

KNOWLEDGE OF FARMERS ABOUT NEEM COATED UREA

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ABSTRACT

Out of 17 nutrients essentially required by crop plants for their normal growth and reproduction, nitrogen (N) is generally required by them in the largest amounts. Urea is one of the most widely used source of fertilizer N in the world. Urea constitutes about 82% of the fertilizer nitrogen (N) used in India. Nitrification inhibitors when applied along with urea reduce losses of applied N thereby resulting in improved yield of crops. Several studies reveals that Neem Coated Urea (NCU) reduces consumption of urea by 10-15%. Government is also incurring on promoting neem coated urea among the farmers. It becomes inevitable to know the perception of ultimate client i.e. farmer regarding its usages and to what extent they aware about use of NCU. Looking into this, present study was conducted to know Extent of Knowledge about use of neem coated urea (NCU) in crop production among farmers of Surendranagar district. The According to ICAR guideline, 10 villages randomly selected from different location of the district, 10 farmers from each villages were selected for this study. Total 100 farmers were selected by proportionate random sample method. The data were collected by personal interview of the farmers. The sizes of land holding of farmers were 13, 49, 27 and 11 per cent marginal, small, medium and big farmers, respectively. 84 % farmers are heard about NCU; 71% aware with benefit of NCU over plain urea; 81% farmers using NCU; 54 % know use of NCU in less quantity as compare to plain urea; 87% farmers aware about NCU from input or cooperative dealers. Thus, according to view of farmers NCU more convenient and it will replace plain urea from market for more benefits in farming.

Keywords : neem coated urea, urea, knowledge level

INTRODUCTION

Urea is the most popular nitrogenous fertilizer among the farmers because of its low cost and easy availability. But the major disadvantages of urea are its high solubility in water and it is very much susceptible to nitrogen loss through various pathways like leaching, ammonia volatilization, nitrification and de-nitrification. Among these ammonia volatilization is happened to be the dominant loss mechanism because of conventional method of fertilizer application (wet soil surface broadcasting) followed by the farmers encourage it [Baraiya et al 2016 and Allison (1995)]

Urea is widely used as a fertilizer because of its high nitrogen content (46.6%). Unfortunately, urea is very water soluble and in regions with high precipitation the fertilizer may be leached from the soil before plants have an opportunity to assimilate it. Allison (1955) and Lundt (1971) [2,3] have reported that as much as 75% of the nitrogen may

be lost in areas with high, intermittent rainfalls. Such losses result not only in increased costs, but they also contribute to the contamination of local waters. Although urea losses can be minimized by the repeated application of smaller fertilizer quantities, the associated with repeated spreading are often high. One approach to the problem is to encapsulate the fertilizer granules with shells, which have low water permeability. For reduction of such losses neem oil is the one of the important substance for minimize the volatilization of the urea. It helps in slow release of nitrogen from urea. Now a days many company prepare neem coated urea. Since last time it also produce neem coated urea which material import export through sea. Therefore, present study was carried out knowledge about neem coated urea and its importance in maximum benefit from urea.

OBJECTIVE

To know extent of knowledge about use of Neem Coated Urea

METHODOLOGY

The study was undertaken by Krishi Vigyan Kendra, Junagadh Agricultural University, Surendranagar districts of Gujarat state. As per the need of study, 10 villages were randomly selected from different talukas of Surendranagar district. 10 farmers from each villages were selected for this study. Total 100 farmers were selected by proportionate random sample method. The data were collected by personal interview method and simple percentage method was used for analysis of data statistically to reach at meaningful results and conclusion.

Table-2 Knowledge of farmers about neem coated urea

| Sr. No. | Land Holding | Percent |
|---------|---|---------|
| 1 | Whether heard about Neem Coated Urea (NCU) | 84 |
| 2 | Whether aware of benefits of Neem Coated Urea (NCU) over plain urea (U) | 71 |
| 3 | Whether Neem Coated Urea (NCU) is available in market | 100 |
| 4 | Whether you are using Neem Coated Urea (NCU) | 81 |
| 5 | If used, any benefit of Neem Coated Urea (NCU) in crop | 80 |
| 6 | Whether using less quantity of Neem Coated Urea (NCU) in field compared to plain urea | 54 |
| 7 | Whether Neem Coated Urea (NCU) will reduce the quantity of urea used | 35 |
| 8 | Whether input dealer or cooperative dealers has told you about benefits of Neem Coated Urea (NCU) | 87 |
| 9 | In your view, whether urea should be replaced by NCU completely or both should be available in market | 76 |

It can be extracted from Table-2, that 84 % farmers are heard about neem coated urea; 71 per cent aware with benefits of neem coated urea over plain urea; 80 per cent farmers have knowledge about neem coated urea available in market; 81 per cent farmers using neem coated urea and 35% having knowledge about neem coated urea reduce the quantity of urea; 54 per cent farmer used neem coated urea in crop and get benefits; 35 per cent know use of neem coated urea in less quantity as compare to plain urea; 87 per cent farmers aware about neem coated urea from input or cooperative dealers; 76 per cent give view about plain urea should be replace with neem coated urea completely or both should be available in market. Thus, according to the view of farmers, neem coated urea more convenient and it will replace plain urea from market for more benefits in farming.

CONCLUSION

From above result and discussion, it could be concluded that, majority of the farmers owned land more than 2.0 hectares, 84% farmers are heard about neem coated

RESULTS AND DISCUSSION

Table-1 Distribution of the respondents according to their Land holding n=100

| Sr. No. | Land Holding | Percent |
|---------|--------------------------|---------|
| 1 | Marginal (up to 1.0 ha) | 13 |
| 2 | Small (1.01 to 2.0 ha) | 49 |
| 3 | Medium (2.01 to 4.0 ha) | 27 |
| 4 | Large (more than 4.0 ha) | 11 |

The data in Table-1 indicate that (49%) of the farmers were small farmers followed by medium farmers (27%) and marginal farmers (13%). Only (11%) of them were small farmers. it can be concluded that majority of the farmers owned land more than 1.0 hectares.

n = 100

urea; 71% aware with benefits of neem coated urea over plain urea; 81% farmers using neem coated urea; 80% farmer used neem coated urea in crop and get benefits; 54% know use of neem coated urea in less quantity as compare to plain urea; 87% farmers aware about Neem coated urea from input or cooperative dealers. Thus, according to the view of farmer's neem coated urea more convenient and it will replace plain urea from market for more benefits in farming.

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