



PROFILE OF FARMERS IN SUPPLY CHAIN MANAGEMENT OF ONION IN KURNOOL DISTRICT OF ANDHRA PRADESH

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Date of Receipt: 05-01-2024

ABSTRACT

Date of Acceptance: 09-03-2024

Onion is one of India's most highly watched agricultural commodities. Onion prices have a direct impact on the average person's consumption basket. After China, India is second in terms of area and production, and third in terms of export. In India, it is grown in an area of 19.14 million hectares with total production of 3112 million tonnes. In India Andhra Pradesh state ranked eighth in area under Onion cultivation. The area under the crop was 44,600 hectares with a production of 7,22,090 metric tonnes during the year 2021-22. The present study was carried out to know the profile of onion farmers in Kurnool district of Andhra Pradesh over a randomly drawn sample of 120 respondents. The results revealed that majority (68.33%) of the onion farmers are middle age, illiterate farmers (20.00%), with medium level of farming experience (61.67%), small family (58.33%), nuclear family type (90.83%), medium area under onion (55.00%), had medium economic status (70.83%), had medium level of extension contact (65.00%), medium level of institutional participation (60.83%). Further majority of the farmers followed channel-II for marketing is 60.84% and the marketing efficiency was high for channel-I (3.3) as there were less intermediaries in the chain.

KEYWORDS: Onion farmers, Profile, market channels, market efficiency.

INTRODUCTION

India is primarily an agricultural country, with more than 60 per cent of the population directly involved in agricultural work or related occupations such as agro-industries. Onion (*Allium cepa* L.) is an important vegetable crop which is consumed worldwide. It is one of the oldest bulb crops known to mankind. Onion belongs to the family Alliaceae, genus *Allium* and species *cepa*. India ranks second in area and production in the world after China and third in export. In India, it is grown in an area of 19.14 million hectares with total production of 3112 million tonnes. In India Andhra Pradesh state ranked eighth in area under Onion cultivation. The area under crop was 44,600 hectares with a production of 7,22,090 metric tonnes during the year 2021-22. (National Horticulture Board & Ministry of Agriculture and Farmers welfare, Govt. of India (2021-22 - 3rd Advance Estimates). India export its considerable quantity to countries like Malaysia, Singapore, Sri Lanka, Bangladesh, Pakistan, Indonesia, UK, Gulf countries, etc. India exports generally hover around 1.00 MMT per annum. But spiralling price of onion is always a cause for concern. The prices rise sky high in years of deficit production and nose dip when there is glut. Therefore, onion is generally referred as a high risk, high return crop for the farmers and traders. (Sohan Premi and B R Premi, 2017). The very nature of small

size of land holdings by the farmers, aberrant weather condition, and typical habits of consumption (buying fresh vegetables) of the consumers and poor supply chain infrastructure makes marketing for vegetables more critical. (Kiran Kumari and R.P. Singh Ratan, 2015). One of the most challenging tasks in today's food industry is controlling the product quality throughout the food supply chain. (Aiyong Rong, 2011). Therefore issues and methodologies requires to be researched for designing a farmer friendly and cost-effective supply chain so that we could add value to it as well as make this venture cost effective for small farmers. 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 and wide fluctuation in market price of onion which make onion cultivation unprofitable (Shashidhar *et al.*, 2020). By keeping in view all the above issues the present study attempted to identify profile of onion farmers involved in managing supply chain of onion.

MATERIAL AND METHODS

The study was conducted in Kurnool district of Andhra Pradesh during the year 2022-23. For the present exploratory study, Kurnool district of Andhra Pradesh

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was purposively selected based on the highest area of onion production in the state. Four mandals with eight villages were selected and from each village 15 farmers were selected by following simple random sampling procedure. Thus, the total sample contains 120 farmers from which the data was collected and interpreted. The data was collected through a structured comprehensive interview schedule and analyzed using mean and standard deviation for drawing meaningful interpretations. Both primary and secondary data were collected. Primary household data were collected using the pretested well-structured interview schedule. Secondary data on area and production were collected from the various publications of the Directorate of Statistics & Economics, Agriculture and Horticulture of the state.

RESULTS AND DISCUSSION

The selected variables and results are presented in Table 1.

Age

A little more than half *i.e.*, 68.33 per cent of the onion farmers belonged to middle age category followed by young (21.70%) and old (10.00%) age categories. In contrast to younger and older farmers, it is clear that middle-aged onion farmers have been actively involved in farming activities. Majority of the youngsters were not interested in land-based activities and were instead involved in activities other than agriculture or preferred to go to towns and cities for higher education, employment, or business this might be the reason for above trend. Age appears to be the main barrier preventing older farmers from actively participating in farming activities, and despite their desire to support their families financially, they preferred to stay at home and handled agricultural supporting tasks like caring for livestock.

This finding was in conformity with the findings of Ashok (2011), Miglani *et al.* (2018), Shashidhar *et al.* (2021) and Akanksha *et al.* (2022).

Education

Among the respondents 20.83 per cent of the onion farmers were Illiterate followed by the farmers with college education (20.00%), high school (18.33%), functionally literate (18.33%), primary education (16.67%), and middle Education (5.83%). The probable reason for the above result This might be the fact that lack of awareness among the farmers about need and importance of the education, and unavoidable need to help their parents in farming instead of continuing their education. Another reason which was observed during investigation is that lack of encouragement from

the parents due to their traditional outlook towards education. Therefore, efforts are needed to increase the educational facilities in the rural areas. This finding was in conformity with the findings of Ashok (2011), Kachare (2012) and Manisha *et al.* (2016).

Farming experience

Majority (61.67%) of the onion farmers had medium level of farming experience followed by equal (19.17%) percentage of high and low levels of farming experience. This might be due to the fact that the respondents were illiterate and middle aged having medium farming experience. Definitely the experience is an important factor which influences the farmers to accept, evaluate and experiment the innovative technologies in their farm. Age is directly related to the individuals experience. As most of the onion farmers were middle aged they had medium level of farming experience in onion cultivation. This finding was in conformity with the findings of Obaiah (2004), Ashok (2011) and Sravani (2021).

Family size

More than (58.33%) half of the farmers having small family followed by medium (32.50%) and large (9.17%) family size. This might be the reason that farmers were well aware about the family planning and wish to have a small family to be a happy family. More traditional and highly orthodox families might be under medium and high family size category. This finding was in conformity with the findings of Sumana *et al.* (2018) and Shashidhar *et al.* (2021).

Family type

Majority (90.83 %) of the respondents were having nuclear family followed by joint (9.17%) families. The possible reason for the above trend might be that importance for money, individual differences and priorities might have triggered towards the culture of nuclear approach. Very few families might be leading their life together due to the dependence of old age parents and established relationship. This finding was in conformity with the findings of Wati (2007), Rao and Venkataswamy (2009).

Area under Onion Cultivation

A little more than half (56.67%) of the Onion farmers had possessed 2.0 to 5.0 acres of the land under onion cultivation followed by 38.33 per cent had less than 2 acres of land and 5.00 Per cent had more than 5 acres of land under onion cultivation. This might be due to the fact that, the landholdings were medium in the case of onion farmers and they also cultivate other crops such as carrot and other vegetables etc. As it may

Table 1. Distribution of onion farmers based on their profile characteristics

S. No.	Variables	Category	Frequency	Percentage
1.	Age	Young age (<35 years)	26	21.70
		Middle age (36-55 years)	82	68.33
		Old age (>56 years)	12	10.00
		Mean	43.04	
		S.D	9.51	
2.	Education	Illiterate	25	20.83
		Functionally Literate	22	18.33
		Primary education	20	16.67
		Middle education	7	5.83
		High school	22	18.33
		College education	24	20.00
		Mean	2.42	
		S.D	1.85	
3.	Farming Experience	Low	23	19.17
		Medium	74	61.67
		High	23	19.17
		Mean	17.82	
		S.D	9.31	
4.	Family size	Small	70	58.33
		Medium	39	32.50
		Large	11	9.17
		Mean	1.51	
		S.D	0.66	
5.	Family type	Nuclear	109	90.83
		Joint	11	9.17
		Mean	1.09	
		SD	0.29	
6.	Extension Contact	Low	15	12.50
		Medium	78	65.00
		High	27	22.50
		Mean	33.91	
		S.D	9.10	
7.	Area under onion cultivation	Small	48	40.00
		Medium	66	55.00
		Large	6	5.00
		Mean	2.30	
		S.D	1.41	
8.	Economic status	Low	18	15.00
		Medium	85	70.83
		High	17	14.17
		Mean	194.06	
		S.D	108.84	
9.	Extension contact	Low	15	12.50
		Medium	78	65.00
		High	27	22.50
		Mean	33.91	
		S.D	9.10	
10	Institutional participation	Low	18	15.00
		Medium	73	60.83
		High	29	24.17
		Mean	26.26	
		S.D	4.62	
11	Marketing channels	Channel-I	13	10.83
		Channel-II	73	60.84
		Channel-III	34	28.33
		Mean	1.86	
		S.D	0.58	

not be possible to increase the area under cultivation, the farmers need to adopt novel technologies which increase the productivity per unit area. To uplift the productivity, it is necessary to impart more knowledge about latest recommended practices to the farmers by arranging various demonstrations, trainings programs, exposure visits as well as providing them with subsidies on inputs etc. This finding was in conformity with the findings of Ekale *et al.* (2015), Sumana *et al.* (2018), Miglani *et al.* (2018) and Sindhura *et al.* (2022).

Economic status

Majority (70.83%) of the onion farmers were grouped under the category of medium economic status followed by low (15.00%) and high (14.17%) economic status. The reason might be that the farmers also receive supplemental income from dairy and livestock in addition to farm income. Thus, the majority were classified under medium economic status. Therefore, it is desirable to raise the respondents' economic status by encouraging them to use cutting-edge scientific technologies in order to increase their yields and subsequently their standard of living. This finding was in conformity with the findings of Sawale (2011), Atar (2012) and Sravani (2021).

Extension contact

Majority (67.50%) of the respondents had medium level of extension contact followed by high (17.50%) and low (15.00%) levels of extension contact. The feasible reason for the above trend might be that most of farmers were having frequent interactions with village agriculture assistants and agricultural extension officers who were tasked with transferring technologies at the local level. The farmers were growing onion for a living and were focused on the newest production techniques. Besides the farmers were approached agricultural officers and other higher cadre extension officers for the newest technical advice and details on frequently updating new farming techniques, resulting in medium to high extension contact. The farmers' current level of education and desire for contemporary technology may be driving them to establish consistent extension contacts. Therefore, it may be desirable to increase the level of extension contact between the farmers and the extension staff through routine visits, demonstrations, exposure visits, meetings, and training programmes. This finding was in conformity with the findings of Kachare (2012), Sravani (2021).

Institutional Participation

Majority (60.83%) of the respondents had medium level of Institutional participation followed by high

(24.17%) and low (15.00%) levels of Institutional participation. This might be due to the fact that farmers lack education, further they might not be aware of kisan melas, visits, demonstrations, etc. Therefore, it may be desirable to increase the level of institutional participation among the farmers through training programmes and frequent contacts, so that they become aware of the latest agricultural technologies and can thereby increase their income. This finding was in conformity with the findings of Abduelsalam *et al.* (2015), Akanksha *et al.* (2022).

Marketing Channels

Majority (60.83%) of the respondents had followed channel-II, followed by channel-III (28.33%) and few (10.83%) respondents followed channel-I. This trend due to the fact that majority of the farmers were having medium sized land holdings and majority were educated so they sell their produce to the wholesalers, as they followed channel-II *i.e.*, Producer-wholesaler-Retailer-consumer for good price for their produce. This finding was in conformity with the findings of Jyoti *et al.* (2012), Farhana *et al.* (2022).

Majority of the onion farmers are illiterate, hence steps are to be taken to improve their literacy level of all the categories of farmers by enrolling them in adult education programs. Majority of the farmers were under medium economic status category. Government should support the onion farmers by providing remunerative and support prices to the farmers to enhance their economic status to higher level. The export potential of the onion should be enhanced by different policies and programmes. It is revealed from the study that most of the farmers had medium level of farming experience, extension contacts. Hence there is a need to improve these characteristics from present level of medium to high level by arranging specific training programs in a participative mode to raise their income level. It is revealed from the study that more than half of the onion farmers had medium institutional participation. Hence, there is a need to enhance their social interaction by educating and encouraging them to become members in various social organizations and local village institutions for better interaction.

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