
ORIGINAL ARTICLE

Growth of Horticulture Sector In India: Trends and Extent Of Vegetable Production

Mohit Malik¹, Saurabh Tomar¹, Avinash Kumar, Rajkumari Asha Devi³, S.K. Jawla⁴, and Alka Sahrawat⁵

¹Department of Horticulture, C.S. Azad university of Agriculture and technology, Kanpur (U.P.) 208002. India

³Dept. of Horticulture, Lovely Professional University, Jalandhar (144411), Punjab (INDIA)

^{2&4}Dept. of Agricultural Economics and extension, Lovely Professional University, Jalandhar (144411), Punjab (INDIA)

⁵Department of Biotechnology, Shobhit Institute of Engineering and Technology (Deemed to be University), Meerut (U.P.) 250110 India

Corresponding author's email: - avinash.25134@lpu.co.in

ABSTRACT

India is a second largest producer of vegetables after China. Fruits and vegetables are essential parts of our diets. Among all horticultural crops, vegetables recommended highest by ICMR. Therefore, vegetables occupy essential concern regarding production and productivity. The per capita recommended vegetables per day are 300 g per person per day (ICMR). Therefore, the vegetables require extra emphasis to improve production and productivity of it to feed the second largest population in the world. The data has been collected from various secondary sources. To study the trends of area and production of major vegetables has been collected from 2001-2019. To study the performance of vegetables, productivity has been calculated. Among all the vegetables, potato, onion, tomato and brinjal contribute maximum area and production. The vegetables are restricting to particular geographical condition so there is a need to increase the crop diversification to enhance the productivity, nutrition and food security.

Keywords: Horticulture Sector, India, Productivity

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INTRODUCTION

In agriculture, horticulture comprises major share in India. Agriculture contributes about 17 - 18% in National GDP and horticulture alone shares about 30% of total agriculture GDP. Horticulture includes fruits, vegetables, flowers, spices, medicinal and aromatic crops. India is the second largest producer after China. The total area and production of vegetables are 10.1 mha and 184 mt (approx.) respectively, [1-3]. Among all states, Uttar Pradesh placed at first rank followed by West Bengal, Bihar, etc in total vegetable production. Potato occupied first place in total production. The major vegetables are being grown in India, Cauliflower, cabbage, okra, brinjal, cucurbits, etc. Fruits and vegetables are essential parts of our diets. Among all horticultural crops, vegetables recommended highest by ICMR. Therefore, vegetables occupy essential concern regarding production and productivity. The per capita recommended vegetable per day is 300 g per person per day (ICMR). Therefore, the vegetables require extra emphasis to improve production and productivity of it to feed the second largest population in the world.

MATERIAL AND METHODS

The data has been collected from various secondary sources. To study the trends of area and production of major vegetables has been collected from 2001-2019. To study the performance of vegetables, productivity has been calculated. The productivity of vegetables has been calculated as follows:

Productivity = Production / area

Productivity measures in terms of MT/Hectare.

To study the extent of vegetables grown in different states of India, the percentage share of area under vegetables has been calculated.

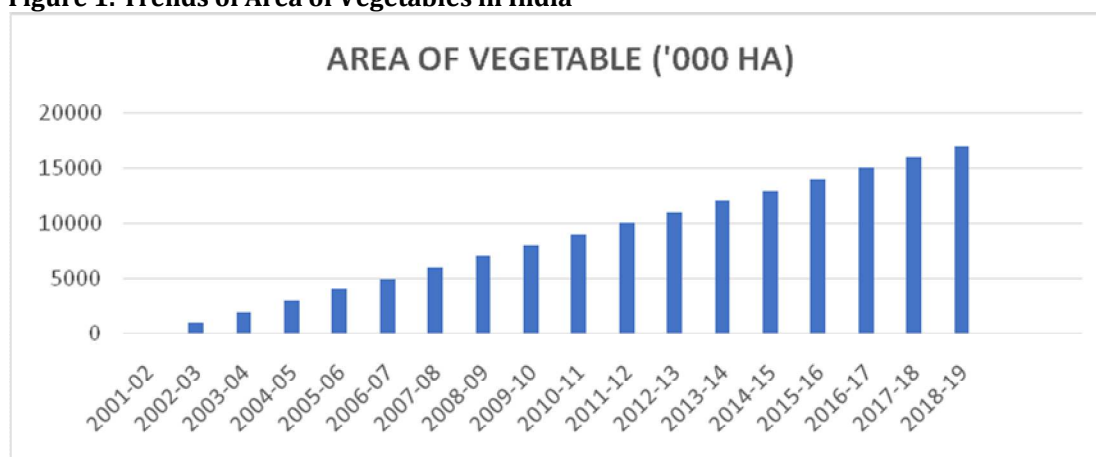
RESULT AND DISCUSSION

Area, Production and Productivity of Vegetables in India

In table 1, we can observe that the area under vegetable show an increasing trend except in 2002-03 and 2003-04. In 2002-03, comparatively less production was observed otherwise it shows increasing trend as well.

The productivity data shows a fluctuating result as depicted in figure 1.

Figure 1. Trends of Area of Vegetables in India

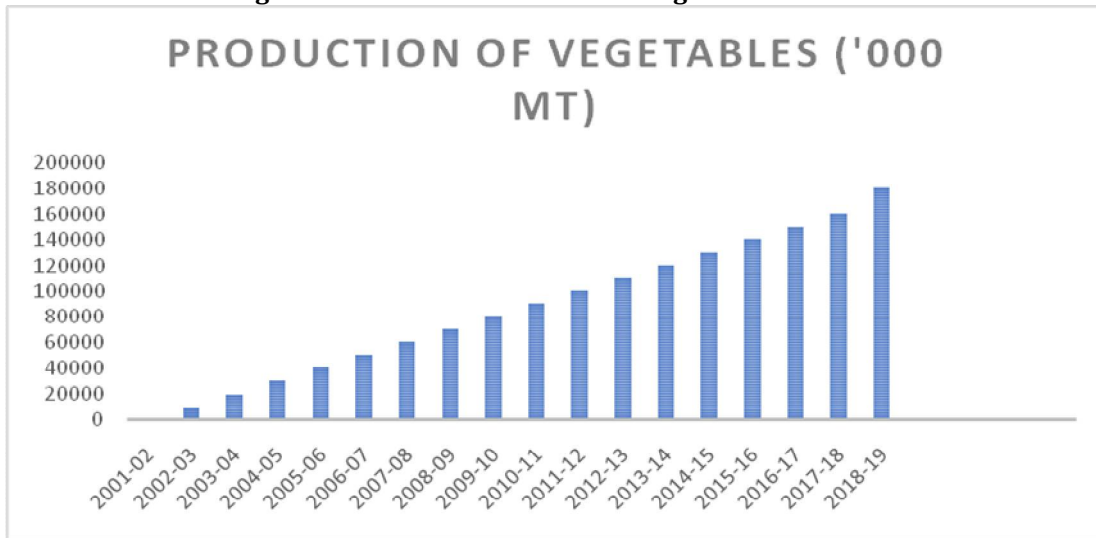


From figure 1, we can observe that area under vegetable from 2001 till 2004 remains constant whereas from 2004-05 sudden increase was found which continues till.

Table 1. Area, Production and Productivity of Vegetables

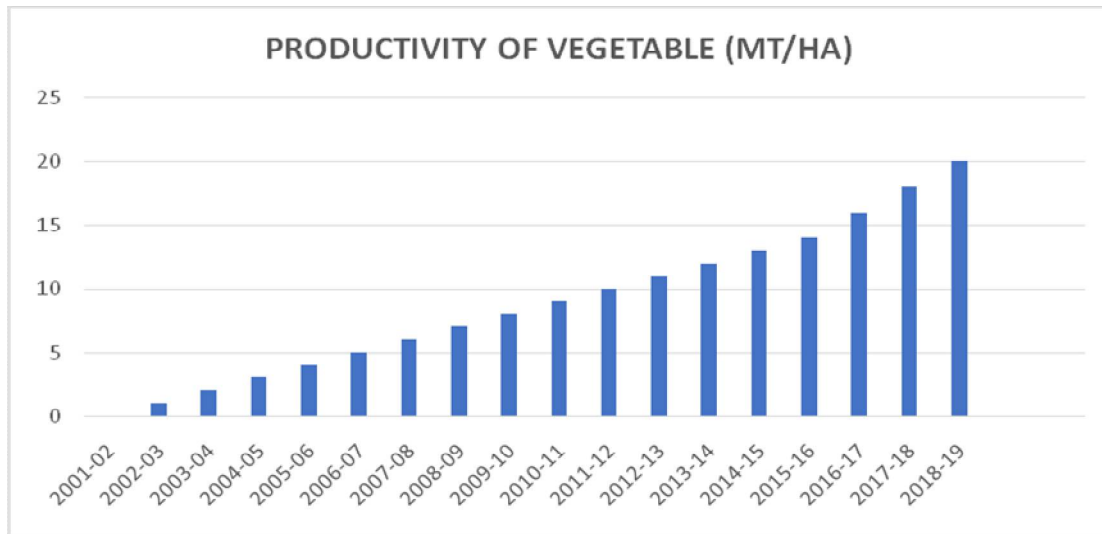
Year	A ('000 Ha)	P ('000 MT)	Pdy. (MT/Hectare)
2001-02	6156	88622	14.4
2002-03	6092	84815	13.92
2003-04	6082	88334	14.52
2004-05	6744	101246	15.01
2005-06	7213	111399	15.44
2006-07	7581	114993	15.17
2007-08	7848	128449	16.37
2008-09	7981	129077	16.17
2009-10	7985	133738	16.75
2010-11	8495	146554	17.25
2011-12	8989	156325	17.39
2012-13	9205	162187	17.62
2013-14	9396	162897	17.34
2014-15	9542	169478	17.76
2015-16	10106	169064	16.73
2016-17	10238	178172	17.4
2017-18	10259	184394	17.97
2018-2019	10100	185883	18.40

Figure 2. Trends of Production of Vegetables in India



The production trend of vegetable was depicted in figure 2. It shows a decline trend from 2001-02 to 2002-03 but regain it from 2003-04 and continuously showing positive trend till 2017-19.

Figure 3. Trends of Productivity of Vegetables in India



An irregular trend was observed in figure 3 depicting the productivity of vegetables. We observed downfall in the year 2002-03, 2006-07 and 2015-16, respectively.

Table 2. Major vegetable producing states

State	Share (%)
Uttar Pradesh	15.4
West Bengal	15
Madhya Pradesh	9.5
Bihar	8.6
Maharashtra	6.7
Gujarat	6.6
Odisha	4.8
Karnataka	4.6
Haryana	3.9
Chhattisgarh	3.7
Others	21.2

From table 2, we can observe that among the different states, Uttar Pradesh shares the highest percentage of area under vegetable followed by West Bengal and Madhya Pradesh.

Extent of area and production of major vegetables in India

Table 3. Area and Production of major vegetables

Crops	2018-19	
	Area ('000 ha)	Production ('000 MT)
Beans	228	2257
Bittergourd	99	1198
Bottlegourd	186	3052
Brinjal	728	12660
Cabbage	399	9095
Capsicum	34	487
Carrot	108	1865
Cauliflower	469	9103
Cucumber	109	1696
Chillies (Green)	364	3720
Elephant Foot Yam	35	917
Mushroom		*173
Okra/Ladyfinger	513	6170
Onion	1263	23485
Parwal/Pointed gourd	55	740
Peas	551	5533
Potato	2161	53027
Radish	202	3145
Pumpkin/Sitaphal/ Kaddu	94	2030
Sweet Potato	116	1207
Tapioca	177	5484
Tomato	778	19397
Others	1431	19441
Total Vegetables	10100	185883

*Data reported by Directorate of Mushroom Research, Solan

As per table 3, among the major vegetable grown in India, potato occupies the highest area of 2.16 mha followed by onion i.e 1.26 mha. In terms of production, potato production is about 53 mt and that of onion is 23.4 mt, respectively and work supported by [3-8].

CONCLUSION

India is a second largest producer of vegetables after China. Among all the vegetables, potato, onion, tomato and brinjal contribute maximum area and production. The vegetables are restricting to particular geographical condition so there is a need to increase the crop diversification to enhance the productivity, nutrition and food security. Potato is regarded as the king of vegetable because of its ease in availability, more consumption, etc.

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