

The 'Wijcik Spur McIntosh'

D. V. FISHER¹

In the era of the late 1950's, spur strains of 'Delicious' and 'Golden Delicious' were recognized and proliferated as growers suddenly discovered previously discounted "runt" trees were real pomological assets. By the 1960's and later, numerous sports of these and other cultivars had been discovered and patented in the United States. What was lacking in the British Columbia tree fruit industry was a "spur" strain of 'McIntosh', the cultivar at that time, most planted. At a Research Station Field Day in 1963, a grower approached me and said he had a peculiar stunted shoot of 'McIntosh' originating adjacent to a cut at the top of a 50-year-old 'McIntosh' tree. He had discovered this in 1961. I picked up an empty cigarette package and hastily wrote down his name and address, intending to visit him. Unfortunately I lost the package.

Fortunately, two years later (1965) at a similar Field Day I recognized the same man, Mr. Tony Wijcik. Prior to harvest I visited his orchard in East Kelowna and inspected his sport. Although located in an advantageous position at the top of the tree in regard to light exposure, fruit from this sported shoot matured somewhat later than apples on the rest of the tree and had only fair color. The fruit was tightly packed on the very compact single shoot measuring about four feet in length. Mr. Wijcik had, by this time, taken buds and propagated a row of about 20 trees on M.26 rootstock.

In 1966, I framework grafted this sport on a 3-year-old 'Starking Delicious' tree growing on a MM.104 rootstock. Growth from the grafts was very slow, almost devoid of side shoots,

but a good crop of apples was produced in 1969. The apples were somewhat late maturing, oblate in shape and almost sessile, and color was inferior due to heavy spur leaf cover.

The original tree on the Research Station is now about 12 feet high, compact and upright in growth, biennial bearing, with crops up to 50 kg.

I drew the 'Wijcik' sport to the attention of Paul Stark, Jr. of Stark Bros. Nurseries, about 1968, pointing out it would make an unique containerized tree worked on M.9 to sell to home owners as an interesting patio conversation piece. Stark Bros. Nurseries then placed an option on the sport but did not exercise the option until they introduced the cultivar in 1981 as 'Starkspur Compact Mac'. Since 1981, I understand it has been quite extensively propagated by Starks and other nurseries as a patio curiosity. I should add, since the 'Wijcik' discovery, a number of other 'McIntosh' sports similar to 'Wijcik' have been discovered, all from the tops of old 'McIntosh' trees where heavy cuts here made to reduce tree height.

Perhaps the most interesting outcome from the discovery of this compact mutation has been its use in breeding programs at Summerland, East Malling and probably elsewhere. Dr. K. O. Lapins, fruit breeder at Summerland Research Station in 1966 used 'Wijcik' pollen on 'Golden Delicious' and obtained an approximate 50 percent segregation of standard and 'Wijcik' type seedlings. Since that time around 3000 seedlings from crosses involving 'Wijcik' blood have been planted at Summerland. None has been outstanding as a commercial cultivar. These

¹Formerly Head, Pomology Section, and Director Agriculture Canada Research Station Summerland, British Columbia, Canada.

progenies have produced varying degrees of segregation for compactness varying from 100 percent to none at all. Crosses including the dominant gene for scab resistance are also under evaluation.

However, K. R. Tobutt's work at East Malling has resulted in the release of

four column varieties for amateur gardeners: an ornamental crab, 'Maypole', and three dessert apples 'Telamon' ('Waltz'), 'Trajan' ('Polka') and 'Tuscan' ('Bolero'). These are being marketed under the 'Ballerina' trademark. East Malling reports (1993) over one million Ballerina trees have been sold.

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Fruit Maturation of 'Okanagan Riesling' Grapes: Effect of Site, Year, and Basal Leaf Removal

ANDREW G. REYNOLDS,¹ DOUGLAS A. WARDLE,¹
JOHN W. HALL,² AND MARJORIE DEVER¹

Abstract

'Okanagan Riesling' (*Vitis* spp.) berries were sampled for 2 years from two vineyards to document relationships between standard harvest indices (°Brix, titratable acidity, pH) and monoterpene and volatile ester flavor components. Experiment 1 (1987) compared a high heat unit site (Inkameep) and a low heat unit site (Summerland), and showed that pH and total volatile esters (TVE) were higher at Inkameep when sites were compared using data corrected for 10°C base accumulated heat units (growing degree days; GDD). Experiment 2 (1988) also tested the impact of basal leaf removal on fruit composition at the two sites. Influence of site was less in 1988, and only titratable acidity (TA) and pH were affected by site. Basal leaf removal increased concentrations of flavor compounds and reduced TA in the berries, and increased TVE in the juices. Tasters distinguished between sites on the basis of wine aroma and flavor, and between control and basal leaf removal wines from the Inkameep site on the basis of flavor. Site effects on fruit composition were partly contingent upon GDD but season, crop load, and canopy density may have also played a role.

Introduction

'Okanagan Riesling' (*Vitis* spp., parentage unknown) was the most widely planted grape cultivar in British Co-

lumbia until 1989. Although winter hardy and high yielding, 'Okanagan Riesling' provides several fruit composition problems. Fruit is usually harvested between 19° and 21 °Brix because labrusca flavor develops at higher levels, but at these "desirable" °Brix levels, titratable acidity (TA) can be high; pH can also be high simultaneously with high TA in vigorous canopies. There is also anecdotal evidence of a mild muscat flavor that disappears, or is masked by labrusca flavor at high °Brix. These phenomena appear to be year and site specific but have never been documented. Fruit composition may also be influenced by canopy manipulation practices such as training system (10) or shoot positioning, hedging, or basal leaf removal (12).

A more thorough understanding of the factors which influence fruit maturation of 'Okanagan Riesling' would benefit growers of this cultivar, as well as producers of other cultivars (eg. 'Bacchus', 'Gewürztraminer') which display similar problems. The purposes

¹Research Scientist and ²Research Assistant, respectively, Agriculture and Agri-Food Canada, Research Centre, Summerland, British Columbia V0H 1Z0. Contribution No. 852.

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