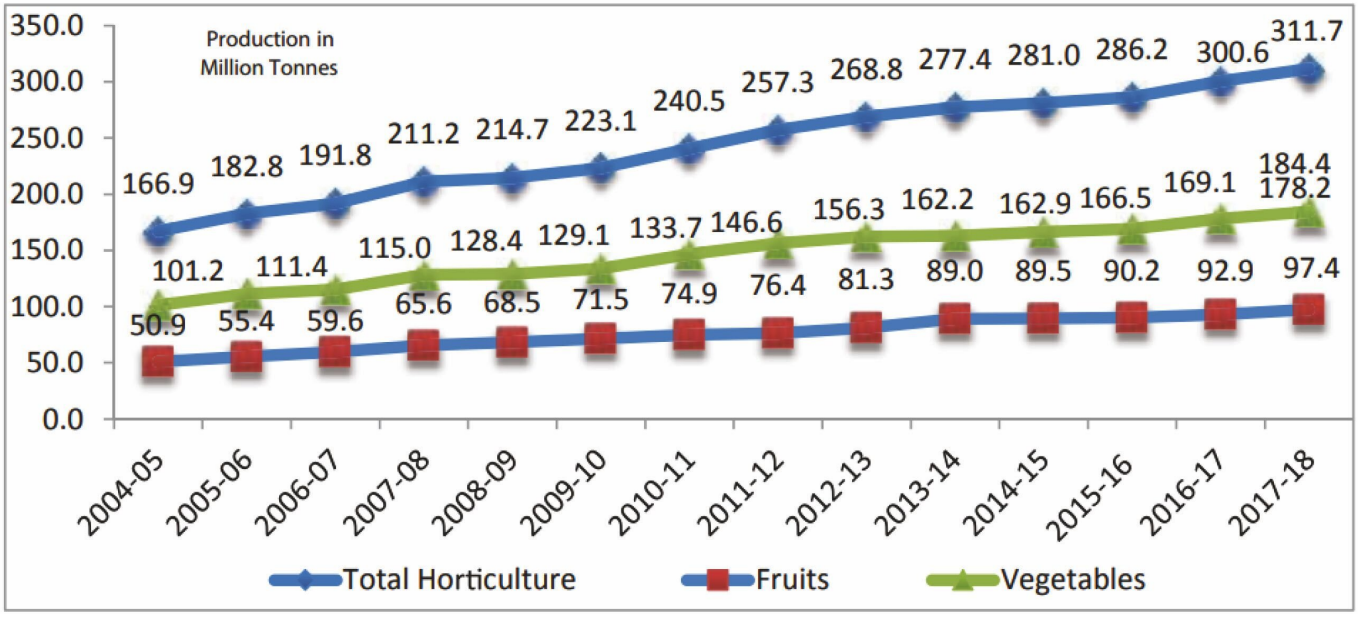
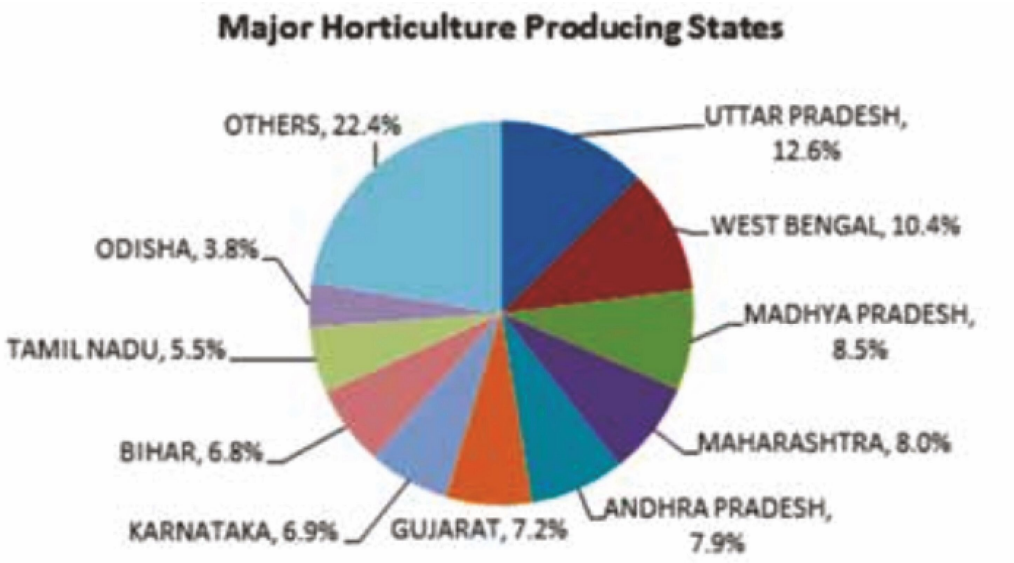
Horticulture Sector in India

Why in News?

- Recently, **Department of Agriculture, Cooperation and Farmers Welfare** released the **Third Advanced Estimate (2018-19)** of **Area and Production of various Horticulture Crops.**
- As per the report, the total horticulture **production** in the country is **estimated** to be **313.85 million tonnes which is 0.69% higher than** the horticulture production of **311.71 million tonnes in 2017-18.**
- The area under horticulture crops has **increased to 25.49 million hectares in 2018-19 from 25.43 million hectares in 2017-18.**

The Department of Agriculture, Cooperation & Farmers Welfare (DAC&FW) is one of the three constituent departments of the Ministry of Agriculture & Farmers Welfare, the other two being Department of Animal Husbandry, Dairying & Fisheries (DAHD & F) and Department of Agricultural Research and Education (DARE).





What is Horticulture?

- Horticulture is the **branch of agriculture** concerned with **intensively cultured plants directly used by man for food, medicinal purposes and aesthetic gratification or cultivation, production and sale of vegetables, fruits, flowers, herbs, ornamental or exotic plants,** in simpler words.
- The term Horticulture is derived from the Latin words **hortus (garden)** and **cultūra (cultivation).**
- **L.H. Bailey** is considered the **Father of American Horticulture** and **M.H. Marigowda** is considered the **Father of Indian Horticulture.**

Classification

- **Pomology:** Planting, harvesting, storing, processing, and marketing of **fruit and nut** crops.
- **Olericulture:** Producing and marketing **vegetables.**
- **Arboriculture:** Study, selection and care of individual **trees, shrubs or other perennial woody plants.**
- **Ornamental Horticulture:** It has two subparts-
    - **Floriculture:** Production, use and marketing of **floral crops.**
    - **Landscape Horticulture:** Production and marketing of **plants used to beautify** the outdoor environment.

Features of Horticulture in India

- Horticulture sector has become one of the major drivers of growth as it is **more remunerative than the agricultural sector (food grains mainly).**
- This sector provides **employment possibilities** across primary, secondary and tertiary sectors.
- Horticulture crops, fruits are **more resilient to change in weather conditions** and the **vegetables augment the income** of small and marginal farmers.

- **Water utilisation** is very **low, minimising the risk of crop failure** and it can be done on smaller farms.
- **Multiple crops are planted simultaneously** to get **more yield** and to **use the maximum of the fertilisers.**
- This sector enables the population to eat a **diverse and balanced diet** for a healthy lifestyle.
- It became a **key driver for economic development** in many of the states in the country where **Division of Horticulture of Indian Council of Agricultural Research is playing a pivotal role.**

Indian Council of Agricultural Resource (ICAR)

- An **autonomous organisation** under the **Department of Agricultural Research and Education (DARE).**
- Formerly known as **Imperial Council of Agricultural Research,** it was established on **16 July 1929.**
- Headquartered at **New Delhi.**
- It is the **apex body** for **coordinating, guiding and managing research and education** in agriculture including horticulture, fisheries and animal sciences in the entire country.

Achievements

- In the last few decades, this sector has gained prominence over **contributing a growing share in Gross Value Addition of the Agriculture and allied sectors.**
- **Mission for Integrated Development of Horticulture (MIDH)** is being implemented by adopting an end to end approach for increasing production of horticulture crops and reducing post-harvest losses.

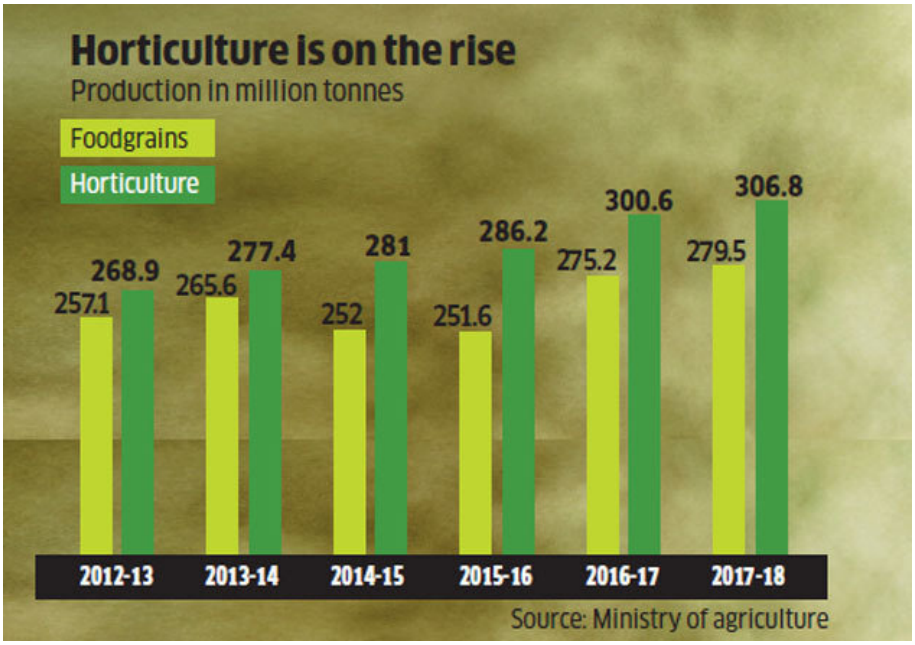
Mission for Integrated Development of Horticulture (MIDH)

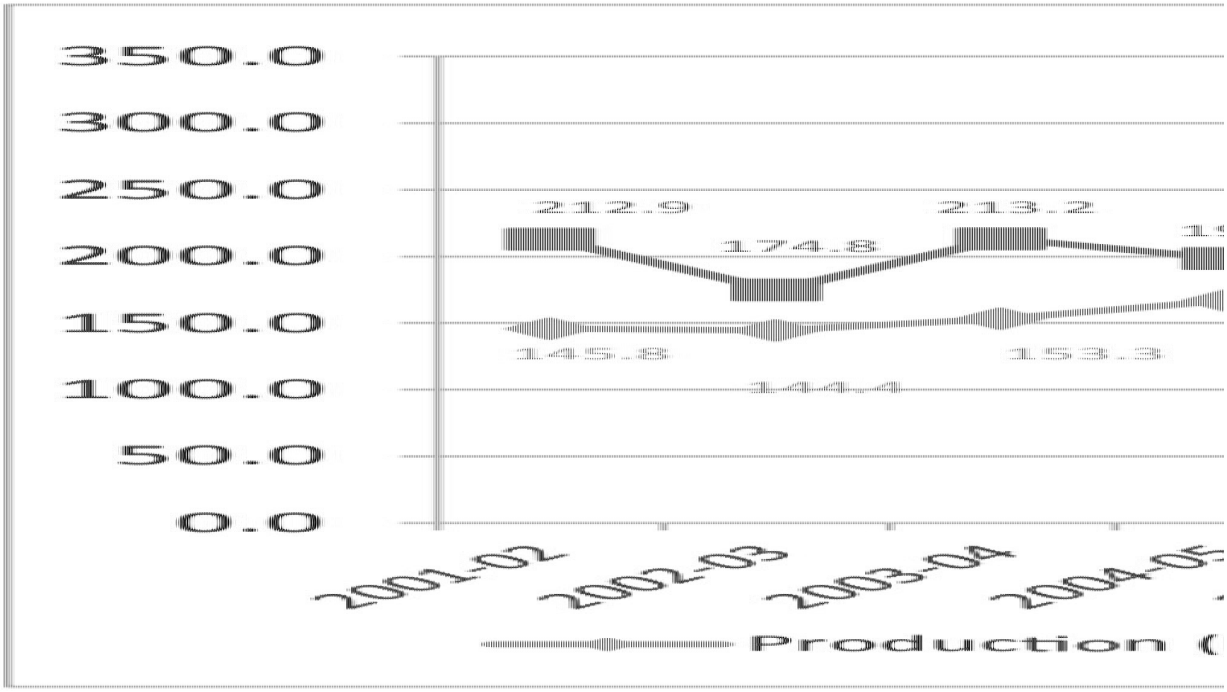
- **Centrally Sponsored Scheme** for the holistic growth of the horticulture sector covering fruits, vegetables and other areas.
- Under MIDH, Government of India contributes **60% of the total outlay** for developmental programmes in all the states (except **North Eastern and Himalayan states where GOI contributes 90%)** & **40% is contributed by State governments.**
- It has **five major schemes** on horticulture-
    - National Horticulture Mission (NHM)
    - Horticulture Mission for North East and Himalayan States (HMNEH)
    - National Horticulture Board (NHB)
    - Coconut Development Board (CDB) &
    - Central Institute of Horticulture (CIH), Nagaland

National Horticulture Board (NHB)

- It was set up **in 1984** on the basis of recommendations of the **"Group on Perishable Agricultural Commodities",** headed by **Dr M. S. Swaminathan.**
- Headquartered at **Gurugram.**
- Objective is to improve integrated development of Horticulture industry and to help in coordinating, sustaining the production and processing of fruits and vegetables.

- The **production of fruits and vegetables has overcome the production of food grains** in the country.
- The total horticulture production has increased from 211.2 million tonnes in 2007-08 to 311.71 million tonnes in 2018-19.
- India is the **second largest producer of fruits and vegetables** in the world with **first rank** in the production of **Banana, Mango, Lime & Lemon, Papaya and Okra.**





Horticulture Statistics at a Glance- 2018

- Important publication of **the Ministry of Agriculture and Farmers Welfare.**
- **The Horticulture Statistics Division in the Department of Agriculture, Cooperation and Farmers' Welfare** has taken various initiatives to improve the database of horticulture crops.
- **Horticulture Area Production Information System (HAPIS)** is a web enabled information system by which data from the states/districts is reported, minimising the time-lag and maximising the coverage area.
- **Coordinated programme on Horticulture Assessment and MANagement using geoinformatics (CHAMAN)** with the objective to develop & firm up scientific methodology for estimation of area & production under horticulture crops through **Remote Sensing** and **Sample Survey Techniques.**

- The **varieties tolerant/resistant to various biotic and abiotic stresses have been developed** in different fruits, vegetables, medicinal and aromatic plants.
- Improved techniques for production of **disease free quality planting materials** have been developed. **Micro propagation techniques have been standardized** for various fruits, spices and other vegetatively propagated plants.
- Technology for **enhancing the water and nutrient efficiency** through **micro irrigation and fertigation** has been developed for a number of horticultural crops.
- **Good Agricultural Practices (GAP)** are developed for various plants, especially medicinal.
- **Farm mechanization to increase harvesting and processing efficiency and to reduce crop loss** has been implemented by developing horticulturalists.
- **Low cost environment friendly cool chamber** was developed for on-farm storage of fruits and vegetables.

- For **dissemination of technologies, region and crop specific training and demonstration programmes** are being taken up.

Challenges

- Horticulture **does not enjoy a safety net like the Minimum Support Price (MSP)** for foodgrains.
- **Lack of good cold chain storage and transport networks** to extend the life of perishable products.
- **Very less or limited input by machinery and equipment** so it is tough to minimise the time restraints.
- **Higher input costs** than foodgrains **make it a difficult set up,** especially when there is no support from the local governments to the smaller farmers.
- It gets challenging for marginal farmers to cope with the **high price fluctuations.**
- **Limited availability of market intelligence,** mainly for exports makes it a tougher option to choose.

Suggestions

- **Achieve technology led development** in Horticulture.
- **Post harvest & value addition** in horticulture crops.
- **Modified atmosphere packaging for long storability & transportation** of fruits & vegetables.
- **Insect pollinators for improving productivity and quality** of the crops.
- **Development of varieties for cultivation in non-traditional areas.**
- **Nutrient dynamics and interaction.**
- **Bioenergy and solid waste utilisation** to make horticulture more efficient and eco-friendly.
- **Plan, coordinate and monitor R&D programmes** at national level as well as to serve as knowledge repository in Horticulture sector.

Way Forward

- The diversification in the agricultural sector mainly of the horticulture sector has become a **major source of positive growth** for the sector itself and for the nation.
- It has emerged as a promising source of **income acceleration, employment generation, poverty alleviation and export promotion.**
- India can emerge as a far bigger producer and exporter if **sufficient emphasis is given to resource allocation, infrastructure development, more R&D, technological upgradation and better policy framework** for horticulture sector.
- Horticulture sector with **strong forward and backward linkages** as an organised industry can stimulate and sustain growth.

For Mind Map