

## New varieties from CHES (ICAR-CIAH), Godhra, Gujarat

**BAEL: Thar Srishti** – Its average yield in 9<sup>th</sup> year is 91.50 kg/tree with fruit weight (1.55 kg), fruit size (21.00 cm × 14.00 cm), fruit girth (43.53 cm), shell thickness (0.20 cm), number of locules in cross section (14.00), peel weight (200.00 g), pulp weight (1.20 kg), fibre weight (62.32 g), total seed weight (19.00 g), total number of seed/fruit (98.15), TSS of pulp (36.75 °Brix), TSS of mucilage (51.50 °Brix), total sugar (21.40 %), acidity (0.35 %) and TSS/acidity ratio (128.33) recorded under rainfed semi-arid conditions. It belongs to mid-maturity group (April) with highly centric locule arrangement. Its fruits are rich in fine fibres, less in seeds, attractive pulp colour, very less odour compared to others. It is suitable for table purpose.



**BAEL: Thar Prakriti** – With an average yield of 115.75 kg/tree in 12<sup>th</sup> year, its fruits weigh 1.40 kg each, fruit size 14.05 cm x 15.10 cm, fruit girth 44.10 cm, shell thickness 0.14 cm, total number of seeds 60.23, locules in cross section (14-17) and TSS 38.00 °Brix. The fruits have good flavour and aroma. Rich in antioxidants, its fruit are highly suitable for sharbat, murabba and powder making. It matures in 1<sup>st</sup> week of May.



**BAEL: Thar Shivangi** – It provides 109.15 kg fruits/tree in 11<sup>th</sup> year with fruit weight of 1.35 kg, fruit size 15.50 cm x 12.87 cm, fruit girth 44.80 cm and total number of seeds 75.32. The TSS is 37.100 Brix. Being small in stature, it is highly suitable for high-density planting.



**ACID LIME: Thar Vaibhav** – A precocious and prolific bearer Thar Vaibhav has vigorous and spreading growth habit. Fruits are round with attractive yellowish smooth peel. Fruit is juicy (49 %), acidic (6.84 %) with less number



of seeds/fruit (6-8). Its yield is 60.15 kg/plant in 6<sup>th</sup> year under rainfed hot semi-arid conditions. Its average fruit weight is 42.57 g; fruit size 42.71 mm × 42.82 mm, peel thickness 1.59 mm, TSS 7.34 °Brix and ascorbic acid 43.45 mg/100 ml. Fruit ripens in 125-135 days in summer while rainy season and winter season crop may take 145-155 days from fruit setting with excellent keeping quality at ambient storage.

**IVY GOURD: Thar Sadabahar** – Its vine grows up to 3.76 m with pentalobed leaves. Its yield potential is 26.86 t/ha with average fruit weight of 29.3g. The total numbers of fruits/vine are 1124. The fruits have discontinuous strips, green colour and round oblong fruit shape. The fruits are rich in vitamin C (49.2 mg/100 g). It bears fruits round the year.



**IVY GOURD: Thar Dipti** – Its fruits are attractive with shining dark green stripeless fruit appearance, trilobe leaf shape, small-medium size and pointed styler end. The total numbers of fruits/vine are 1497. The average fruit weight and length of fruit are 14.2 g and 4.7 cm, respectively, with total yield 24.4kg/plant. It is tolerant to both powdery mildew and fruit fly under field conditions. The edible fruits are rich in vitamin C (51.4 mg/100 g).



**BOTTLE GOURD: Thar Avani** – Its plants are highly vigorous with dense foliage. The male and female flowers emerge from 7<sup>th</sup> and 11<sup>th</sup> nodes, respectively. Each plant produces 24-32 female flowers and set sized fruits 57-62 days after sowing. The fruits are round in shape, with 22.8 cm in length and each fruit weighing 750-860 g. The fruits have high flesh thickness, high TSS (8.1-8.7 °Brix), with attractive creamy-white flesh. Each plant produces 12.91 kg/plant with yield of 43.0 tones/ha. The fruits are ready for harvesting 54-63 days after sowing and 120-140 days for seed purpose.



**CUSTARD APPLE: Thar Amrit** – With spreading growth habit, it starts flowering in 2<sup>nd</sup> year. It is regular

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bearer and its fruits ripen in 1st fortnight of November. The average fruit yield is 24.80kg/plant in 11<sup>th</sup> year after planting. The fruit is rich in ascorbic acid (45-50 mg), iron (1.70 mg), phosphorous (26.0 mg), potassium (285.55 mg) and calcium (18.21 mg) content. Fruits emit strong aroma at full ripening stage. It is late-maturing (2<sup>nd</sup> week of November) and its fruit may be used for both table and processed purposes.



**WOOD APPLE: Thar Prabha**

- It gives yield 124.36 kg/plant in 12<sup>th</sup> year. The fruit weight, fruit size, pulp, shell weight, TSS, acidity, total sugar, reducing sugars, fruit pectin, fruit protein, seed protein, phosphorous, potassium, calcium and iron are 452.25g, 103.67 mm × 96.66 mm, 50.92%, 180.12%, 14.12°Brix, 3.85%, 3.07%, 1.42%, 1.76%, 18.13%, 24.38%, 0.07%, 1.73, 0.30% and 16.72 mg, respectively. Its fruits are bigger in size with shelf life of 12-15 days at normal conditions. The fruit is rich in pectin (1.76%) and protein (pulp, 18.13% and seed, 24.38%), phosphorous (0.07%), potassium (1.73%), calcium (0.30%) and iron (16.72 mg) content. The fruit may be used as table purpose and for value-added products.



**INDIAN BEAN: Thar Kiran**

- Its plants have climbing (pole

type) growth habit, grow up to 3.5-4.0 m. The pods are medium having an average pod length, pod girth and pod weight of 10.8 cm, 5.33 cm and 8.4 g respectively. The fresh purple pods are ready 100 - 110 days after sowing. It gives 1100-1600 pods/plant with an average yield of 7-9 kg/plant of fresh purple pods. It is resistant to dolichos bean yellow mosaic virus disease under field conditions.

**INDIAN BEAN: Thar Ganga**

- Its plants have climbing (pole type) growth habit, growing up to 4.5-4.7 m. The pods are extra-long with an average pod length of 17.5 cm and pod girth 5.21 cm with pod weight of 15.2 g. The harvesting of fresh pods starts at 98-110 days after sowing with total of 800-1200 pods/plant and an average yield of 8-10 kg/plant of fresh pods can be obtained. This variety is moderately resistant to dolichos bean yellow mosaic virus disease under field conditions.



**VEGETABLE COWPEA:**

**Thar Jyothi** - It is a high-yielding variety and photo insensitive cowpea. It grows up to of 50-56 cm height with dark green leaves and pods. It is a short statured (bushy growth habit) growing up to 50-56 cm height. It is an early flowering and early maturing variety. The fruits ready 48-50 days after sowing for harvesting. The total number of pods varies (120-150) with an average yield of 1.5 - 2.0 kg/plant of fresh pods.

