



VARIETY-WISE CBR OF GINGER CULTIVATION: A COMPARATIVE STUDY OF SATARA AND AURANGABAD DISTRICT

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INTRODUCTION:

At International level India is a second largest ginger cultivating country having an area of 4,27,423 hectares with a production of 16,18,627 tons in World. Other important producer countries are China, Indonesia, Nepal, Nigeria, Bangladesh, Thailand, Philippines, Cameron and U.S.A. The countries importing the highest amount of ginger are the United States, Bangladesh and United Kingdom. Behalf of these ginger having an area of 1,05,500 hectares with a production of 5,17,800 tones in India. Major production of this important spice crop is confined to Assam, Kerala, Gujarat, Mizoram, Sikkim, Arunachal Pradesh, Orissa, and Maharashtra.

Ginger commonly called '*Aale*' is grown in an area of 3,426 hectares with a production of 34,267 metric tons in Maharashtra. More than 35 percent of the area and production is mainly from Satara district and hence ginger cultivation is the backbone of the farmers. Area under different exotic varieties like, Maran, Rio-De-Janiro, Udaypuri, Chhattisgarh, Godhra, Bangalore, Himachal and Suprabha gradually increases in different pockets of Maharashtra.

And hence here is an attempt to try the comparative study of different varieties of ginger cultivated in Satara and Aurangabad district of Maharashtra State.

STUDY REGION:

The study region selected for present investigation is Maharashtra State in general as well as Satara and Aurangabad districts of the State in particular. Maharashtra State is located in central part of India between 15°44' to 20°60' North latitudes and 72°36' to 80°54' East longitudes and drains the Godavari, Bhima and Krishna rivers. Having 3,07,762 sq. km. area (9.36 percent of India), state is divided in 36 districts and it support 11,23,72,972 population. Geographically the state divided into two broad categories one is 'Konkan' and other one is 'Maharashtra Plateau'.

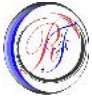
The daily maximum temperature in hot season is 32°C to 42°C while the daily minimum temperature in cold season is between 12°C to 20°C. The region receives rainfall mainly from south-west monsoons, ranging between 5000 mm. to 200mm. Broadly the year may be divided into three seasons. The study region including black soil, lateritic soil, alluvial soil and brown soil in different pockets.

OBJECTIVES:

In view of the above present investigation, aims to analyse the comparative study of different varieties cultivated in Satara and Aurangabad district of Maharashtra.

DATABASE:

Basically particular study is based on primary data. Primary data is collected through



intensive field sample survey and observations with the help of questionnaire and schedule technique.

METHODOLOGY:

Ginger gives lucrasive gain than any other spice crops. And hence researcher selects ginger for detail investigation. Then Maharashtra state is selected in general as well as Satara and Aurangabad district of this state in particular on the basis of highest area under ginger cultivation. Both the district shares 49.18 percent area of ginger as compare to Maharashtra. Whereas 28 villages from 7 tahsils in Satara district and 12 villages from 6 tahsils in Aurangabad district selected for present investigation. The stratified random sampling (10%) method has been adopted for the selection of villages. 84 growers from 28 villages in Satara district and 36 growers from 12 villages in Aurangabad district selected for present investigation. Here stratified purposive sampling method used for selection of ginger growers for calculating the CBR of different varieties cultivated in study region.

LIMITATIONS:

At the time of collection of primary data it has been observed that some of the farmers purposively could not give correct and relevant information. To overcome this difficulty an attempt has been made to achieve the relevant information by consulting the educated and knowledgeable farmers of the neighborhood area.

VARIETY-WISE COST BENEFIT RATIO OF GINGER CULTIVATION:

The comparative study of different varieties of some crop is beneficial for farmers. If the information to farmers about which variety select for more productivity and it resulted into increase in the production for farmers and they earn more benefit. So that the comparative study of different varieties are essential

Table 1.1 reveals that the cost benefit ratio changes according to different variety grown. The region as a whole receives on average per hectare yield of 35,189 kg. The highest per hectare yield has been recorded by Regudi which is 41,235 kg. However the area covered by this variety is only 6.66 percent of ginger area of the study region. The Maran variety has recorded 39,727 kg./ha, Godhra (38,129 kg./ha) and Udaypuri recorded 37,000kg /ha. It has been observed that per hectare yield of above varieties is more than Himachal (37,873 kg) and Suprabha (32,008 kg.). Lowest yield per hectare has been observed from Mahim locally called Satari in Satara district is 29,441 kg/ha and Mahim locally called Aurangabadi in Aurangabad district is 31,102 kg./ha. Both Satari and Aurangabadi which constitutes an area of about 41.89 percent to total area under ginger cultivation in study region.

Particular table also reveals that the region as a whole receives on an average per hectare cost of production is 4,70,127.62. It is observed that the highest per hectare cost has been recorded by Godhra variety which is Rs. 5,03,326.17. However Aurangabadi variety recorded lowest gross cost which is 4,33,905.27 Rs./ha. The gross cost of Godhra, Suprabha, Udaypuri and Himachal is higher than the regional average. While the Regudi, Maran, Satari and Aurangabadi variety has lower gross cost than regional average.

The analysis reveals that the gross return from Regudi, Maran, Godhra and Udaypuri is greater than the regional average and varieties like Suprabha, Himachal, Satari and Aurangabadi is lower than the regional average.

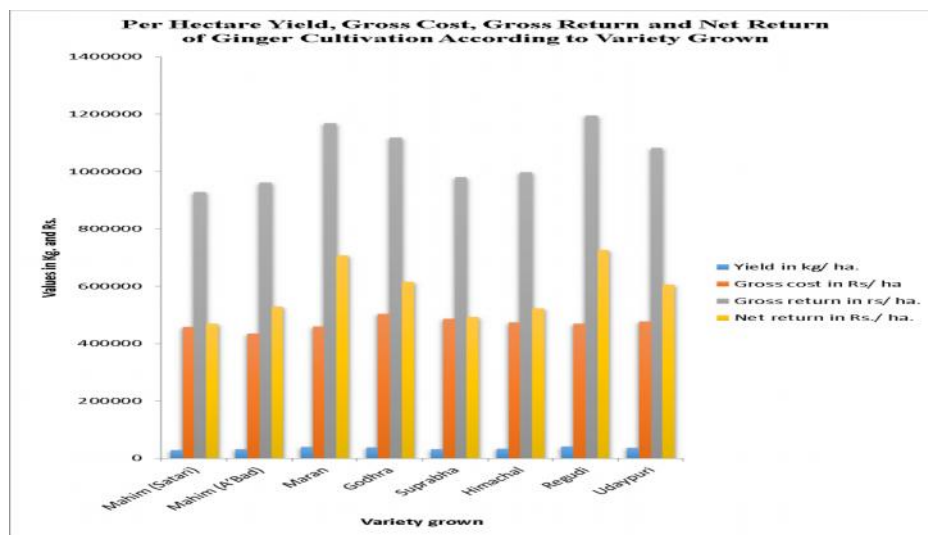
Besides this observation reveals that the highest net returns received from Regudi variety is Rs.7,26,716.16 which is greater than the regional average of Rs. 5,83,796.12. Then Maran (Rs. 7,07,761.9), Godhra (Rs. 6,15,476.9) and Udaypuri (Rs. 6,06,294.4) which is always greater than regional average. Besides this variety like Aurangabadi (Rs. 5,28,216.49), Himachal (Rs. 5,23,194.16), Suprabha (Rs. 4,93,145.8) and Satari (Rs. 4,69,641.21) which is lower than the regional average of Rs. 5,83,796.12.

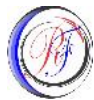
Lastly cost benefit ratio per hectare of ginger crop at regional level is 1:2.24. The micro level analysis according to variety clearly indicates that the highest cost benefit ratio has been obtained by Regudi (1:2.55), followed by Maran (1:2.53), Udaypuri (1:2.27) and Godhara (1:2.22). Behalf of this Aurangabadi (1:2.21), Himachal (1:2.10), Satari (1:2.02) and below the regional average.

Table 1.1
Per Hectare Yield, Gross Cost, Gross Return, Net Return And Cost Benefit Ratio Of Ginger Cultivation According To Variety Grown

1	2	3	4	5	6	7	8	9	10	11	12	13
Variety	Sample District	Total Sample growers in no. & in (%)	Total Area observed in ha.	Total yield in kg.	Yield in kg/ ha.	Gross cost in Rs/ ha	Total Return in Rs./ ha from ginger	Total Return in Rs./ ha. Intercrop	Gross return in Rs/ ha.	Net return in Rs./ ha.	C.B.R.	Rank
Mahim (Satari)	Satara	29 (24.16)	13.61	400692	29441	4,58,370.42	7,65,466	1,62,545.63	9,28,011.63	4,69,641.21	2.02	7
Mahim (A'Bad)	Satara	18 (15)	7.88	2,38,464	30262	4,37,639.13	7,86,812	1,56,232.87	9,43,044.87	5,05,405.74	2.15	
	Aurangabad	36 (30)	29.47	9,41,330	31,942	4,30,171.41	8,30,492	1,50,706.66	9,81,198.66	5,51,027.25	2.28	
Average			18.67	5,80,674	31,102	4,33,905.27	8,08,652	1,53,469.76	9,62,121.76	5,28,216.49	2.21	5
Maran	Satara	10 (8.33)	6.57	2,61,006	39,727	4,60,271.79	10,32,902	1,35,131.69	11,68,033.69	7,07,761.90	2.50	2
Godhra	Satara	04 (3.33)	2.1	80,070	38129	5,03,326.17	9,91,354	1,27,449.07	11,18,803.07	6,15,476.90	2.22	4
Suprabha	Satara	05 (4.16)	3.42	1,09,467	32008	4,86,381.39	8,32,208	1,47,319.19	9,79,527.19	4,93,145.8	2.01	8
Himachal	Satara	04 (3.33)	1.98	65,088	32857	4,73,717.27	8,54,698	1,42,213.43	9,96,911.43	5,23,194.16	2.05	6
Regudi	Satara	08 (6.66)	6.8	2,80,398	41235	4,68,571.78	10,72,110	1,23,177.94	11,95,287.94	7,26,716.16	2.55	1
Udaypuri	Satara	06 (5.00)	5.22	1,93,140	37000	4,76,476.87	9,62,000	1,20,771.27	10,82,771.27	6,06,294.40	2.27	3
			77.05	27,34,000	35,189	4,70,127.62	3,14,914	1,39,009.74	10,53,923.75	5,83,796.12	2.24	

Source: Compiled by the researcher through intensive fieldwork





CONCLUSION AND RECOMMENDATIONS:

The aforesaid analysis reveals that Rio-De-Janeiro locally called Regudi variety of ginger gives maximum yield and net returns. As well as highest cost benefit ratio obtained from Regudi variety. However the area covered by this variety is only 6.66 percent of ginger area of the total area under ginger cultivation in the study region.

The improved varieties like Regudi, Maran, Udaypuri Godhara Himachal are high yielding but partially adopted in Satara district. On other hand in Aurangabad district only Aurangabadi variety is used. The main reason behind that through these improved varieties gives high net returns; the farmers have very little information about these varieties. As well as the improved varieties are highly susceptible to pest and diseases, such miss understanding are there. After all, though the local varieties has low yield however they have assurance to ginger growers than improved variety, so they do not adopt these improved varieties.

It observed from the above discussion researcher strongly recommended that in the study region, cultivators adopt high yielding improved varieties like Regudi, Maran as well as Udaypuri than that of local variety Mahim for the betterment of ginger cultivators.

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