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PROFILE CHARACTERISTICS OF WET DIRECT SEEDED RICE CULTIVATORS IN EAST GODAVARI DISTRICT OF ANDHRA PRADESH

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ABSTRACT

The present study was carried out to know the profile characteristics of wet direct seeded rice cultivators in East Godavari district of Andhra Pradesh over a randomly drawn sample of 120 respondents during the year 2021-22. The results revealed that majority of the wet direct seeded rice cultivators were in middle age (55.80%), completed middle school education (23.33%), small farmers (39.16%), medium annual income (75.00%), medium level of farming experience (75.00%), had medium level of extension contact (75.8%), majority of the farmers has sold their paddy through middle men (55.80%), medium level of mass media exposure (68.30%), medium level of scientific orientation (79.20%), medium level of risk orientation (76.70%), medium level of management orientation (84.00%), medium level of innovativeness (78.30%) and medium level of achievement motivation (70.80%).

KEYWORDS: Profile characteristics, wet direct seeded rice, wet direct seeded rice cultivators.

INTRODUCTION

Rice is a staple food of over half of the world's population. It is a predominant dietary energy source for 17 countries in Asia and the Pacific. As a cereal grain, it is the most commonly consumed staple food for global population. Rice accounts for 23.3 per cent of the country's total cropped area and is critical to the country's food supply. It accounts for 43 per cent of total food grain production and 46 per cent of total cereal production. Andhra Pradesh is leading producer with a production of 12 per cent of total rice produced in the country with a production of 8.24 million tonnes from an area of 2.21 million hectares with productivity of 3729 kg ha^{-1}. Keeping in view of the ongoing water scarcity and as water shortage in agriculture field worsens, there is a need for water-saving technologies such as Wet direct seeded rice (DSR). So, the present study has been taken to study the profile characteristics of wet direct seeded rice cultivators in East Godavari district of Andhra Pradesh.

MATERIAL AND METHODS

The study was conducted with an *Ex post facto* research design during the year 2021-22. East Godavari district of Andhra Pradesh was selected for the study as it has highest acreage in wet direct seeded rice cultivation. out of 64 mandals, three mandals namely Peddapuram, Samalakota and Pitapuram were selected and from each mandal four villages were selected for the purpose of study. From each village 10 respondents were selected randomly thus making a total of 120 respondents from 12 villages. After careful study of various literatures available and consultation with the experts a set of 13 independent variables related to personal, psychological and socio-economic variables were selected. The data was collected through personal interview method by using structured comprehensive interview schedule. The data was analyzed by using mean, standard deviation and other useful statistical procedures for drawing meaningful interpretations.

RESULTS AND DISCUSSION

The wet direct seeded rice cultivators were distributed into different categories based on their selected profile characteristics and the results were presented in the table 1.

Age

More than 55.80 per cent of respondents were of middle age, led by old age (25.00%) and young age (19.20%). The above result might have resulted because of the fact that in rural areas the young people choose other opportunities other than farming and may be due to this very smaller number of respondents of young age

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were into cultivation of wet direct seeded rice cultivation. Since it was difficult for the old aged people to oversee and supervise, a fewer number of farmers in the elderly community were seen cultivating wet direct seeded rice, so this sort of finding might have occurred. Where the bulk of wet direct seeded rice cultivators were middle-aged. The results are in conformity with the findings of Satish (2010), Keshavkattel (2011), Praveen and Nain (2013) and Sowjanya (2016).

Education

More than 29.16 per cent of the respondents were educated up to middle school followed by high school (23.33%), primary school (13.33%), illiterate (10.83%), graduate (10.83%), intermediate (9.16%), can read and write (2.50%) and post graduate (0.83%). It is possible to infer that the majority of wet direct seeded rice cultivators (upto 86.64%) were literates and a meagre 13.33 per cent fall under illiterate category. This pattern may be explained by the fact that the majority of respondents (75.50%) were young to middle-aged and that educational institutions were accessible at the village level. Some farmers might have dropped out of middle school because of a lack of financial resources or due to family circumstances. The results are in partial conformity with Sowjanya (2016).

Annual income

Nearly 75 per cent of the respondents had medium level of annual income followed by high (14.17 %) and low (10.83%) annual income levels. Farmers with small and medium land holdings may have made a profit by incorporating sustainable agricultural principles into their farming operations. Marginal farmers, on the other hand may be able to cultivate rice and made livelihood as agricultural labourers, resulting in a low annual income. Furthermore, large farmers as well as farmers with diverse professions such as work, businesses and so on can have a high annual income. The results were in consistent with the findings of Satish (2010), Praveen and Nain (2013), Madhuri (2016) and Deepa (2019).

Farm size

Small farmers made up nearly 44.16 per cent of the respondents, followed by marginal farmers (39.16%) and large farmers (16.68%). The fact that land holdings fragmented from generation to generation may have been the fundamental reason for low land holdings among farmers supports the aforementioned conclusion. As a result, the latest study found the similar pattern with a larger number of small land owners. Because farmers are preparing to sell the majority of their uncultivated fields, ground water scarcity could be an issue, as well as the low land holdings among farmers. The results were similar to those of Archana (2012), Prathyusha (2014) and Madhuri (2016).

Farming experience

Nearly 75 per cent of the respondents were grouped under medium farming experience followed by low (8.30%) and high (16.67%) farming experience.

Because the majority of people in rural areas rely on agriculture and related activities for a living, it is likely that agriculture will continue to be their primary source of income. In addition, the majority of the respondents are in middle age, which may represent their medium farming experience. Rural youth may be selecting vocations other than agriculture or seeking higher education for other employment prospects, which explains the low degree of farming experience. As a result, extension organizations must perform activities such as trainings, result demonstrations, method demonstrations, seminars, exposure visits and group discussions to improve the quality and richness of expertise, which might lead to more farming experience. The findings are consistent with those of Arathy (2011), Praveen and Nain (2013) and Deepa (2019).

Extension contact

A medium degree of extension contact was reported by 75.80 per cent of the respondents, followed by high (12.50%) and low (11.70%) levels of extension contact. Because the majority of respondents were small and marginal farmers with low levels of education and medium economic status, they did not meet with Department of Agriculture officials very often and instead contacted agri-input dealers to solve their in-site field problems, which reflects their medium level of extension contact.The low extension contact is due to the fact that the majority of farmers communicate with progressive farmers/fellow farmers in order to get knowledge or to learn about any of the cultivation practices of wet direct seeded rice. The findings are consistent with Praveen and Nain (2013), Madhuri (2016) and Deepa (2019).

Table 1. Distribution of wet direct seeded rice cultivators according to their profile characteristics

S. No.	Variables	Category	Frequency (f)	Percentage (%)
1.	Age	Young age (<35 years)	23	19.20
		Middle age (36-55 years)	67	55.80
		Old age (>56 years)	30	25.00
		Mean	**44.72**	
		S.D	**8.35**	
2.	Education	Illiterate	13	10.83
		Can read and write only	3	2.50
		Primary school	16	13.33
		Middle school	35	29.16
		High school	28	23.33
		Intermediate	11	9.16
		Graduation	13	10.83
		Post- Graduation	1	0.83
3.	Annual income	Low annual income	13	10.83
		Medium annual income	90	75.00
		High annual income	17	14.17
		Mean	**69.29**	
		S.D	**18.99**	
4.	Farm size	Marginal farmers (below 2.5 acres)	47	39.16
		Small farmers (2.5-5.0 acres)	53	44.16
		Big farmers (above 5.0 acres)	20	16.68
		Mean	**1.79**	
		S.D	**0.744**	
5.	Farming experience	Low	10	8.30
		Medium	90	75.00
		High	20	16.67
		Mean	**5.28**	
		SD	**1.473**	
6.	Extension Contact	Low	14	11.70
		Medium	91	75.80
		High	15	12.50
		Mean	**13.62**	
		S.D	**2.548**	
7.	Marketing facilities	Agricultural market committees (AMCs)	0	0
		Primary Agricultural Cooperative Societies (PACS)	53	44.20
		Middle men	67	55.80
		Private agencies	0	0

Cont...

Table 1. Cont...

S. No.	Variables	Category	Frequency (f)	Percentage (%)
8.	Mass Media Exposure	Low	20	16.70
		Medium	82	68.30
		High	18	15.00
		Mean	**16.43**	
		S.D	**1.89**	
9.	Scientific Orientation	Low	14	11.70
		Medium	95	79.20
		High	11	9.20
		Mean	**15.63**	
		S.D	**1.10**	
10.	Risk orientation	Low risk orientation	19	15.80
		Medium risk orientation	92	76.70
		High risk orientation	9	7.50
		Mean	**15.68**	
		S.D	**1.594**	
11.	Management Orientation	Low	18	15.00
		Medium	84	70.00
		High	18	15.00
		Mean	**37.60**	
		S.D	**3.016**	
12.	Innovativeness	Low	15	12.50
		Medium	94	78.30
		High	11	9.20
		Mean	**17.03**	
		S.D	**2.132**	
13.	Achievement Motivation	Low	14	11.70
		Medium	85	70.80
		High	21	17.50
		Mean	**18.49**	
		S.D	**1.927**	

#Marketing facilities

Nearly 55.8 per cent of farmers sell their paddy through middlemen, while the remaining 44.20 per cent sell their paddy through the government sector, namely the Primary Agricultural Cooperative Society (PACS). Agricultural Market Committees (AMC's) and private agencies are not used by any of them. The above trend may be due to the fact that the majority of farmers sell their produce through middlemen due to a lack of knowledge, information about the minimum support price (MSP), transportation facilities or due to lack of proper storage facilities to store paddy until it is procured, as well as uncertainty in weather conditions after harvest. Farmers who maintain constant interaction with Agriculture officials, who have higher education levels and who are aware of MSP are selling their paddy through PACS.

Mass media exposure

A medium degree of mass media exposure was reported by 68.30 per cent of respondents, followed by low (16.70%) and high (15.00%) levels of mass media exposure. Farmers may have been encouraged to employ various forms of media for various technical interventions as a result of recent advances in ICT, particularly in technology transmission. Apart from traditional newspapers, the penetration of ICT tools like as radio, television and mobile phones may have boosted farmers' exposure to various agricultural and related industry technology. Agricultural-related television programmes such as Annadata, line-department advisories, KVK scientists, DAATTC scientists and research stations may have a significant impact on farmers' understanding and knowledge, which may aid in the creation of improved farm management. This could explain why the vast majority of farmers (83.30 percent) are exposed to the media on a medium to high level. Farmers with minimal capital mobility, poor education levels and low ICT literacy may have had little exposure to the media. These findings are similar to those made by Arathy (2011), Sriharinarayana (2013), Praveen and Nain (2013) and Deepa (2019).

Scientific orientation

Around 79.20 per cent of farmers had a medium level of scientific orientation, with low (11.70%) and high (9.20%) levels of scientific orientation following. Individuals must make a firm decision to adopt modern agriculture methods. The degree to which a person is oriented to apply scientific procedures in their cultivation practices and to make decisions about whether or not to use those scientific approaches is crucial. It's possible that some of the farmers' lack of scientific orientation is due to their age and slow temperament, indicating that they are unable to implement scientific ideas into their farming activities. The majority of farmers were categorized as having a medium scientific orientation because the bulk of the respondents were middle-aged. Whereas those classed as having a high scientific orientation may have more education or are more innovative in character. The result was in agreement with Deepa (2019).

Risk orientation

Medium risk orientation was reported by 76.70 per cent of respondents, followed by high (15.80%) and low (7.50%) risk orientation. Risk aversion was a well-known personality trait, particularly in India, where farming is viewed as a game of chance with nature. This refers to a farmer's readiness to take calculated risks and meet problems while embracing new technology. The above observed finding may be attributed to the scale of land holding; farmers with small land holdings are not able to take much risk when it comes to adopting new technologies into their cultivation activities, while farmers with the capacity to take risk are more interested in incorporating recent innovations and who enjoy experimenting with novel ideas may have a higher risk preference and could fall into the medium to high-risk range. The findings are consistent with those of Sriharinarayna (2013), Madhuri (2016) and Deepa (2019).

Innovativeness

The majority of respondents (78.30%) had a medium degree of innovativeness, followed by high (12.50%) and low (9.20%) levels of innovativeness. Uncertainty is measured by innovativeness. Farmers may have been exposed to major environmental anomalies as well as technical problems and they may have experienced problems in their day-to-day farm operations. This may be attributed to a lack of experience and expertise in dealing with the case, resulting in poor performance. Farmers with medium knowledge and extension contacts were able to enhance their knowledge and abilities on a regular basis and were willing to accept emerging advancements in their farming, which explains the above pattern. Illiterates, laggards, and resource-poor farmers, on the other hand, may lack the understanding and risk-taking capacity to deploy such novel technologies. The findings are consistent with those of Arathy (2011), Praveen and Nain (2013), Madhuri (2016) and Deepa (2019).

Achievement motivation

The majority of respondents (70.80%) had a medium degree of achievement motivation, with low (11.70%) and high (17.50%) levels of achievement motivation following closely behind. Achievement motivation encourages people to make the best decisions and complete tasks in a specific way in order to achieve their goals. The majority of the farmers in the sample region were determined to have a medium degree of achievement motivation due to their risk-taking desire, capacity to make the right judgments and acceptance of advised techniques to attain sustainable yield and higher economic growth. The above

findings may be explained by the fact that the majority of the respondents had medium profile characteristics, and the farmers in the study region were typical. The results are in conformity with the findings of Kiran *et al.* (2012), Hrudayaranjan (2013) and Madhuri (2016).

The results revealed that majority of the wet direct seeded rice cultivators belonged to medium level of category with respect to most of the variables selected, hence there is immediate need to conduct the demonstrations and to organize some meetings to show the benefits of wet direct seeded rice cultivation and to orient the farmers towards the cultivation of wet direct seeded rice.

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