

## Original Research Article

# Comparative Study of Socio Economic Characteristics of Exported and Non Exported Onion Growers in Ahmednagar District

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## ABSTRACT

The present study was conducted to assess comparative Study of Socio Economic Characteristics of Exported and Non Exported Onion Growers in Ahmednagar District. Onion is commercially important bulb crop grown since ancient time in the world. India produces a significant quantity enough to meet the demands for both domestic consumption and export. The objectives of present investigation were to comparatively study the socio-economic characteristics of onion growers in Ahmednagar district of Maharashtra. Multistage sampling design was adopted in selection of district, tahsils, villages and onion growers. Ahmednagar district was purposively selected as district ranks second highest in area and production in Maharashtra. In second stage Parner and Rahuri tahsils were selected purposively. Four villages were selected randomly from each tehsil. So the data was collected from 96 onion growers out of which 48 were exportable onion growers and 48 were non-exportable onion growers through pre-tested interview schedules for the year 2019-20. The young farmers (20 to 35 years) were major group of exportable onion growers. The exportable onion growers were more educated than the non-exportable onion growers having literacy rate 100 and 93.75 per cent, respectively. The average family size in exportable onion growers was 5.5 and in non-exportable was seen 4.9. Mostly onion growers had agriculture as a whole occupation. The total land holding under exportable and non-exportable onion growers were 171 hectares and 90.1 hectares while the total area under *rabionion* was 79.4 hectares and 40.7 hectares, respectively. Cropping intensity of exportable onion farm was 189.34 per cent and non-exportable farm was 236.74 per cent.

### Keywords

Onion, Socio-economic, Exportable and non exportable, Multistage sampling

## Introduction

Onion is most important bulb crop grown since ancient time in the world. Onion belongs to family alliaceous and native of South Asia. It is generally perennial crop from seedling preparation to seed production. It is grown for its bulb which is used for consumption, flavouring and seasoning in

every kitchen. It is cultivated in country by small and marginal farmers. India produces a significant quantity enough to meet the demands for both domestic consumption and export. Major onion producing countries are China, India, USA, Russia, Turkey, Iran etc. India is second largest producer of onion with 23 per cent share in global production after China which is having 27 per cent share.

India is having 12.63 lakh hectare area under onion production in 2018-19 producing 234.85 lakh metric tonnes onion. Productivity of India is 18.6 tonnes per hectare (Source: DGCIS). Onions are cultivated almost in all states of India. The pioneer onion producing states are Maharashtra, Madhya Pradesh, Kerala, Bihar, Andhra Pradesh, Rajasthan, Gujarat etc. Maharashtra rank first in area and production of onion followed by Madhya Pradesh, Karnataka, Bihar and Rajasthan. Maharashtra contribute 38 per cent share in total national production. Maharashtra having 5.07 lakh hectare area under onion production with production of 88.54 lakh metric tonnes in 2018-19. Productivity is 17.43 tonnes per hectare (Source: Horticultural Statistics Division, DAC & FW). Nashik, Ahmednagar, Solapur, Pune are major onion growing districts in Maharashtra. Ahmednagar district is famous in onion production having second rank in area and production after Nashik district. Ahmednagar district contributes about 20 to 22 percent of the state onion production. The catchment areas of market on Ahmednagar are Sangamner, Rahuri, Parner, Newasa, Pathardi, Shrigonda having total area 1.24 lakh hectare under onion cultivation produces 14.33 lakh metric tonnes production in 2018-19. Productivity is 11.47 metric tonnes per hectare (Source: Horticultural Statistics at a Glance). With fulfilling increasing domestic consumption demand of population, India has emerged as a major exporter country. There were many ups and downs recorded in export quantity and value which is due to fluctuations in production and prices due to ban imposed on export to safeguard the interest of domestic consumers.

India ranks third in onion export having 10 per cent share in global export (Source: COMTRADE, United Nations). India exported 21.83 lakh metric tonnes of onion of value Rs. 3468.87crore in 2018-19 (Source: DGCIS Annual Export).

## **Materials and Methods**

In order to fulfill the objectives of the study, Multistage sampling method was adopted in the selection of district, tehsils, villages and onion growers. In first stage, Ahmednagar district was selected purposely because production of exportable onion is maximum. At second stage, two tehsils namely Parner and Rahuri were selected purposely among the fourteen tehsils of Ahmednagar district, because these tehsils are well known for production of exportable onion. At third stage four villages from each tehsils were selected purposely on the basis of maximum production of exportable onion.

At last stage of sampling design, from each selected villages, six onion growers who produce exportable onion and six onion growers who do not produce exportable onion were selected randomly for the study. As such, the total sample comprises of 96 onion growers in which 48 growers took production of exportable onion and 48 growers not produce exportable onion. The data covering complete agricultural year 2019-20 were collected through personal interviews by the survey method with the help of pretested questionnaire. The collected data were analyzed with different analytical tools. The objective, to study the socio economic characters of exportable and non-exportable onion growers, was achieved by tabular analysis.

## **Results and Discussion**

Agriculture is the backbone of Indian economy. Agriculture production is dependent upon Agro-climatic and geographical conditions as they govern the nature of farming which directly affect the farmer economy. Also there are other factors which have significantly influences on the pattern of farming as well as decision making

ability indirectly. These factors are age, family size and educational status of family, occupation, cropping pattern and land holding. Therefore, an attempt was made to explain the salient features of the farm business economy of the sample farm families under study.

### **Age distribution of the onion growers**

Age of Exportable and Non Exportable Onion grower family members was calculated up to the time of interview. Farm family members were grouped into three categories according to their ages presented in Table 1.

In case of exportable onion growers it was observed from the table that, the young farmers (20 to 35 years) was 43.8 per cent is the major group exportable onion growers then the middle age (36-50) which was 31.3 per cent and old group farmers (>50) was 25 per cent. Whereas, in case of the non-exportable onion growers it was observed from the table that, the young farmers (20 to 35 years) was 20.83 per cent then the middle age (36-50) which was 41.66 per cent which is the major group of non-exportable onion growers and old group farmers (>50) was 37.5 per cent. Same results were seen by Chavan.

It was presented in Table 2 that, the average age of exportable onion farmers was seen to be 42.71 years which was also seen by Pachpute *et al.*, and that of non-exportable onion farmers was 46.95 years. It shows that the middle aged farmer (36 – 50 years) mostly preferred domestic marketing of their onion produce. Whereas the young age group of farmers were seen to export the onion. Same results were revealed by Chavan, Perke and Pachpute. The farmers more than 50 year age were found to be moving towards export of onion.

### **Educational status of the onion growers**

Education has its own importance and it contributes to socioeconomic development of growers. It plays a crucial role in the acquisition of information about the innovation in various operations of agriculture. It makes farmer more capable for utilization of scarce resource and earn maximum profit. The educational status of exportable and non-exportable onion growers is given in Table 1, which shows that 100 per cent and 93.75 per cent of exportable and non-exportable onion growers were literate respectively, which shows that exportable onion growers were more educated than the non-exportable Onion growers. In case of exportable Onion farmers, it can be seen that, 8.33 per cent farmers were educated up to primary school level, 37.5 per cent farmers were secondary education, 14.58 per cent were educated up to higher secondary, 33.3 per cent were graduate and 6.25 per cent were post graduate. In case of non-exportable onion growers, 6.25 per cent farmers were illiterate, 14.58 per cent farmers were studied up to primary level, 31.25 per cent had secondary education, 29.17 per cent were educated up to higher secondary, 16.66 per cent were graduate and 2.08 per cent were post graduate. As per quantum score analysis, the exportable onion growers had 3.53 score, and non-exportable onion growers had 3.93 score out of 6 as shown in Table 2.

### **Family size of the onion growers**

The family size of farmers was categories into three groups on the basis of family members as small, medium and large. This is shown in the Table 1. There is variation in the number of family members among the selected farmer families. In case of exportable onion growers, it was found that, about 75 per cent farmers belonged to medium family size ranging from 4 to 6

members; followed by 18.8 per cent families belonged to large size ranging from 6 and above members and 6.25 per cent of farmers belonged to small family size ranging from 1 to 3 family members. In case of non-exportable onion growers, about 77.1 per cent farmers belonged to medium family size ranging from 4 to 6 members, followed by 14.58 per cent families belonged to small size ranging from 1 to 3 members and 8.33 per cent of farmers belonged to large family size ranging from 6 and above family members. The average family size was seen to be 5.5 and 4.9 in exportable and non-exportable onion growers respectively given in Table 2.

### **Occupational status of the sample farmers**

Occupational status of the farmers was presented in Table 1 which was categories into three groups namely agriculture, agriculture cum business and agriculture cum service. It was observed from the table that, agriculture was the main source of employment in study area and also engaged in other occupations.

Along with agriculture some were engaged in dairy, agriclinic, government and non-government jobs and other non-agricultural activities. It was found from the table that in case of exportable onion growers, 66.7 per cent farmers' occupation was only agriculture, followed by 27.1 per cent farmers were engaged in both agriculture cum business and 6.3 per cent were involved in agriculture cum service. In case of non-exportable onion growers, 81.25 per cent of the farmers' occupation was only agriculture, 10.42 per cent farmers' occupation was agriculture cum business and 8.33 per cent were engaged in agriculture cum service. The occupational level of exportable and non-exportable onion growers was 1.4 and 1.27 score at 3 quantum score respectively. It indicated that export farming seen to be

profitable as most of the exportable onion growers solely on agriculture and not need any supplementary income source as per Table 2.

### **Land holding of sample farmers**

It presented in Table 1 that, in case of exportable Onion growers, 21 per cent sample farmers had less than 2 hectares land, 50 per cent farmers had 2 to 4 hectares land holding and 29 per cent farmers had more than 4 hectares land holding. While, in case of non-exportable onion growers, 56.25 per cent of sample farmers had less than 2 hectares of land holding, 43.75 per cent of farmers had 2 to 4 hectares of land and none of them had land holding more than 4 hectares. As per table 2 the total land holding under exportable and non-exportable onion growers were 171 hectares and 90.1 hectares whereas the total area under *rabi* onion was 79.4 hectares and 40.7 hectares respectively.

### **Livestock availability with onion growers**

It was found that all most of the exportable and non-exportable onion growers had livestock within their farm. In case of exportable growers 14.7 per cent farmers had no any milch animal, 14.6 per cent of them were at least one milch animal, 41.7 per cent of farmers were 2 to 4 milch animals and 29 per cent of them had more than 4 milch animals. Also 29.16 per cent farmers were bullock pair and 14.28 per cent farmers were goats.

While in case of non-exportable onion growers, 24 per cent farmers had no any milch animal, 15.58 per cent of farmers were one milch animal, 41.67 per cent of farmers were 2 to 4 milch animal and 18.75 per cent were more than 4 milch animals. Also 16.66 per cent farmers were bullock pair and 12.5 per cent farmers were goats.

**Table.1** Frequency distribution of socio-economic characteristics of exportable and non exportable onion growers

Sr. No.	Particulars	Exportable Onion growers		Non-Exportable Onion growers	
		Freq.	Percent	Freq.	Percent
<b>1</b>	<b>Age ( Years)</b>				
	i. Young (20-35)	21	43.8	10	20.83
	i. Middle (36-50)	15	31.3	20	41.66
	i. Old(>50)	12	25	18	37.5
<b>2</b>	<b>Education level</b>				
	a. Illiterate	0	0	3	6.25
	b. Primary	4	8.33	7	14.58
	c. Secondary	18	37.5	15	31.25
	d. Higher Secondary	7	14.58	14	29.17
	e. Graduate	16	33.3	8	16.66
	f. Post Graduate	3	6.25	1	2.08
	Literacy rate	48	100	45	93.75
<b>3</b>	<b>Family Size (person)</b>				
	a. Small (1 to 3)	3	6.25	7	14.58
	b. Medium (4 to 6)	36	75	37	77.1
	c. Large (Above 6)	9	18.8	4	8.33
<b>4</b>	<b>Occupational level</b>				
	a. Agriculture	32	66.7	39	81.25
	b. Agriculture-cum-Business	13	27.1	5	10.42
	c. Agriculture-cum-Service	3	6.3	4	8.33
<b>5</b>	<b>Land Holding (ha)</b>				
	a. Less than 2	10	21	27	56.25
	b. 2 to 4	24	50	21	43.75
	c. Above 4	14	29	0	0
<b>6</b>	<b>Livestock (Nos.)</b>				
	<b>1. Milch animals</b>				
	a. 0	7	14.7	12	24
	b. 1	7	14.6	7	15.58
	c. 2 to 4	20	41.7	20	41.67
	d. More than 4	14	29	9	18.75
	<b>2. Bullock pair</b>	14	29.16	8	16.66
	<b>3. Goat</b>	7	14.28	6	12.5

(Figures in parenthesis are the percentage to sample size)

**Table.2** Socio economic status of Exportable and Non Exportable Onion growers

Sr. No.	Particulars	Standards	
		Exportable onion growers	Non Exportable onion growers
1.	Age of farmer	42.71	46.95
2.	Education level in 6 quantum score (Illiterate/primary/secondary/higher secondary /graduate/post graduate)	3.92	3.41
3.	Family size (person)	5.5	4.9
4.	Occupational level in 3 quantum score (Agriculture/Business/Service)	1.4	1.27
5.	Total land holding (ha)	171	90.1
6.	Area under onion (ha)	79.4	40.7
7.	Bullock pair (No.)	14	8
8.	Milch animal (No.)	161	137
9.	Goat (No.)	24	25
10.	Investment on commonly used assets (Rs.)	1674824	1263880

**Table.3** Cropping pattern of Exportable and Non Exportable Onion growers (Ha/farm)

Sr. No.	Particular	Exportable Onion growers		Non Exportable Onion growers	
		Area	Percent	Area	Percent
<b><i>Kharif</i></b>					
1.	Onion Seedling	9.7	2.98	5.1	2.59
2.	Pea	15.6	4.8	9.4	4.78
3.	Green Gram	30.2	9.29	25.6	13.00
4.	Bajara	21.4	6.58	8.6	4.37
5.	Soybean	24.4	7.50	17.3	8.79
6.	Maize	9.6	2.95	7.2	3.65
7.	Vegetable	5.6	1.72	3.3	1.67
	<b>Total</b>	<b>116.5</b>	<b>35.83</b>	<b>76.5</b>	<b>38.89</b>
<b><i>Rabi</i></b>					
1.	Onion	79.4	24.42	40.7	20.68
2.	Wheat	13.8	4.24	11.1	5.64
3.	Gram	5.2	1.59	11.1	5.64
4.	Sorghum	6.7	2.06	9.8	4.97
5.	Vegetable	1.4	0.43	0.1	0.05
	<b>Total</b>	<b>106.5</b>	<b>32.76</b>	<b>72.8</b>	<b>36.99</b>
<b><i>Summer</i></b>					
1.	Onion	46.8	14.39	27.8	14.12
2.	Maize	3.4	1.04	3.9	1.98
3.	Groundnut	5.1	1.56	2.3	1.16
4.	Vegetable	6.1	1.87	4.3	2.18

<b>Total</b>	<b>61.4</b>	<b>18.88</b>	<b>38.3</b>	<b>19.46</b>
<b>Annual</b>				
Sugarcane	23.7	7.29	7.2	3.65
<b>Perennial</b>				
Fruit crop	17	5.23	2	1.01
<b>Gross Cropped Area</b>	<b>325.1</b>	<b>100</b>	<b>196.8</b>	<b>100</b>
<b>Net Sown Area</b>	<b>164.2</b>	<b>57.73</b>	<b>85.7</b>	<b>43.54</b>
<b>Double Cropped Area</b>	<b>160.9</b>	<b>42.26</b>	<b>111.1</b>	<b>56.43</b>
<b>Cropping Intensity %</b>	-	<b>189.34</b>	-	<b>236.74</b>

It was seen that, in case of exportable farmers total milch animals were 161, bullock pair were 14 and 24 goats. Whereas, in case of non-exportable farmers were 137 milch animals, 8 bullock pair and 25 goats (Table 2).

### **Investment on commonly used farm assets**

The commonly used assets by farmers were kudali, weeding hook, sickle, harrow, seed drill, hoe, bullock cart, etc. The investment on commonly used assets were estimated and presented in Table 2. It was observed that, the total investment on commonly used assets and building was Rs.1674824 in case exportable onion farm whereas in case of non-exportable farm it was Rs.1263880. The average investment was Rs.34892.16 per exportable onion farm and was Rs.26330 per non-exportable onion farm. It was clear observed that, investment on commonly used assets and farm building was higher in exportable onion farm.

### **Cropping pattern of exportable and non-exportable onion growers**

Cropping pattern is the most important factor in deciding the economic status of the region. Cropping pattern of onion growers in the study area during *Kharif*, *Rabi* and *summer* seasons was presented in Table 3. The result found that, gross cropped area was 6.77 hectares in exportable onion farm and 4.1 hectares in non-exportable onion farm

respectively. It was found that, perennial fruit crop like pomegranate, citrus and custard apple was cultivated in the study area 5.23 percent in exportable onion farm and 1.01 percent and non-exportable onion farm. It found that annual crop like sugarcane was 7.29 and 3.65 in exportable and non-exportable onion farm. In *Kharif* season, highest area was seen under green gram crop followed by soybean, bajara, pea, onion seedling, maize and vegetable crops which was 9.29 per cent, 7.50 per cent, 6.58 per cent, 4.8 per cent, 2.98 per cent, 2.95 per cent and 1.72 per cent to the gross cropped area, respectively to gross cropped area in case of exportable onion farm. While in case of non-exportable onion farm highest area was seen under green gram crop followed by soybean, pea, bajara, maize, onion seedling, and vegetable crops which was 13 per cent, 8.79 per cent, 4.78 per cent, 4.37 per cent, 3.65 per cent, 2.59 per cent and 1.67 per cent to the gross cropped area, respectively. In *Rabi* season, highest area under onion 24.42 followed by wheat 4.24, sorghum 2.06, gram 1.59 and vegetable 0.43 to gross cropped area in case of exportable onion farm. While in case of non-exportable farm it was seen that highest under onion 20.68 followed by wheat 5.64, gram 5.64, sorghum 4.97 and vegetable 0.05 to gross cropped area in case of exportable onion farm. In *summer* season, it was found that highest area under onion crop 14.39 followed by vegetable 1.87, groundnut 1.56 and maize 1.04 to gross cropped area. Whereas, in case of non-exportable onion

farm area under onion 14.12, vegetable 2.18, maize 1.98 and groundnut 1.16 to gross cropped area. The cropping intensity was 189.34 per cent in exportable onion farm and 236.74 per cent in non-exportable farm which was higher than exportable onion farm. Percent share of seasonal crops on onion farm was estimated. In case of exportable onion farm it seen that, the share of *Kharif* crops 35.83 per cent, *Rabi* crops 32.76 per cent, summer crops 18.88 per cent, annual crops 7.29 per cent and perennial crops 5.23 per cent. In case of non-exportable onion farm it found that, the share of *Kharif* crops 38.89 per cent, *Rabi* crops 36.99 per cent, summer crops 18.46 per cent, annual crops 3.65 per cent and perennial crops 1.01 per cent.

Percent share of net sown area was 57.73 per cent and 43.53 per cent to gross cropped area in exportable and non-exportable onion farms, respectively.

Double cropped area was 42.6 per cent and 56.43 per cent to gross cropped area in exportable and non-exportable onion farms, respectively. The results revealed that, the gross cropped area was 325.1 hectares in exportable onion farm and 196.8 hectares in non-exportable onion farm.

The above discussion throws light on the fact that the average age of exportable onion growers was observed to be 42.71 years and that of non-exportable onion growers was 46.95 years. The educational status shows that literacy rate of exportable and non-exportable onion growers were 100 per cent and 93.75 per cent respectively, which shows that exportable onion growers were more educated than the non-exportable onion growers. The average family size was seen to be 5.5 in exportable and 4.9 in non-exportable onion growers respectively. The total land holding of exportable and non-exportable onion growers were 171 hectares

and 90.1 hectares whereas the total area under *rabi* onion was 79.4 hectares and 40.7 hectares, respectively.

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