
Awareness of Paddy Growers regarding Neem Coated Urea in Davangere District

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Abstract

The study was conducted in Davangere district of Karnataka state using Ex-post-facto research design. One hundred paddy growers from 10 villages representing two taluks of the district constituted the sample for the study. The data were collected through personal interview method using structured interview schedule. The findings reveal that 57.00 per cent of paddy growers had heard about Neem Coated Urea (NCU), while 72.00 per cent of them were not aware of its benefits. Majority (69.00%) of the paddy growers did not use NCU in crop production and 88.00 per cent were not aware that less quantity of NCU is required for better crop production than usage of plain urea. Only 19.00 per cent of the growers felt that plain urea should be completely replaced by NCU. The results imply that extension personnel should play a larger role in creating awareness about NCU among the farming community. Higher the usage of NCU by the farmers, greater will be the savings for the national exchequer ensuring a win-win situation for both farmers and Government.

Keywords: Paddy Growers, Neem Coated Urea, Farming Community, Agricultural Programs.

Introduction

Neem coated urea (NCU) gained importance in India with the Central Government allowing 100 per cent production and imports of NCU. India produces 22 million tons of urea and imports about 8-9 million tons to meet the short fall. The proven advantages of NCU are lesser requirement of urea up to 15-20 per cent and 15-20 per cent increase in productivity. The subsidy bill can be reduced up to Rs. 6,500 crore per year. The higher usage of NCU would avoid diversion of urea for industrial purpose. Use of NCU in the farmers' fields helps in slow release of nitrogen thereby minimizing the loss due to leaching and evaporation and also works as an insecticide. Though NCU costs 5 per cent more than plain urea,

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its advantages outweigh the additional cost. The increased NCU and decreased nitrogen fertilizer application to crops will contribute to the conservation of air and water quality (Dinesh Kumar, 2015). The decision on adoption of NCU rests with the farming community, which in turn depends on their awareness about it and its advantages. In this situation, a study on awareness of paddy growing farmers regarding neem coated urea in Davangere district was taken up with the following objectives:

- 1) To study the profile of paddy growers, and
- 2) To study the awareness of paddy growers towards neem coated urea.

Methodology

The present study was undertaken in Davangere district of Karnataka state. Davangere district was purposively selected for the study because paddy is the most important crop of the district and is grown in 120876 ha. (Anonymous 2014) next only to maize, moreover due to researcher familiarity with the farmers in the district coupled with indiscriminate usage of urea in paddy which increases the susceptibility of the crop to incidence of pest and diseases. Ex-post facto research design was employed in the study. There are six taluks in the district and two taluks namely, Davangere and Harihara were purposively selected considering the highest area under paddy. Ten villages, five in each of the two taluks were selected in consultation with personnel from Department of Agriculture. Ten paddy growers were randomly selected from each of these villages. Thus, a total of 100 paddy growers constituted the sample. The data were collected during January 2016 through personal interview method using structured interview schedule.

Results and Discussion

The results presented in Table 1 indicate that, more than half of the paddy growers (62%) belonged to middle age group followed by old age group (25%). Thirty per cent of the respondents had education up to pre-university followed by high school (27%), degree and above (19%) and equal number (10%) having primary and middle school education. Majority (80%) of the respondents were married and 57 per cent belonged to joint family type with the remaining 43 per cent to nuclear family type. Regarding paddy farming experience, 34 per cent had more than 21 years followed by 23 per cent between 16-20 years and 20 per cent 6-10 years. It is clear from the table that 33.00 per cent belonged to semi-medium land

holding category followed by 30 per cent small and 20 per cent in marginal land holding category. With respect to annual income, 36 per cent belonged to less than Rs. 50,000, 21 per cent under Rs. 1,51,001 to Rs. 2,00,000 and 17 per cent of the respondents to Rs. 1,01,001 to 1,50,000 category.

The results reveal that a large majority (83%) of farmers belong to marginal to semi-medium category of land holdings and nearly one third (66%) of paddy growers in the income of less than Rs. 1,50,000 per annum. In these situations the growers might find it difficult to adopt cost incurring technologies like neem coated urea.

Table 1. Profile of paddy growers

n=100

Variable	Frequency	Per cent
Age		
Young (less than 35 years)	13	13.00
Middle (36-55 years)	62	62.00
Old (more than 56 years)	25	25.00
Education		
Illiterate	4	4.00
Primary school	10	10.00
Middle school	10	10.00
High school	27	27.00
Pre-university	30	30.00
Degree and above	19	19.00
Marital status		
Married	80	80.00
Un-married	20	20.00
Family type		
Nuclear	43	43.00
Joint	57	57.00
Experience in paddy farming		
Up to 5 years	13	13.00
6-10 years	20	20.00
11-15 years	10	10.00
16-20 years	23	23.00
More than 21 years	34	34.00
Land holding		
Marginal (Less than 2.5 acre)	20	20.00
Small (2.51 to 5.00 acres)	30	30.00
Semi-medium (5.01 to 10.00 acres)	33	33.00
Medium (10.01 to 25.00 acres)	9	9.00
Big farmers (More than 25.00 acres)	8	8.00

Annual income		
Less than Rs. 50,000	36	36.00
Rs. 50,001 to Rs.1,00,000	13	13.00
Rs. 101001 to Rs. 1,50,000	17	17.00
Rs. 151001 to 2,00,000	21	21.00
Above Rs. 201000	13	13.00

Table 2 reveals that 33 per cent of the paddy growers had regular contact with Krishi Vigyan Kendra (KVK) specialists. Demonstrations in farmers' field and other extension activities implemented by the KVK might be the reason for the paddy growers having regular contact with specialists. Agriculture officer (30%) and Assistant Agriculture Officer (20%) were the other sources of extension contact by the respondents. Since these officers were based at Raitha Sampark Kendras (RSK) situated at block level, to avail the benefits of agricultural programmes and to purchase subsidized agriculture inputs, the growers seem to have regular contact with these officers from agriculture department. It is interesting to see that majority of farmers had never contacted any of the extension personnel for information (67% never contacted Agriculture Scientists, 63% Assistant Agriculture Officer and 44% Assistant Director of Agriculture). The possible reason for this might be these farmers belong to irrigated area and grow only paddy as mono crop. The absence of crop diversity and integrated farming system; also, in many instances the AOs and AAOs are working in more than one headquarter due to less number of recruited personnel resulted in limited contact with extension personnel.

Table 2. Distribution of respondents according to their extension contact

n = 100

Extension personnel	Frequency of contact					
	Regular		Occasional		Never	
	No.	%	No.	%	No.	%
Assistant Agriculture Officer	20	20.00	17	17.00	63	63.00
Agriculture Officer	30	30.00	30	30.00	40.	40.00
Assistant Director of Agriculture	13	13.00	43	43.00	44	44.00
Agriculture Scientists	7	7.00	26	26.00	67	67.00
KVK Specialists	33	33.00	30	30.00	37	37.00

An examination of the contents of Table 3 reveals that 63.00 per cent of respondents were regular readers of newspaper followed by 53 per cent who regularly watch TV and receive mobile messages. Kisan Mobile Advisory Services (KMAS) launched by Central Government to send mobile messages to farmers through department of agriculture and KVKs have helped farmers to get agricultural information through mobile messages. Only 20 per cent listen to radio and read farm magazines.

Nearly one third of the respondents watch TV (37%) and listen to radio (33%) occasionally. Majority (66%) never read farm magazine followed by radio (47%), never read newspaper (27%) and are not receiving any mobile messages (27%). Regarding access to WhatsApp messages, 17 per cent had regular access followed by 10 per cent who had occasionally and 73 per cent never accessed WhatsApp messages. The extension personnel from development departments and KVK were making commodity/crop wise farmers groups to disseminate agricultural information through WhatsApp messages. This is a new concept which depends on internet accessibility by the farmers through mobile but with increased usage of smart phones, information delivery through WhatsApp messages will have greater scope in coming years.

Table 3. Distribution of respondents according to their mass media participation
(n=100)

Name of the media	Extent of participation / use					
	Regular		Occasional		Never	
	No.	%	No.	%	No.	%
Radio	20	20.00	33	33.00	47	47.00
TV	53	53.00	37	37.00	10	10.00
News paper	63	63.00	10	10.00	27	27.00
Farm magazine	20	20.00	14	14.00	66	66.00
Mobile messages	53	53.00	20	20.00	27	27.00
WhatsApp messages	17	17.00	10	10.00	73	73.00

Regarding awareness of paddy growers on NCU (Table 4), 57 per cent of the respondents had heard about NCU. Majority (72%) of the respondents were not aware of the benefits of neem coated urea; only 28 per cent were aware of its benefits. This was directly proportionate to the number of growers who used NCU in their fields. Regarding availability of NCU in nearby markets, 60 per cent of respondents felt that neem coated urea is not available in the market. Majority (69%) of the farmers did not use NCU for crop production and 88 per cent of farmers were not aware that less quantity of NCU is required for better crop production than plain urea. Ninety-one per cent of respondents were not sure of NCU reducing the usage of plain area. Majority (76%) of the respondents had not received any information regarding NCU from extension personnel or from input dealers and 24 per cent of respondents did receive some information on NCU. Only 19 per cent of respondents want to replace plain urea by NCU and majority (81%) think otherwise. The concept of NCU is new to the farming community. Farmers are yet to be convinced about its advantages in agricultural fields. The lesser awareness of farmers regarding NCU is also attributed to their extent of contact with extension

agency and their mass media participation. Extension personnel who are in direct contact with the farmers should educate farmers regarding benefits of NCU and motivate them to use NCU more than plain urea.

Table 4. Awareness of Paddy growers regarding neem coated urea

(n=100)

Particulars	Awareness of paddy growers about neem coated urea			
	Yes		No	
	No.	%	No.	%
Whether heard about neem coated urea	57	57.00	43	43.00
Whether aware of benefits of neem coated urea over plain urea	28	28.00	72	72.00
Whether neem coated urea available in market	40	40.00	60	60.00
Whether you are using neem coated urea	31	31.00	69	69.00
Whether using less quantity of neem coated urea in crop production compared to plain urea	12	12.00	88	88.00
Whether neem coated urea will reduce the quantity of urea used	9	9.00	91	91.00
Whether input dealer or extension personnel has told you about neem coated urea	24	24.00	76	76.00
Whether urea should be replaced by neem coated urea completely	19	19.00	81	81.00

Conclusion

The findings of the study clearly reveal that farmers are yet to realize the advantages of NCU over plain urea because of low awareness and poor perceptions. The extension personnel should be equipped with full knowledge regarding the advantages of NCU, so that they can disseminate information to the farming community. The Government should formulate policy to withdraw plain urea completely and make available only NCU for agricultural usage. This would help farmers to derive the benefits of NCU and minimize the ill effects resulted by using plain urea. This can ensure a win-win situation for both farmers and Government.

References

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