

Behavior of Apple Varieties in Georgia

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Who would associate apples with Puerto Rico or Nassau? Who would expect apples of such short dormancy that they bloom before peaches and are usually frozen out in the bloom? Who would believe that apples developed in Minnesota and Ottawa would break dormancy ahead of Golden Delicious or Red Delicious? A test planting of apple varieties in the upper coastal plains of Georgia in the Fort Valley area has begun to give answers to these questions and many more.

The author is a commercial peach, pecan and chestnut grower. At college in the early 30's it was the stated view of experts that apples could not be grown commercially in the Fort Valley, Georgia area; but I had always remembered that my father had referred to apples grown in home fruit orchards in the area. I therefore decided to check out the validity of this old memory to see whether apples could not be grown commercially in the coastal plains of Georgia at my location of 550 feet elevation. If good apples were available from the fifteenth of June until the first of August, they would be a profitable fruit crop for this area. We could market fresh apples before any other area of this country since it is not until after the first of August that northern Georgia and northern Alabama begin to furnish apples.

In 1958, I planted my first trees. These were the variety St. Clair. They have yet to miss a crop. Since that time I have accumulated some 400 varieties, seedlings and P.I. selections from around the world. Among those which have fruited sufficiently for evaluation are the following, which are listed in order of ripening. My observations are based solely on the

questions: Would the apple pay its way? Would the consumer buy?

Lodi—Crops regularly, fair quality, soft, bruises easily. Green color at picking stage, changing to yellow when overripe. Subject to fire blight. Will "blow up" when overripe. Harvest June 1 to June 10 for cooking.

Close—An early U.S.D.A. introduction. Generally shy producer, of very poor quality. Often cracks on blossom end at or just before maturity. Subject to fire blight. Develops fairly attractive red blush. Ripe June 10 to June 15.

Crimson Beauty—Attractive red color; fair quality; soft when ripe. Harvest June 5 to June 15. Not a commercial apple.

Stark's Earliest—Very attractive red blush; good quality; small in size. Too soft at harvest. Good home orchard apple for early season. Ripe June 5 to June 10.

Quinte—Sent out by New York Fruit Testing Association as Ottawa 441. Very attractive red blush; same high quality of Melba, one of its parents. Firm for such an early apple. Tree has wide angled crotches, spreading. Has possibilities for nearby market. The first high quality apple I have tested. Ripe June 10 to June 20.

Jefferis—Solid red in color; fair quality; small to medium in size; firm at maturity. Ripe June 10 to June 15.

Oriole—Introduction of Minnesota Experiment Station. Only useful as a green cooker. Harvest June 10 to June 15.

Early McIntosh—Slight blush at picking maturity, developing solid red at full maturity. Heavy bloom, very attractive. Excellent flavor for so early an apple. Possible use in local markets. Ripe June 15 to June 20.

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New York 49-21—Mahogany red striped; heavy bloom. McIntosh parentage. Too soft for commercial use. Ripe June 15 to June 20.

Wilson Red June—Blush red in color, size good for early apple. Subject to rot; quality fair; flesh firm. Ripe June 20 to July 1.

Williams Early Red—Must be picked with faint red stripe for market. Goes soft with development of full color, which is a very attractive red. Market does not like this apple because of very short shelf life. Ripe June 20 to July 1.

June Hackworth—Of Alabama origin. Red striped, developing into very attractive red. Very good flavor. Will "blow up" when fully mature. June 20 to July 1.

Greendale—Introduced by New York Experiment Station. Fair quality when ripe. Harvest when color breaks into yellow. Becomes biennial when allowed to overcrop. Ripe June 20 to July 1.

Almeda—Whitish-green in color; firm; tends to self-thin to one and two fruits per spur. Good cooker. Poor color. Mature June 20 to July 1.

St. Clair—Originated in Indiana, supposedly from a seed of Wealthy. Consistent producer. Used as green cooker. Will develop attractive red color on side exposed to sun when mature. Very soft, bruising in handling, even when green-ripe. Pick for cooker June 20 to July 1.

Wellington—Red striped; fair eating quality; good size for so early an apple, but tends to be coarse. Firm, good cooker. Introduced by New York Experiment Station. Ripe June 20 to July 1.

Valmore—Originated in California. Red blush; firm; highly acid; good cooker; small to medium in size; consistent producer. Will develop full color at maturity. Drops badly. Ripe June 25 to July 5.

New York 16884—Large size, conic in shape. Used as green cooker. Goes soft with development of color. Ripe June 25 to July 5.

Golden Bough—Firm; yellow color with slight red blush on side exposed to sun. Quality good. Ripe July 5 to July 15.

Julyred—Introduced by New Jersey Experiment Station. Subject to fire blight. Red striped, filling out to full red at maturity. Tree rather upright as a young tree. Good quality. Ripe July 5 to July 15.

Blaze—Introduced by Illinois Experiment Station. Dry flesh; excessive water core. Not enough foliage on tree. Develops red color when mature. Ripe July 5 to July 15.

Tydemans Red—English. Terminal producer; long willowy limbs; firm flesh. Tree on EM-VII poor grower. Bright red color. In Kent, England, last summer, growers told me that it was too soft to suit them. Ripe July 15 to July 25.

Jongrimes—Firm; good quality; acceptable size for season; red striped. Ripe July 15 to July 25.

Molly Delicious—Introduced by New Jersey Experiment Station. Good size; bright attractive red blush; conic in shape. One of the parents is Golden Delicious. At picking maturity, very good eating quality. Commercial possibilities for this area. Ripe July 15 to July 25.

Chenango Strawberry—Medium size; subject to bitter rot. Striped red color; quality very good.

July Delicious—Alabama. Medium size; blush red; very attractive when blushed; conic in shape. Drops excessively near maturity. Eating quality good. Does not "blow up" or get mealy when fully ripe. Possibly self-fertile. July 10 to July 20.

Red Gravensteins—Meade, Banks, and Blood Red from England. The first two are red blushed. Blood Red

is red striped and a brighter red. Irregular shapes and sizes. Quality good fresh or cooked. Ripe July 15 to July 25.

Golden Delicious—Consistent producer when not allowed to overproduce. Size and quality good. Used as green cooker. Develops color slowly. Picked as cooking apple July 15 to July 25.

Dorcett Golden—Fruited on Nassau, grown from a Golden Delicious seed. Here at Fort Valley it starts to grow later in the spring than Golden Delicious. Reported to have produced seedless fruit at Nassau. Ripe with Golden Delicious. Yellow with faint red stripe. Not attractive.

Pacific Gold—From California. Subject to bitter rot and sun scald. Alternate producer, good quality, yellow color. Ripe July 15 to July 25.

Kidd's Orange Red—From Australia. Good size; red stripes over yellow; attractive; excellent quality. Ripe July 15 to July 25.

Chestnut Crab—Introduction of Minnesota Experiment Station. Small; yellow with red blush; sweet. Begins growth early. A tasty treat to nibble. Ripe July 15 to July 25.

Muster—Firm; size medium; red blush; might have possibility as a bagging apple. Ripe July 25 to August 5.

Topred Delicious—One of the few color sports of Red Delicious that puts on a very attractive red color at picking time in this area. Red striped, filling out to full red. Ripe enough to pick August 1 to August 10.

Verered and Anna—These from Israel. Both very short in dormancy requirements. In 1967 buds began to swell by middle of January, showing pink by February first, blooms by fifteenth. All Verered blossoms killed by frost. A few blossoms of Anna came through and set light crop.

Ein Shemer—From Israel; buds pink March first; blooms by fifteenth.

Came through a freeze and two frosts with a medium crop. Fruit attractive yellow; no russet; medium size. Ripe August 1 to August 10.

After ten years of testing apples in this area I am convinced that in time apples will compete with peaches here as a commercial fruit crop. But the standard commercial varieties will not measure up in color and quality. For most, climate, elevation and soil so change the characteristics that even an expert would fail to recognize many varieties of apples as grown here.

In addition to testing existing varieties, therefore, several thousand open-pollinated seedlings have been planted. These are being topworked on reject trees for fruiting as time permits. Also, all local seedlings of any value are topworked in test blocks for observation. A few second generation Golden Delicious seedlings are coming along toward fruiting as topworked trees.

Each year produces more information and perhaps, along with the seedlings of the more adaptable varieties, will disclose some superior and commercially useful apples for growing in this part of the South.

82nd Annual Meeting of APS

The next meeting of the American Pomological Society (its 82nd), will be a joint meeting with the Virginia Horticultural Society in Roanoke, Virginia. It will take place at the Roanoke Hotel, beginning with an informal reception and dinner on Sunday evening, Sunday, January 14, 1967, and end at Wednesday, noon, January 17. All members are urged to attend, especially those from the southeastern states.—*George M. Kessler, President*