

The Rise of Pomegranate Cultivation in India

Surendra Singh Ghoshi

Lab Assistant, PSS Central Institute of Vocational Education, Bhopal, Madhya Pradesh

Pomegranates, with their gleaming ruby-like seeds, have been an integral part of Indian agriculture for centuries. Maharashtra reigns supreme as the largest producer of this versatile fruit, with other states like Rajasthan, Uttar Pradesh, Andhra Pradesh, Haryana, Punjab, Karnataka, and Gujarat also making significant contributions. Pomegranate juice is not only a refreshing treat but also a reservoir of nutrients and medicinal benefits.

India's pomegranate cultivation spans a remarkable 113.2 thousand hectares, yielding approximately 745 thousand metric tons, with an average productivity of 6.60 metric tons per hectare. Beyond its nutritional profile, pomegranates are a farmer's delight due to their low investment and high profitability. Their ability to grow in warm, semi-arid climates with limited water availability makes them a sustainable choice for regions prone to water scarcity.

Warm temperatures during the fruiting and ripening stages are essential for pomegranate cultivation. These plants thrive in sandy-loam soil with a pH value of 6.5 to 7.5. Though July and August are considered ideal for planting, irrigation facilities have made it possible to extend the planting season to February and March. The hardy nature of pomegranates allows them to adapt to diverse climatic conditions, cementing their position as a farmer-friendly crop.

Diverse Varieties for a Rich Harvest

India boasts several improved pomegranate varieties, each with its own unique characteristics. The *Ganesh* variety, widely cultivated in Maharashtra, is known for its medium-sized fruits with soft seeds and a pink hue. Farmers appreciate its adaptability and consistent yields. The *Bhagwa* variety has garnered immense popularity for its large, glossy fruits and high yield potential of 30-38 kg per plant. Its thick rind and deep-red arils make it a favourite in

domestic and international markets. Similarly, the *Mridula* variety stands out for its deep-red, sweet, and juicy fruits, weighing between 250 and 300 grams.

Other notable varieties include *Jyoti*, which produces smooth-skinned fruits with a golden-red color, and *Kandhari*, celebrated for its tart flavor. *Arakta*, *Ruby*, *Bedana*, and *Gul-e-Shah* also cater to niche markets, each offering distinctive qualities that suit various consumer preferences. By selecting the right variety, farmers can align their production with market demands, ensuring better returns.

Nurturing the Crop for Success

Pomegranate farming begins with meticulous preparation. Pits measuring 60x60x60 cm are dug at appropriate distances to accommodate the plant's growth. These pits are enriched with organic manure, super phosphate, and pesticides to create an ideal growing environment. Irrigation plays a crucial role, with drip systems emerging as the preferred method for maintaining consistent soil moisture.

During summer, farmers irrigate pomegranate plants every 7-10 days, while in winter, a fortnightly schedule suffices. This ensures optimal hydration without over-saturating the soil. Pruning and training the plants are equally vital, as they encourage healthy growth and maximize fruit production. Regular weeding and mulching help maintain soil health and prevent competition for nutrients.

Despite being a hardy crop, pomegranates are not immune to pests and diseases. The pomegranate butterfly, aphids, and stem borers are common adversaries. Regular monitoring and timely pesticide applications can keep these threats in check. Diseases like *Cercospora* fruit spot and bacterial blight also demand attention. Farmers often resort to a

combination of chemical treatments and cultural practices to mitigate these challenges.

The Economics of Pomegranate Cultivation

One of the most compelling aspects of pomegranate farming is its economic viability. Initial investments range between ₹4-5 lakh per hectare, covering planting material, land preparation, and infrastructure. While the first year demands significant effort and resources, the subsequent years bring reduced maintenance costs and increasing profits.

A mature pomegranate plant can yield 80-90 kg of fruit annually. With a market price of ₹100-120 per kg, farmers can expect earnings of ₹10-12 lakh per hectare. Additionally, pomegranate plants have a lifespan of 18-20 years, ensuring sustained income for farmers. This long-term profitability makes pomegranates an excellent choice for those seeking stable returns.

Grading the harvested fruit is another crucial step in enhancing market value. Pomegranates are sorted based on their weight, size, and appearance. Super-sized fruits, weighing over 750 grams, command premium prices due to their superior quality. King-sized fruits, weighing between 500-750 grams, and Queen-sized fruits, weighing 400-500 grams, also attract considerable demand. Proper grading and packaging not only increase market appeal but also help farmers fetch better prices.

Post-Harvest Care and Market Opportunities

The journey of a pomegranate does not end with harvest. Proper post-harvest care is essential to preserve its quality and extend its shelf life. At a storage temperature of 5°C, pomegranates can remain fresh for up to two months. This allows farmers to target distant markets and reduce losses.

Transportation is another critical aspect. Fruits are carefully packed in crates to minimize bruising and spoilage during transit. Integrated pest management practices and soil care ensure that the crop remains healthy throughout its lifecycle. Issues like fruit cracking, often caused by soil boron deficiency and uneven moisture levels, are addressed through

consistent irrigation and foliar sprays of gibberellic acid.

With a growing demand for fresh and processed pomegranate products, Indian farmers have ample opportunities to tap into domestic and international markets. From fresh fruit exports to value-added products like juices, jams, and concentrates, pomegranates offer a wide range of revenue streams. The government's emphasis on promoting horticulture further bolsters the prospects for pomegranate growers.

The Way Forward

Pomegranate farming embodies a perfect blend of tradition and modernity. Its resilience, adaptability, and economic viability make it an ideal choice for small-scale and large-scale farmers alike. With proper care and management, this jewel of nature can transform the agricultural landscape and contribute significantly to the rural economy.

As India continues to lead in pomegranate production, the focus on research and development, improved varieties, and sustainable practices will ensure that this fruit retains its position as a symbol of health, wealth, and prosperity. For farmers willing to embrace innovation and hard work, pomegranate farming offers a path to enduring success.
