

Some New Apricot Cultivars Developed for Uttar Pradesh (India) Hills

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Apricot is an important temperate fruit crop for the outer hills of Uttar Pradesh. It is used both as a dessert fruit as well as dry fruit. The other advantage is that its fruits ripen in early June when only a few other temperate fruits are available. Hence its fruits bring very good prices. The apricot cultivar Charmaghz is very popular in this area because its fruits are early, very sweet and highly flavored. The fruits are also suitable for drying. However, its cultivation is not increasing due to its shy bearing nature and high chilling requirement.

Considering these facts, a hybridization program for apricot was started in 1969 at the Horticultural Experiments and Training Centre with a goal to evolve early ripening and heavy yielding cultivars suitable for different elevations. Under this program Charmaghz was crossed with several varie-

ties and several hundred hybrid seedlings were raised. Out of these, three desirable hybrid plants have been selected which regularly gave very high fruit yields over the last six years. Their performance on peach seedling rootstock has also been observed at different localities.

The important plant and fruit characters of these hybrids are discussed here along with their respective parents (Table 1).

1. Chaubattia Alankar

It is a selection from the hybrid seedlings of the cross Kaisha x Charmaghz (Fig. 1). The fruits ripen very early i.e., in the last week of May to the first week of June. It is a regular bearing cultivar.

The fruits are of medium size (4.0/4.3 cm) with an average weight of 26.0



Fig. 1. Chaubattia Alankar (Kaisha x Charmaghz).

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Table 1. Physio-chemical characters of three apricot hybrids and their respective parents.

Sl. No	Period of ripening	Average fruit weight (g)	T.S.S. (°Brix)	Total sugars (%)	Acidity (%)	Sugar/Acid Ratio
HYBRIDS:						
1. Chaubattia Alankar	Last week of May to first week of June.	26.0	18.7	9.71	.7236	13.48
2. Chaubattia Madhu	First to second week of June	38.1	19.8	10.00	.3751	27.00
3. Chaubattia Kesri	Third week of June.	48.7	19.1	7.90	.9216	8.58
PARENTS:						
1. Kaisha	First week of June.	29.8	16.5	7.00	.898	7.97
2. Charmagz	First week of June.	23.8	19.0	9.70	.480	20.20
3. Turkey	Second week of June.	31.5	14.0	6.30	.750	7.60
4. St. Ambroise	Third week of June.	59.8	14.8	7.05	1.098	6.48

g. Fruits are roundish in shape with slightly compressed sides and the suture is very distinct. Skin color is Indian yellow with tint of red blush on sides facing the sun. Flesh of the fruit is light yellow in color, medium firm in texture, juicy and is very sweet with good aromatic flavor. Stone is free, smooth and the kernel is sweet.

The tree is semi vigorous, upright in growth with slightly spreading branches. The trunk is thick, smooth and greyish brown in color while new shoots have reddish brown color, and lenticels are sparse.

This can be grown even at mid hills ranging up to 1200 m because of its low chilling requirement.

2. Chaubattia Madhu

It is a selection from the cross Turkey x Charmagz (Fig. 2). It is an early ripening cultivar whose fruits ripen in the first to second week of June. It

is highly productive and a regular bearer.

The fruits are medium large with average size of 4.5/4.2 cm and the average weight is 38.1 g. Fruit shape is round to oblong and is slightly compressed transversely. The pedicel end cavity is wide and shallow while the suture is distinct throughout its length. Stone is free, smooth and the kernel is sweet.

Fruit color is mimosa yellow and the skin is thin, smooth and is firmly adhered to the flesh, but is quite palatable and peelable. Flesh is light yellow in color, slightly fibrous, firm, juicy and very sweet in taste with a slight blend of acidity. Fruit pressure is 7.5 lbs and the fruit can be stored for 10 to 12 days if harvested at half green stage.

The tree is tall and vigorous with spreading branches. The trunk is thick

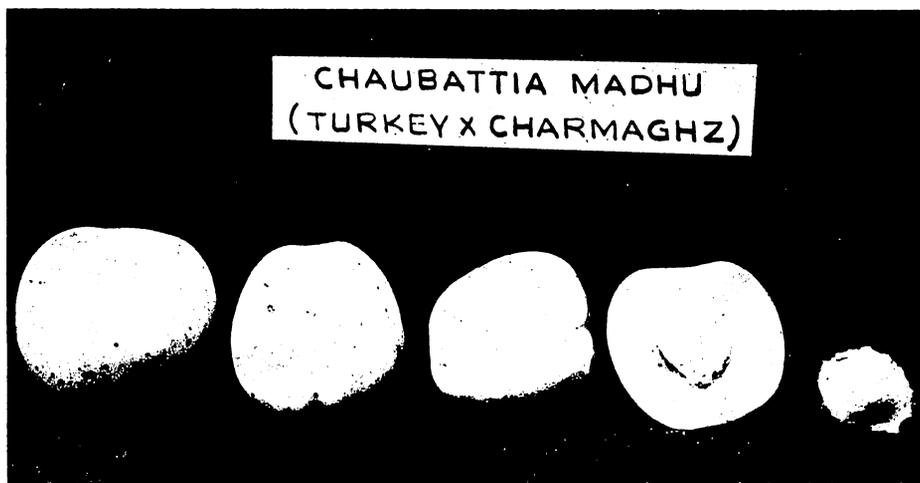


Fig. 2. Chaubattia Madhu (Turkey x Charmagz).

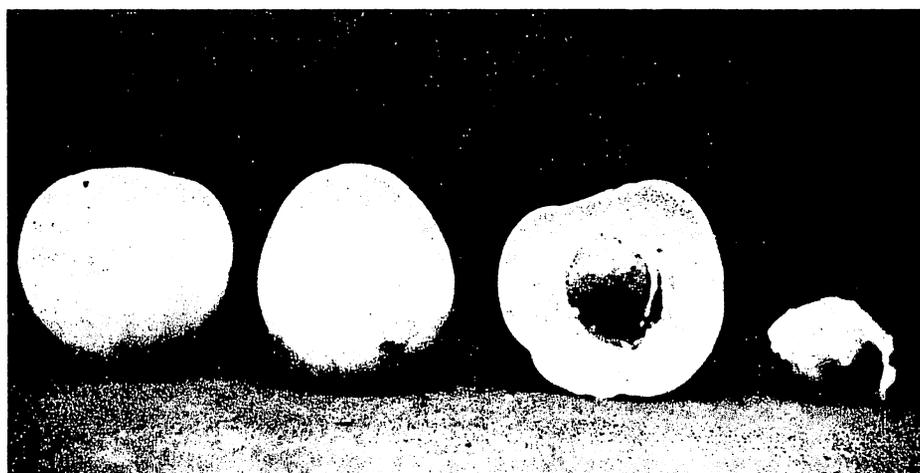


Fig. 3. Chaubattia Kesri (St. Ambroise x Charmagz).

and silver grey in color. Lenticels are abundant and thickly patched vertically.

3. *Chaubattia Kesri*

It is a selection from the cross *St. Ambroise* x *Charmagz* (Fig. 3). It is a mid season cultivar with fruits ripening in the third week of June.

The fruits are medium to large with average size of 4.8/4.5 cm and average weight of 48.7 g. Fruits are round with elongated stylar tip and compressed at the sides. Suture is quite distinct. The pedicel cavity is deep

and wide. Stone is slightly adhesive. Fruit color is nasturtium orange and the skin is very thin. Flesh is orange in color, slightly fibrous, firm, sweet, aromatic and juicy.

The tree is vigorous and tall with spreading branches. Trunk is thick and greyish in color. Lenticels are medium sized and sparse.

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The New Japanese Apple Cultivar, *Kitanosachi*¹

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This cultivar is an early dessert apple introduced in 1979 by the Aomori Apple Experiment Station at Kuroishi, Aomori, Japan, and developed by M. Yamada, C. Suzuki, M. Ishiyama, and T. Sato. *Kitanosachi* was introduced to overcome some of the faults of *Iwai* (American Summer Pearmain), a leading early apple cultivar in Japan for more than 80 years. It is from a cross made in 1959 of *Tsugaru* x *Iwai*. It is a diploid.

Fruits are small in size (200 to 250 g), similar to *Iwai*. Shape is oblong, just slightly longer than *Iwai*. Skin color is 50 to 80 percent covered with a light shade of red, but is slightly dull with scarfskin. The fruit stem is medium in length and thick. The cavity is medium in depth and width, and is generally russeted. The basin is medium in depth and narrow. The calyx is closed. Fruit flesh is whitish yellow in color, semi-firm in texture, of medium grain, and juicy. It is sweet with slight acidity, excellent in eating qual-

ity. Its average harvest date at Kuroishi has been August 25 (about 102 days), almost the same as *Iwai*, but one month earlier than *Tsugaru*. It is susceptible to preharvest drop, but less so than *Tsugaru*. It is desirable to harvest it in 2 pickings. Storage life is good for such as early cultivar, about 30 days at 0°C. If kept at room temperature for more than 10 days, fruits become oily.

Trees are more vigorous than *Iwai*, upright, and somewhat open. The one-year laterals are thicker than *Iwai*, chocolate in color, and have longer internodes than either parent. Leaves are larger than *Iwai*, similar to *Tsugaru*. Flowers are white and smaller than its parents. Average blooming date at Kuroishi has been May 15, one day after *Tsugaru*, and three days later than *Iwai*. *Kitanosachi* produces a good fruit sets on *Fuji*, *Tsugaru*, *Iwai* and other cultivars. It is medium in precocity of bearing.

¹Adapted from Aomori Apple Exp. Sta. Bul. #20, pp. 10-12. 1983.