

A Study on Horticulture Products in India

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Abstract: *The horticulture forming sector which includes an extensive diversity of crops such as fruits, vegetables, spices, plantation crops, floriculture, medicinal and aromatic plants, cashew etc. is nowadays recognized as a significant sector for potential diversification and value addition in agriculture. It has been acknowledged that mounting horticulture crops is at present an ideal alternative to improve livelihood security, boost employment generation, and accomplish income and food security, and increase income through value addition. Horticultural crops, particularly fruits are currently receiving escalating attention in outlook of its increasing commercial significance accentuated by quick transportation to vast internal market. India accounts for ten per cent of world production of fruit crops, mango, plantain, citrus, apple, guava, papaya, pineapple and grapes account for the bulk of fruit production. In dry land areas, ber and amla have become popular. In this context, the present study concentrates horticultural crop production in India.*

Keywords: Horticultural crops, Floriculture, Fruits, Spices, Diversity of crops

I. INTRODUCTION

In India, past farming systems were by and hefty organic, where crop rotation, choice of cultivar for region, and utilization of solar radiation for soil sterilization were utilized, and soil fertility was maintained through organic manure and symbiotic soil microflora. Food security is not simply a function of production or supply, but also of availability, accessibility, stability of supply, affordability, the provision of adequate quantity and quality, and safe nutritious food at all times. In a planet where consumers are progressively more aware of what they eat and consume, quality and safety have become key issues and unique selling propositions.

Although India practiced the green revolution from a “begging bowl” position to greater quantity with the increased make utilizeof synthetic agrochemicals such as chemical fertilizers and pesticides, the adoption of nutrient-responsive high-yielding varieties of crops, and greater exploitation of irrigation potential, the constantutilize of these high energy inputs has indiscriminately led to the weakening of soil health and the environment, and food safety has become a major concern. This chemical fertilizer and pesticidesoverutilize has put forth a question regarding the sustainability of agriculture and horticulture in the long term, calling awareness to sustainable production practices which address social, ecological, and economic problems together. Recognizing the impact of the excessive utilization of chemical fertilizers on soil health and pesticides on human health, there has been astab to develop integrated management systems. Organic farming addresses soil, human, and environmental health, and is eco-friendly, and thus may be one of the alternatives for sustainability.

II. PRESENT STATUS OF HORTICULTURAL CROPS IN INDIA

According to the statistics offered by the Government of India for 2016–17, horticulture crops in India are being cultivated in 24 million hectares, which is about seven per cent of India’s total cultivation area. The annual horticultural produce is predicted around 295 million tonnes, which consists of 175 million tonnes of vegetables and 92 million tonnes of fruits in 2016–17. India is the major producer of okra and in English it is called lady’s finger. Regarding production of vegetables, India ranks second in the production of potato, onion, cauliflower, brinjal and cabbage. In fruits, it is the biggest producer of plantain, mango, guava, lemon and papaya. Mango fruit, walnut, grapes, plantain and pomegranate are the main fruits exported, at the same time as onion, okra, bitter gourd, green chili, mushroom and potato have more exotic demand. Fruits and vegetables are frequently exported to the United Arab Emirates, Bangladesh, Malaysia, the Netherlands, Sri Lanka, Nepal, the United Kingdom and Saudi Arabia. The variety of

physiographic, climatic and soil characteristics facilitates India to grow an outsized variety of horticultural crops. India is one of the world's major producers of vegetables.

2.1 Features of Horticulture in India

Horticulture sector has turned into one of the major drivers of growth as it is more remunerative than the agricultural sector particularly food grains. This sector supplies employment possibilities diagonally primary, secondary and tertiary sectors. Horticulture crops, fruits are more resilient to change in weather conditions and the vegetables supplement the earnings of small and marginal peasants. Water utilization is very low, minimizing the risk of crop failure and it can be done on smaller farms. Multiple crops are planted simultaneously to obtain more yield and to utilize the maximum of the fertilizers. This sector facilitates the population to eat adverse and balanced diet for a healthy lifestyle. It became an input driver for economic development in several states in the country where Division of Horticulture of Indian Council of Agricultural Research is in concert a pivotal role.

2.2 Horticulture farming crops Production

India has produced approximately 1.70 million metric tonnes (2017-18) of certified organic horticultural products which comprises all varieties of food products specifically Oil Seeds, Sugar cane, Cereals and Millets, Cotton, Pulses, Medicinal Plants, Tea, Fruits, Spices, Dry Fruits, Vegetables, Coffee etc are greater demand in the international market. The production is not incomplete to the edible sector but also creates organic cotton fiber, functional food products etc. Among different states, Madhya Pradesh is the major producer followed by Maharashtra, Karnataka, Uttar Pradesh and Rajasthan states. In terms of products particularly Oil seed crops are grown in the single largest cluster followed by the horticultural crops such as Sugar crops, Cereals and Millets, Fiber crops, Pulses, Medicinal, Herbal and Aromatic plants and Spices and Condiments.

2.3 Horticultural Crop Exports

The total quantity of export during 2017-18 was recorded as 4.58 lakh metric tonnes. The organic food export realization was around INR 3453.48 crore (515.44 million USD). Organic horticultural products are exported to various countries such as United States of America, European Union, Canada, South Korea, Vietnam, New Zealand, Japan and so on. In terms of export value under standing that Oilseeds come around 47.6 percent lead among the products followed by Cereals and millets recorded as 10.4 percent, Plantation crop products such as Tea and Coffee cultivated around 8.96 percent, dry fruits are 8.88 percent, Spices and condiments come around 7.76 percent and others.

Horticulture crop production in India is calculated approximately to rise by 1 per cent to record 314.67 million tonnes in 2018-19 on higher area. The ministry of Agriculture released the final estimates for 2017-18 and the first estimates for 2018-19 of area and production of horticultural crops. These estimates are based on the information received from different states and Union territories. As per the final estimates of 2017-18, horticulture production stood at record 311.7 metric tonnes, which is 3.7 per cent higher than the previous year and 10 per cent higher than the past five years' average production. Area under coverage of horticultural products cultivated area increased to 25.87 million hectares from 25.43 million hectares. Onion production in current year is likely to be around 23.62 million tonnes as against 23.26 metric tonnes in 2017-18, whole potato output is estimated at 52.58 metric tonnes compared to 51.31 metric tonnes. Tomato production is estimated to rise 2 per cent to 20.51 metric tonnes as against 19.76 metric tonnes in 2017-18. The production of fruits is estimated at 97.35 metric tonnes, while that of vegetables at about 187.5 metric tonnes.

2.4 Different Horticultural crops in India

A. Orange Fruit

Mandarin variety of orange develops fruitfully in tropical and subtropical rudiments mainly under rain-fed circumstances, in Coorg, Wynadtract, Palani hills and the Nilgiris in the south between altitudes of 600 and 1,500 m. Orange can be raised profitably on a wide range of soils, but the perfect soil is medium or light loam with to some extent heavier subsoil. Deep black soil, underlain with murrain and having high-quality drainage, is also suitable. In the hills and humid regions where planting is normally done on steep slopes, the land is appropriately terraced. In the plains, where the trees have to be irrigated, the land should be leveled. The places of production of oranges are Assam, Nagpur, Punjab, Wynaad, Coorg, Palani hills and the Nilgiris area.

B. Mango

Nearly 50 per cent of the total area under fruits in the country is engaged by mango. The mango tree produces throughout the country from the sea level up to about 1,500 m. It is flexible to a wide range of soil and climatic conditions. It can withstand both dry conditions and heavy precipitation. The mango is a native of monsoon lands and prefers a climate with 75-250 cm precipitation concentrated from June to September and mean shade temperatures of about 28°C. The maximum production of mangoes in India comes from the states viz., Uttar Pradesh, Bihar, Andhra Pradesh, Maharashtra, Tamil Nadu, and Kerala among others. The important varieties of horticultural crops grown in Chausa, Safeda, Langra, Dasherri of Uttar Pradesh state and Bihar, Alphonso variety is grown in Maharashtra and Goa, Banganapally mango variety is popular in Andhra Pradesh, Totapari and Kesar mango variety raised in Gujarat, Rumani and Neelam widely cultivated in Tamil Nadu and Karnataka.

C. Grapes

Being a subtropical fruit raises well in dry climate having a short sharp winter and a long dry summer. They do not thrive in regions having humid summers. Grape fruit widely grows best on light, friable, loamy soils with free drainage. Heavy soils are unsuitable. There are different varieties grown in different regions. In the northern India plain region, familiar varieties of grapes are Black Prince, Bedana, Foster's seedling, Khandhari Dakh and Muscat of Alexandria and Perlette and in dry and temperate regions there are the Thompson seedless, Sultana and Kishmish white widely appeared in South India, Bangalore blue, Pachi Draksha, Gulabi, Black Champa and Thompson seedless are raised in western India, Cheema Sahebi, Anab-e-Shahi, and Thompson seedless are grown. The main places of production of grapes are in Punjab, Uttarakhand, Himachal Pradesh, Andhra Pradesh, Maharashtra, Karnataka and Tamil Nadu.

D. Plantain

Plantain is a moisture and heat loving plant, is broadly of two types table and culinary. Among the peasants, they are grown local popular variety Poovan in Tamil Nadu also known as Karpura Chakkarekeli in Andhra Pradesh, Mortaman, Champa and Amritsagar in West Bengal, Champa and Mortaman named in Assam and Orissa, Safed Velchi, Lai Velchi and Rajeli in Maharashtra. Among the culinary varieties are Nandran, Monthan, Myndoli and Pacha Montha Bathis. Plantains are mainly grown in the tropical parts where temperatures do not fall below 16 °C and precipitation below 150 cm. The coastal plains and the irrigated tracts in the peninsular parts provide ideal climate for plantain cultivation. The plant grows best in the rich well drained soil with ample moisture and humus content. The maximum production comes from three states viz., Maharashtra, Tamil Nadu and Kerala.

E. Pineapple

It is a muggy humid plant and cultivates well both in the plains and also at elevations not more than 900 m. It cultivates in all types of soils but can tolerate neither very high temperature nor frost. Assam, Meghalaya, West Bengal, Tripura, Uttar Pradesh, Andhra Pradesh, Kerala and Karnataka are the important places of production of pineapple.

F. Cashew

This crop is grown mainly in peninsular India both for its fruits as well as for its nuts, mainly for the latter. It was in 16th century that the cashew plantations were introduced in India by the Portuguese. However the first seeds were brought from Brazil. Cashew cannot tolerate severe summers or winters. It requires a moderately high temperature of about 20°C and a precipitation varying from 50 to 400 cm. It is not very exacting in soil requirements, as it grows even in very gravelly soils. Continued adequate soil moisture is however necessary for the success of a cashew plantation. The fruits ripen from March to May but the season is extended in years when heavy precipitation is experienced in November-December. Cashew is commonly grown in the coastal districts of Kerala, Karnataka, Goa and Maharashtra. There are plantations on the east coast of Tamil Nadu, Orissa, West Bengal and Pondicherry. Tripura produces some cashews, too.

G. Mushroom

Production has taken a quantum leap in the last few years. Mushrooms give high quantity and quality protein from agro-wastes. It is rich in lysine contains amino acid deficient in cereals. The major variety in our country is white button

mushroom. At the present, growers in Central and Southern India are growing oyster mushrooms, Orissa and Kerala are growing paddy straw mushrooms. Till 1980 Jammu and Kashmir and Himachal Pradesh were producing mushroom and the white button variety being a temperate variety. Nowadays in Tamil Nadu, Uttarakhand, Uttar Pradesh, Haryana, Punjab and many other states have begun production with the introduction of other varieties.

H. Vegetables

Comprise an important food item of human diet throughout the world. Consequently, the level of vegetable production in a country has a significant bearing on the nutritional status of that country. An optimistic factor in cultivation of vegetables is that the majority of the vegetables are short-duration crop. As a result, they can be produced in succession, on the same plot and all the family labour of the vegetable grower can be usefully employed throughout the year. More than fifty varieties of vegetables are cultivated on an area of about four million hectare of land in India, most important vegetable crops of the country comprise potato, onion, peas, cauliflower, tomato, brinjal, okra, cabbage and cucurbites. It is clear from the above discussion that India lays on different climatic zones. Hence, India produces wide variety of Horticultural products. At present, many products are exported to foreign countries.

III. CONCLUSION

India's Horticultural products and export markets would grow with the support of the industry, the government, and Non Governmental Organizations coming together to work with peasants. The future for markets for horticultural foods is definitely bright, as it is growing rapidly in the European Union, in the United States and Canada, and in Japan and Australia, as well as in some developing countries. With increasing purchaser awareness of food safety, health, and environmental problem, the organic food sector has become an attractive opportunity for export from developing countries.

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