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Status of Chickpea (*Cicer arietinum*) Cultivation in India - An Overview

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Abstract

Chickpea is one of the major components of Indian diet which accounts for nearly 112 lakh tonnes of production during 2018-19. India stands first in the area and production of chickpea among all the chickpea producing countries of the world. It can be attributed to reasons like favourable environment, high yielding seeds, more acceptances among farmers, huge market. In India states like Madhya Pradesh, Maharashtra, Rajasthan contributes to about more than 50 percent of chickpea production in India. Chickpea accounts for nearly 70 percent of pulse export from India. This paper presents the status of chickpea production from 2009-2019 in India.

Introduction

Chickpea (*Cicer arietinum*) otherwise called Bengal gram is the most important pulse crop of India as it constitutes nearly 50 percent of pulses production. In India, chickpea is used as dhal and vegetable, because of its high nutrient content and good protein source. It contains nearly 21-30 percent protein. Desi and Kabuli are the two varieties of chickpea. India stands first in the area and production of chickpea followed by Australia, Myanmar and Pakistan. The production status from 2009 to 2019 both national and state wise has been discussed.

Importance

Chickpea is a valued crop and provides nutritious food for an expanding world population and will become increasingly important with climate change. Chickpea is grain legumes grown mainly in areas with temperate and semiarid climate. It is characterized by a high content of protein, fat, vitamins, fibre, and a lower content of carbohydrates than flour of wheat.

National Analysis

In 2018, chickpea was cultivated in about 106 Lakh Hectares which is the maximum production during the last decade. The country harvested a record production of about 112 Lakh Tonnes at a highest productivity of 1063 kg/ha. The area of cultivation, production and production during the last decade is shown in Table 1. Figure 1 gives a clarity about the area and production of chickpea from 2009 to 2019. It shows that there are varied fluctuations in the production of chickpea.

State-wise Analysis

About 98 percent of gram production of the country has been recognized by major chickpea growing states like Madhya Pradesh, Maharashtra, Rajasthan, Karnataka, Andhra Pradesh, Uttar Pradesh, Chhattisgarh, Gujarat,

Table 1: Area, production, productivity of chickpea from 2009 to 2019 in India

Year	Area (Mha)	Production (MT)	Productivity (kg/ha)
2009 - 2010	8.17	7.48	915
2010 - 2011	9.19	8.22	894
2011 - 2012	8.30	7.70	928
2012 - 2013	8.52	8.83	1036
2013 - 2014	9.93	9.52	960
2014 - 2015	8.25	7.66	889
2015 - 2016	8.40	7.06	840
2016 - 2017	9.63	9.38	974
2017 - 2018	10.56	11.38	1078
2018 - 2019	9.44	10.13	1073

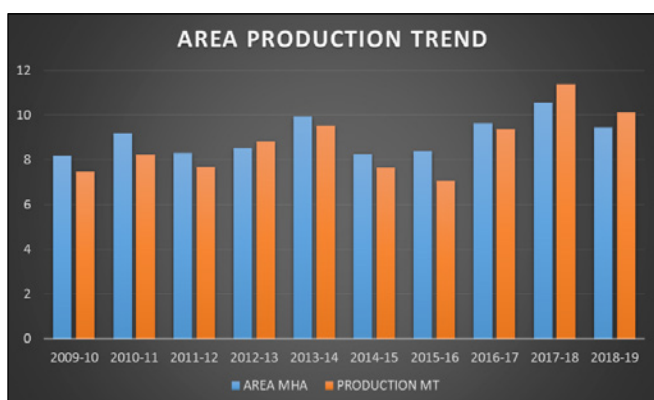


Figure 1: Area and production trend of chickpea

Jharkhand and Telangana. Figure 2 describes about the state wise share in production of chickpeas. Table 2, 3 and 4 shows the state wise analysis of area, production, and productivity of chickpea from 2009- 2019 respectively.

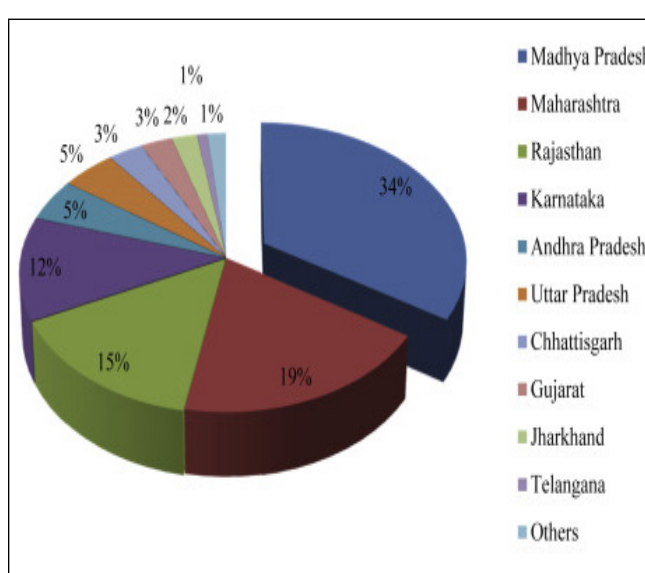


Figure 2: State wise share in production of chickpea

2017-18 respectively. The top five export destinations for chickpea are Algeria (19.7%), Pakistan (12.5%), Turkey (9.7%), UAE (8.7%), and Saudi Arab (7.2%).

Export Scenario

Chickpea contributes a single largest share in India’s export basket of pulses registering 63.73% and 70.92% share in the total pulses export during 2016-17 and

Table 2: State wise analysis of area of chickpea from 2009-2019 in Mha

States	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
Madhya Pradesh	3.08	3.11	3.04	3.12	3.16	2.90	3.26	3.01	3.599	3.43
Maharashtra	1.29	1.42	1.05	1.12	1.82	1.19	1.44	1.89	1.29	1.57
Rajasthan	8.84	1.78	1.43	1.25	1.92	1.49	1.25	1.94	1.60	1.57
Karnataka	0.97	0.96	0.79	0.96	0.94	0.93	0.92	0.90	1.27	1.09
Andhra Pradesh	0.64	0.58	0.56	0.68	0.58	0.39	0.45	0.32	0.52	0.48
Uttar Pradesh	0.68	0.57	0.577	0.60	0.57	0.58	0.54	0.53	0.50	0.57
Chhattisgarh	0.25	0.25	0.24	0.26	0.27	0.26	0.25	0.23	0.32	0.32
Jharkhand	0.063	0.065	0.14	0.13	0.15	0.140	0.13	0.12	0.23	0.19
Gujarat	0.13	0.19	0.24	0.17	0.24	0.18	0.15	0.23	0.29	0.17

Table 3: State wise analysis of production of chickpea from 2009-2019 in MT

States	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
Madhya Pradesh	3.33	2.68	3.29	3.81	3.29	3.54	3.22	3.26	4.60	4.61
Maharashtra	1.11	1.32	0.081	0.085	1.60	0.034	0.73	1.64	1.07	1.69
Rajasthan	5.34	1.60	0.091	1.27	1.64	1.22	0.92	0.80	1.76	1.69
Karnataka	0.57	0.60	0.37	0.62	0.71	0.66	0.89	0.30	0.78	0.57
Andhra Pradesh	0.84	0.72	0.52	0.76	0.84	0.55	0.37	0.50	0.59	0.24
Uttar Pradesh	0.50	0.53	0.72	0.67	0.47	0.59	0.53	0.53	0.58	0.73
Chhattisgarh	0.24	0.22	0.24	0.28	0.21	0.24	0.20	0.24	0.32	0.33
Jharkhand	0.057	0.052	0.15	0.16	0.18	0.16	0.17	0.15	0.29	0.22
Gujarat	0.12	0.23	0.27	0.16	0.30	0.20	0.35	0.21	0.38	0.23

Table 4: State wise analysis of productivity of chickpea from 2009-2019 in kg/ha

States	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
Madhya Pradesh	1071	863	1081	1219	1044	1219	840	973	1280	1344
Maharashtra	863	930	775	763	891	697	700	820	829	1074
Rajasthan	605	898	691	1019	853	818	735	820	1103	1074
Karnataka	591	626	473	643	757	712	750	720	619	525
Andhra Pradesh	1308	1235	920	1119	1439	1403	1350	1209	1132	506
Uttar Pradesh	824	930	1248	1119	829	1013	1144	1098	1272	1155
Chhattisgarh	959	880	945	1069	771	942	950	850	1010	1026
Jharkhand	914	800	1036	1174	1166	1091	1020	1205	1228	1143
Gujarat	947	1172	1138	978	1251	1132	1050	1239	1285	1324

Conclusion

On analysing the state wise data, it is clear that Madhya Pradesh stands first in the total gram area and production followed by Maharashtra and Rajasthan. It was also noticed that there is a wide variation in the area, production and productivity from 2009 to 2019. The increase could be due to well supportive environment and climate whereas the decrease is due to certain reasons like adverse climate, more rainfall than normal, sudden pest incidence, etc. As Chickpea is the major important crop among the pulses a slight decrease in production affects the economy.

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