Growing Green Gold: Dracaena fragrans cv. Victoria as a High-Value Alternative to Field Crops

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ABSTRACT

Dracaena fragrans cv. Victoria is a significant ornamental foliage crop with high economic potential, particularly in the context of rapid urbanization and increasing demand for indoor greenery. Unlike traditional field crops such as rice and maize, which are primarily grown for food security but often generate low income due to price volatility and production risks, ornamental foliage crops are quality-driven and market-oriented (Darras, 2020). *Dracaena* requires relatively less land and water and is well suited for protected cultivation, resulting in higher returns per unit area (Chen *et al*., 2005). Yield in ornamental crops is measured by the number and quality of marketable plants rather than grain weight, making them economically advantageous compared to cereals (Relf, 2008). This article highlights the importance, economics of cultivation, yield concept, and comparative profitability of *Dracaena fragrans* cv. Victoria vis-à-vis rice and maize, emphasizing its role in crop diversification and sustainable horticulture.

INTRODUCTION

Field crops such as rice and maize have traditionally dominated Indian agriculture due to their crucial role in ensuring food security. However, farmers often receive low market prices for these crops and face high production risks due to climatic

uncertainties, resulting in marginal net income (Singha *et al*., 2025; Patel *et al*., 2024). In contrast, rapid urbanization, changing lifestyles, and increased interest in interior landscaping have expanded opportunities for high-value horticultural crops, particularly ornamental foliage plants (Darras, 2020).

Ornamental foliage crops have emerged as a viable option for enhancing farm income on small landholdings, especially in urban and peri-urban areas. Among these, *Dracaena fragrans* cv. Victoria is highly valued for its attractive variegated foliage, adaptability to indoor conditions, and long shelf life (Chen *et al*., 2005). Unlike cereals, whose economic performance depends on yield per hectare, *Dracaena* profitability is determined by plant quality, appearance, and market demand (Relf, 2008). This paper examines the economic potential of *Dracaena fragrans* cv. Victoria and compares its yield and profitability with rice and maize, highlighting its role in sustainable and diversified agricultural systems.

Dracaena fragrans Victoria: Importance

Economic Importance - Dracaena fragrans cv. Victoria commands a premium price in the ornamental plant market due to its use as a potted and interior landscape plant. Compared to unit produce from rice and maize, marketable Dracaena plants generate significantly higher income per unit area (Darras, 2020). The crop provides consistent income opportunities for small-scale farmers, nurseries, and entrepreneurs, particularly in urban and semi-urban regions.

Aesthetic and Functional Value - The plant is highly valued for its glossy green leaves with yellow margins, making it suitable for homes, offices, hotels, shopping malls, and corporate interiors. Its tolerance to low light and indoor environments ensures year-round commercial demand (Chen *et al*., 2005).

Environmental and Health Benefits - Indoor foliage plants such as Dracaena contribute to improved indoor air quality by absorbing pollutants and increasing relative humidity (Wolverton *et al*., 1989). Additionally, the presence of indoor plants has been associated with reduced stress, enhanced mental well-being, and improved productivity, supporting the principles of biophilic design (Bringslimark *et al*., 2009; Kaplan & Kaplan, 1989; Ulrich, 1984).

Resource Use Efficiency and Employment Generation - Compared to field crops, Dracaena requires less land and water and can be grown under protected cultivation, reducing dependence on rainfall and minimizing weather-related risks (Chen *et al*., 2005). Nursery raising, potting, landscaping, and retailing of ornamental plants generate both skilled and unskilled employment, contributing to livelihood diversification in urban and peri-urban areas (Relf, 2008).

Economics of Cultivation Planting of Dracaena fragrans cv. Victoria :

Cultivation of Dracaena is economically viable due to its high market value and efficient resource utilization. Although the initial investment—covering planting material, containers, growing media, fertilizers, plant protection chemicals, and protected structures—is higher than that for rice or maize, the long-term returns per unit area are substantially greater (Darras, 2020).

The crop typically requires 6–12 months to reach marketable size, depending on management practices and desired plant dimensions (Chen *et al*., 2005). Once established, staggered planting allows continuous production and steady income. Because ornamental crops emphasize quality rather than bulk yield, price realization remains relatively stable compared to cereals,

which are vulnerable to market fluctuations (Patel *et al*., 2024).

Yield and Returns as compared to Rice and Maize:

In rice and maize, yield is measured in tonnes of grain per hectare and is strongly influenced by climate, soil fertility, and seasonal variability (Shah *et al*., 2016; Singha *et al*., 2025). In contrast, yield in Dracaena fragrans cv. Victoria is expressed as the number of healthy, uniform, and aesthetically appealing plants per unit area, with quality parameters such as leaf color, size, and overall appearance determining market value (Relf, 2008).

Despite achieving high physical yields, rice and maize often generate modest net returns due to low market prices and rising input costs (Patel *et al*., 2024). Dracaena, on the other hand, offers significantly higher returns per square meter, making it particularly suitable for small and marginal farmers. Furthermore, protected cultivation reduces production risks and post-harvest losses, as unsold plants can be retained without quality deterioration (Chen *et al*., 2005).

Advantages and Constraints:

There are various benefits of growing Dracaena fragrans cv. Victoria as compared to the conventional field crops, but there are also a number of limitations that farmers should take into account to produce it successfully.

Advantages

- High income per unit area compared to rice and maize (Darras, 2020)
- Efficient use of land and water resources under protected cultivation (Chen *et al*., 2005)
- Year-round market demand in urban interiors and commercial spaces
- Minimal post-harvest losses compared to perishable field crops
- Employment generation in nursery production, landscaping, and marketing (Relf, 2008)

Constraints

- Higher initial investment and requirement for technical expertise
- Market dependency on urban demand and consumer preferences
- Unsuitability as a staple food crop
- Occasional pest problems such as mealybugs and scale insects affecting plant quality

CONCLUSION

Dracaena fragrans cv. Victoria represents a high-value ornamental foliage crop with substantial economic advantages over conventional field crops such as rice and maize. While cereals remain indispensable for food security, their profitability is often limited by low market prices and production risks (Singha *et al*., 2025). In contrast, Dracaena cultivation is quality-oriented, resource-efficient, and market-driven, offering higher returns per unit area with reduced risk. Although it requires higher initial investment and technical knowledge, its long-term profitability, employment potential, and alignment with urban greening and biophilic design make it a promising complementary enterprise. Integrating ornamental foliage crops into existing farming systems can enhance farm income, promote sustainable horticulture, and meet the growing demand for indoor greenery in modern urban environments.

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