

## **A survey for the selection of promising clones of Guava cv. Allahabad Safeda**

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Guava (*Psidium guajava* L.) is one of the important fruit of India, grown extensively in the states of Uttar Pradesh, Bihar, Maharashtra, Gujarat, Andhra Pradesh and Tamilnadu. It claims to be fourth most important fruit in area and production after mango, banana and citrus (1). It is a rich source of Vit C and pectin and also contains 82.50 per cent water, 2.45 per cent acid, 4.45 per cent reducing sugar, 5.23 per cent non reducing sugar, 9.73 per cent total soluble solids, 0.48 per cent ash and 260mg vitamin C per 100g of fruit, which differs with the cultivars, stage of maturity and season (2).

This is well established fact that Allahabad region produces the best quality guavas in the country and probably in the world. The most popular variety of the country is "Allahabad Safeda" (3). Allahabad and surrounding areas are well known for the cultivation of choicest Allahabad Safeda guava. Of late, continuous propagation of guava by seeds has led to a considerable deterioration especially in yield and quality of fruits. Hence, a survey for locating true to the type clones of Allahabad Safeda was attempted. The type of survey was based as suggested by Sinha (4). The parameters set for identification were ,heavy branching, tendency to produce dense foliage and large shoots, leaves elliptical to oblonged shape, roundish, medium sized fruit of about 180g in weight, skin colour yellowish white, flesh creamy white with few soft easily chewable seeds, good keeping quality.

Growth characteristics of tree in terms of growth and branching habit, crown shape, shape of leaves showed that N-2, N-5 and C.B.-2 are resembling the growth characteristic of Allahabad Safeda. Physico- chemical characteristics of fruits in terms of fruit weight, fruit length and T.S.S. were recorded and presented in Table-1. Though maximum fruit weight size was recorded with C.S. but fruit skin colour was yellow, seeds were harder. TSS was 9.40<sup>0</sup> Brix and keeping quality was also very poor, hence was not selected. Maximum T.S.S. (12.60<sup>0</sup> Brix) was recorded in N-3 followed by N-2 (10.40<sup>0</sup> Brix) and C.B.-2(10.00<sup>0</sup> Brix). The fruit in all the three selections were of medium in size ranging from 185 to 210g\fruit. The important desirable characters like good eating quality, ivory white skin colour, flesh creamy white, few and easily chewable seeds and good keeping quality were observed in N-3, C.B.-2 and N-2. Study showed the N-3, C.B.-2 and N-2 were resembling the growth, bearing and fruit characteristics similar to Allahabad Safeda and hence were selected as promising clones.

Table-1. Plant growth and fruits physico-chemical characteristics of surveyed plants.

S.No.	Av. fruit Wt. (g)	Av. Fruit Length (cm)	Av. Fruit Diameter (cm)	T.S.S. (°Brix)	Plant growth & Fruit quality characteristics
N-1	195	5.85	7.10	10.80	Upright plant growth, vigorous, crown broad and compact, elliptical leaves, fruit with smooth skin, more number of seeds, fruit quality good.
N-3	185	6.15	6.66	12.60	Upright plant growth, lanceolated leaves, tree size medium (3.5m) good bearing, smooth skin fruits with good quality, few seed but bold.
K.B.-2	190	6.64	7.10	8.00	Spreading plant growth, medium tall plant (5m), good bearing, and yellowish fruit skin with pink dots, good quality, more and hard seeds.
C.S.-3	75	5.10	5.23	9.33	Upright plant growth, heavy bearing, fruits skin yellow, small fruit size, more and hard seeds, good fruit quality.
C.B.-2	210	6.35	7.40	10.00	Vigorous plant growth, tall, heavy branching with dense foliage, elliptical leaves, heavy bearing, good fruit size, flesh yellowish white, soft seeds and good fruit quality.
C.B.-4	150	5.25	7.14	7.00	Upright plant growth, scarce fruiting, fruit size medium, yellowish fruit skin, hard and bold seed, poor fruit quality.
C.S.-5	300	6.64	8.50	9.40	Spreading plant growth, oblong leaves, heavy bearing, fruit skin yellow, more and bold seeds, poor keeping quality.
S.S.-4	120	5.30	6.10	8.80	Vigorous plant growth, broad leaves, medium fruiting, good bearing, yellowish fruit skin, more seed, medium fruit quality.
S.S.-2	195	6.00	7.60	12.00	Upright plant growth, broad leaves, good sized fruit, heavy bearing, yellowish fruit skin, good quality, less and hard seeds.
N.-2	190	5.75	7.20	10.40	Upright plant growth, medium tall, good branching, elliptical leaves, heavy bearing, good fruit size, smooth skin, less and soft seeds, good quality.
N.-5	210	6.25	7.15	10.20	Upright plant growth, medium tall, dense foliage, elliptical leaves, heavy branching, heavy bearing, good fruit size, yellowish white fruit skin, white flesh, less and soft seeds, good quality, keeping quality medium.

**N.:** Naini, **K.B.:** Khusroo Bagh, **C.S.:** Chilla Sabari, **C.B.:** Company Bagh, **S.S.:** Sulem Sarai.

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