

# STUDY ON MARKETING AND USE OF HERBICIDE IN RICE IN BUXAR DISTRICT OF BIHAR

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## ABSTRACT

The marketing of herbicide in rice industry typically involves advertising campaigns that emphasize the benefits of using herbicides, such as increased crop yield and decreased labor costs. These campaigns often target farmers through print and digital media, as well as through in-person demonstration and education seminars. The use of influencer marketing. Such as working with well-respected farmers or agricultural organization, is also a common tactic.

Weeds are the main phytosanitary in rice crop. Over-reliance on herbicide and lack of crop operations range in the rice system have produced intense selection for the evolution of resistant weed population. This study focused on rice farmer's perception and attitudes towards weeds and agriculture practices for weed management. The methodology of a questionnaire was used, carried out in person with rice producers in the main rice producing region in Portugal, complemented by three focus groups. The outcomes reveal that Echinochloa spp. Is the weed of greatest concern, followed by Oryza sativa var. sylvatica. New weeds are about to emerge, mainly Leptochloa fusca spp. Fascicularis. It will be critical for performance at the innovation ecosystem level of achieve evolution in social capital. Policies that promote innovation for the performance of more ecological and sustainable practices must be settled. The problem of herbicide resistance is increasing with the reduction in the number of active substances. There is great difficult in adopting non-chemical weed control to meet the requirements of the European ecological pact. The implementation of these alternatives cannot be widespread, but must be studied on a case-by-case basis and requires technical monitoring adapted to the region and the plot.

# INTRODUCTION

Rice is the stable food of more than 60% world population and most of people of S.E Asia. About 90% rice grown in the world is produced and consumed in Asia. It is crop of wet tropical climate and also grown in humid region of subtropics. In India, rice occupies the Frist position among the cereals in respect of both area and production.

Paddy is the seed of the grass species Oryza sativa (Asian rice) or Oryza glaberrima (African rice). As a cereals grain, it is the most widely consumed staple food for a large of the world's human population, especially in Asia. It is the agricultural commodity with the third-highest worldwide production, after paddy and maize, according to 2012

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FAOSTAT data . Since a large portion of maze crops are grown for purposes other than human consumption, rice is the most important grain with regard to human nutrition and caloric intake, providing mare than one-fifth of calories consumed worldwide by humans. India is a country about 1.3 billion people. More than 65% of India's people live in rural areas and their main occupation is agriculture. Agriculture is the back bone of Indian economy because it contributes to economic and social well-being of entire nation through its influence of the GDP and employment. Agriculture sector accounts for only 13.7 percent GDP (2012-13). (Source link: articles. Economic time.indiatimess.com). A paddy is the most important cereal food crop India. It occupies about 24% of gross cropped area of country. It plays vital role in the national food grain supply. Rice contributes 43 % of total food grain production and 46% of total cereal production specially for most of people of South-East Asia. Among the rice growing countries in the world, India has largest area under rice crop and ranks second in production next to China. The productivity of rice in India higher than Thailand, Russian Federation and Nepal but much below the productivity of Japan, China, U.S.A. and Indonesia. Average rice productivity in India at the end of eleventh plan(2006-07 to 2011-12) was 2258kg/ha. The productivity of rice which was 668kg/ha in 1950-51 and has reached to 2177 kg/ha during 2010 - 11 (source link:articles.economictimes.indiatimes.com) It is a grain with the second highest worldwide production after maize (corn). Asia accounts the 90 percent of only 6-7 percent of the he world's production of paddy crop is traded in the world market. Thailand, Vietnam, China, and United Stated are the world largest exporter. Paddy is one of the most important cereal crops in the worlds. India's share in the world's paddy production is about 2.5 percent. India has a largest area under paddy in the world but is the second largest producer of paddy next only to the China. The other important paddy producing countries are Indonesia, Bangladesh, Vietnam, Thailand and Myanmar. India paddy constituted 42 percent of the total food grain producing accounting for about 23.3 percent of the total cropped area. India has a largest area under paddy cultivation in the world, which is about 45 million hectares. Production of paddy in India is highest in West Bengal state, but productivity of paddy in India is highest in Punjab state. Rice is the staple food of more than 60 percent of the world's population. It is the staple food of most of the people of South – Eastern Asia. About 90 percent of all rice grown in the world in produced and consumed in the Asian region. In India, rice is the most important and extensively grown food crop, occupying about 40 million hectares of land. Rice is primarily a high – energy calorie food. It contains less protein than wheat.

#### Area and Distribution:

Area:	India > China > Indonesia
Production:	China > India > Indonesia
Productivity:	US <mark>A</mark> > Ja <mark>p</mark> an > China

#### In India:

Area:	West Bengal > UP >	<mark>Biha</mark> r		
Production:	We <mark>st Be</mark> ngal > UP >	<mark>And</mark> hra	Prac	desh
Productivity:	Panj <mark>ab(</mark> 34q/ha)			

## MATERIAL AND METHODS

**Selection of District:** Bihar has 38 districts: Buxar district of Bihar will be selected purposively because the district. Buxar district is located in the southwestern part of Bihar .

Buxar District of Bihar was selected purposively because the district has large area of paddy cultivation and most of the respondent using herbicides (Rifit Plus ) so I selected Buxar district .

**Selection of Block:** In Buxar District out of 11 community development block, grouped together into 2 subdivision based in Buxar and Dumaron. Itarhi block, was selected for the study the basis for selection of block was maximum using herbicides respondents found in the block.

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**Selection of Village**: Selection of the village is the third stage of sampling. A complete list of the village of selection block will be obtained from the block development office of the concerned block. There 5% village will be selected randomly. Out of 110 village.

## **TOOLS OF ANALYSIS**

The master table has prepared from the data collected from respondent & was subjected to statistical analysis. A brief note on analysis is prepared under tabular presentation.

1. **Marketing Cost:** The total cost , incurred on marketing either in cash or in kind by the producer seller and by the various intermediates involved in the sale and purchase of commodity reaches the ultimate consumer.

Marketing Cost = C - CF + Cm1 + Cm2 + Cm3 + .... + Cmn

2. Marketing Margin: Marketing margin is calculated by subtracting the net farm value equivalent of food sold at farm products from the retail price.

Marketing margin = Product price -Marketing cost

3. **Marketing Efficiency:** Where Marketing efficiency refers to the degree to which marketing prices reflect all available relevant information if markets are efficient, then all information is already incorporated into price.

## Garrett's Ranking Technique

Garrett's Ranking Technique was applied to study the preference, change of orders of constraints and advantages into numerical ones. The prime advantage of this technique over simple frequency distribution is that the constraints are arranged based on their severity from the point of view of respondents. The order of merit given by the respondents were converted into a rank by using the formula. To find out the most significant factor this influences the respondents, Garrett's ranking technique was used.

Per cent position = 100 (Rij - 0.5) / NJ

Where,

<u>Rij = Rank given for the ith variable by ith respondents</u>

<u>nj = Number of variable ranked by jth respondents</u>

**RESULT AND DISCUSSION** 

The present study entitled "A Marketing and use of Herbicides in Rice Buxar district of Bihar.

**Objective:1.** To study the socio-economic profile of respondent in the study area.

		Size	Average			
S. No	Particulars	Small	Medium	Large	Sample	
1	Size of farms group	50	40	30	120	
	(In numbers)				(100%)	
2	Average size of cultivated land					
	Holdings in hectare	0.68	1.65	2.75	1.34	
3	Land utilization in different (crops sown area in ha)					
	Kharif					
	Paddy	0.33	0.80	1.30	0.65	
Ι	Soyabean	0.25	0.50	0.80	0.42	
	Maize	0.10	0.25	0.65	0.27	
	Rabi					
II	Wheat	0.28	0.62	0.95	0.50	
	Gram	0.24	0.58	0.90	0.46	
	Mustard	0.16	0.45	0.88	0.37	
	Zaid (Summer)					
	Cucumber	0.12	0.38	0.50	0.28	
	Vegetables	0.10	0.30	0.35	0.17	
4	Total sown Area	1.75	4.33	7.38	3.50	
5	Cropping Intensity	257.35	262.42	268.36	261.19	

 Table:4.1.Detail description of the cultivated holdings in different size of farms group.

 Table 4.1 Revealed that size of the farms group in number of small, medium and large size farms were 50, 40, and 30 farms group respectively. Altogether 120 farms group selected for study.

Average size of the cultivated holdings per hectare for small size farm was 0.68 ha followed by 1.65 ha for medium size and 2.75 ha large size of farms group, which constituted on average sample of 1.34 ha respectively.

			Size of farms groups			
S. No		Particulars	Small	Medium	Large	Average Sample
	Average size of farms		5.90	6.80	7.50	6.73
1	Families		(100.00)	(100.00)	(100.00)	(100.00)
2	Education status					
			0.55	0.75	0.90	0.76
	Ι	Primary	(9.32)	(11.02)	(11.84)	(11.72)
			0.45	0.70	0.72	0.57
	Π	Middle/ High school	(7.62)	(10.29)	(9.47)	(8.79)
			2.02	2.40	2.68	2.25
	III	Intermediate	(34.23)	(35.29)	(35.26)	(34.72)
			1.03	1.25	1.65	1.30
	IV	Graduation and Above	(17.45)	(18.38)	(21.71)	(18.51)
~			4.05	5.10	5.95	4.71
3	Total literacy		(68.64)	(75.00)	(78.28)	(72.68)
			1.85	1.70	1.65	1.76
4	Total Illiteracy		(31. <mark>35</mark> )	(25.00)	(21.71)	(27.16)

**Table 4.2:** Details description of literacy in different size of farms group.

Group number of respondents =120

S M L = 50 + 40 + 30

Note: Table 4.2 in the parenthesis indicates to the total size of families

Table :4.2 revealed the education status of different size of farm groups. Literacy %age was highest in large size farms 78.28% followed by large size farms 75.00% and small size farms 68.64% and medium size farms 75.00% respectively. This makes the average sample for different size of farm group was 72.68% Among small, medium and large size farms group literates were 34.72% of farms had studied education up to intermediate, 8.79% of farms then studied the middle high school followed by 11.72% farms studied up to primary school. Only18.51% of farms had studied up to graduation. From the table it could be seen that illiteracy percentage was highest in small size farms 31.45% followed by medium size farms 24, 62% and was lowest in large size farms 22.53% respectively. Average sample was 27.05% for different size of farm groups

# SUMMARY AND CONCLUSION

In current scenario and future Herbicides have bright future because every year. Farmers totally depend on the herbicide that show the increasing demand of the herbicide This makes the sample average for cropping intensity was 268.27 percent among different size of farms group. Highest sample average percentage of different size of farms belongs to the age composition of below 15-59 years (68.19 per cent) followed by below 14 years (20.65 per cent) and above 60 years and above (11.14) respectively. From the table it could be seen that illiteracy percentage was highest in small size farms (21.32per cent) followed by large size farms (20.94 percent) and was lowest in medium size farms (20.30 per cent) respectively. Sample average was 20.81 percent for different size of farms groups. This makes the sample average for Territory occupation was 36.66 per cent in different size of farms groups. Out of total

© 2023 IJNRD | Volume 8, Issue 6 June 2023 | ISSN: 2456-4184 | IJNRD.ORG sample size, 40 percent farmers responded that farmer meeting is the best source of information to them. The more fascinating fact is that 98.5 percent of farmers who considered Farmer meeting as the best source also believed that Company People (Individual Contact) helps them to update their knowledge regarding recent agronomic practices in Rice. the majority of market 45% is captured by Syngenta India Ltd. Company, 30% BAYER Company, 20% Crystal Company and 5% Other Company.

# **BIBLIOGRAPHY**

• Chauhan S., Sekher, T., Kumar, P., Srivztave, S., Patel, R., (2020): Prevalence, determinants and socio-economic inequality of early marriage among men in India, Children and youth services Review. Vol.166.

• Kumar, R., A., (2016):Comparative study of consumer behavior related to brand and non-branded herbicide product in Haryana state.

• Laddha, S. Rural., (2015): Consumer buying behavior and brand awareness of durable products.

• Lakshmi, N.V., Rao, Y.H and Chandrasekhar, K and Lakshmi, G.V., (2009): Performance of dry sown rice under low and to different weed management practices. Annuls of Agricultural Research. 56(3): 198-203

• **Mishra, J.**S and Singh V.P.,(2007): Integrated weed management in zero-till direct-seeded rice (Oryza sativa) Wheat (Triticum aestivum) cropping system. India Journal of agronomy, 52(3): 198-203.

• Naseri , H., Parashkoohi, M.G., Ranjbar, I., & Zamani, D.M.,(2021): Energy socio-economic and life cycle assessment of rice production in different tillage system. Energy,217,119252.

• Ravisankar, N, B. Chandra Sekharan, R Raja, MD and S.G. Chaudhuri.,(2008): Influence of integrated weed management practices on productivity and profitability of we seeded rice (Oryza sativa). Indian journal of Agronomy. 53(1):57-61.

• Singh, T., Kumbhar V., Kumari., (2016): Study of socio-economic status of farmers in drought prone regions of Bihar, India . A case study international journal of current research. Vol.8, issue 6, pp 33304-33306.

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