Current status and marketing of fruits and vegetables in India

ABSTRACT

The Indian agriculture sector is developing enthusiastically day by day. Horticulture has been an emerging sector in agriculture accounts for 90% o of the total horticulture production in the country, which consists of crops like vegetables, fruits, flowers, mushrooms, tuber crops, spices, plantation, aromatic and medicinal plants. India is the second-largest producer of fruits and vegetables in the world after China, the increasing population, and the mind-set of adopting a healthy lifestyle have increased the demand for nutritional requirements in people, which provides vast chances for sustaining a large number of agro-based industries which creates substantial employment chances. The horticulture sector contributes 1 about 24.5% of the farming GDP from about 8 of the cultivable area in the country. India is endowed with different agro-climatic conditions which offer immense scope for the cultivation of various kinds of crops, over the past years, horticulture has formed prominent progression in terms of increase in area and production under diverse crops, increment in productivity, crop diversification, technological interventions for production and post-harvest and forward association through value addition and marketing.

Keywords: *Fruits, vegetables, Marketing, and market efficiency*

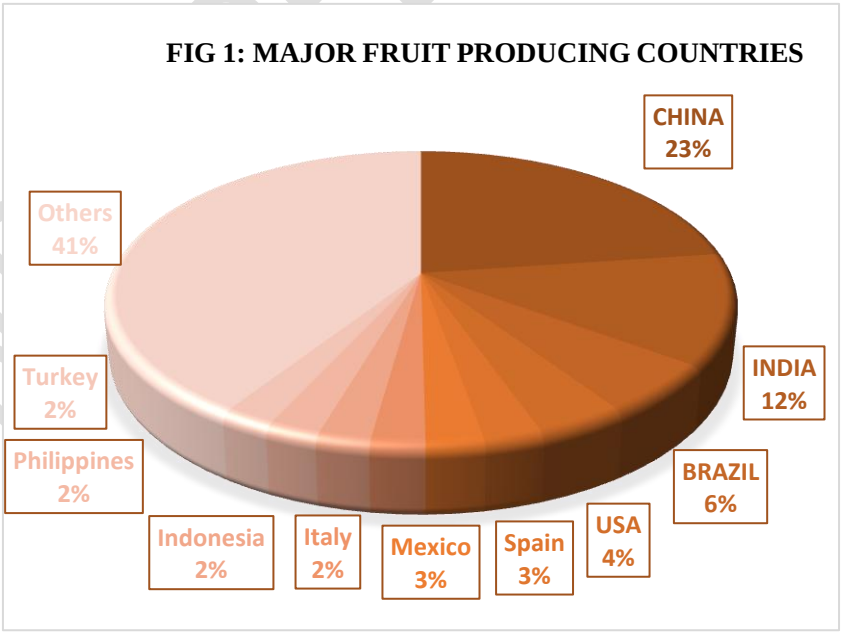
Introduction

Agriculture is the backbone of the Indian economy involving around three fourth (58 percent) of the total country's population. India is the second most populated country in the world after China, with approximately 17 percent of the total world population and just around 2.4 percent of land share it becomes a very challenging task to feed and fulfill the requirements of 1.39 billion people (Neeraj *et. al.*, 2017). However, India has not only emerged as an important producer else it is the second-largest producer of fruits and vegetables. India's share in the world production of fruits and vegetables stands at 11.38% and 11.78% respectively, horticulture area is 27.23 million hectares with the production of 331 million tons (The Press Information Bureau, 2021). Further, the production in the horticulture sector gained a steep rise during the year 2020-21 with an average of approx. 331.05 million metric tonnes which are 10.5 million metric tonnes higher than the last year (IAAIIR, 2021). This tremendous increase in the area and productivity of horticultural crops (fruits and vegetables) was witnessed because of the support provided by the government of

India through various schemes such as scheme 1 (Commercial Horticulture) and Scheme 2 (Cold Storage), Technology Development Transfer Scheme, Guidelines for Technology Development and Transfer for Promotion of Horticulture, Formats for Technology Development and Transfer Scheme, Market Information Service Scheme for Horticulture Crops, Horticulture Promotion Service, Recognition of Horticulture Nurseries (National Horticulture Board). Therefore, it can be very well said that horticulture plays a very special role in the Indian economy by providing regular employment to the rural people besides providing a boost to India's GDP (Gross Domestic Product) which is evident from the fact that now India is among 15 leading exporters of fruit.

Since the horticultural activities are labour-intensive, therefore, the sector has an immense capability to provide a huge amount of employment to not only unskilled labour but also to the skilled and highly skilled persons. Although India shares nearly 1 percent of the global market share, it has the potential to grow rapidly due to the settlement of state-of-art cold chain infrastructure which is also evident from the fact that during 2020-21, India exported fruits and vegetables worth Rs. 9,940.95 crores/1,342.14 USD Millions which comprised of fruits worth Rs. 4,971.22 crores/ 674.53 USD Millions and vegetables worth Rs. 4,969.73 crores/ 667.61 USD Millions (NHB report, 2020).

FIG 1: MAJOR FRUIT PRODUCING COUNTRIES



Essentiality of fruits and vegetables

The year 2021 has been announced as the International Year of Fruits and Vegetables 2021 (IYFV) by the Food and Agriculture Organization of the United Nations. The

declaration comes at an accurate time as the plant-based diet becomes further mainstream in these moments of the Pandemic. The IYFV 2021 offers a special chance to uplift knowledge of the significant role of vegetables and fruits in human nutrition, food security, and health and achieve UN Sustainable Development Goals. Many fruits and vegetables recreate a significant function in human nutrition, preventing illnesses, and contributing to the country's progress and prosperity. Fruits and vegetables are not solely rich and affordable sources of carbohydrates but similarly of minerals and vitamins, especially calcium, iron and magnesium, and vitamin A and C, vital for raising defiance against disease.

TABLE 1. Selected vitamins and other bioactive components in fruits and vegetables

VITAMINS	
Folacin:	Avocado, orange, asparagus, black bean, black-eyed pea, Brussels sprout, chive, endive, green pea, kidney bean, mustard greens, navy bean, okra, soybean, spinach, turnip greens
Vitamin C:	Blackberry, blueberry, cantaloupe, cranberry, grapefruit, kiwi fruit, lemon, lime, mango, orange, papaya, peach, raspberry, strawberry, tangerine, broccoli, Brussels sprout, cabbage, cauliflower, kale, kohlrabi, spinach, sweet red/green pepper, tomato
Other bioactive components	
Allicin:	Chives, garlic, leek, onion, shallot
Capsaicin:	Chili pepper
Carotenoids:	Carrot, pumpkin, sweet potato, apricot, cantaloupe, guava, mango, peach, persimmon, grapefruit, asparagus, beet greens, broccoli, Brussels sprouts, cabbage, carrot, cassava leaves
Lycopene:	Guava, red/pink grapefruit, watermelon, tomato
Lutein:	Kiwi fruit, orange, tangerine, watermelon, asparagus, broccoli, Brussels sprouts, cabbage, carrot, collards, corn, kale, lettuce, potato, pumpkin, spinach, sweet red pepper, tomato, turnip greens
Zeaxanthin:	Orange, persimmon, collards, corn, kale, lettuce, pumpkin, red pepper, spinach, tangerine, turnip greens
Citric acid:	Grapefruit, lemon, lime, orange, tangerine
Saponins:	Asparagus, beet, garlic, spinach

Caffeic acid:	Apple, gooseberry, grape, olive, raspberry, strawberry; broccoli, Brussels sprout, carrot, endive, red onion, savoy cabbage, sweet potato, tomato
Chlorogenic acid:	Apple, apricot, blackberry, blueberry, cherry, cranberry, grape, plum, pomegranate, strawberry; cabbage, carrot, sweet red/ green pepper, tomato
Limonene:	Grapefruit, lemon, orange, tangerine, carrot, celery
Sources: Smith *et al.*, 1995; Perry *et al.*, 1996; Holden *et al.*, 1999; Barratt-Eornell and Drewnowski, 2002; Mayo Clinic *et al.*, 2002; Pennington, 2002; WHO and Tufts University School of Nutrition and Policy, 2002	

The demand for fruits and vegetables has increased due to the mindset of people to switch to a healthy and fit lifestyle. The ICMR-National Institute of Nutrition developed the 'My Plate for the Day' has been designed based on Recommended Dietary Allowances (RDA), generally presenting a figure of the balance of foods from various food collections to subsist sourced for a 2000 Kcal Indian diet. The plate recommends sourcing macronutrients and micronutrients from a minimum of 8 food groups per day with vegetables, fruits, green leafy vegetables, tubers: forming half the plate of the recommended foods per day. There's inter-city variation in consumption it is seen that the topmost in Chennai (average intake of 4.35 servings per day) and the smallest in Kolkata (average input of 2.81 servings per day). Whereas the intake for a person should be the average input of fruits and vegetables is 3.5 servings per day, which comprises 1.5 servings of fruits and 2 servings of vegetables. The average input of the younger generation is indeed less which is for 18-25 years it's 2.97 servings per day and for 18-35 years it's 3.3 servings per day. The average input among the students is abysmally low at 2.94 servings per day. Housewives do better in terms of fruits and vegetable intake with an average input of 3.65 servings as compared to working persons which is3.5 servings per day (India's Phytonutrient Report).

With liberalization, globalization, and relaxing trade limitations, distinctive kinds of fresh and processed food will be further readily obtainable in the country. Looking at the present status, fruits and vegetables are acquirable in diverse forms (like as fresh, frozen, juices and chopped), through numerous retail channels, and in distinctive formats (like as branded, non-branded, organic, and inorganic).

Fruit and vegetable production in India

India is the second most populated country in the world, where the involvement of around 70% of livelihood from rural households is still dependent primarily on agriculture. In India, farming contributes around 21 percent to the gross domestic product while employing about 60 percent of the country's manpower. India is among the 15 leading exporters of agricultural production in the world. Farming export from India reached US $38.54 billion in FY19 (Final Year 2019) and US $35.09 billion in FY20 (Indian Agriculture and Allied Industries Report). Total horticulture production in 2020-21 is estimated to be 326.58 million tonnes, an increase of about 5.81 million tonnes over that in 2019-20 according to the second advance estimate of horticulture production released by the Ministry of Agriculture. Production of Fruits is evaluated to be 103.0 million Tonne, compared to 102.1 million Tonne attained in 2019-20. Production of Vegetables is evaluated to be 197.2 million Tonne compared to bottommost year's output of 188.3 million Tonne that is, a rise of 4.8%.

The Indian economy has diversified and grown, agriculture's contribution to GDP has steadily declined from 1951 to 2011. Well, high-quality diets bear the consumption of a wide range of food orders in the right amounts. widely, the prevalence of hunger has declined to 795 million in 2015 (FAO, 2015), denoting advancement in securing acceptable access to staple foods as measured in terms of calorific input. But an evaluated 2 billion people are affected by inadequate intakes of micronutrients (WHO, 2016), an additional 2.1 billion people are overweight or obese (Ng *et al.*, 2014). Being a country with a huge population involved in farming India has also a quarter of the world's hungry people and is home to more than 190 million undernourished people. This has made the government more concerned about the agriculture sector of the country. To boost the output and productivity of vegetables and fruits in the country, the government is enforcing Horticulture Charge for Northeast and Himalayan States (HMNEH) including Uttarakhand and National Horticulture Mission (NHM) in the remaining states under Mission for Integrated Development of Horticulture (MIDH). These schemes deliver support to produce planting material, high yielding variety vegetable seed production, vegetable cultivation, regeneration of senile orchards, defended cultivation, creation of water resources, creation of a framework to prevent postharvest losses of horticultural crops, and for the adoption of integrated nutrient management (INM)/ integrated pest management (IPM) (Neeraj *et.al.*,2017).

Indian marketing channel

Marketing channels modify according to the product, organizational position, and the producing country's competition and trade policy. Internationally, various marketing systems subsist for the fresh fruit and vegetable trade. Outputs reach the consumers straightway or via marketing channels containing various resellers. In the immediate marketing network, the producer is the seller in the market. In this complex, the producer markets his/ her yield right via methods similar as a producer market, district bazaar, organic product bazaar, street selling, vending on-road/ garden/ field, electronic trade, and open wholesale trade. Producer markets are defined as the sites in which retail trades of raw fruit and vegetables take place, and which are set up by the municipalities. They are similarly defined in legislation dealing with the rule of Trade in Raw Fruit and Vegetables, and of Wholesale Food demands. Producers can vend the yields which they have produced straight to consumers without the needfulness to meet the access demands charged by wholesale markets, especially with the account to the regulations trading with amounts given for trade as decided by the municipalities, unclose wholesale centres designated as markets are mass-market centres in which the trade in raw fruit and vegetables is carried on without demanding to be registered. In these canters, the trade-in raw fruit and vegetables are administered by brokers or the producers themselves without any burden to produce any kind of declaration to the non-commercial markets in raw fruit and vegetables. Legal rules which trade with this system of unlisted trading should be written in such a way that they encourage the trade in raw fruit and vegetables. Native markets continue to be significant to consumers for the advantages they supply, including ease of transport, proximity, convenience, yield freshness, and logical costs (Ozkan *et al.*, 2014; Sayin *et al.*, 2010; Albayrak, 2009).

Indian farmers usually depend heavily on middlemen, especially in fruit and vegetable marketing. The producers and the consumers frequently get a penniless deal and mediators control the market, but don't add substantial value. There's similarly heavy destruction deterioration in quality as well as the periodical mismatch between demand and supply both spatially and over the occasion. In India, the significance of an effective marketing network as a vital link between the grower and the consumer came in way back in 1928 by the Royal Commission on Agriculture (Acharya, 1996). Since then, a rational deal of advancement has been made in organizing agricultural marketing by the embracement of different kinds of executive and legislative measures from time to time.

Producer—Pre-harvest contractor/Consolidator—Commission agent—Wholesaler—Retailer —Consumer

This is the most acceptable channel for marketing by the growers. The popularity of this network was introduced in numerous studies on various fruits and vegetables in different states over a period. The studies operated on the marketing of citrus fruits in 1973 in Punjab (Mehta and Singh, 1973) have unveiled that nearly 84 percent of the mandarin and 85 percent of the orange fruits were vended by the pre-harvest contractors (PHC). Also, in the case of mango fruits (Singh and Sidhu, 1976), 73 percent of the growers in Punjab sold their yield to PHC. The studies were carried on in three southern States viz. Karnataka, Andhra Pradesh, and Tamil Nadu on important fruits in 1979-80 (Subrahmanyam, 1983) onetime again showed the dominance of PHC in fruit trade, though the extent of deal differed from state to state and fruit to fruit.

The Fruits and Vegetables (F&V) sector has been a driving force in stimulating a healthy growth trend in Indian farming. The vast output base offers India tremendous chances for export. During 2020-21, India exported fruits and vegetables worth Rs. 9,940.95 crores/ USD Millions which consisted of fruits worth Rs. 4,971.22 crores/674.53 USD Millions and vegetables worth Rs. 4,969.73crores/667.61 USD Millions (APEDA). Grapes, Pomegranates, Mangoes, Bananas, Oranges are regarded as a bulky portion of fruits exported from the country while Onions, Mixed Vegetables, Potatoes, Tomatoes, and Green Chilly contribute largely to the vegetable export holder. The important destinations for Indian fruits and vegetables are Bangladesh, UAE, Netherland, Nepal, Malaysia, the UK, Sri Lanka, Oman, and Qatar. The arising share of high-worth goods in the whole value of the agricultural product and their growth potential, this portion can drive agricultural growth in the years to come (ASSOCHAM, 2013). It plays a unique function in India's economy by enhancing the revenue of the rural people. Cultivation of fruit and vegetables is further labor-intensive than cultivating cereal crops and offers additional postharvest chances to add valuation (Joshi *et al.*, 2004; Weinberger and Lumpkin, 2005).

The effectiveness of marketing for fruits and vegetables in India has been of significant concern in recent years. Poor efficiency in the marketing channels and deficient marketing structure is believed to be the reason for not just high and varying consumer costs, but also a low quantity expended by consumers reached to the growers (Kaul, 1997). Fruits and vegetables are not solely utilized for domestic consumption and processing into various

products (pickles, preserves, sauces, jam, jelly, squashes, etc.) but likewise substantial quantities are exported in fresh and processed form, bringing around extensively- demanded foreign exchange for the country. These crops similarly give plenty scope for attaining biodiversity and diversification to keep up ecological equilibrium and to produce sustainable agriculture and can form a meaningful impact on the national economy in the dates to approach.

Challenges that need to be overcome in marketing

There has been a concern in recent days regarding the effectiveness of marketing fruits and vegetables in India. It's accepted that poor efficiency in the marketing channels and poor marketing structure is showing not just for high and shifting consumer costs but also a small proportion of the consumer rupee reaching the farmers. The marketing of fruits and vegetables is complicated because of perishability, seasonality, and heavy. Low effectiveness in the marketing channels and deficient marketing structure is accepted to be the reason for changing costs. Indian cultivators depend heavily on brokers in fruits and vegetable marketing. The challenge is caused not only due to the post-harvest loss but there should also be

- The integration of domestic markets with the international market, the domestic demands, specifically for food grains, should be integrated into the whole country. This calls for the dismantling of conditions on pricing, trading, distribution, and movement of agricultural yields within the country.
- Strengthening the cooperative marketing societies is also one of the needs that farmers require. The advancement made by cooperative marketing institutions so far, though remarkable, isn't wholly satisfactory. Cooperatives have yet to take over a substantial part of the entire agricultural yield. It is thus, this is important that these cooperatives evolve at a rapid speed and along accurate lines.
- Strengthening regulated market structure is assigned to agricultural produce marketing committees (APMC) on which diverse interests are characterized. There's a critical want to form these market committees feasible and managerially capable in keeping with liberalized trade atmosphere. The market committees should be headed moreover by professionals, or the subsisting secretaries and they should be trained in the professional operation of demands.

- Re-farming price stabilization policy with a perspective to supplying profitable cost to the cultivator, food at an accessible charge to the consumer and sustained growth of marketable surplus, all undesirable limitations on agricultural trade must be put off. Public procurement, storehouse, and distribution of food grains need to be managed efficiently and on marketable lines.

In India, food is the largest portion of the retail industry. There are 3.7 million food retail exits with an evaluated progression of 7400 billion (Chengappa *et al.*, 2007). Food dealings in India are, by and considerable, unorganized, greatly shattered and generally small, the family possessed businesses (Singh, 2007). Around 78 percent of this function is carried out with family labor. Nearly 96 percent of the food outlets are small with lesser than 500sq.ft. area. The unorganized food retail section consists of Kirana shops, selling dry food products, fruit/ vegetable shops, and Peddlers (push catwalks) dealing fresh food products. As the unorganized retail outlets are under-capitalized, these aren't suitable to cater to the consumer requisition worth-added services, therefore providing the edge to the organized retail sector. Organized food dealings, which are still lately considered for only around 2 percent of the total food retail trades, are anticipated to reach about 20 percent by the year 2013. The food retail sector is reported to employ around 21 million people.

In the recent past year, several private companies entered the business of marketing fruits and vegetables. Therefore, an in-depth study of their plans and implemented operations vis-à-vis the being public/ people/ member-based organizations like Agriculture Produce and Marketing Committee (APMC) and producer's cooperatives, would support in proposing competent plans for enhancing the effectiveness of marketing of fruits and vegetables. The entry of corporates and the emergence of the arranged food retail chain were observable after liberalization. The presence of corporates created across-the-board attention about the trends and marketing models flowing in different countries. These models work as an inspiration. Globally new marketing plans are formed viewing the millennial population. The characteristics of Millenials are that they're self-dependent, better educated than their previous generations; they are the principal pay earners in the house income. Their age is anywhere between 18 to 37 years, and they're considerably connected broadly through the internet. They play a major function in driving consumer demands as they have an aptness to shell out further due to high disposable earnings. Out of 7.4 billion people globally, 27 percent are Millenials (Your Story, 2018). E-tail is getting a trendsetter in evolving countries at an advanced pace compared to developed countries due to boosted internet application

among the Millenials. Millenial consumers consume around 2.7 servings per day and are additionally inclined towards fruits and vegetables compared to other generations (The packer, 2018).

Conclusion

Fruits and vegetables generally comprise a vital portion of the day-to-day diet in India and they're in great demand around the year from the utmost portions of the population. Increment of fruit and vegetable output is an egregious foremost step. Market-initiated vegetable farming not just creates earnings for smallholder growers but correspondingly helps to make their flexibility to external threats. Diversity of vegetable crops, short growing cycles, and productive use of irrigation can reduce cultivators, susceptibility to climate change. For profitable resilience, growers may either choose to incorporate vegetables into being main cropping systems or relocate into technical vegetable production. Governments will require to increase focus and investment in farm productivity, well-founded post-harvest operation, food security, and market access. In addition, public investments in structure, training, and allotments supporting vegetable worth chains could advance employment. Vegetable production, processing, and marketing offer possible changes that can be captivating, particularly to youth, production requires only frail landholdings, is technology-expertise, and ensures high earnings in a fairly short period. The marketable worth of fruits and vegetables in terms of immediate consumption, processing as well as trade has got up mainly in recent times. Still, numerous rural people are deprived of fruits and vegetable consumption due to poverty and the fresh horticultural produces are turning food and diet only of the rich but formerly cultivators were made to produce for themselves, and demand, fruits, and vegetable costs would get degraded, and all section of people can enjoy it and maintain a good dietetic motive and keep up a better fitness. For integrated progress of horticulture industry emphasis on quality product needs to be incorporated with right post-harvest management of horticultural crops.

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Table 2: 2019-21 (Third Advance Estimates) of Area and Production of fruits Crops Category-wise: All India

Crops	2019-2020		2020-2021	
	(Final)		(Advance Estimate)	
Fruits	**Area ('000 ha)**	**Production ('000 ha)**	**Area ('000 ha)**	**Production ('000 ha)**
Almond	9	11	10	11
Aonla/ Gooseberry	97	1164	100	1286
Apple	310	2814	312	2057
Banana	897	32597	923	33379
Ber	54	606	51	551
Citrus				
(i) Lime/ Lemon	322	3687	333	3750
(ii) Mandarin	454	6136	462	6026
(iii)SweetOrange (Mosambi)	217	4040	203	3825
(iv) Others	81	704	88	661
Citrus Total (i to iv)	**1075**	**14568**	**1086**	**14262**
Custard apple	50	395	47	403
Grapes	150	3181	152	3229
Guava	292	4361	310	4469
Jackfruit	187	1739	191	1970
Kiwi	5	14	5	16
Litchi	97	726	98	720
Mango#	2294	20317	2325	20822
Muskmelon	61	1368	69	1346
Papaya	142	5780	150	6063
Passion Fruit	12	56	11	70
Peach	19	119	18	118
Pear	43	290	42	280
Picanut	3	0	1	0
Pineapple	106	1732	107	1774
Plum	23	88	24	88
Pomegranate	283	3186	271	3088
Sapota	84	906	78	783
Strawberry	1	9	3	20
Walnut	108	286	108	284
Watermelon	116	3157	115	3205
Others*	258	2610	304	2731
Total Fruits	**6774**	**102080**	**6914**	**103027**

Sources- Horticulture Statistics Division, DAC&FW

Table 3: 2019-21 (Third Advance Estimates) of Area and Production of vegetable Crops Category-wise: All India

CROP	2019-20		2020-2021	
	(Final)		(3rd Advance Estimation)	
Vegetable	**AREA**	**PRODUCTION**	**AREA**	**PRODUCTION**
Beans	239	2269	230	2212
Bitter gourd	107	1268	107	1296
Bottle gourd	189	3106	197	3234
Brinjal	744	12682	760	12695
Cabbage	401	9272	415	9567
Capsicum	34	534	38	563
Carrot	105	1828	106	1871
Cauliflower	467	8941	473	9225
Cucumber	112	1656	118	1665
Chilies (Green)	387	4119	418	4417
Elephant Foot Yam	31	724	38	945
Mushroom		211	0	243
Okra/ Ladyfinger	521	6355	544	6494
Onion	1431	26091	1639	26830
Paral/ Pointed guard	59	754	61	720
Peas	568	5848	575	5855
Potato	2051	48562	2248	54230
Radish	207	3184	206	3220
Pumpkin/Sitaphal/ Kaddu	104	2183	108	1211
Sweet Potato	108	1141	111	1211
Tapioca	173	6060	188	5867
Tomato#	818	20550	865	21056
Others	1453	20945	1523	21568
Total Vegetables	**10310**	**188284**	**10966**	**197230**

(Horticulture Statistics Division, DAC&FW)

Table 4: State-wise area and production of Fruit and vegetable crops, 2018-2019 (3RD Advance Estimation)

S.no.	States/ UTs	Fruits		Vegetables	
		Area ('000 ha)	Production ('000ha)	Area ('000ha)	Production ('000ha)
1.	Andhra Pradesh	718.91	1761.67	259.83	7091.37
2.	Arunachal Pradesh	48.14	125.84	2.62	17.39
3.	Assam	167.20	2518.89	324.13	4060.36
4.	Bihar	313.95	4384.46	872.55	16699.84
5.	Chhattisgarh	225.24	2580.31	498.93	6910.32
6.	Gujarat	433.79	9227.76	626.26	12552.15
7.	Haryana	67.28	712.02	438.39	7172.11
8.	Himachal Pradesh	230.852	571.739	87.31	1755.43
9.	Jammu & Kashmir	345.39	2564.27	60.12	1337.12
10.	Jharkhand	105.39	1111.96	293.42	3501.45
11.	Karnataka	395.550	6567.293	430.925	7044.888
12.	Kerala	321.36	1885.97	98.77	3042.86
13.	Madhya Pradesh	357.01	7464.97	897.99	17773.19
14.	Maharashtra	756.97	10822.77	649.79	11283.23
15.	Manipur	46.74	451.23	45.55	354.92
16.	Meghalaya	35.75	331.67	49.02	514.75
17.	Mizoram	62.91	339.18	34.65	163.80
18.	Nagaland	33.94	315.34	41.11	455.87
19.	Odisha	337.29	2361.13	613.62	8466.17
20.	Punjab	94.80	2001.69	249.32	5207.36
21.	Rajasthan	62.35	919.90	178.01	2047.13
22.	Sikkim	19.54	55.45	38.80	231.40
23.	Tamil Nadu	293.97	5767.95	235.77	6082.54
24.	Telangana	175.90	2034.29	140.31	2548.69
25.	Tripura	53.702	555.473	46.708	813.378
26.	Uttar Pradesh	480.53	10651.26	1256.27	27703.82
27.	Uttarakhand	178.80	670.63	100.14	1002.64

28.	West Bengal	266.33	3829.85	1490.39	29545.23
29.	Others	18.23	141.30	39.11	503.81
	All India Total	**6647.78**	**98579.27**	**10099.82**	**2185883.22**

(Horticulture Statistics Division, DAC&FW)

Table 5: Export of horticulture produce from India

Products	**2018-2019**		**2019-2020**		**2020-2021**	
	Qty ('MT)	**Value in Lacs**	**Qty ('MT)**	**Value in Lacs**	**Qty in MT**	**Value in Lacs**
Fruits and Vegetable seed	16,151.17	84,923.03	14,796.15	72,343.66	17,177.20	80,840.19
Fresh Onions	2,182,944.45	346,735.69	1,149,054.44	231,899.12	1,575,922.59	282,202.08
Other fresh vegetables	372,213.73	183,457.14	496,577.71	206,581.76	609,612.90	223,331.32
Walnut	1,874.87	6,677.29	1,648.26	5,277.55	1,069.70	2,978.68
Fresh mangoes	46,510.27	40,649.55	49,658.67	40,021.34	21,033.58	27,187.83
Fresh grapes	246,133.79	233,525.08	193,690.54	217,686.82	246,107.38	229,845.04
Other Fresh Fruits	372,213.73	183,457.14	496,577.71	206,581.76	609,612.90	223,331.32
Other (Betel leaves and Nuts)	17,364.50	17,427.55	14,003.49	13,712.48	10,151.63	13,778.84
Processed Fruits and Vegetables						
Cucumber and Gherkins	212,819.87	143,713.30	189,342.94	124,120.63	223,515.51	165,181.83
Processed Vegetables	248,122.37	247,399.71	253,276.92	276,053.17	403,355.41	371,862.96
Mango pulp	105,873.21	65,766.98	85,725.55	58,431.96	98,369.77	71,440.83
Processed Fruits, Juices and Nuts	339,606.63	280,496.84	360,459.11	308,630.41	306,990.46	317,342.39
Floriculture	19,726.57	57,141.28	16,949.37	54,161.01	15,695.32	57,598.45

Source: APEDA, 2021

Table 6: Import of horticulture produce in India

PRODUCT	2018-19		2019-20		2020-21	
	Qty. ('MT)	Value	Qty. ('MT)	Value	Qty. ('MT)	Value
Fruits & Vegetable Seeds	19,609.11	80,556.87	17,776.84	85,178.73	24,925.82	103,594.27
Fresh Onions	7,080.71	841.62	141,189.86	56,741.00	66,264.42	21,102.73
Other Fresh Vegetables	7,659.08	1,535.20	11,139.45	3,063.53	14,019.59	4,699.28
Walnut	13,640.49	26,787.24	21,305.23	49,494.54	35,021.54	66,717.45
Fresh Mangoes	30.54	50.57	138.60	221.03	17.97	45.35
Fresh Grapes	7,006.13	8,615.67	7,583.77	8,582.14	8,582.14	7,295.24
Other Fresh Fruits	885,216.88	550,077.12	716,428.98	482,407.19	868,379.53	549,522.34
Others (Betel Leaves & Nuts)	20,681.79	48,087.20	16,885.81	34,678.65	25,042.16	52,048.39
Processed Fruits & Vegetables						
Cucumber and Gherkins	338.62	291.04	192.07	221.09	150.36	99.38
Processed Vegetables	20,308.20	18,457.52	36,329.51	28,013.70	20,550.87	19,552.60
Mango Pulp	160.20	105.62	500.12	370.74	47.60	25.81
Processed Fruits, Juices & Nuts	81,424.70	162,565.85	79,145.38	154,002.51	72,648.94	139,563.62
Floriculture	6,374.46	17,409.49	7,313.91	22,964.10	3,959.22	16,037.53

Source: APEDA, 2021