



# Performance of guava cv. SARDAR budded on ten different rootstocks

MANDEEP SINGH GILL\* AND B.S. CHAHIL<sup>1</sup>

Department of Horticulture, Regional Station (P.A.U.), BATHINDA (PUNJAB) INDIA  
(Email : mandeepgill21@yahoo.co.in)

**Abstract :** The present study was conducted in the Department of Fruit Science, Punjab Agricultural University, Ludhiana during 2004-2006. The influence of different guava rootstocks on fruit set, retention, weight, yield and quality characteristics of guava cv. SARDAR was studied. Sardar showed best performance on Portugal rootstock in terms of fruit set, retention and fruit yield. The mean maximum fruit length and breadth was recorded on Pear Shaped and Banarsi Surkha, respectively. Fruit quality in terms of fruit weight and TSS was the highest on Sindhajli followed by Portugal but vitamin C content was the highest on Chittidar during both the years. So it may be concluded that Portugal is ideal rootstock for Sardar for producing fruits of good quality with higher yields.

**Key Words :** Guava, Portugal, Fruit set, Yield, Quality

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## INTRODUCTION

Guava (*Psidium guajava*), popularly known as 'apple of the tropics', is widely grown all over the tropics and subtropics and is the fourth most important fruit crop of India. Guava is more resistant to drought than most other fruits so can be grown successfully even under adverse situations. It is an excellent source of vitamin C, (250mg/100g of fruit pulp), pectin and minerals such as iron, calcium and phosphorus.

Fruit growers depend primarily on yield and fruit quality to determine their net income. The quality planting material is the basic requirement on which the final crop depends. The effects of rootstock genotype on fruit yield and quality and tree vigour has been well documented in many tree species especially apple (Fallahi *et al.*, 2002), peach (Kappel and Bouthillier, 1995) and citrus (Wheaton *et al.*, 1991). Not much work has been done on effect of rootstocks on fruiting characters, yield and quality of guava. Thus, present study was an effort to determine the performance of guava cv. SARDAR budded on ten different rootstocks with reference to fruit set, retention, quality and yield characteristics in guava.

## MATERIALS AND METHODS

The experiment was conducted in the New Orchard, Punjab Agricultural University, Ludhiana during the year 2004-06. The experimental field was situated at 30° 40'N and 75° 48'E with an altitude of 247 m above mean sea level. The experimental plants were irrigated from the canal water as well as from tubewell and recommended fertilizer schedule and cultural practices were adopted throughout the course of this study. The scions of guava cv. SARDAR were grafted on ten rootstocks *viz.*, Pear Shaped, Chittidar, Banarsi Surkha, Portugal, Red Fleshed, Sindhajli, Behat Coconut, Annu Ishakwala, Gutaniwala and Mirjapur Seedling. The eleven years old plants were evaluated for growth and yield characteristics. The per cent fruit set was calculated by counting the total numbers of flowers from the four branches tagged in each direction before the anthesis. The total fruit set was counted from the same tagged branches after 30 days of anthesis. The per cent fruit set was calculated by dividing the number of fruits by number of flowers multiplied by 100. The per cent fruit retention was calculated by dividing the number of fruits

\* Author for correspondence

<sup>1</sup>Department of Horticulture, Punjab Agricultural University, LUDHIANA (PUNJAB) INDIA