

RESEARCH PAPER

Preferred communication sources and information needs of the rice farmers of Prakasam district of Andhra Pradesh

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Abstract: Information and technology dissemination is a crucial tool for promoting agricultural development. The present investigation was carried out in Prakasam District of Andhra Pradesh during the year 2015. Ninety rice farmers were selected from 6 villages of 3 major rice growing mandals by following simple random sampling method. Majority of the Rice farmers' preferred personal localite sources of communication were friends/neighbors (71.11%), input dealers (65.56%) and progressive farmers (51.11%). Frequently contacted personal cosmopolite sources of communication were bank personnel (56.67%) and agricultural scientists of KVK/ARS (47.78%). Television (58.89%) and news paper (53.33%) were the major mass media sources of communication frequently used by respondents. Majority of the rice farmers expressed information needs on pest management (91.11%), disease management (84.44%), fertilizer management (76.67%), compatibility of insecticides and fungicides (73.33%), high yielding varieties (67.78%), micronutrient deficiency identification and management (63.33%), critical stages of irrigation and management (62.22%), weed management (57.78%) and mechanization in paddy (53.33%). Major constraints in rice production were high cost of the labour (85.56%), increased cost of cultivation (80.00%), insufficient labour availability at critical operations like transplanting and harvesting (77.78%), heavy pest and disease incidence (76.67%), non availability of location specific machinery for transplanting and harvesting (64.44%), lack of reasonable support price (64.17%), non availability of location specific high yielding varieties (58.89%), insufficient canal irrigation (53.33%) and more weed growth (51.11%).

Key words: Communication sources, Constraints, Information needs, Rice

Introduction

Information is a critical input for Agricultural Development which can be efficiently converted in to economically rewarding opportunities. Information is regarded as one of the most valuable resource in agricultural and rural development programmes (Morrow *et al.*, 2002). It is also regarded as an important input in agriculture (Oguya, 2007). The present agriculture strategy in India calls for speedily, timely dissemination of agricultural information for the clientele. Agricultural productivity depends largely on the extent to which farmers adopt new technologies. It is felt that a large part of gains from new farm technologies still remain to be realized. This is because of lack of awareness and knowledge about these technologies. In the fast changing scenario, information plays an immense role in our society and its dissemination through highly perfected communication media contribute a lot to striking development of our time. Information needs assessments give programme designers that ability to develop interventions that target users with specific information needs. In an information needs assessment, a farmer may highlight an important information need based on his/her requirement or interest, but unfelt or unrecognized needs will be revealed through this approach. Knowledge about the communication channels would be helpful in developing a suitable extension strategy to uplift Socio Economic status of the farmers by reaching large number of farmers through their reliable sources of information.

Rice is a staple food for millions of people in the world, particularly in developing countries like India. The demand for

rice is growing with ever increasing population. In India more than 70 per cent of the ground and surface water is being used for Agriculture and out of this, 70 per cent is allocated to rice cultivation. The demand of rice in India is increasing with increase in population and is expected to be 140 m.t by 2025 (Pandey *et al.*, 2008). Understanding rice farmers' preferred information sources, information needs and constraints in production helps in designing appropriate policies and extension programs which could contribute to improving the skills and expertise of paddy growers and increase productivity. With this background the present study was designed to analyze sources of information, information needs and constraints in paddy production.

Material and methods

The present study was conducted during 2015 in Prakasam district of Andhra Pradesh. Three mandals *viz.*, Darsi, Singarayakonda and Chirala were purposively selected as they were pioneering in rice area and production. Two villages from each mandal were selected having highest area under rice. From each of selected village 15 Rice farmers were selected randomly to represent the group. Thus a total of 90 Rice farmers were selected for the study purpose by using simple random sampling method. For collection of data, the interview was held personally at homes or the farms of the respondents in local dialect. The farmers were asked to list their information sources, use frequency, information needs and constraints in rice production. The sources were placed into three groups *i.e.*, personal localite, personal cosmopolite and mass media. Each group was

sub-divided into individual sources. To measure the extent use of information sources by the farmers, three point scale was used as 'Frequently', 'Occasionally' and 'Never'. Finally, the collected data were analyzed using descriptive statistics (Frequency and percentage).

Results and discussion

Preferred communication sources of Rice farmers

Personal localite sources of communication

It could be inferred from table 1 that majority of the rice farmers were frequently using friends/neighbors (71.11%), input dealers (65.56%) and progressive farmers (51.11%) as their preferred personal localite source of information. Occasionally rice farmers (40.00%) were approaching progressive farmers for information. Almost fifty (45.56%) per cent of the rice farmers never used village leaders and Adarsha Rythulu as a source of information. The trend where farmers relied on friends, neighbors and farmers' colleagues were also observed by Okwu and Dauda (2011), Achugbe and Anie (2011) and Rezvanfar *et al.* (2007). Boz and Ozcatalbas (2010) revealed that family members, neighbor farmer, extension services, input providers and mass media were key sources of information for Turkish farmers.

The ease or proximity of the source could also be an enabling factor here. Meanwhile, the findings indicate the importance of farmer-to-farmer extension model in technology dissemination. Obviously, it can be said that input agencies and neighbors were occasionally preferred informal sources. Therefore, it is suggested that these information sources should be made use of by the extension agents in effective diffusion of technical know-how among the farmers. In addition, attempts should also be made to keep in view the preference expressed by the respondents for use of different sources while making use of

these sources for dissemination of the knowledge among the farmers.

Personal cosmopolite sources of communication

It could be noticed from table that bank personnel were frequently contacted by the rice farmers (56.67%). This might be because majority of the respondents were small and marginal dependant on agricultural loans for cultivation. Almost fifty per cent (47.78%) of the respondents approached agricultural scientists of KVK/ARS frequently for getting information on recent production technologies. Forty per cent of the farmers frequently contacted Mandal Agricultural Officers regarding subsidies and other information. Occasionally farmers contacted Agricultural Extension Officers (44.44%) and bank personnel (38.89%). Agricultural Extension officers were available locally to some extent which facilitated farmers to contact them occasionally. More than half (51.11%) of them never used Assistant Director of Agriculture (Sub divisional level) as a source of information because of local non availability. More than forty per cent (41.11%) of the respondents never used market/private source for information because of non reliability.

Mass media sources of communication

It could be inferred from the Table 1 that majority of the farmers were using television (58.89%) as their source of information followed by news paper (53.33%). Almost thirty seven per cent of the respondents used news paper followed by television (35.56%) occasionally as their source of information. But more than fifty per cent of them never preferred radio as a source of communication. This might be because of prevalence of television sets even in rural areas with good networks. In contrary Ogboma (2010) and Ronald *et al.* (2014) in their study revealed that television and news papers were the least preferred source of information to their respondents.

Table 1. Information source utilization of rice farmers

Source of information	Source utilization pattern							
	Frequently		Occasionally		Never		Total	
	Freq	%	Freq	%	Freq	%	Freq	%
Personal localite source								
1. Friends/ Neighbors	64	71.11	21	23.33	5	5.56	90	100.00
2. Progressive farmers	46	51.11	36	40.00	8	8.89	90	100.00
3. Village leaders	31	34.44	18	20.00	41	45.56	90	100.00
4. Adarsha rythulu	26	28.89	23	25.56	41	45.56	90	100.00
5. Input dealers	59	65.56	21	23.33	10	11.11	90	100.00
Personal cosmopolite source								
1. Agricultural Extension Officers	18	20.00	40	44.44	32	35.56	90	100.00
2. Mandal Agricultural Officers	35	38.89	21	23.33	34	37.78	90	100.00
3. Assistant Director of Agriculture	15	16.67	29	32.22	46	51.11	90	100.00
4. Agricultural scientists of KVK/ARS	43	47.78	25	27.78	22	24.44	90	100.00
5. Bank personnel	51	56.67	35	38.89	4	4.44	90	100.00
6. Market/private source	26	28.88	27	30.00	37	41.11	90	100.00
Mass media source								
1. Radio	22	24.44	18	20.00	50	55.56	90	100.00
2. Television	53	58.89	32	35.56	5	5.56	90	100.00
3. News paper	48	53.33	33	36.67	9	10.00	90	100.00
4. Agricultural magazines	33	36.67	26	28.89	31	34.44	90	100.00

Information needs of rice farmers

Information needs of the rice farmers of Prakasam district were presented in Table 2. Majority of the rice farmers expressed they need information on pest management (91.11%), disease management (84.44%), fertilizer management (76.67%), compatibility of insecticides and fungicides (73.33%), high yielding varieties (67.78%), micronutrient deficiency identification and management (63.33%), critical stages of irrigation and management (62.22%), weed management (57.78%) and mechanization in paddy (53.33%). Below fifty per cent of the farmers felt their information needs were on integrated pest and disease management in paddy (45.56%), seed treatment (43.33%) and post harvest technology (32.33%). This training need analysis clearly indicated the knowledge and adoption gaps of the farmers in terms of pest and disease management and fertilizer management, which ultimately leading to increased cost of cultivation in rice production. Hence, there is a need to emphasize on these identified areas to make rice cultivation more remunerative and profitable. Similar information needs like pest and disease management, fertilizer management and high yielding varieties were identified by Suresh Chandra babu *et al.* (2011). The information needs expressed by the rice farmers clearly indicated that they were spending more on pest and disease management and fertilizers due to their inadequate knowledge on these aspects. Hence there is every need to update their knowledge on new molecules for pest and disease management, their compatibility and Integrated Pest and Disease management practices. Soil test based fertilizer application was another aspect to be popularized among farming

community to avoid unnecessary cost on chemical fertilizers along with soil health management. Farmers need to be updated on recent high yielding varieties suitable to their location. Micronutrient deficiencies were the important aspect where farmers were confused with that of pest and disease symptoms and wasting money by spraying pesticides unnecessarily. Hence, farmers felt identification and management of micronutrient deficiencies was another important area of their information needs. Inadequate canal irrigation water was insisting them to learn on critical stages of irrigation. Majority of the rice farmers were lacking knowledge on recent pre and post emergence herbicides to be used in different methods of rice cultivation. Therefore these information needs of the rice farmers need to be addressed through preferred communication sources of farmers.

Constraints of farmers in rice production

Constraints of farmers in rice production were presented in Table 3. cursory look at the table reveals that major constraints in rice production were high cost of the labour (85.56%), increased cost of cultivation (80.00%) with increased cost of inputs, labour and pest and disease incidence, insufficient labour availability at critical operations like transplanting and harvesting (77.78%), heavy pest and disease incidence (76.67%), non availability of location specific machinery for transplanting and harvesting (64.44%), lack of reasonable support price (64.17%), non availability of location specific high yielding varieties (58.89%), insufficient canal irrigation (53.33%), more weed growth (51.11%), lack of information on recent rice

Table 2. Information needs of rice farmers

Information need	Frequency	Percentage	Rank
High yielding varieties	61	67.78	V
Seed treatment	39	43.33	XI
Fertilizer management	69	76.67	III
Micronutrient deficiency identification and management	57	63.33	VI
Critical stages of irrigation and management	56	62.22	VII
Weed management	52	57.78	VIII
Pest management	82	91.11	I
Disease management	76	84.44	II
Compatibility of insecticides and fungicides	66	73.33	IV
Integrated Pest and disease management in paddy	41	45.56	X
Mechanization in paddy	48	53.33	IX
Post harvest technology	29	32.22	XII

Table 3. Constraints of farmers in rice production

Constraints	Frequency	Percentage	Rank
Non availability of high yielding varieties seed	53	58.89	VII
Increased cost of cultivation	72	80.00	II
Weed management	46	51.11	IX
Heavy pest and disease incidence	69	76.67	IV
Lack of reasonable support price	77	64.17	VI
High cost of labour	66	85.56	I
Lack of information on recent paddy production technologies	42	46.67	X
Non availability of location specific machinery for transplanting and harvesting	58	64.44	V
Insufficient labour availability at critical operations like transplanting and harvesting	70	77.78	III
Insufficient canal irrigation	48	53.33	VIII
No trainings on recent paddy production technologies	31	34.44	XI

production technologies (46.67%) and no trainings on recent rice production technologies (34.44%). All the constraints expressed by rice farmers were highly interrelated and they could be solved by addressing the information needs expressed by them through various extension strategies. Termanic Oinam and Sudhakar (2014) reported similar constraints like high cost of labour, lack of knowledge on recent technologies, lack of reasonable support price and insufficient training programmes were the major constraints in paddy cultivation.

The problem in agricultural development is not the availability of improved agricultural technologies but converting them into production accomplishments. The information hungry

farmers are approaching very many sources and channels for getting information on farm innovations to manage their farms well. Utilization of improved agricultural technology by the farmers, to a large extent, depends upon the effective sources of information and channels to which they are generally exposed directly or indirectly. Study revealed that most preferred sources of information for the paddy farmers were friends, input dealers, scientists and television. Organizing trainings to input dealers is the need of the hour to diffuse recent technical knowledge to the farmers along with telecasting timely information through television by considering the location specific needs of the farmers.

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