economically viable enterprise in Ohio.

ACHIEVEMENTS

The research conducted by OARDC scientists has provided Ohio grape and wine producers with the appropriate tools and information to bring an industry that was taking a dramatic downturn into a growing multi-million dollar industry. At the same time, an emerging restaurant and tourist industry centered on grape and wine production brings additional revenue to our state. In 1997, there were 37 wineries in Ohio. The number grows annually with the current count at 81 and seven more expected to open within the next year.

THE FUTURE

Continued research will provide producers with the scientifically sound information needed for successful grape production.

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Photos courtesy Jodi Miller and Ken Chamberlain

