

High Density Planting in guava

Guava is an important fruit crop in tropical and subtropical regions of the country due to the hardy nature of its tree and prolific bearing even in marginal lands. Its cultivation requires little care and inputs. But, of late, this crop has exhibited a paradigm shift in the production system, from subsistence farming to commercial production. The traditional system of cultivation has often posed problems in attaining desired levels of productivity due to large tree canopy. Hence, a need arose to improve the existing production system, besides increasing its productivity. Currently, there is a worldwide trend to plant fruit trees at higher density or meadow orcharding to control tree size and maintain desired architecture for better light interception and ease in operations such as pruning, pest control and harvesting. The high density or meadow orcharding facilitates enhance production and quality offruits.

Variety

Allahabad Safeda

It is the most important variety of guava used for table as well as processing purposes. The tree is medium to tall in size, upright growth habit, heavy bearer, dense foliage and has a tendency to produce long shoots. Crown is broad and compact, often dome-shaped and rarely loose. Fruit is of medium size, round in shape with smooth skin and white flesh. The fruits are relatively soft with less seeds. Its keeping quality is good.

Sardar

Tree is vigorous, spreading and profuse bearer, heavy branching type with flat crown. Fruit is large, round to ovate in shape, primrose-yellow skin colour, white flesh and seeds are in plenty and harder than that of Allahabad Safeda.

Lalit

It is a high yielding pink fleshed guava variety released by Central Institute for Subtropical Horticulture, Lucknow for commercial cultivation in guava growing areas of the country. Fruits are of saffron yellow colour with red "blush weighing 185-200 g fruit¹. Its flesh is firm and pink with a good blend of sugar and acid. It is suitable for both table and processing purposes. The jelly made from this variety has better flavour and attractive appearance.

Shweta'

The variety recently developed by Central Institute for Subtropical Horticulture, Lucknow is suitable for commercial cultivation. Tree is semivigorous with medium height and is a prolific bearer. It is a variety with medium size globose fruits "creamy white skin with red spots or blush and snow-white flesh. Fruits are attractive and have good nutritive value.

AllahabadSurkha

It is an outstanding variety of large uniform pink fruit with deep pink flesh. The plants produce up to 120 kg fruits in the sixth year of fruiting. Trees are vigorous, dome-shaped and compact. The fruit is sweet and strongly flavoured with a few seeds.

Advantages of Dwarf Tree

- . Harvesting is easy and the cost of picking is reduced.
- . The ratio of fruiting shoots to supporting ones is higher.
- . Ease in spraying of chemicals for pest and disease control.
- . Possible to plant more trees per unit area leading to higher income.
- Concept of High Density and Meadow Orchard

There is a shift in farmers' perception from production to productivity and profitability which can be achieved through high density planting. Recently, there is a trend to plant fruit trees at closer

spacing leading to high density or meadow orchard. Higher and quality production is achieved from densely planted orchards through judicious canopy management and adoption of suitable tree training systems.) The Meadow Orchard is a modern method of fruit cultivation using dwarf trees with modified canopy. Better light distribution within tree canopy increases the number of well illuminated leaves. It also promotes rate of photosynthesis that leads to high yield per unit area. This system of guava planting is going to revolutionize the guava industry by enhancing productivity coupled with reduction in production costs. The meadow orchard system of guava accommodates 5000 plants ha⁻¹, planted at 2.0 x 1.0m spacing and managed with regular topping and hedging, especially during initial stages. Topping and hedging in guava are helpful in controlling tree size and extending fruit availability. A comparison between meadow orchard system and the traditional system of fruit growing is necessary to evaluate the potentiality of this technique.