

other varieties including Autumnglo and Rio Oso Gem: two which ripen in the same season. The tree is large, vigorous, and spreading.

The fruit of Stark Encore is large—average size $2\frac{3}{4}$ inches. The shape is globose having a shallow suture with no lipping. The skin is thick with medium pubescence. The mostly red color covers 75-85% of the surface at full maturity — about mid-September in New Jersey. The undercolor is a bright greenish-yellow. The flesh is

yellow, firm, melting, and is air free from the stone. The flavor is mild, subacid, and very pleasing.

Stark Encore matures at 5 days after Rio Oso Gem and is recommended as a replacement for this popular variety.

The exclusive patent rights on this variety along with 22 other varieties was purchased from Rutgers - The State University in 1978 by Stark Bro's. U.S. plant patent no. 4572 was issued July, 1980.

Chaubattia Anupam, an Early Sweet Apple

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Chaubattia Anupam is an early ripening, sweet, red colored, medium sized apple with good keeping quality. Its fruits ripen in the first week of July, about one and a half months earlier than the Red Delicious which is one of its parents. The fruits are very similar to Red Delicious in shape and taste, but are slightly smaller in size. It gives good fruit yield on rootstocks such as M. 9, MM 106 and the crab apple (*Malus baccata* B.).

ORIGIN

Chaubattia Anupam is a selection from the hybrid seedlings of the cross Early Shambury² X Red Delicious raised at the Horticultural Experiments and Training Centre, Chaubattia (India). These crosses were made with a view to evolve an early, regular bearing, sweet and red colored variety with good keeping quality.

FRUIT CHARACTERS

Chaubattia Anupam is a medium-sized apple (75-73 mm), intermediate in shape, truncate to conical straight,

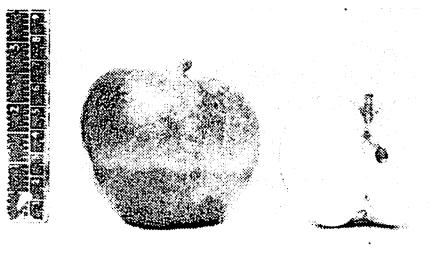


Fig. 1. Fruit of Chaubattia Anupam.

ribbed at eye and slightly ribbed at the body, skin is thin, smooth, shining yellow almost entirely flushed and striped red. Flesh is firm, crisp, creamy white, juicy, sweet and with distinctive aromatic flavor. The core is small and closes. The T.S.S. is 15 percent, acidity 0.20 percent and total sugar 10.3 percent. The fruit pressure at maturity ranges between 14.5 to 16 lbs.

The fruit stem is short (1 cm), stout, swollen at the place of attachment to the spur. Stem end cavity is wide and shallow with slight russetting. The

¹Horticultural Experiments and Training Centre, Chaubattia (Ranikhet), U.P. India.

²It appears to be misnamed from Early Strawberry.

calyx (eye) is usually open and is set in a deep and wide cavity with prominent five ribs at the opening.

TREE CHARACTERS

Chaubattia Anupam is a healthy, vigorous, highly productive and regular bearing plant. The variety has been evaluated for five years at the Government Gardens, Chaubattia. The growth of the plant is upright with spreading or upright branches.

Stem and main branches are very stout, slender, smooth and ash colored. Lenticels are scattered and very closely placed.

Leaves are medium to large, lanceolate with wavy and dentate margins. Flowers are medium sized, light pink in color and spreading at the time of opening. Flowers appear very early, i.e., in the last week of March to first week of April. Fruits are ready for the harvest in the first week of July.

The Mark Apple Rootstock

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The Mark rootstock was selected 20 years ago from a group of seedlings obtained from open pollinated trees of M. 1 through 16, Robusta-5 and Alnarp-2. The flower parent of Mark was M. 9 and it was propagated and tested as Michigan Apple Clone 9 (MAC-9). The name Mark was coined to designate its place of origin, namely M for Michigan; A for apple; R for rootstock and K for klone. Since its selection, Mark has been tested for compatibility, dwarfing and precocity with McIntosh, Jonathan and Delicious (Red Prince strain).

Nomenclature: Over the years, clonal rootstocks have been designated by letters and numbers, such as EM-VII, more recently M. 7. This serves a good purpose while in the testing stages, but can lead to confusion in the nursery and grower trade. The East Malling Station in England has suggested that all fruit tree rootstock clones be given a name when released and introduced to the industry. For example, they have named one plum clone Pixy and a cherry clone Colt.

MARK CLONE DESCRIPTION

Leaves: Dark green, oval tapering toward apex with margins obtuse to sawtooth with a brownish, faintly tomentose petiole. Average leaf size varying from 30 mm wide to 60 mm long. The stipules are inconspicuous to small (Figure 1).

One year old stems: Bark gray/brown, slightly tomentose with widely spaced, inconspicuous yellow/whitish lenticles.

Flowers: Medium apple-size white flowers with faint reddish streaks toward base of petals.

Fruit: Small, medium oblong to round fruit, red to scarlet-red in color with stripes, tasteless, of no commercial value, but serves a purpose in identification of the clone.

Propagation characteristics: Mark propagates readily in stoolbeds, having some of the M. 9 spreading (slightly away from upright) characteristics; however, as liners it grows straight. It is productive in the stoolbed, com-

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