

Guava: A Potential Fruit Crop for Rainfed Subtropics of NE India

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Abstract—North eastern hill region of India is facing the challenges of malnutrition especially in children and pregnant women, may be due to fragile ecosystem which demands low input but high value crops to supplement nutrition. Guava (*Psidium guajava* L) is a delicious fruit known as “Apple of Tropics” due to its wider adaptability. It is also referred as “super fruits” owing to its high pectin, vitamin C, sugars, minerals and antioxidants content. Among NE states guava is grown in Assam, Nagaland, Tripura, Meghalaya and Sikkim. Non-availability of region specific suitable variety; low productivity; distinct only summer season crop and poor crop management practices are the bottlenecks in its promotion. Looking towards the nutritional value, consumer preference and processing value; four (04 nos.) new guava varieties viz., Megha Supreme (creamy white fleshed fruit, yielding 17-19 t ha⁻¹; vitamin C: 218-247 mg/100 g and pectin: 1.26-1.37%); Megha Magenta (red fleshed fruits with yield of 11-14 t ha⁻¹ and processed products retain the attractive colour); Megha Wonder (suitable for high density planting, yielding 12-15 t ha⁻¹) and Megha Seedless (White fleshed sweet fruits with few seeds :42-55 seeds/100 g fruit) were developed for rainfed subtropics of North East India. Further their good production practices were also standardized. To have high production efficiency per unit area in guava, ultra-high density planting system accommodating 3,333 plants ha⁻¹ (spacing: 2.0 m x 1.5 m) was standardized. In this technique to maintain tree architecture and productivity, every year shoot pruning should be done in November-December (50% shoot length) and in July-August (2 to 3 cm above fruits bearing shoots) for better light interception and ease in management. Ultra-high density planting system has high fruit productivity 20-24 tonnes ha⁻¹ (BC ratio: 2.4 to 2.6) from 3rd year onwards. While 8-12 tonnes ha⁻¹ (BC ratio: 1.5 to 1.7) in traditional system (300-400 plants ha⁻¹) from 5th year onwards.

Keywords: Guava, varieties and ultra-high density planting.