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Demographic features & constraints of paddy seed supply in Raipur district of Chhattisgarh

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Abstract

The present study was conducted with a view to analyze major constraints of supply of paddy seed in Raipur district of Chhattisgarh state. There are 4 blocks in Raipur district viz; Tilda, Arang, Abhanpur and Dharshiwa. Among the all-selected blocks total 4 villages were selected purposively for fulfillment of the objectives of study. By understanding Demographical characteristics of the Respondents that the highest percentage of respondents were form the age group of 40 to 60 years (60.00 per cent), and 70.00 per cent of respondents have completed graduation and post-graduation. Primary data was collected from 10 dealers/distributors/retailers were selected randomly through personal interview method with the help of well-prepared questionnaire. The object of this research work was to determine/assess the major problem for supply of paddy seed by dealer's during the research area. Information was obtained from the 10 respondents on the problems faced in marketing. The constraints were high prices of certified seeds in private sector which can be replace with high quality seed like Vikram TCR, CG 1919, Protazine, Zinco Rice MS at lower price developed by IGKV in recent years, mixing seeds and less purity, demand is greater than supply, lack of communication source, distance from end customer, poor services etc.

Keywords: Paddy seed; Chhattisgarh; dealers; demographic features; Garrett ranking; supply; marketing; constraints; suggestion

Introduction

Paddy seeds are a crucial input for rice cultivation, and their price and availability can impact farmer's production decisions, costs, and ultimately, the supply of rice in the market.

In India, 45 million hectares are used for rice farming; the most productive regions are West Bengal and Uttar Pradesh, while Punjab has the greatest yield. The USDA predicts that in 2023–2024, rice output would reach a record 520.5 million tons, up more than 2 percent from the previous year. Most of this growth is anticipated to come from Bangladesh, the United States, China, Pakistan, and the European Union.

A yield of 3,212 kg per hectare has been determined in the 3.7 million hectares of rice fields in Chhattisgarh. After breaking the previous record of 9.8 million tonnes (MT) in 2021–22.

The public sector component comprises of national Seed Corporation (NSC), State Farm Corporation (SSCS), Indian Council of Agriculture Research (ICAR) Institution and Agriculture Universities. In our Chhattisgarh state total targeted demand of paddy seed in Kharif 2023 total 90000 Qt. of different paddy varieties.

Materials and Methods

Selection of study area

This study was done in Raipur district of Chhattisgarh. Raipur district was comprised of 4 blocks viz; Tilda, Arang, Abhanpur and Dharshiwa Among them all blocks are selected through random sampling method. Simple random sampling techniques are used in villages selection. The Raipur district holds 3rd position in area, production & productivity of paddy (467.96 thousand metric tonnes in 159.32thousand-hectare area and productivity was 3239 kg hectare) was selected for the study purpose. And from that ten major private vender and major public sector unit will be taken in consideration.

Table 1: Number of sample household under different category

Sl. no.	Village (Krishi kendra)	Total
	Dharsiwa block	
1.	Raipur	3
	Tilda Block	
2.	Tilda	3
	Aarang block	
3.	Chandkhuri	2
	Abhanpur block	
4.	Abhanpur	2
	Total	10

Analytical Procedures Tabular Analysis

The data collected will be presented in the tabular form to facilitate easy comparison.

Percentage formula

The percentage formula is used to find the share of a whole in terms of 100. Using this formula, you can represent a number as a fraction of 100.

Percentage (Value/Total Value) x100% increase [(New number - Original number)/Original number] x 100.

Garrett's ranking technique

Garrett's ranking Technique is a tool that is commonly utilized to evaluate a variable that uses mean scores expressed in ranks. There are 24 methods available for converting orders of constraints and benefits into numerical ratings. From the point of view of respondents, this technique has a primary advantage over simple frequency distribution; the constraints are organized based on their intensity. The ranking of the same number of respondents could have been different based on two or more constraints. Garrett uses a formula to convert ranks into percentages

Percentage position = $100 * (R_{ij} - 0.5) / N_j$

Where,

R_{ij} = Rank given for i th; constraint by j th individual. N_j = Number of constraints ranked by j th; individual.

Garrett and Woodworth (1969)'s table was used to convert the percentage position of each rank into scores.

Each factor had the scores of individual respondents added together and divided by the total number of respondents who had scores added. All constraints had their mean scores arranged in descending order and were ranked accordingly.

Results and Discussion

Demographical characteristics of the Respondent

Demographic characters are population based data which represent the factors such as age, education level, occupation, geographical location and gender etc.

This profile includes various socio-economics consideration to identify the socio-economics status of the average dealers in the area under study. This includes age, education and gender of the respondents.

Table 2: Age group of the respondents

Sl. no.	Age	No. of respondents	Percentage
1	18-40 years	01	10.00
2	40-60 years	06	60.00
3	61 and above	03	30.00
	Total	10	100.00%

Table 3: Gender group of the respondents

Sl. no.	Gender	No. of respondents	Percentage
1	Male	10	100.00
2	Female	00	00.00
3	Transgender	00	00.00
	Total	10	100.00%

Table no. 2 & table no. 3. shows that the all respondents are male, most of them (60.00 per cent) are in the 40-60 Year age group followed by the above to 60 years age group (30.00 per cent) and 18-40 years (10.00 per cent) respectively. Agriculture is main occupation in study area.

Table 4: Educational status of the sample dealer's

Sl. no.	Qualification	Overall	Percentage
1.	Graduate/ post Graduate	07	70.00
2.	High & Higher secondary	02	20.00
3.	Middle school	01	10.00
4.	Primary school	00	00.00
5.	Illiterate	00	00.00
	Total	10	100.00

Table no. 4 indicates that education is measured by the number of years a respondent has spent in formal school. Literacy rate was 100.00% in which 70.00 per cent of respondents studied under graduation and post-graduation, followed by 20.00 per cent of sampled respondent have education till high and higher secondary school, 10.00 per cent of respondents have completed middle school and 00.00 per cent for primary school respectively.

Constraints in supply of Paddy seed

Constraints are major challenges revealed by the respondents in study work as follows.

The private dealers are registered members under state seed corporation (SSC) and they distribute the seeds directly to farmer or to agencies. According to Result and Discussion main constraints after Garrett's ranking sequence as wide fluctuation in prices, remunerative prices are not available, inadequate knowledge about market news, non existences cooperative marketing organization. The information received from study area dealers, issue of spurious & mixing seeds possesses a significant challenge to seed suppliers and affects crop yield and quality, due to this reason the farmer is not able to get pure & quality seed on time.

Table 5: Constraints in supply of Paddy seed

Sl. No.	Particular	Sum	Mean	Rank
F1	higher price of seed	451	45.1	I
F2	mixing seeds and less purity	439	43.9	II
F3	demand is greater than supply	677	67.7	III
F4	lack of communication source	463	46.3	IV
F5	lack of information about HYV	355	35.5	V
F6	Illiterate farmer	596	59.6	VI
F7	distance from end customer	535	53.5	VII

Table no. 5 shows that the various constraints faced by paddy seed dealers were studied and analyzed in context of the sample respondents from study area. The table 4 displays the findings that most of the dealers had problem of higher price of seed which was about 67.70%. Also, a big problem which impacts the purity level of the resulting seed batches that is mixing seeds and less purity which was about 59.60%. Especially in the cultivation period supply demand gap has led to increased prices

and heightened competition among buyers. Which is due to demand is greater than supply which was 53.50%. Communication channels are crucial to improving information flow and operational effectiveness and due to its lack the fourth constraint faced in supply was lack of communication source which was 46.30%. The fifth and sixth constraints faced in supply which is lack of information about HYV and Illiterate farmer which was 45.10% and 43.90%. The constraints shows to hindered their adoption, resulting in suboptimal agricultural productivity. Increasing awareness and education about HYV can significantly boost crop yields and farmer incomes. and seventh constraint faced was distance from end customer which was about 35.50%.

To overcome their constraints follows by supply should be adopted

- The seed should be offered at a remunerative price and loyalty programs or incentives should be offered for repeat customers to increase affordability to customers.
- To understand customer need by govt. and private sector should ensure that trusted
- source can be provided to guarantee high quality seed and pure seed.
- To fulfill the demand, the department should achieve its target (public sector as well as private sector). And for this the public sector should be encouraged so that the farmers can benefit from it.
- Social media platforms (Mobile, Television, radio, News Paper, Pomplet etc.) should
- be used for effective communication source and Kisan Chaupal should be organized for farmer awareness.
- We will aware the farmer about the particular crop and quality of the seed so that he
- can take appropriate decisions according to his problems.
- Develop an efficient distribution network with the help of digital marketing for easy access.
- High quality seed like Vikram TCR, CG 1919, Protazine, Zinco Rice MS developed by
- IGKV in recent years should be recommended for cultivation.
- HYV of IGKV should also be supplied/ registered for seed distribution channel of seed corporation of C.G.

References

1. Chaudhary VK, Sahu S, Baghel D, Joshi SK, Sahu Y. To examine the management of paddy seed production program and find out the constraints in the production and marketing of paddy seed production. *The Pharma Innovation Journal*. 2021;SP-10(8):1160-1164.
2. Deshmukh MK, Gauraha AK, Chandrakar MR. Constraints in the cultivation and marketing of sugarcane production in Kabirdham district of Chhattisgarh, India. *The Pharma Innovation Journal*. 2021;10(6):449-451.
3. Deshmukh MK, Banafar KNS. Constraints in production and marketing of soybean in Rajnandgaon district of Chhattisgarh. *Journal of Plant Development Sciences*. 2013;5(2):231-232.
4. Dhurwey CK, Choudhary VK, Ravi Shrey RS. Constraints perceived by farmers in production of soybean in Kabirdham district of Chhattisgarh state; c2018.
5. Dhurwey CK, Choudhary VK, Rupan Bante RB, Ravi Shrey RS. Constraints perceived by farmers in production and marketing of major cole vegetable crops in Bemetara district of Chhattisgarh state; c2015.
6. Kumar S, Luhach VP, Bhatia JK, Kumar D. Analysis of constraints in production and marketing of rapeseed & mustard and chickpea in Haryana. *The Pharma Innovation Journal*. 2022;SP-11(2):287-290.
7. Langyintuo AS, Mwangi W, Diallo AO, Robert JM, Dixon J, Banziger M. Challenges of the maize seed industry in eastern and southern Africa: A compelling case for private–public intervention to promote growth. *Food Policy*. 2010;35:323-331.
8. Patel VK, Jain BC, Prasad G. Constraints of paddy grower farmers: A study with special reference to Chhattisgarh state. *Journal of Pharmacognosy and Phytochemistry*. 2019;8(6):1165-1166.
9. Ravi Shrey RS, Dhurwey CK. Collection, processing and marketing constraints faced by NTFPs dwelling tribes in Rajnandgaon district of Chhattisgarh; c2018.
10. Shrey R, Bante R, Pallearwar S, Acharya GK, Dhurwey C. Constraints perceived by farmers in crop-dairy mixed farming system on small farms in Parbhani district of Marathwada region (Maharashtra), India. *Plant Archives*. 2015;15(1):41-46.