New varieties of arid fruits

 ${\bf A}\,{\bf K}\,{\bf Singh}$ and Jagdish Rane

CHES (ICAR-CIAH), Godhra, Gujarat

Bael Thar Bhavya: Its yield is 97.18 kg/plant in 10th year,each fruit weighing 0.65-0.78 fruit size $11.15 \text{ cm} \times 10.24$ cm, fruit girth 37.43-39.25 cm, shell thickness 0.16-0.18 cm, total number of seeds 56.25, fibre weight 38.00g, shell weight 97.17-105.00g, locules in cross section 14-16,



pulp TSS 32.47-34.15°Brix, TSS mucilage 45.12-49.50°Brix, acidity 0.31-0.33% and vitamin C 19.24-21.63 mg/100g pulp. It is mid maturing variety (4^{th} week of April). Compact canopy, short in stature and semi-spreading growth habit, highly suitable for high density ($5m \times 5m$) planting. The fruits have very good shelf life (10-15days) and suitable for *sherbet* and slice. It is highly suitable for nuclear family.

Bael Thar Gauri: It yields per plant 133.70 kg/plant in 11th year, heavy yielding with fruit weight of 1.37-1.45 kg, fruit size 14.31 cm x 13.33 cm, fruit girth 41.73.00cm, shell thickness 0.23-0.24 cm, total number of seeds 59.13-62.00, total seed



weight 27.54- 29.59g, fibre weight 43.23-49.70g, shell weight 190.23-1201.54g, locules in cross section 15-17, TSS pulp 41.85-43.25°Brix, TSS mucilage 45.00-50.12°Brix, acidity (0.34-0.38%) and vitamin C 22.40-24.07 mg/100g pulp. It is mid maturing variety (4th week of April), heavy yielder, compact canopy, cluster bearing, deep yellow colour of fruit. It is having excellent shelf life (15-20 days) and suitable for pickle, candy and powder and *ayurvedic* formulations.

Drumstick Thar Tejas: It grows 2.74 m in plant height, yields 245 pods/plant, 218 g each pod weight, fruit length 45-48 cm, 9-10 seeds/pod and more flesh under rainfed semi-arid conditions. It is a comparatively early flowering and matures during



January-March.It gives highest protein, potassium, iron and zinc in dry pod powder and highest dry matter, protein, calcium, magnesium, iron, manganese and zinc in dry leaves powder.

Spine gourd Thar Varsha: Its fruitweigh 15.4-20.6

g, seeds 16-20, high yield potential (1.6-2.8 kg/plant) with dark-green and round fruits along with small spines attributing to consumer preference. The fruits are rich in ascorbic acid (423.7 mg/100 g). Its vine is thin and spreading



which grows very well on 4-line wire-trellis system. Its fruits are 3.5-5.7 cm long and 9.1-9.6 cm diameter with total yield of 5.50 t/ha at spacing of 2 m $\times 2$ m. The plant produces 104-134 fruits in full cropping season (112-118 days) with sufficient pollinators.

Indian bean Thar Vinaya: It has attractive long, light green colour pods. It is pole type Indian bean variety with cluster pod bearing in nature. The plants have climbing growth habit and grow up to 4.0-4.6m. Pods are long (14 cm), girth (4.20 cm) with pod



weight (8.5g). It takes 90-91 days for first flowering and 102-105 days after sowing for first harvest. Itr yields 1000-1265 fresh pods/ plant with yield 6.5-7.5 kg/plant and 50t/ha of fresh tender pods. It is moderately

^{*}Corresponding author: chesvejalpur@gmail.com, director.ciah@icar.gov.in

resistant to dolichos bean yellow mosaic virus disease under field conditions.

Indian bean Thar Lakshmi: It is a pole type variety having long flat and medium sized green colour pods.

Length of pod 14 cm, girth 5.5 cm and weight 10 g. First harvesting offresh pods starts at 90-95 days after sowing. Total of 800-1240 pods/plant with on an average yield of 6.5-6.7 kg/plant and 45-50t/ha of fresh pods can be obtained under rainfed conditions. This is moderately



resistant to dolichos bean yellow mosaic virus disease under field conditions.

Yardlongbean Thar Prateeksha: It has attractive long light green colour pods. It is an early flowering (38-40 days) and early maturing (45-48 days) variety with 66.00 cm pod length, 3.4 cm pod girth and 32.0g



pod weight. It bears 120-150 pods/plant with an average yield of 3.0kg/plant of fresh pods. This variety is moderately resistant to cowpea mosaic virus disease under field conditions.

Yard long bean Thar Surya: It is an anthocyanin rich (190-200mg/100g) variety (pole type) having attractive



long & dark purple red colour pods. It is an early flowering and early maturing genotype. It takes 35-36 days for first flowering and 44-46 days after sowing for first harvesting of fresh tender pods. The pods have 52.50cm length, 2.5cm girth and 23.0g pod weight. The total number of pods per plant varies 180-200 pods/plant with an average yield of 2.5 to 3.0kg/plant of fresh pods. This variety is moderately resistant to cowpea mosaic virus disease under field conditions.

Yardlomg bean Thar Deeksha: It is an early flowering and early maturing variety (Pole type) which has attractive long and light green colour pods. It takes 29-30days for first flowering and 36-38 days after sowing for



first harvesting of fresh tender pods. The pods have 52.0-54.0cm length, 3.30cm girth and 28.0-30.0g pod weight. It bears 150-180 pods/plant with an average yield of 3.0kg/plant of fresh pods. This is moderately resistant to cowpea mosaic virus disease under field conditions.