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'Montmorency' Sour Cherry

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'Montmorency' reigns supreme as the only sour cherry cultivar recommended for commercial planting in the United States; it currently represents approximately 99 percent of the sour cherry production. Within the U.S., 'Montmorency' production is concentrated in those areas where the mean summer temperature (June, July, August) is near 15°C (5), the minimum winter temperature is -35°C (G. S. Howell, personal communication), and spring freeze damage is limited. As a result, approximately 75 percent of the U.S crop is produced in Michigan. Next in order of importance are New York, Utah, Wisconsin, and Pennsylvania, with increasing acreages in Washington and Oregon. 'Montmorency's' success is its productivity despite low crop years due to occasional spring freezes, and its fruit quality which has become the industry standard. The skin of the fruit is bright red, the juice clear, the pit relatively round, and the flesh fairly firm.

'Montmorency's' growth habit is upright and therefore careful training is required to obtain trees with strong leaders and wide branch angles which resist breakage. Once the tree is trained, regular pruning is recommended to increase light penetration into the canopy and thereby keep fruit spurs in production. On older trees, an increasing proportion of the fruit buds are produced laterally on one-year-old wood.

'Montmorency' fruit is harvested when the soluble solids content is at least 11 percent and the fruit diameter is approximately 2 cm. Mechanical trunk shakers harvest almost the entire sour cherry acreage in the U.S. Once harvested, the fruit is cooled, washed, sorted, mechanically pitted and processed into pie filling or frozen for later use. During processing, sugar and red colorants are frequently added.

'Montmorency' probably originated before the 17th century in the Montmorency Valley in France as an open-pollinated seedling of 'Cerise Hative' or 'Cerise Commune' (4); this would make it almost 400 years old! The date of importation into the U.S is unknown; however, the date of the first written reference to 'Montmorency' in the U.S. is 1832. The American Pomological Society added 'Montmorency' to its fruit catalog in 1897, using the qualifying term 'Ordinaire'; this was dropped in 1909. Numerous spontaneous mutations for ripening date, fruiting habit, and fruit size have been identified (2); however, none has yielded significantly more than 'Montmorency' (3). 'Montmorency' has been used as a parent in breeding programs in Ontario, New York, and Minnesota; but, only one cultivar, 'Meteor,' was released from these breeding efforts. 'Meteor,' resulting from a cross between 'Montmorency' and the Russian cultivar 'Vladimir,' was released from the University of Minnesota in 1952 (1). However, since 'Meteor's' pit is oblong, the pit fragments when the fruit is mechanically pitted, making the fruit from this cultivar commercially unacceptable.

In contrast to its popularity in the U.S., 'Montmorency' accounts for only 20 percent of the sour cherry pro-

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duction in the northern hemisphere. It is rarely grown in Europe and the Soviet Union because sour cherries with red to dark red juice are preferred by consumers and 'Montmorency' is unproductive under their environmental conditions. Researchers from Yugoslavia (7) to Norway (6) have classified 'Montmorency' as only partially self-fertile in comparison with their more productive cultivars. In addition, 'Montmorency' is extremely susceptible to leaf spot caused by *Coccomyces hiemalis*, and new cultivars with a high level of tolerance to this fungus are being grown in the Soviet Union, Yugoslavia, Romania, and Hungary.

In the U.S., 'Montmorency' is also not without its shortcomings. Sour cherry yields in the Great Lakes States are frequently reduced one out of every three years by spring freezes. 'Montmorency is also susceptible to numerous fungal and virus diseases. In certain years, the fruit may be soft and juice is lost during processing.

'Montmorency' has served the U.S. sour cherry industry well, but the need for market expansion through product diversification, the prospective loss of chemical sprays, and competition with other new cultivars may necessitate finding replacements for this 400-year-old cultivar. Hopefully, these will be available for 'Montmorency's 500th birthday.

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Wilder Medal Nominations

The Wilder Medal Committee invites nominations for the Silver Medal and the Wilder Certificate. All APS members are eligible to submit nominations. The Committee particularly urges non-professional members to participate in this important function of the Society.

Two types of nominations are solicited. The first is for the Silver Medal, which is awarded for outstanding pomological achievements such as new cultivars receiving commercial acclaim, cultural advancements, extension improvements, or grower innovations. The second is for outstanding fruit exhibits primarily.

Please submit your nominations by July 1, 1988 to Committee Chairman, Robert C. Lamb, Department of Horticultural Sciences, NYS Agricultural Experiment Station, Geneva, NY 14456. Outline the accomplishments of your nominee in some detail and document these with publications, photographs, brochures, or seconding letters, as appropriate.