

Summer and Early Fall Apple Varieties

ROGER D. WAY¹

A strong new interest in early apple varieties is emerging among commercial apple growers, mainly because of greater use of pick-your-own and retail roadside trades. The commercial growing of summer and early fall apples can be profitable.

Early varieties are defined here as those which ripen before McIntosh. In New York, this covers the 7-week period from the beginning of August through the third week of September. The harvest of early varieties comes when the work load of the grower is lighter than it is at some other times. Because during this period tourist traffic is heaviest with accompanying demands for summer and fall varieties, early varieties are especially appropriate on the roadside stand, along with peaches and other late summer crops. Also, when marketed through the usual buyer channels, early varieties generally bring higher prices than main-season varieties will bring later in October.

Early varieties are more expensive to grow because they are produced in lower volume, more detailed spot picking is required, and many varieties are soft which results in greater bruising losses.

Despite controlled atmosphere storage there will always be a good market for fresh, flavorful, high quality, early varieties. Although early varieties comprised only 4% of the apples produced in western New York State in the 5-year period, 1967-71, and only 3% of the apple trees planted in the 6-year period, 1965-70, there is continued strong interest among growers in establishing new plantings of early apples.

The evaluations of early apple varieties described here are based chiefly on my observations of their performance in this Station's apple variety test orchard during a 20-year period, 1953-72. Some of the evaluations have been influenced by observations in commercial orchards and by reports from other experiment stations and commercial nurseries. Many of the best early varieties are quite new so that orchard experience has of necessity, been shorter.

About 800 named apple cultivars are included in the apple variety test orchard at the Experiment Station in Geneva, N. Y. In addition to these, about 500 superior seedlings selected from progenies in our apple breeding program are being reevaluated in second tests. Although late ripening varieties are most important among these 1300 clones, early varieties are also considered a major objective. Included in the early varieties are many of the old standards such as 'Red Astrachan', 'Yellow Transparent', and 'Duchess', but many new early varieties are performing better than the old ones.

No apple variety is perfect; man and nature can only strive toward perfection. Nearly all early varieties ripen unevenly; most require at least 2 or 3 pickings, sometimes with the harvest extending over a 2-week period. Therefore, growers need not plant a variety to ripen every week; but every other week is frequent enough to insure a continuous supply. For example, a succession of varieties ripening every other week could include 'Quinte', 'Jerseymac', 'Paulared' and 'Wealthy'. The harvest dates listed in the descriptions that follow are

¹New York State Agricultural Experiment Station, Geneva, N. Y. 14456.

based mostly on 10-year averages of actual harvest dates observed and recorded at Geneva. The dates indicate the average date of the first commercial harvest and not the date of the first ripe fruit. Not all of these varieties will always ripen in the same sequence listed here, and they may vary somewhat in relation to each other from year to year.

It is sometimes difficult to determine exactly when early apples have reached their proper stage of maturity. Determining the proper ripeness for harvest is mainly an art, but practical aids can include observations on changes in ground color, amount of red color, firmness of flesh, color of flesh, seed color, and most of all eating quality. For example, 'Lodi' fruits will have reached reasonably good market quality for cooking, even when harvested a week before fully ripe.

Because heat-unit accumulation in August and early September is more rapid than it is in late October, harvest timing of early varieties must be more exacting than for late varieties. Most early apples are softer, ripen more rapidly, and require more careful handling during harvest and will not store as well, usually not more than 10 days. They should be marketed soon after harvest because they lose quality rapidly.

Trees of most early varieties are generally less productive than those of main-season varieties. Some are very early bloomers and thus are more

exposed to late spring frosts. 'Yellow Transparent' and 'Early McIntosh', are strongly biennial in their bearing habits. Alternate bearing can be partially corrected with thinning sprays that are used to insure acceptable size. The results of chemical thinning sprays are more erratic with early varieties than late ones, and must be applied within 6 days after full bloom, at petal fall only.

There are many early varieties that ripen before 'McIntosh'. They are ranked according to their estimated commercial usefulness (Table 1). A few growers will not agree completely with these ratings. Some varieties in Group B have been found to be very profitable, while others in group A have lost money. Generally, however, these ratings are reasonably accurate.

Brief Variety Description

Barry. September 23. Ripens just before 'McIntosh'. Very dark red. Medium size. Excellent quality, 'Cox Orange' parentage. Only moderately productive. Dessert type.

Beacon. August 27, just ahead of 'Tydeman Early', ripens unevenly. ('Fenton' and 'Miller Red' are synonymous.) Alternate bearing. In "on" years, overcrops with small fruit size. Medium size, $2\frac{1}{2}$ - $2\frac{3}{4}$ inches. Attractive red. Firm flesh, handles easily. May be stored 6 to 8 weeks. Drops. Mediocre eating quality for dessert and cooking.

Table 1. Early apple varieties.

Harvest season		A. Recommended	B. Sometimes profitable
August	1st week	Quinte	Lodi
August	2nd week	Julyred	Caravel, Raritan
August	3rd week	Jerseymac, Viking, Carroll	Wellington, Williams, Puritan, Melba
August	4th week	Tydeman Early	Early McIntosh, Beacon
September	1st week	Earliblaze, Paulared	Summerred, Gravenstein
September	2nd week	Niagara	Milton
September	3rd week	Wealthy, Prima, Jonamac	Lobo, Mollie's Delicious, Barry

Caravel. August 8. Good color, 60% red; greenish ground color. Alternate bearing. Good, 'Melba'-like quality. Firmer than most early varieties. Dessert type.

Carroll. August 21, a month before 'Wealthy'. Recommended. Excellent 'Wealthy'-like quality. Very white, aromatic flesh. Somewhat alternate bearing. Color 70% attractive light red splashed stripes, pale yellow ground color. Dessert type.

Earliblaze. September 6. Recommended. Large, 2 $\frac{1}{8}$ inches. Conic shape, color 80% dark shade of red, attractive; ground color yellowish. Good quality. Drops from trees. Firm. Dessert type.

Early McIntosh. August 27. Alternate bearing. During the "on" year, excessive overcropping can result in small, unsalable fruits. Like 'McIntosh', fruits drop before fully ripe. Good eating quality. Soft. Has been widely grown in New York, now declining in popularity. Dessert type.

Gravenstein. September 4. Most important apple in California, grown there for canned applesauce. Formerly one of the most important early varieties in the East, essentially none grown in 1972. Excellent flavor for homemade applesauce. Difficult to market fresh because soft and essentially a green apple; red sports are available. Susceptible to flat-limb virus. Triploid, pollen not viable. Dessert and cooking.

Jerseymac. August 20. Recommended. One of the best commercial varieties for the third week of August. Good and annual crops. Above medium size. Good color, 80% red, attractive; ground color pale yellow. Good quality; aromatic; juicy. Reasonably firm; firmer than 'McIntosh' but bruises easily. Harvested fruits attractive and very salable. Dessert type.

Jonamac. September 22. A few days ahead of 'McIntosh'. 'McIntosh' type; better color than 'McIntosh'. A

'McIntosh' x 'Jonathan' cross. Medium size, similar to 'McIntosh'. Annually productive. Flesh semifirm, similar to 'McIntosh'. Dessert type.

Julyred. August 11. Recommended. One of the best very early varieties with commercial characteristics. Good size, up to 3 inches. Fully red, bright cherry red, attractive; medium firm. Fruits susceptible to bird damage. Annually productive. Hangs well. Firmer, better shelf life, and better shipping qualities than most summer varieties. Dessert type.

Lobo. September 20. A week before 'McIntosh'. Very similar to 'McIntosh' but better color, slightly flatter shape, hangs better. Dessert type.

Lodi. July 31. Most widely grown summer variety, very early. Green. Somewhat conic shape. Alternate bearing. Splits and becomes mealy when overripe. Mediocre quality but commercial type if harvested somewhat immature. Cooking.

Melba. August 15. Ripens unevenly. Too soft for practical handling. Conic shape. Medium size. Half red, reasonably attractive; ground color light green. Good quality, highly aromatic. White flesh. Alternate bearing. Dessert type.

Milton. September 11. Formerly considerable acreage in the Hudson Valley, N. Y. Pinkish red, handsome, though generally not enough red color if it is marketed slightly immature; ground color greenish. Good quality. Drops. Alternate bearing. Resistant to cedar-apple rust. Dessert type.

Mollie's Delicious. September 16. Large, often more than 3 inches. Color 70% red; ground color yellowish. Very conic shape but not a 'Delicious'. Bland flavor, good. Dessert type.

Niagara. September 12. 'McIntosh' type, 2 weeks before 'McIntosh'. Better color, almost fully red. Large lenticels surrounded by white halos; dots sometimes unattractive. Sometimes weather cracking of skin. Good

acceptance in Western New York. Recommended. Dessert type.

Paulared. September 5. Good red color. Firm, easy handling, good storage. Slightly tart, medium quality. Dessert type.

Prima. September 15. Scab resistant. Medium size. Attractive, 60% of the skin is covered with a red blush. The flesh is crisp and juicy with good quality. Trees are productive. Dessert type.

Puritan. August 21. Fully red. Some scarf skin but attractive. Soft. Quite sour but good flavor. Type somewhat similar to 'McIntosh'. Alternate bearing. Only medium crops, even in the "on" years. Drops. Dessert and cooking.

Quinte. August 3. Recommended for first week in August; there is nothing better for that week. Only medium size. Good quality. Soft. Not highly productive. One of the very first reddish apples, 40% red. Dessert type.

Raritan. August 13. Medium sized tree, very dark green leaves. Good quality. Good color, 70% dark red. Firm, easier to handle than most early varieties. Fruits sometimes pecked by birds. Alternate bearing. Dessert type.

Summerred. September 5. Almost fully red. Conspicuous whitish dots but attractive despite the dots. Above medium size. Productive. Commercial type. 'McIntosh' x 'Golden Delicious' cross. Very good eating quality. Dessert. Shape slightly oblong. Pink streaks in flesh when overripe.

Tydeman Early. August 30. Recommended. Sometimes called 'Tydeman Red'. 'McIntosh' type. Large; sometimes size is variable. Good quality. Good color, 80% brilliant scarlet. Firmer than 'McIntosh'. Drops some. Long, lanky branches; proper heading back of long branches needed to make a well shaped tree.

Viking. August 18. Recommended. Fully colored, dark red, heavy waxy

bloom on fruit surface. Very good quality, highly aromatic. Alternate bearing. Sometimes slight watercore. Dessert.

Wealthy. September 15. Recommended mainly because this is the most extensively grown variety ripening before 'McIntosh'. Chiefly grown for processing, currently losing favor. Color essentially green, even red sports hardly sufficiently well colored for good fresh marketing. Stores better than most early varieties. Good aromatic flavor. Processing, cooking and dessert.

Wellington. August 16. Large. Well colored; red stripe. Sour; good sauce apple. Early blooming, sometimes poorly pollinated resulting in excessive June drop. Requires careful provision of nearby early blooming pollinating variety. Has been outstanding money maker in several 5-acre plantings. One of the few early varieties that can be harvested in a single picking. Leaves are susceptible to spray burn. Cooking type.

Williams. August 19. Old variety, has long been one of the standard early varieties. Conic shape. Above medium size. Attractive splashed stripe, fully red. The new sport, 'Willis Williams', especially attractive. Mediocre quality. Dessert type.

The following varieties are not recommended because of the reasons given for each. 'Crimson Beauty' is too unevenly ripening and it drops before it ripens. 'Duchess', although widely grown, is not recommended because of poor eating quality and alternate bearing. 'Ottawa 292' ripens very unevenly and develops skin cracks but it is useful as a hardy, broad-angled framework tree for the topgrafting of other varieties. 'Red Astrachan' is soft and very alternate in its bearing. 'Stark Earliest' is small, soft and has a very short shelf-life. 'Yellow Transparent' is below medium in size, soft, drops, and alternate bearing.