

## SIZE OF HOLDING-WISE CBR OF GINGER CULTIVATION : A COMPARATIVE STUDY OF SATARA AND AURANGABAD DISTRICT

**Dr. P. Y. Salunkhe** - Assistant Professor, Department of Geography, Shikshanmaharshi Bapuji Salunkhe Mahavidyalaya, Karad, Dist. Satara (MS)

**Prof. S. A. Kakade** - Assistant Professor, Department of Geography, Shikshanmaharshi Bapuji Salunkhe Mahavidyalaya, Karad, Dist. Satara (MS)

### **ABSTRACT:**

Size of holding is crucial socio-economic criterion providing the base for production efficiency in agriculture. It also guides the motivations and production efforts of farmers with regard to the choice of agricultural enterprises and production techniques, influencing the peasant's way of life, which affects the adoption of innovations and technology in agricultural practices.

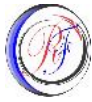
In view of the above present investigation, aims to analyse the comparative study of cost benefit ratio from ginger cultivation for three different sizes of holdings in Satara and Aurangabad district of Maharashtra. Whereas 28 villages from 7 tahsils in Satara district and 12 villages from 6 tahsils 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 sizes of holding in study region.

The short CBR of ginger for small size of holdings (1:2.43) is higher than medium (1:2.27) and large size of holdings (1:2.07). CBR of ginger for small size of holdings is higher due to all field operations in right time, spraying and fertigation of liquid fertilizers, compulsory earthing-up, all work done by own family labour, used ginger seed rhizome from his own ginger plot and they try to get maximum yield from intercropping also.

### **INTRODUCTION:**

Indian agriculture has been in doldrums for a long time. However agriculture is the backbone of Indian economy. Whereas inadequate and inferior production of cash crops is one of the problems being faced by Indian agriculture. So it is the need of the time to increase the area under cash crops and their productivity and quality as an alternative for traditional food crops. Cultivation of condiments and spices has good scope in India. In fact, varied agro climatic conditions prevailing in India are suitable to grow almost all spices.

India is known as "The Home of Spices". Ginger is one of the important spice crop having an area of 4,27,423 hectares with a production of 16,18,627 tons in World. At international level India is a second largest country with 27.24 percent of the total global production of ginger. Other important producer countries are China, Indonesia, Nepal, Nigeria, Bangladesh, Thailand, Philippines, Cameroon 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 49 percent of the area and production is mainly from Satara and Aurangabad district and hence ginger cultivation is the backbone of the particular farmers.

And hence here is an attempt to try find out size of holding-wise cost benefit ratio (CBR) of Satara and Aurangabad district of Maharashtra State which is further guide for remaining ginger growers.

### **STUDY REGION:**

Maharashtra State is selected for present investigation 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 is placed in different pockets.

### **OBJECTIVES:**

To analyse the cost benefit ratio (CBR) from ginger cultivation for three different sizes of holdings in Satara and Aurangabad district of Maharashtra State.

### **DATABASE:**

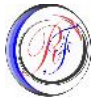
Particular investigation is based on primary data. Primary data is collected through intensive field sample survey and observations with the help of questionnaire and schedule technique.

### **METHODOLOGY:**

Researcher select ginger crop for detail investigation because its lucrative gain than any other spice crops. 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 sizes of holding 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.

### **HOLDING-WISE COST BENEFIT RATIO OF GINGER CULTIVATION:**

Size of holding is crucial socio-economic criterion providing the base for production efficiency in agriculture. It also guides the motivations and production efforts of farmers with regard to the choice of agricultural enterprises and production techniques, influencing the peasant's way of life, which affects the adoption of innovations and technology in agricultural practices. Particularly, the fruit farming enterprises is very sensitive higher skill requiring new approach and technology based. In this regard the socio-economic status of farmers has prime consideration. (Pawar and Phule 2001)

The size of holding and the size of farm decide the degree of risk that a farm operator may bear. In general, larger the size of the farm, greater the capacity of the farmer to take the risk and vice versa (Husain Majid, 2004) It is noteworthy that the size of holding is a prime important factor in ginger production which gives specific way for ginger cultivators for getting more yield in study region. And hence researcher is an attempt to try analysis the size of holding-wise cost benefit ratio (CBR) of ginger cultivation in the study region.

Table 1.1 reveals yield in kg /ha, gross cost in Rs./ha, net return Rs. /ha and cost benefit ratio from ginger cultivation for three different size of holdings. Analysis shows that cost benefit ratio from ginger cultivation of three different sizes of holdings. The region as a whole receives on an average per hectare yield of 35,189 kg. The highest per hectares yield has been recorded by large size growers of 38,417 kg per hectares followed by medium and small growers receives yield of 35,496 kg and 31,654 kg per hectares respectively.

Particular table also reveals that the region as a whole receives on an average per hectares cost of production is Rs. 4,70,127.62 in which highest per hectares cost has been recorded by large size growers of Rs. 5,44,250.25 followed by medium and small growers spent Rs.4,66,722.12 and 3,99,410.49 respectively. The analysis reveals that large size of growers i.e. Rs. 4,66,722.12 and Rs. 3,99,410.49 respectively.

The analysis reveals that small growers gross returns of Rs.9,70,837.86 is lower than the regional average of Rs.10,53,923.75 followed by medium and large holding growers i.e.10,61,437.31 and Rs.11,29,496.08 respectively.

Observation reveals that there is a positive relation between the size of holdings and the net returns. The small growers net returns of Rs.5,71,427.37 is lower than the regional average of Rs.5,83,786.12 followed by large and medium holdings Rs.5,85,24.83 and Rs. 5,94,715.19 respectively per hectares.

Cost benefit ratio(CBR) per hectares of this crop at regional level is 1:2.24 whereas the highest cost benefit ratio has been obtained in case of small size of holding growers i.e.1:2.43 followed by medium and large holding growers i.e.1:2.27 and 1:2.07 respectively.



**Table 1.1**  
**Per Hectare Yield, Gross Cost, Gross Return, Net Return And Cost Benefit Ratio Of Ginger Cultivation According To Sizes Of Holding.**

1	2	3	4	5	6	7	8	9	10	11	12	13	14
Size of farm holdings	Sample District	Sample Villages	Total Sample growers	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
Small	Satara	28	28	4.91	1,19,500	24338	368424.55	632788	172210.85	804998.85	436574.30	2.18	
	Aurangabad	12	12	4.08	1,59,000	38970	4,30,396.44	10,13,220	1,23,456.88	11,36,676.88	7,06,280.44	2.64	
	Average						31654	3,99,410.49	8,23,004	1,47,833.86	9,70,837.86	5,71,427.37	2.43
Medium	Satara	28	28	14.44	4,44,000	30747	4,79,307.55	4,99,422	1,61,035.71	9,60,457.71	4,81,150.16	2.00	
	Aurangabad	12	12	7.74	3,11,500	40245	4,54,136.70	10,46,370	1,16,046.90	11,62,416.90	7,08,280.20	2.55	
	Average						35496	4,66,722.12	9,22,896	1,38,541.30	10,61,437.31	5,94,715.19	2.27
Large	Satara	28	28	28.23	9,17,500	32500	5,87,023.32	8,45,000	1,57,094.92	10,02,094.92	4,15,071.60	1.70	
	Aurangabad	12	12	17.65	7,82,500	44334	5,01,477.19	11,52,684	1,04,213.23	12,56,897.23	7,55,420.04	2.50	
	Average						38417	5,44,250.25	9,98,842	1,30,654.07	11,29,496.08	5,85,245.83	2.07
Region Average						35189	4,70,127.62	9,14,914	1,39,009.74	10,53,923.75	5,83,796.12	2.24	

Source: Compiled by the researcher through intensive fieldwork

### **CONCLUSIONS:**

The aforesaid analysis reveals that the cost benefit ratio (CBR) changes according to the different size of holdings in ginger cultivation. Observation reveals that the CBR of small size of holdings (1:2.43) is higher than medium (1:2.27) and large size of holdings (1:2.07). Because ginger cultivation requires huge amount of capital investment and basically small holding growers do not want to take any risk. Hence for getting more returns they complete all operations in right time. These growers give special attention on spraying and fertigation of liquid fertilizers which reduces cost of production. Compulsory earthing-up of their field, all work done by own family labour, used ginger seed rhizome from his own ginger plot and they try to get maximum yield from intercropping also. And hence small size of holders get higher cost benefit ratio (CBR) than that of medium and large size of holders.

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