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Constraints faced by the rice farmers in input utilization and suggestions to overcome them

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ABSTRACT

The present investigations were done in Nellore district of Andhra Pradesh to study the constraints faced by the rice farmers in input utilization and suggestions to overcome them. Ex-post facto research design was followed for the study and a sample of 120 respondents was drawn. The results of the study revealed that the majority of the rice farmers felt that the high cost of inputs (106) was one of the major constraints and it was ranked first among all the constraints. Exploitation of input dealers (102) followed by non-availability of need-based inputs (94) and lack of skills in application of inputs (86) were major constraints faced by the rice farmers in input utilization. The other constraints included poor quality of inputs (79), adulteration of inputs (74), lack of timely extension support (69), and illiteracy (54). Issuing of license to input dealers was the major suggestion given by the respondents and it ranked first followed by monitoring of new molecules, awareness programmes to use inputs in accordance with climate, regular training programmes to update the latest developments in research, timely extension support and regular supervision by state department.

Keywords: Inputs; input dealers; training programme; constraints; suggestions

INTRODUCTION

Rice is the most important and extensively grown food crop in the world. More than half the world's population depends on rice for its major daily source of food energy and protein and four-fifths of the world's rice is produced and consumed by small-scale farmers in low-income developing countries. Two billion people in Asia alone derive 80 per cent of their food energy intake from rice and thus the importance of this crop in relation to food security and socio-economic stability is self-evident (http://www.fao.org/3/y4751e02.htm). In this context the concept of input efficiency plays a major role for the increase in productivity of rice. The crucial role of efficiency in increasing agricultural output has been widely recognized by researchers and policy makers alike. Therefore it is not a surprise if considerable efforts have been put forth to the analysis of farm level efficiency in developing countries. Green revolution paved the way for the use of chemicals in agriculture in general and rice in particular to increase the production. Tremendous impact has been created on the productivity of rice with the use of agro-chemicals for the control of pests and diseases. Simultaneously the efforts have also been made by the scientists to develop new varieties which are highly productive with fine grain quality. But majority of such varieties were high input-responsive and more susceptible to pests and diseases. This condition led to the intensive use of fertilizers, pesticides etc in rice cultivation. Some of the minor pests and diseases also became major ones resulting in huge damage to rice crop. Accordingly new molecules of agro-chemicals which are highly effective with low volume and high cost were launched by the input agencies to reduce the incidence of pests and diseases. On the other side varieties of herbicides have also been launched by the input agencies to replace human labour for weeding. But all these agro-chemicals one way or the other tremendously increased the cost of cultivation.

Since last two decades, the consumption of fertilizers, pesticides and other inputs in rice became very high to achieve high production and productivity. But due to intensive use of inputs the cost of cultivation rose up and reduced the net returns in rice cultivation.

METHODOLOGY

The study was conducted in Nellore district of Andhra Pradesh during the year 2018-19. Ex-post facto research design was followed for the study. Three Mandals of Nellore district and four villages from each Mandal viz Mypadu, Pallipadu, Somarajupalle and Indukurpet from Indukurpeta Mandal, Naidupalem, Kodavalur, Gandavaram and Talamanchi from Kodavalur Mandal and Allur, Isakapalle, Beeramgunta and Velicherla from Allur Mandal were selected by using simple random method from which 120 rice farmers were selected as sample. Pre-tested interview schedule was used to collect the primary data and statistical techniques like frequencies and percentage were used.

RESULTS and DISCUSSION

To ascertain different constraints faced by the rice farmers they were asked to express their constraints in carrying out different aspects in rice cultivation. The constraints expressed by the respondents were tabulated along with frequency, percentage and ranks and are presented in Table 1.

It was found that majority of the rice farmers (106) felt high cost of inputs as one of the major constraints and it was ranked first among all the constraints. Exploitation of input dealers (102) was ranked second followed by non-availability of need-based inputs (94) and lack of skills in application of inputs (86). Poor quality of inputs was ranked fifth followed by adulteration of inputs, lack of timely extension support and illiteracy.

The possible reason might be that most of the farmers disposed off the livestock in the recent times which led to the non-availability of FYM and increased its cost in the villages. It was felt by the farmers that there was a great increase of prices of chemical fertilizers during the past two decades that increased the input cost. The results are in agreement with the work of Arathy (2011) and Kumbhare and Singh (2011).

Sometimes the recommended fertilizers were also not available in the market forcing the farmers to purchase the complex fertilizers because of which the farmers had to spend extra amount for unwanted chemical fertilizers. Urea being the most common nitrogen fertilizer has been indiscriminately used by the farmers irrespective of scientific prescriptions given by the scientists and extension functionaries. Similar findings were also reported by Oluyole et al (2013).

On the other side, during peak season the input dealers used to hike the prices of inputs especially the fertilizers and farmers were forced to pay the extra amount. It was also felt by the farmers that there was adulteration of inputs which led to poor performance of inputs. Similar observation was made by Verma (2005).

Lack of knowledge on proper usage of plant protection equipment also might be reducing the performance of plant protection chemicals and increasing the cost of cultivation. The overview of the above constraint analysis can also be attributed to the illiteracy of the farming community. Similar results were also reported by Bandumula and Muthuraman (2009) and Udaykumar et al (2010).

Suggestions made by the rice farmers to overcome the problems

The respondent farmers offered their suggestions to overcome the problems encountered by them in cultivation of rice (Table 2). The results revealed that license to input dealers was the major constraint that ranked first followed by monitoring of new molecules, awareness programmess to use inputs in accordance with climate, regular training programmes to update the latest developments in research, timely extension support and regular supervision by state department which ranked second, third, fourth, fifth and sixth respectively.

To meet the changing demands of the present agriculture there is every need to focus on technical proficiency of input dealers. In this context the role of agricultural graduates and diploma holders is very substantial. Hence it should be made mandatory to all the input dealers to acquire required qualification ie bachelor degree or diploma in agriculture. It also can be refined for the existing input dealers by engaging agriculture graduates or agriculture diploma holders as experts to continue their business.

Table 1. Constraints faced by the rice farmers

Constraint	Farmers (n= 120)		
	Frequency	Percentage	Rank
High cost of inputs	106	88.33	I
Exploitation by the input dealers	102	85.00	II
Non-availability of need-based inputs	94	78.33	III
Lack of skill in application of inputs	86	71.67	IV
Poor quality of inputs	79	65.83	V
Adulteration of inputs	74	61.67	VI
Lack of timely extension support	69	57.50	VII
Illiteracy	54	45.00	VIII

Table 2. Suggestions given by the rice farmers to overcome the constraints

Suggestion	Farmers (n= 120)		Rank
	Frequency	Percentage	
Issuing license to input dealers	102	88.33	I
Monitoring of new molecules	98	85.00	II
Awareness programmes to use inputs in accordance with climate	91	78.33	III
Regular training programmes to update the latest developments in research	84	71.67	IV
Timely extension support	75	65.83	V
Regular supervision by state department	71	61.67	VI

Due to globalization and intensification of agriculture, the scenario of inputs is becoming very dynamic and new molecules are being introduced regularly with great precision. This condition is creating dilemma among majority of the stakeholders towards their applications as well as their proficiency at the field level. So there is every need to strictly monitor the new molecules and due procedures have to be streamlined for their recommendation to the farmers.

It is a common phenomenon in agriculture that there are regular disasters in form of cyclones, droughts, storms, heavy wind falls and pest outbreaks causing severe damage to the crops. The farmers are becoming helpless in handling such situations. Being localities the input dealers can be trained in such areas so that they can guide and suggest appropriate measures to overcome the problematic situations by minimizing the losses caused due to disasters.

Training programmes have to be organized for input dealers on regular basis by involving the scientists to update the latest developments in the field of agricultural research. This facilitates the input dealers to know about the different field problems and their relevant recommendations so as to suggest correct recommendations to the farmers. The combination as well as the composition of different chemicals and their mode of action have to be dealt with during the training sessions.

Being the direct controlling officers, the state department of agriculture authorities must maintain regular supervision on the activities of input dealers by checking their records so as to monitor the role of input dealers.

CONCLUSION

The results of the study revealed that the majority of the rice farmers felt that the high cost of inputs was one of the major constraints and it was ranked first among all the constraints. Exploitation by the input dealers, non-availability of need-based inputs and lack of skills in application of inputs were the major constraints faced by the rice farmers in input utilization. License to input dealers was the major suggestion and ranked first followed by monitoring of new molecules,

awareness programmes to use inputs in accordance with climate, regular training programmes to update the latest developments in research, timely extension support and regular supervision by state department were the major suggestions given by the rice farmers.

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