

Original Research Article

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## Constraints in Production of Onion at Perambalur District of Tamil Nadu, India

Hema Palanisamy<sup>1\*</sup>, M. Nithish Kannan<sup>2</sup> and M. Anandh<sup>3</sup>

<sup>1</sup>Department of Agrl. Extension, Dhanalakshmi Srinivasan Agriculture College,  
Affiliated to TNAU, Coimbatore, India

<sup>2</sup>Imayam Institute of Agriculture and Technology, Affiliated to TNAU, Coimbatore, India

<sup>3</sup>Tamil Nadu Rural Transformation Project, Government of Tamil Nadu, Krishnagiri, India

\*Corresponding author

### ABSTRACT

#### Keywords

Onion, price volatility, constraints, suggestions, middlemen

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Onion (*Allium cepa*) is one of the important commercial vegetable crops grown in India. It is the most market sensitive agri-commodity known for its huge price volatility. The present study was taken up with the objective of studying socio-economic profile of onion growers and the constraints and suggestions in production and marketing of onion. A total of 120 onion farmers were selected from four villages of Perambalur taluk in Perambalur district using random sampling technique. From the study it is found that that majority of the onion farmers were literate having agriculture as main occupation and comes under the age group of 40 and above. The major constraints faced by the farmers were labour problem during harvesting, Fluctuation in market price, Lack knowledge about the control measures for various pests and diseases and inadequate storage facility. Suggestions given by the farmers to improve onion cultivation, production and marketing were providing loan for construction of onion storage structure, the central and state government may take necessary steps to avoid middlemen involvement in the export & import of onion, establishment of onion procurement centres at the mass production area and providing the cold storage facility.

### Introduction

Onion (*Allium cepa*) is one of the important commercial vegetable crops grown in India. It is widely grown in different parts of the country mainly by small and marginal farmers. Onion is produced and consumed not only in India but also throughout the world. Onion is classified as a vegetable and has special qualities which add taste

and flavor to food. It is used extensively in Indian cuisine and culinary preparations both in cooked and raw form. Onion possesses very good nutritive and medicinal values (Sangam and Aski, 2018). Onion is consumed by all classes of people-poor and rich and hence assumes a place of an essential item. Onion is the most market sensitive agri-commodity known for its huge price volatility. Onions are among the world's oldest cultivated plants. Onions are low in

nutrients but are valued for their flavour and are used widely in cooking. They add flavour to such dishes as stews, roasts, soups, and salads and are also served as a cooked vegetable. Most commercially cultivated onions are grown from the plant's small black seeds, which are sown directly in the field, but onions may also be grown from small bulbs or from transplants. Onions are very hardy and can survive in a wide range of growing conditions (Kalaiselvi, 2020). The bulbs vary in size, shape, colour, and pungency, though warmer climates generally produce onions with a milder, sweeter flavour than do other climates. The onion's characteristic pungency results from the sulfur-rich volatile oil it contains; the release of this oil during peeling or chopping brings tears to the eyes. Curative powers have been attributed to onions throughout the centuries; they have been used in folk medicine for such varied ailments as colds, earaches, laryngitis, animal bites, burns, and warts.

India is the second largest onion growing country in the world. It enjoys 19% share of the global onion production. In India, Onion crop is grown in about 1.20 million hectare area with an annual production of 19.40 million tons with productivity 16.12 tons per hectare (Swati Sharma, 2019). The quantity of Onion 2415.75 thousand tons is exported from India which outputs value of 3, 10,650.09 Rs. lakhs. Indian onions are famous for their pungency and are available round the year. Indian onions has two crop cycles, first harvesting starts in November to January and the second harvesting from January to May. The major Onion producing states are Maharashtra, Karnataka, Gujarat, Andhra Pradesh, Tamil Nadu, Jharkhand and Telangana in the country.

### **Onion Production in Tamil Nadu**

Onion producing farmers have revealed their capacity to raise the production every year but the price of the onion is highly uneven and of late the prices are lethargic when the farmers brings their produces to the market. There were 28357 (ha) growing small onion in Tamil Nadu. Tamil Nadu

occupies 9th place in production of onion in India. In Tamil Nadu, Perambalur (7948 ha), Trichy (3500 ha), Dindigul (2990 ha), Tirunelveli (1828 ha), Tiruppur (1036 ha), Thoothukudi (1300 ha), Namakkal (1988 ha), Virudhunagar (1242 ha) and Coimbatore (1131.5 ha) are the major small onion growing districts in 2020-21. These districts accounted for 85 per cent of total small onion cultivated area in Tamil Nadu. Perambalur district is a big player among small onions growing districts in the state. Small onions are cultivated on an area of about 8,000 hectares in the district, with a production of 65,000 to 70,0000 tonnes. Perambalur is the hub of small onions (Shashidhar, *et al.*, 2020). The farm gate price of good quality shallot (small onion) is ruling around Rs.18-20 per kg in Tiruchirapalli. Later the price was rapidly increased throughout India from Rs. 100 - 200 and even more than Rs. 200 in some places also recorded due to rainy season, festivals and non availability of fresh onion even from other states like, Karnataka and Andhra Pradesh.

### **Statement of the Problem**

Generally, the onion growers bring their produce to market for sale immediately after the harvest, because of lack of storage facilities and financial problems of onion growers. This result in glut of onion in market and fall in market prices of the onion (Asmatoddin *et al.*, 2009). Then it becomes very difficult for onion growers even to meet the transportation charges. This situation is creating discontent among the farmers giving rise to their agitation for the fair market price. In spite, lot of efforts have been taken by extension agencies and scientists to materialize the potential of onion, the productivity of onion was stagnate over a period of time. The major reasons were traditional way of cultivation, dominance of local varieties, lack of supporting facilities, excess production, subdued demand, lower exports, increased cost of production inflicted by excess rainfall and wide fluctuation in market price of onion which make onion cultivation unprofitable. In the light of these above facts, the present study was undertaken to know the

Constraints and Suggestions in Production and Marketing of Onion in Perambalur district of Tamil Nadu, India.

The main objectives of this study includes to study the socio-economic profile of the onion growing farmers in Perambalur district of Tamil Nadu. And also to analyze the major constraints and suggestions in Production and marketing of onion in Perambalur district of Tamil Nadu

### **Materials and Methods**

The Study was conducted in Perambalur taluk of Perambalur district in Tamil Nadu State. Considering maximum area under onion cultivation as the criteria, four villages (Chettikulam, Thenur, Kallanguthu, Nakkaselam) from the Perambalur taluk were selected. From the selected villages, the list of farmers growing onion was obtained from the state department of Agriculture, Perambalur.

From the list, a total of 120 onion growers were selected by using proportionate random sampling technique and a well structured interview schedule was designed and prepared to collect the data from the farmers in the study area. The primary data were obtained directly from the farmers at frequent visits in their fields, house. The data collected were tabulated and analyzed by using suitable statistical measures.

### **Results and Discussion**

Onion is one of the important crop grown in the study area. Major onion variety cultivated in the study is CO (on) 5. From table 1, it is indicated that 55.84 % of the onion farmers were literate and 44.16 % of them were illiterate followed by 68.34% of farmers having agriculture as main occupation and 31.66% of the farmers with agriculture as subsidiary occupation. Majority of the onion farmers comes under the age group of 40 and above (60.84%), followed by age group under 30-40 years (25.83%)

and less than 30 years (13.33%). 67.50 % of the farmers were having good contact with Extension agents like AAO, AO, ADA, Agriculture Department Scientists, etc. and 32.50% were having no contact. 38.33% of the farmers comes under the category of Marginal farmers, 40.84% of farmers comes under small farmers and 20.83% were big farmers.

### **Constraints faced by the farmers**

Table 2 revealed the constraints faced by the farmers in growing onion crop in Perambalur district of Tamil Nadu. 92.50% farmers facing labour problem during harvesting, 85.83% felt Fluctuation in market price as one of the constraints. 88.33% of the farmers Lack knowledge about the control measures for various pests and diseases and 79.16% farmers face inadequate storage facility as major problem followed by 75.83% farmers having Inadequate crop loan as one of the constraint. 74.16% felt Absence of informational flows / demand forecast in cultivation of onion, 65.83% of the farmers face market infrastructure issues, 59.16% of the farmers getting Low productivity and low seed replacement ratio and 52.50% farmers lack Inadequate processing facility followed by 50.83 % of the farmers facing problems in Absence of warehouse receipt financing.

### **Suggestions given by the farmers in improving onion Production**

Table 3 explained the suggestions given by farmers in the study area to improve onion Production. It indicated that 85.83% of the farmers suggested to Provide loan for construction of onion storage structure and 82.50% of the farmers felt that the central and state government may take necessary steps to avoid middlemen involvement in the export & import of onion followed by 67.50% of the farmers suggested Establishment of onion procurement centres at the mass production area.

**Table.1** Socio- Economic Conditions of onion Growers

Sl. No	Characteristics	Respondents	
		Frequency	Percentage
1	Education		
	Literate	67	55.84
	Illiterate	53	44.16
		120	100.00
2	Occupation		
	Agriculture as main occupation	82	68.34
	Agriculture as subsidiary occupation	38	31.66
		120	100.00
3	Age		
	< 30 years	16	13.33
	30 - 40 years	31	25.83
	> 40 years and above	73	60.84
		120	100.00
4	Contact with Extension agents		
	AAO, AO, ADA, Agrl. Scientists, etc.	81	67.50
	None	39	32.50
		120	100.00
5	Land Holding		
	Marginal farmer (< 2.5 acres)	46	38.33
	Small Farmer (2.5 – 5 acres)	49	40.84
	Big farmer (> 5 acres)	25	20.83
		120	100.00

Source: Primary data

**Table.2** Constraints faced by the farmers in the study area

Sl. No	Problems	Respondents	
		Frequency	Percentage
1.	Low productivity and low seed replacement ratio	71	59.16
2.	Inadequate storage facility	95	79.16
3.	Inadequate processing facility	63	52.50
4.	market infrastructure	79	65.83
5.	Inadequate crop loan	91	75.83
6.	Absence of warehouse receipt financing	61	50.83
7.	Absence of informational flows / demand forecast	89	74.16
8.	Lack of knowledge about the control measures for various pests and diseases	106	88.33
9.	Labour problem during harvesting	111	92.50
10.	Fluctuation in market price	103	85.83

Source: Primary data

**Table.3** Suggestions given by farmers in the study area to improve onion Production

Sl. No	Suggestions	Respondents	
		Frequency	Percentage
1.	Providing the cold storage facility	79	65.83
2.	Horticulture Department operates various schemes for vegetables for increasing the productivity	67	55.83
3.	The central and state government may take necessary steps to avoid middlemen involvement in the export & import of onion	99	82.50
4.	Provide loan for construction of onion storage structure	103	85.83
5.	Crop demonstration about improved variety and on recent production	47	39.16
6.	NAFED should purchase onion regularly	59	49.16
7.	Establishment of onion procurement centres at the mass production area	81	67.50
8.	Extend crop insurance scheme to onion	63	52.50

Source: Primary data

Around 65.83% of the farmers said about Providing the cold storage facility and 55.83% of the farmers suggested that Horticulture Department should operate various schemes for vegetables for increasing the productivity followed by 52.50% needed Extend crop insurance scheme to onion. 49.16% of the farmers felt that NAFED should purchase onion regularly and 39.16% of the farmers indicated the need of Crop demonstration about improved variety and on recent production.

From the present study it is concluded that majority of the onion farmers were literate having agriculture as main occupation and comes under the age group of 40 and above. The major constraints faced by the farmers were labour problem during harvesting, Fluctuation in market price, Lack knowledge about the control measures for various pests and diseases and inadequate storage facility.

Suggestions given by the farmers to improve onion cultivation, production and marketing were providing loan for construction of onion storage structure, the central and state government may take necessary steps to avoid middlemen involvement in

the export & import of onion, establishment of onion procurement centres at the mass production area and providing the cold storage facility.

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