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Blue Gold in Karnataka: A New Crop, A New Income

Authors

Priyanka Hugar^{1*}, Rakshitha R Shekar²,
Chandana B. S.³, Maheshwari Hugar⁴

¹Ph.D. Scholar, Department of Fruit Science, College of Horticulture Bengaluru, University of Horticultural Sciences, Bagalkot

²Ph.D. Scholar, Department of Post Harvest Management, College of Horticulture Bengaluru, University of Horticultural Sciences, Bagalkot

³Ph.D. Scholar, Department of Fruit Science, College of Horticulture Bengaluru, University of Horticultural Sciences, Bagalkot

⁴MBA in Agriculture Business Management, Indira Gandhi National Open University, New Delhi, India

INTRODUCTION

In the changing landscape of Indian horticulture, a new opportunity is taking root. Traditionally known as a fruit of cooler climates, the **Blueberry** often called "**Blue Gold**" is now flourishing in the heart of Karnataka. With the advent of "zero-chill" and "low-chill" varieties, our state is uniquely positioned to lead India's berry revolution.

Why blueberry: Choosing Blueberries is a strategic move for the modern Karnataka farmer. As traditional crops face increasing climate volatility, this high-value "superfood" offers a resilient and highly profitable alternative because:

- **High Demand:** India imports 20,000+ tons annually; domestic supply is untapped.
- **Top Margins:** Retail prices reach ₹800–1,200/kg in urban hubs like Bengaluru.
- **Fast Results:** Soilless tech yields fruit in year one, peaking at **3–5 kg per plant**.
- **Climate Ready:** New heat-tolerant varieties thrive across Karnataka's diverse zones.
- **Farmer Support:** High-margin growth backed by government subsidies and tech.

Cultivation guide:

1. Varietal selection:

The primary challenge in South India is the lack of "chill hours." Standard northern varieties will not fruit here. Growers must use **Zero-Chill** or **Low-Chill** Southern Highbush (SHB) varieties

- **Biloxi:** Best overall for low-chill, warm climates; commonly suggested for places with very mild winters and hot summers.
- **Emerald:** Good if you can manage acidity, irrigation, and some afternoon shade; suited to warm subtropical conditions.

- **Misty:** A practical backup variety for mild-winter areas.
- **Sharp Blue:** Also acceptable for warm areas, especially in pots or grow bags.
- **Cupla:** ~0 chill hours; tropical Karnataka specialist; high disease resistance and size.
- **Legacy:** Low-mid chill hours; suited for mild northern winters; requires precise nutrition
- **Emerald:** 100–150 chill hours; suited for highlands (Kodagu); large fruit and high yields.

2. Soilless Cultivation:

Karnataka's alkaline soil (pH 6.5–8.0) is lethal to blueberries, necessitating 50-liter grow bags for commercial success. An ideal substrate combines 60% cocopeat with 20–30% pine bark or sawdust for acidity, plus perlite or rice husk for aeration. Success depends on maintaining a root-zone pH of 4.5–5.5.



Soilless 50L growing bags to grow

3. Infrastructure Establishment:

Despite Karnataka's favourable climate, high summer temperatures and monsoon rains necessitate protective structures. Rain shelters or poly-tunnels are essential to prevent monsoon fruit splitting and regulate humidity. During peak summer (March–May), 30–50% shade nets mitigate heat stress and prevent berry sunscald. Additionally, bird netting is non-negotiable to protect ripening crops from local bird populations.



Growing in Poly tunnels

4. Irrigation & Fertilization:

Because blueberries are salt-sensitive, a high-quality drip irrigation system is essential. Irrigation water must maintain an Electrical Conductivity (EC) below 0.8 mS/cm, as high-salt borewell water triggers leaf burn and root death. Use ammonium-based nitrogen (e.g., ammonium sulfate) instead of nitrates, which the plants cannot easily process. Daily monitoring of the "leachate" (drainage water) with a handheld pH/EC meter is necessary to prevent toxic nutrient accumulation

5. Canopy Management:

In Karnataka's tropical climate, blueberries grow year-round without natural dormancy, requiring manual "resets" through pruning. For a March–May harvest, perform heavy pruning in late May or June post-harvest. The technique involves removing low-hanging or crossing canes to maintain an upright V-shape, which ensures optimal sunlight penetration. Additionally, if the plant over-flowers, thin 20–30% of the clusters to promote premium berry size.

6. Plant Protection:

Effective blueberry management in Karnataka requires installing 25mm bird netting once fruit coloration begins, as avian protection is non-negotiable. To mitigate thermal stress and prevent fruit shrivelling, deploy 50% white shade nets from

February through May. During dry periods, manage thrips and mites using organic controls like *Beauveria bassiana* or neem-based sprays. Finally, prevent root rot by ensuring the substrate remains well-drained and applying *Trichoderma* as a soil drench every three months.

7. Harvesting:

Harvest only when berries are 100% blue, showing no red or pink at the stem. During peak season, harvest every 3–4 days in the early morning to avoid field heat. To maintain a 14–21 day shelf life, initiate the cold chain by moving fruit to a 2°C–4°C pre-cooler within two hours of picking.

8. Market Window:

In Karnataka, the goal is to target the **March–May window**. This is when international imports from South America are low and prices in Bengaluru and Mumbai are at their peak (often exceeding ₹800/kg farm-gate).

9. Strategic Considerations:

While "self-fertile" cultivars like Biloxi are viable, inter-planting 2–3 different varieties significantly increase yields through cross-pollination. Harvesting remains labour-intensive, requiring precise hand-picking at the "blue-ripe" stage, making consistent labour access in regions like Doddaballapura or Kolar a strategic advantage. While buying planting materials request **18–24 month old plants** in 2–5 liter polybags. These are "production-ready" and can yield fruit within the first year of transplanting into 50-liter grow bags.

10. Key Planting material sources in Karnataka & South India:

- **Sai Krupa Biotech (Bengaluru):** Specialized Jayanagar-based supplier of tissue culture and high-value fruit crops.
- **Karnataka Apple (Ramanagara):** Provides temperate fruit plants specifically adapted to local growing conditions.
- **Agriplast Tech India (Bengaluru):** Offers turnkey solutions and proprietary cultivars like Falcon and Cupla.
- **Ooty Gardenz (Nilgiris):** Reliable regional source for diverse berry varieties across the South Indian market.

CONCLUSION

Karnataka stands at the forefront of India's niche fruit production. By integrating modern irrigation with climate-resilient blueberry varieties, Blue berries are redefining what South Indian soil can achieve. Whether you are looking to diversify your acreage or venture into high-tech farming, blueberries offer a sustainable and lucrative path forward.