

A REVIEW OF COMPOUND GROWTH RATE OF AREA, PRODUCTION AND
PRODUCTIVITY OF CAULIFLOWER IN DURG DISTRICT COMPARED TO
CHHATTISGARH

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ABSTRACT

In this paper we have analysed and reviewed the growth in the area, production and productivity of Cauliflower crop in Durg district of Chhattisgarh state. The data we have taken is the secondary data from the website of agriculture department of Chhattisgarh for 10 years (2012-13 to 2021-22). The secondary data of Durg district is compared with that of Chhattisgarh. The data shows that the area of production for Cauliflower crop has increased from 2910 ha. (2012-13) to 3218 ha. (2021-22) in Durg district with CAGR of 1.01%. In the same period the area of Cauliflower crop has increased from 19573 ha. to 24237 ha. in Chhattisgarh with CAGR of 2.16%. The production of Cauliflower crop has increased from 58229 MT (2012-13) to 66548 MT (2021-22) in Durg district with CAGR of 1.34%. In the same period the production of Cauliflower crop has increased from 341993 MT to 483028 MT in Chhattisgarh with CAGR of 3.51%.

Keywords: Production, growth pattern, CAGR

INTRODUCTION:

India is second in terms of vegetable and fruit production in the world, with around 210 million tonnes of production of vegetable in approximately 11.5 million ha. during year 2021-22, so India can be considered as vegetable basket of the world. Cauliflower is one of the most important vegetables of India. It is rich in vitamin and minerals. Its consumption is increasing day by day because of introduction of Chinese food in India. India accounts for over 15.2 % production area for vegetable with over 14.3% of the world's production. India's climate is very much suitable for vegetable production. India is highest producer of ginger and okra in the world

whereas 2nd largest producer of potato, onion, cabbage, cauliflower, and brinjal. With this huge amount of production, it gives opportunity for the export as well. India exported vegetable worth of rupees around 6000 crores and processed vegetables of around 8400 crores in FY 2021-22. In India UP is first in production of vegetable with around 28 million MTs of production whereas Chhattisgarh is 10th with around 7 million MTs of production during 2017-18.

ANALYTICAL TOOLS

Calculation of compound average growth rate:

Calculation of compound annual growth rate for area, production and productivity will be done by the formula:

$$\left[\frac{\text{Final Value}}{\text{Initial Value}} \right]^{\frac{1}{n}} - 1, \text{ where } n \text{ is the number of years into consideration.}$$

RESULT AND DISCUSSION:

The following table shows the compound annual growth rate of area, production and productivity of Cauliflower crop in Durg district as well as Chhattisgarh during 2012-13 to 2021-23

Table 1: CAGR of Area, Production and Productivity.

Sr. No.	Region	CAGR in Area	CAGR in Production	CAGR in productivity
1.	Durg	1.01%	1.34 %	0.33 %
2.	Chhattisgarh	2.16%	3.51 %	1.32 %

Table 1 represents the CAGR of area, production and productivity of Cauliflower crop in Durg as well as Chhattisgarh. The CAGR of area in Durg district is only 1.01% which is significant whereas the CAGR of area for Chhattisgarh is 2.16% which is more than that of Durg district, Similarly the CAGR for production of Cauliflower crop in Durg district is 1.34% as compared to CAGR for Chhattisgarh is 3.51%. The CAGR for productivity of Chhattisgarh is higher as compared to Durg district.

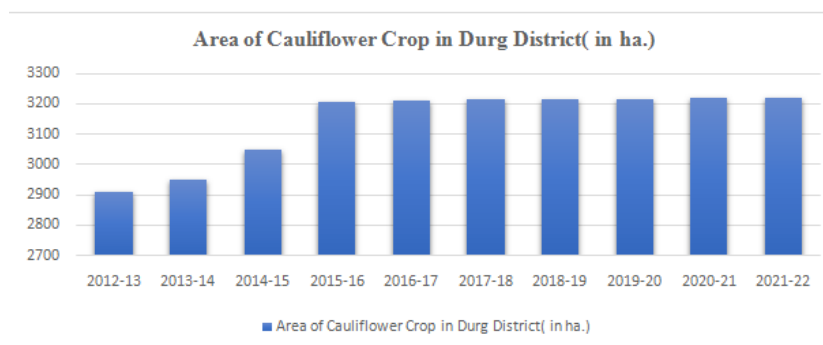
Table 2 Area, Production and Productivity in Durg district during 2012-13 to 2021-22.

Sr. No.	Year	Area (in Ha.)	Production (in MT)	Productivity (MT/Ha.)
1.	2012-13	2910	58229	20
2.	2013-14	2950	59000	20

3.	2014-15	3050	64050	21
4.	2015-16	3207	66297	20.67
5.	2016-17	3210	66375	20.67
6.	2017-18	3215	66486	20.67
7.	2018-19	3217	66528	20.68
8.	2019-20	3217	66528	20.68
9.	2020-21	3218	66548	20.67
10.	2021-22	3218	66548	20.67

(Source:- agriportal.cg.nic.in)

The above table shows area, production and productivity during FY 2012-13 to FY2021-22 in Durg district. Data clearly shows that area of Cauliflower crop increased from 2910 ha. to 3218 ha. in the above said period, similarly in the same period the production increased from 58229 MTs to 66548MTs. The above data is also shown with the help of charts.



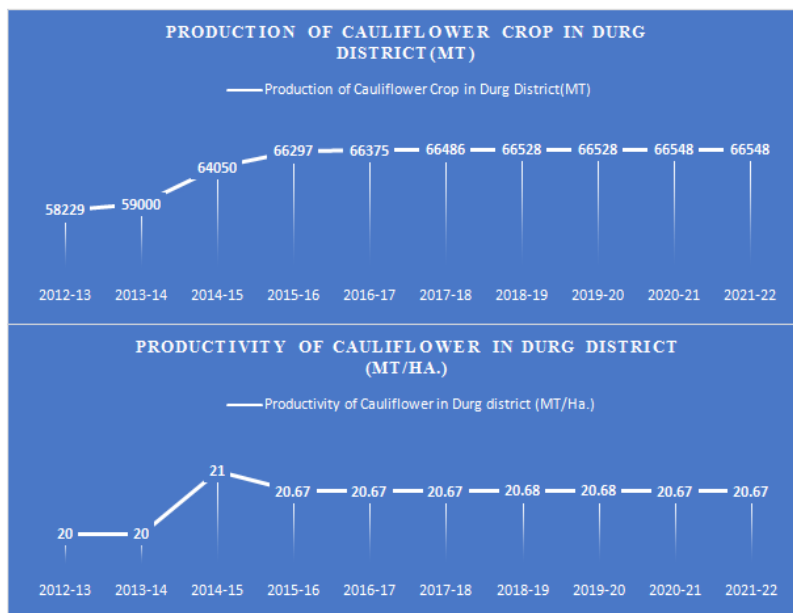
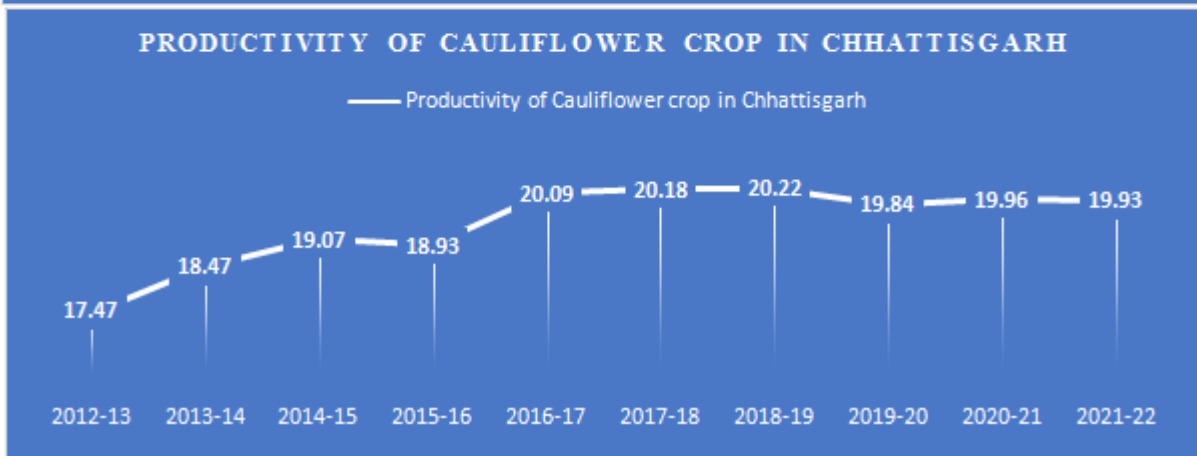
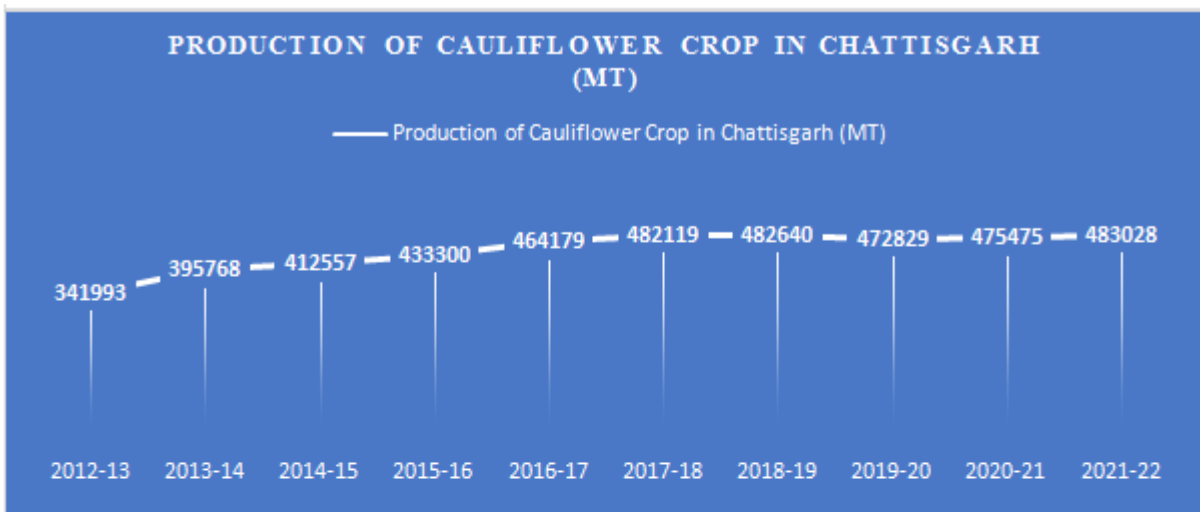
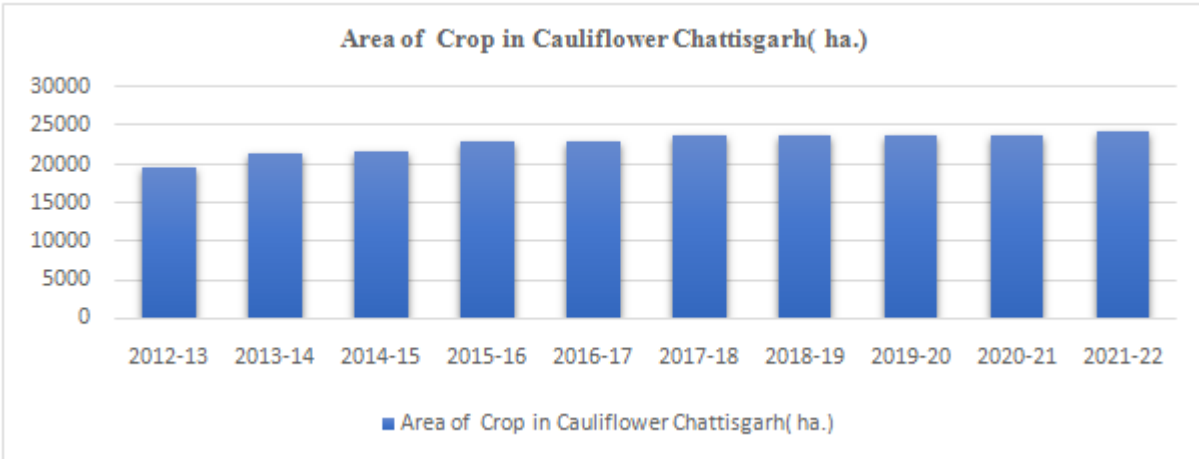


Table 3 Area, Production and Productivity in Chhattisgarh during 2012-13 to 2021-22.

Sr. No.	Year	Area (in Ha.)	Production (in MT)	Productivity (MT/Ha.)
1.	2012-13	19573	341993	17.47
2.	2013-14	21425	395768	18.47
3.	2014-15	21624	412557	19.07
4.	2015-16	22886	433300	18.93
5.	2016-17	23096	464179	20.09
6.	2017-18	23890	482119	20.18
7.	2018-19	23868	482640	20.22
8.	2019-20	23830	472829	19.84
9.	2020-21	23817	475475	19.96
10.	2021-22	24237	483028	19.93

(Source:- agriportal.cg.nic.in)

The above table shows area, production and productivity during FY 2012-13 to FY 2021-22 in Chhattisgarh. Data clearly shows that area of Cauliflower crop increased from 19573 ha. to 24237 ha. in the above said period, similarly in the same period the production increased from 341993 MTs to 483028 MTs. The above data is also shown with the help of charts.



CONCLUSION:-

The following conclusions can be drawn from the above discussion. The data is for the period of 2012-13 to 2021-22. For the same period the CAGR of Area forCauliflower found to be1.01% for Durg district whereas 2.16% for Chhattisgarh state, both the data are significant. The CAGR

of Production for Cauliflower crop is found to be 1.34% for Durg district whereas 3.51% for Chhattisgarh state, both the data are significant. The CAGR of Productivity for Cauliflower crop is found to be 0.33% for Durg district whereas 1.32(Verma, 2023)% for Chhattisgarh state.

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