

Horticulture: Strengthening India's Agri-Economy

"Focusing on High-Value Crops to Boost Farmer Incomes"

Key Takeaways

- Horticulture production has increased from 280.70 million tonnes in 2013-14 to 367.72 million tonnes in 2024-25 (as per second advanced estimates). This includes fruit production of 114.51 million tonnes, vegetable production of 219.67 million tonnes, and 33.54 million tonnes from other horticulture crops.
- As of July 2025, under MIDH, a total of 58 Centres of Excellence have been approved across
 various States in the country with 55 clusters identified by MoA&FW under Horticulture Cluster
 Development Programme (HCDP).
- The government is setting up 9 centres for Clean Plant Programme (CPP) and 4 Post-Entry Quarantine (PEQ) facilities.
- In the past five years, a total of **55,748 post-harvest management** facilities and **11,140** marketing infrastructures have been established under the MIDH scheme.
- The productivity of horticulture crops has risen from 12.10 metric tonnes per hectare in 2019–
 20 to 12.56 metric tonnes per hectare in 2024–25, as per the second advance estimates.

Introduction

Shri K. T. Francis, a retired teacher from Kozhikode, Kerala, has turned his three-acre farm into a model of coconut-based mixed farming. With 200 coconut palms, spices, tuber crops and tropical fruits, he earns ₹14−15 lakh annually, mainly from coconut and nursery sales. Recognised with state and national awards, his success shows how integrated farming and scientific practices can make small holdings both profitable and sustainable.

Shri Prabhat Das, a 40-year-old farmer from Kulhati village in Kamrup district, Assam transformed his fields by shifting from traditional crops to floriculture. A graduate in Arts, he began cultivating Gladiolus, Tube Rose, Tissue Zerbera and Red Zerbera on 12 bighas of his own land during 2014 to 2016. The move proved highly rewarding as he earned between 1.5 to 2 lakh rupees annually by selling his flowers in the wholesale and retail markets of greater Guwahati. Earlier his earnings from field crops were modest, but the shift to flowers has brought him better returns and renewed confidence. Encouraged by this success, he now plans to expand his area under flower cultivation in the coming season.



The horticulture sector plays a vital role in the Indian economy. Horticulture supports better nutrition, offers alternate rural employment, encourages diversification in farming and raises farmer incomes. India is the **second largest producer** of **fruits and vegetables** in the world. It continues to hold a strong position in the production of spices, coconut and cashew nut.

In 2016, the Government set up an Inter-Ministerial Committee to explore ways to **double farmer's income**. One key strategy identified was **diversification into high-value agriculture**, including horticulture.

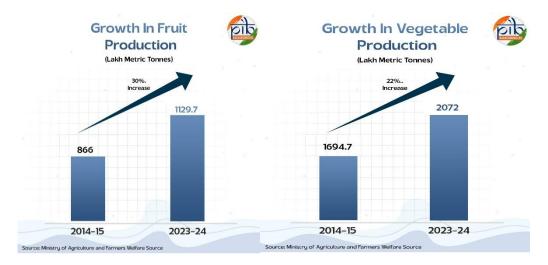
Emergence of High-Value Crops

High-value crops are mainly those grown in horticulture—such as fruits, vegetables, flowers, spices and aromatic plants. These crops yield greater market value and return per unit area compared to many field crops.

This sector has since, recorded impressive growth over the past decade. As of August 2025, for 2024-25 (second advanced estimates), horticulture production increased from 280.70 million tonnes in 2013-14 to 367.72 million tonnes. This includes fruit production of 114.51 million tonnes, vegetable production of 219.67 million tonnes, and 33.54 million tonnes from other horticulture crops.

In 2023–24, Fruit production rose from 866 lakh metric tonnes in 2014–15 to 1129.7 lakh metric tonnes, reflecting an increase of about 30%. Vegetable production also grew from 1694.7 lakh metric

tonnes to 2072 lakh metric tonnes during the same period, marking a rise of 22%. Productivity levels improved as well, with fruits increasing from 14.17 to 15.80 metric tonnes per hectare and vegetables from 17.76 to 18.40 metric tonnes per hectare.



Horticulture, derived from the Latin words **hortus** meaning **garden** and **cultura** meaning to **cultivate**, is a branch of plant science that focuses on the cultivation of garden crops. It covers fruits, vegetables, flowers, spices and plantation crops. The discipline also deals with the scientific management of these crops after harvest to maintain their quality and value.

Schemes and Initiatives

The horticulture sector has witnessed notable progress over the years through targeted government schemes and initiatives that aim to tackle key challenges while unlocking the sector's full potential. The focus remains on enhancing crop quality, increasing production and improving farmers' access to markets.

Mission for Integrated Development of Horticulture (MIDH)

The Government has been implementing the **Mission for Integrated Development of Horticulture since 2014–15**. This centrally sponsored scheme aims to ensure the holistic growth of the horticulture sector in all States and Union Territories.

Since its launch in 2014–15, **the Mission for Integrated Development of Horticulture (MIDH)** has brought an additional **15.66 lakh hectares under horticulture crops up to July 2025.** The scheme covers all horticulture crops, regardless of variety.

Key components such as quality planting material and micro irrigation have contributed to higher productivity. The productivity of horticulture crops has risen from 12.10 metric tonnes per hectare in 2019–20 to 12.56 metric tonnes per hectare in 2024–25, as per the second advance estimates.

To evaluate the results, several impact assessment studies have been carried out through independent agencies, including NITI Aayog. The Department of Agriculture and Farmers Welfare also undertakes regular monitoring and evaluation of the scheme in different regions. Based on the feedback from these reviews, the scheme has been restructured with changes and new components to address field-level challenges.

The key initiatives under the scheme include:

- <u>Centres of Excellence in Horticulture</u> Established as hubs for demonstration and training on the latest technologies in the field.
- Horticulture Cluster Development Programme Designed to make use of the geographical strengths of horticulture clusters. It supports integrated and market-led growth from preproduction and production to post-harvest handling, logistics, branding, and marketing. The aim is to boost the competitiveness of Indian horticulture in both domestic and export markets.
- <u>Clean Plant Programme</u> A central sector scheme that focuses on providing high-quality, disease-free planting material to strengthen India's position in global horticulture trade.
- <u>Post-Entry Quarantine Facilities</u> Set up to supply genuine and quality planting material, thereby improving orchard productivity and enhancing farmers' incomes.

Financial and Technical Support

Under the Mission for Integrated Development of Horticulture, financial and technical support is extended to States and Union Territories for a wide range of activities aimed at strengthening the sector. The main interventions include:

- Establishment of nurseries and tissue culture units to produce high-quality seeds and planting material.
- **Expansion of cultivation areas** by setting up new orchards and gardens for fruits, vegetables, and flowers, along with the rejuvenation of old and unproductive orchards.
- **Promotion of protected cultivation** through facilities such as polyhouses and greenhouses, enabling the production of high-value vegetables and flowers, including off-season varieties.
- **Encouragement of organic farming and certification** to promote sustainable and chemical-free cultivation practices.
- Creation of water resource structures and watershed management systems to support irrigation and water conservation.
- **Promotion of beekeeping** to enhance pollination and improve crop yields.
- Adoption of horticultural mechanisation to increase efficiency and reduce labour dependency.
- Development of post-harvest management and marketing infrastructure, which includes pack
 houses, integrated pack houses, pre-cooling units, staging cold rooms, cold storages, controlled
 atmosphere storage, refrigerated transport, mobile and primary processing units, ripening
 chambers, and integrated cold chain systems.

Key Initiatives Under Mission for Integrated Development of Horticulture (MIDH)





Under MIDH, a total of **58 Centres** of Excellence have been approved across various States in the country.



MoA&FW has identified **55 Clusters** under Horticulture Cluster Development Programme (HCDP).



The government is setting up **9 Centres** for Clean Plant Programme (CPP) and **4 Post-Entry Quarantine** (**PEQ**) facilities.



In the past five years, a total of **55,748 Post-harvest** management facilities have been established under the MIDH scheme. These include cold storages, controlled atmosphere storages, pack houses, ripening chambers, refrigerated vehicles, processing units, preservation units, and food processing facilities.



During the same period, 11,140 marketing infrastructures have also been set up. These comprise static and mobile vending carts, retail outlets, rural and primary markets, Apni Mandis, direct markets, as well as wholesale and terminal markets.

As of July 2025

Source: Ministry of Agriculture and farmers Welfare

National Horticulture Mission

The National Horticulture Mission was launched in 2005–06 as a Centrally Sponsored Scheme. It aims to ensure holistic development of the sector and create strong backward linkages through a cluster-based approach, involving the active participation of all stakeholders. The Mission focusses on:

- Ensuring supply of quality planting material through nurseries and tissue culture units.
- Improving production and productivity through area expansion and rejuvenation.
- Promoting and spreading modern technologies in horticulture.
- Focussing on training and skill development in the sector.

- Developing infrastructure for post-harvest management and marketing.
- Planning activities as per the strengths and climate of each state or region.

Horticulture Mission for North East & Himalayan States (HMNEH)

The Department has been implementing a Centrally Sponsored Scheme called the Horticulture Mission for North East and Himalayan States since 2001–02. It was earlier known as the Technology Mission for Integrated Development of Horticulture in the North Eastern States.

In the Tenth Plan (2003–04), the scheme was extended to three Himalayan States, namely Himachal Pradesh, Jammu and Kashmir, and Uttarakhand. The mission covers the entire horticulture chain, from planting to consumption, with both backward and forward linkages.

From 2014–15 onwards, the HMNEH scheme has been merged with the Mission for Integrated Development of Horticulture.

National Horticulture Board (NHB)

The National Horticulture Board was established by the Government of India in 1984 as an autonomous organisation under the administrative control of the Ministry of Agriculture and Farmers Welfare.

The Board aims to develop production clusters or hubs for integrated high-tech commercial horticulture, create post-harvest and cold chain infrastructure, ensure the availability of quality planting material, and promote the adoption of advanced technologies for high-tech commercial horticulture.

Coconut Development Board (CDB)

The Coconut Development Board is a statutory body set up by the Government of India under the Coconut Development Board Act, 1979, and became operational in January 1981. Under MIDH, its focus is on producing and distributing quality planting material, expanding coconut cultivation in both potential and non-traditional areas, and improving productivity in major coconut-growing states. It also works on developing post-harvest processing and marketing technologies, promoting product diversification and by-product utilisation, adding value to coconut-based products, sharing information, and building capacity in the coconut sector.

Central Institute for Horticulture (CIH)

The Central Institute of Horticulture was established at Medziphema, Nagaland, in 2006-07 to provide technical support through capacity building and training for farmers and field functionaries in the North Eastern Region. It now functions as one of the sub-schemes under MIDH. However, the institute does not directly implement any schemes.

Research and Quality Improvement

National Agricultural Research System (NARS) including ICAR Institutes and State/Central Agricultural Universities (CAU/SAU) under the aegis of Indian Council of Agricultural Research (ICAR) provide improved horticultural varieties.

Varieties of Horticultural Crops



In The Last Ten Years, From 2014 to 2024, A Total of 819 Varieties of Horticultural Crops Have Been Released And Notified.

These Include:



60 varieties of perennial spices and 49 varieties of seed spices.



Potato and tropical tuber crops account for 71 varieties.



Plantation crops have 26 varieties.



Fruit crops contribute 123 varieties.



Vegetable crops form the largest share with 429 varieties.



Flowers and other ornamental plants make up 53 varieties.



Medicinal and aromatic plants include 8 varieties.



Among these, 19 are biofortified varieties.

Source: Ministry of Agriculture and farmers Welfare

Conclusion

Horticulture plays a vital role in strengthening India's agricultural growth and ensuring nutritional security. The wide variety of crops, ranging from fruits and vegetables to spices, flowers and plantation crops, reflects the rich diversity of the sector. Continuous research, improved varieties and better post-harvest management are helping farmers increase productivity and incomes. With sustained government support and adoption of modern practices, horticulture has the potential to further boost rural livelihoods, enhance exports and contribute significantly to the nation's economy.

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