



Prospects Of Orchid Cultivation As A Sustainable Agribusiness In Andhra Pradesh

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Abstract:

Orchid farming is emerging as a promising horticultural enterprise that contributes significantly to economic growth. It offers farmers valuable opportunities for crop diversification and supports the development of a sustainable orchid industry with the potential to generate substantial employment. In Andhra Pradesh, the favourable climatic conditions—especially in the coastal districts—have encouraged focused research and development efforts in orchid cultivation. Supported by various policy measures, technological advancements, and logistical assistance, orchid farming in the state is steadily gaining momentum as a viable and sustainable agricultural venture. This growing sector has also begun to attract entrepreneurs interested in commercial orchid cultivation. A notable example is a progressive farmer from Eluru district, who began orchid farming on a 7 acres plot with 1lakh plants in April 2024. The high returns he achieved demonstrate the profitability and potential of orchid cultivation for other farmers in the region. Given these developments, there is considerable scope for the orchid industry to expand and thrive across the country.

Introduction:

Orchids belong to the Orchidaceae family, one of the largest families in the plant kingdom, encompassing around 736 genera and 28,237 species globally. These plants are renowned for their diverse flower forms, exhibiting a wide range of sizes, shapes, and colours (Christenhusz and Byng, 2016; Willis, 2017). Native primarily to tropical regions, orchids are commonly found in the moist tropical forests of areas such as South and Central America, India, Sri Lanka, Myanmar, southern China, Brazil, the Philippines, New Guinea, and Australia (Rao, 1979). India, recognized for its rich biodiversity, hosts approximately 1,350 orchid species across 185 genera. These species thrive under a variety of phytogeographical zones, including tropical, subtropical, and temperate regions, each with distinct microclimatic conditions (Hegde, 2020). In Andhra Pradesh, 77 orchid species have been documented by Raju et al. (2008), while Rao et al. (2009) identified 56 species in the Eastern Ghats region, including 11 from the Talakona sacred grove. Orchids are widely traded in commercial markets, valued for their roles as ornamental plants, traditional medicines, and food sources (Pandey and Bhatt, 2021; Sharma, 2021). Additionally, they are increasingly being utilized in emerging sectors such as perfumery and cosmetics.



Orchid Import and Export

Thailand leads the global orchid trade, accounting for approximately 87% of total exports in recent years, followed by countries like Singapore, Malaysia, Indonesia, and Sri Lanka. Japan and several European nations are the primary importers of tropical orchids, especially in the form of cut flowers, which can command prices ranging from ₹100 to ₹3,000 per stem in the Indian market. For temperate orchid production and export, New Zealand holds the top position, followed by Australia and South Africa. Globally, there is a rising demand for potted orchids, with many tropical species and hybrids proving well-suited for container cultivation. In India, temperate orchids are mainly cultivated in regions such as Sikkim, Darjeeling (West Bengal), Arunachal Pradesh, and various Northeastern states. Tropical orchid cultivation is concentrated in Kerala (notably Trichur, Trivandrum, Kozhikode, and Quilon), Karnataka (Mangalore), Maharashtra (Pune, Mumbai, Aurangabad), Tamil Nadu (including the Chennai region), Goa, and select districts of Andhra Pradesh, Uttar Pradesh, Uttarakhand, and Himachal Pradesh. A significant portion of orchids in India are imported, primarily from Thailand and the Netherlands. Among these, Thailand dominates orchid cut flower exports to India, contributing 80.67%, followed by the Netherlands (15.54%), New Zealand (2.29%), and China (1.5%) (De, 2020; De and Pathak, 2020; Thammasiri, 2020).

A Study on the Expansion Potential of Orchid Cultivation in Andhra Pradesh

In Andhra Pradesh, agriculture and horticulture remain the primary sources of livelihood for the majority of the population. The state's extensive coastline of 975 km provides a humid climate that is highly favorable for the cultivation of tropical orchids. These climatic conditions make the region particularly suitable for floriculture, especially the commercial farming of orchids, which are in high demand in metropolitan markets. Among various species, *Dendrobium* orchids are especially sought after due to their attractive floral spikes. When these flowers reach the markets, the best-quality spikes are sorted and distributed both within India and to international destinations. With the introduction of hi-tech horticultural practices in Andhra Pradesh, the focus has shifted towards achieving high returns even from small land holdings.

Therefore, the cultivation of tropical orchid genera such as *Aerides*, *Dendrobium*, *Mokara*, *Phalaenopsis*, and *Vanda* is particularly recommended in the coastal districts of the state. Similar practices have already shown success in other regions—for instance, coconut groves in Kerala have supported orchid cultivation for a long time. Likewise, in Assam, orchids are now being cultivated in rubber plantations with promising outcomes, opening new commercial avenues for large-scale production (Upadhyaya et al., 2005).

In Andhra Pradesh, plantation crops like oil palm and coconut are currently grown on approximately 170,000 hectares and 117,000 hectares, respectively (Anonymous, 2020). These plantations create a naturally humid microclimate that supports the successful growth of epiphytic orchids on the trunks of the host trees. This environment is especially conducive for hybrid tropical orchids such as *Dendrobium* (varieties like Sonia-17, Sonia Galaxy, Paramount, Ashahi Pink, Sahuara Pink), *Vandaceous* (e.g., Iskander, Christine Alba), and *Mokara* (e.g., MK Chark Kuan Orange, Pink, Yellow, Red).

Recognizing the global commercial value of orchids, the Government of India has launched various schemes to promote their cultivation. The Andhra Pradesh state government has also taken proactive steps by offering infrastructure support such as shade nets, polyhouses, quality planting materials, and input subsidies to encourage orchid farming.

A notable example of success in this field is Mr. Rajesh, Lingamaneni from Mukkollupadu village, Nuzvid Rural Mandal, Eluru District. In April 2024, with the assistance of the Department of Horticulture, he began orchid cultivation in a 2,000 square meter shade net facility housing around 1 lakh nine-month-old *Dendrobium* orchids (Sonia Purple and Sonia White). The setup included aluminium benches covered with coconut husk and UV-stabilized black shade netting.

Mr. Rajesh, Lingamaneni invested approximately Rs. 1.5 crore to expand the farm to 7 acres, constructing 8 shade net houses complete with irrigation systems, structural components, and support ropes. He actively established market connections with buyers from cities like Mumbai and Bhubaneswar, enabling him to earn premium prices. Demand for orchid flowers surged, allowing him to further expand his market locally while reducing transportation costs.

Currently, he earns a net profit of around Rs. 100,000 per month from his 7-acre orchid farm. His success has inspired several farmers in the region to pursue orchid cultivation. Many are hopeful that the Andhra Pradesh government will continue providing subsidies for infrastructure and planting materials, especially since the initial investment in this sector is relatively high.

Conclusion

The demand for orchids is rising rapidly due to their graceful floral structures, vibrant hues, and extended vase life. The hilly terrains with natural slopes and flowing streams in the Eastern Ghats of Andhra Pradesh create ideal high-humidity zones for orchid cultivation. The coastal belt of Andhra Pradesh offers optimal climatic conditions for the large-scale production of tropical orchids, particularly varieties like *Dendrobiums* and *Vandas*. Cultivating tropical orchids is practically achievable in the coastal districts

under controlled environments such as greenhouses or within coconut and oil palm plantations. Since many tropical orchids are epiphytes, they can be effectively grown on the trunks of coconut and oil palm trees. Additionally, the growing consumer inclination towards fresh natural blooms over synthetic decorative flowers highlights a significant opportunity for orchid farming in the state. Therefore, orchid cultivation emerges as a financially promising venture. In light of its commercial potential, enhanced focus and increased investments in research and development, infrastructure, and outreach programs are recommended to further promote and strengthen this sector.

References

- Anonymous. (2020). *Horticultural Statistics at a Glance 2020*. Retrieved from <http://nhb.gov.in/statistics/Publication/Horticulture>
- Christenhusz, M. J., & Byng, J. W. (2016). The number of known plant species in the world and its annual increase. *Phytotaxa*, 261(3), 201–217.
- De, L. C. (2020). Export and import scenario of orchids in India. *Journal of Agricultural and Forest Meteorology Research*, 333(5), 402–404.
- De, L. C., & Pathak, P. (2020). Good agricultural practices of Dendrobium orchids. *Journal of Orchid Society of India*, 34, 35–43.
- Hegde, S. N. (2020). Status of orchid industry in India. In S. Khasim, S. Hegde, M. González-Arnao, & K. Thammasiri (Eds.), *Orchid Biology: Recent Trends and Challenges* (pp. 11–20). Springer, Singapore.
- Pandey, V., & Bhatt, I. D. (2021). Medicinally important orchids of Indian Himalayan Region: Present status and future priorities. *Journal of Orchid Society of India*, 35, 35–46.
- Raju, V. S., Reddy, C. S., Reddy, K. N., Rao, K. S., & Bahadur, B. (2008). Orchid wealth of Andhra Pradesh, India. *Proceedings of Andhra Pradesh Academy of Sciences*, 12(1–2), 180–192.
- Rao, A. S. (1979). *Orchids of India*. National Book Trust India, New Delhi.
- Rao, R. P., Prasad, B. K., Babu, M. S., Babu, P. K., & Sadasivaiah, B. (2009). Occurrence of East Himalayan floral elements in the Eastern Ghats of Andhra Pradesh: II. Orchids. *Pleione*, 3, 152–156.
- Sharma, B. D. (2021). Utility of orchids in medicine, commerce, and societal benefits. *Journal of Orchid Society of India*, 35, 91–94.
- Thammasiri, K. (2020). Commercial aspects of orchid cultivation in Thailand. *Journal of Orchid Society of India*, 34, 27–34.
- Upadhyaya, R. C., Devdas, R., & Nagaraju, V. (2005). Scope of orchid cultivation in oil palm plantations. In *Proceedings of National Seminar on Research and Development of Oil Palm in India* (pp. 58–62). National Research Centre for Oil Palm, Pedavegi, West Godavari, Andhra Pradesh, India.
- Willis, K. J. (2017). *State of the World's Plants 2017 Report*. Royal Botanic Gardens, Kew, London, U.K.