

**RESEARCH ARTICLE :**

Farmer's perception of NSL brand of hybrid paddy *vis-a-vis* other competitors brands in Uttar Pradesh

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ARTICLE CHRONICLE :

Received :
17.07.2017;

Accepted :
01.08.2017

SUMMARY : The production of hybrid rice has increased because of increasing popularity and profitability of hybrid rice among the rice farmers of Eastern Uttar Pradesh, Bihar, Jharkhand and Chattisgarh. Large scale adoption of hybrid rice is expected in these states during next decades. Hybrid rice is also picking up in Haryana and Punjab states in recent years. It is reported from these states that less fertilizers and water are needed for hybrid rice as compared to the high yielding varieties. The earliness of hybrids is also another advantage reported, facilitating timely sowing of wheat crop or creating possibility of growing short duration inter crops. Keeping in view the importance of hybrid rice in India's food security system, the study on consumer's perception of NSL hybrid paddy *vis-a-vis* competitors in Uttar Pradesh state was carried out.

KEY WORDS :

Hybrid rice,
Perception, Food
security, Profitability

How to cite this article : Gadhe, Shruthi, Anil, K. and Manikandhan, S.(2017). Farmer's perception of NSL brand of hybrid paddy *vis-a-vis* other competitors brands in Uttar Pradesh. *Agric. Update*, 12(TECHSEAR-6) : 1692-1695; DOI: 10.15740/HAS/AU/12. TECHSEAR(6)2017/1692-1695.

BACKGROUND AND OBJECTIVES

Rice is the lifeline for Asians because it is not only a dominant food crop but also an important crop in their national economy. It accounts for a major share of cereal consumption, ranging from 40 per cent in India to 97 per cent in Myanmar. Rice contributes 30–76 per cent to total daily calorie intake (Hossain and Pingali, 1998). Therefore, boosting rice production and making rice available to consumers at affordable prices is always at the top of the political agenda for national governments for economic growth, social security, and political stability in the continent.

With over one billion people in India, there is a need to increase food production to meet the demand of the burgeoning population. As rice is the staple food in most parts of India, there is a need to increase production of rice and productivity of land under rice cultivation. India has the largest acreage under rice at 43.95 million hectare with a production of 106.54 million tonnes and yield of 2424 kg/ha (Government of India, 2015).

Rice production in India crossed the mark of 2014-15 Advance Estimates of 103.04 million tonnes, in 2013-14 it was 106.54 million tonnes (Ministry of Consumer Affairs, Food and Public Distribution, and Agricultural Statistics Division, Directorate of Economics

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and Statistics). In order to keep pace with the growing population, the estimated rice requirement by 2025 is about 130 million tones. Plateauing trend in the yield of HYV's, declining and degrading natural resources like land and water and acute shortage of labor make the task of increasing rice production quite challenging. The current situation necessitates looking for some innovative technologies to boost rice production (Janaiah and Xie, 2010).

Hybrid rice technology is likely to play a key role in increasing the rice production. During the year 2008, hybrid rice was planted in an area of 1.4 m.ha and an additional rice production of 1.5 to 2.5 m.t. (Directorate of Rice Research, 2014) was added to our food basket through this technology. More than 80 per cent of the total hybrid rice area is in Eastern Indian states like Uttar Pradesh, Jharkhand, Bihar, Chattisgarh, with some little area in states like Madhya Pradesh, Assam, Punjab and Haryana. As rice is a key source of livelihood in Eastern India, a considerable increase in yield through this technology will have a major impact on household food and nutritional security, income generation, besides an economic impact in the region. In view of this, hybrid rice has been identified as one of the components under the National Food Security Mission (NFSM) launched by the Government of India (GOI) with the aim to enhance rice production by 10 m.t. by 2011-12. Similarly, added emphasis is being given for adoption of hybrid rice under the special scheme of GOI to bring green revolution to Eastern India (Directorate of Rice Research, 2014). The present study was conducted based on the objective of to examine the farmers perception of NSL brand of hybrid paddy *vis-a-vis* other competitors brands in Uttar Pradesh.

RESOURCES AND METHODS

Allahabad, Faizabad, Sultanpur, Gorakhpur and Jaunpur districts were identified for the study. Four tahsils were selected from each district and from each tahsil, 6 villages were chosen for investigation. From each of the village, 8-10 farmers were randomly selected. Therefore, the entire study comprised of 5 districts, 20 tahsils, 96 villages and 630 farmers. The selection of the tahsils and villages was based upon the highest acreage under hybrid paddy

Primary data was collected from the selected farmers with the help of pre tested questionnaire,

following survey method. Personal interview was adopted for the present study.

To analyse the perception of the farmer's about NSL hybrid *vis-a-vis* other competitive brands Garrett Ranking Technique was used.

Garrett's ranking technique:

To find out the most significant factor which influences the respondent, Garrett's ranking technique was used. As per this method, respondents have been asked to assign the rank for all factors and the outcomes of such ranking have been converted into score value with the help of the following formula:

$$\text{Per cent position} = 100 (\text{Rij} - 0.5) / \text{Nj}$$

where, Rij = Rank given for the ith variable by jth respondents

Nj = Number of variable ranked by jth respondents

With the help of Garrett's table, the per cent position estimated is converted into scores. Then for each factor, the scores of each individual are added and then total value of scores and mean values of score is calculated. The factors having highest mean value is considered to be the most important factor.

OBSERVATIONS AND ANALYSIS

The results obtained from the present study as well as discussions have been summarized under following heads:

Farmers awareness with regard to NSL brand of hybrid paddy :

The Table 1 projects the percentage of awareness about the various NSL brand of hybrid paddy in the selected area. There are about 6 paddy hybrid paddy brands of NSL marketed in Uttar Pradesh state. The results indicate that the most popular brand with high awareness among the farmers in the selected districts of Uttar Pradesh is Karishma accounting to 38.13 per cent of the responses followed by Winner (21.69%) and Champion (20.92%). Raja brand of hybrid paddy and Basha brand were popular among 15.92 and 2.82 per cent of the total responses. However, negligible per cent of farmers were aware of 2003 brand in the study area. Thus, the overall analysis clearly shows that Karishma is the most popular brand of NSL with high awareness percentage among the farmers.

Farmers perception about NSL brand of hybrid paddy seed *vis-à-vis* competitor's brand:

The Table 2 clearly indicates the farmers perception about NSL hybrid paddy brand and other competitors brand like Bayer, Pioneer, Ganga Kaveri and other brands based on 9 parameters listed in the table by using Garatte Ranking technique for each of the parameter considered.

With regard to the yield, highest Garrett score (92.15) was allotted to Bayer company and therefore ranked 1st followed by Nuziveedu, Pioneer, other brands and Ganga Kaveri with 2nd, 3rd, 4th and 5th rank, respectively. With regard to the seed cost, others category brand were ranked 1st followed by Ganga Kaveri (2nd rank), Pioneer (3rd rank), Nuziveedu (4th rank) and Bayer (5th rank) Bayer received the highest score with respect to the grain quality followed by Nuziveedu, Ganga Kaveri, Pioneer and other brands. Nuziveedu brand was allotted 1st rank by the farmers with regard to the resistance against pest and disease, whereas Bayer was on 2nd rank, other brands secured 3rd rank, Ganga Kaveri was on 4th rank and Pioneer received 5th rank. Crop duration was the lowest in other category brand and hence, secured 1st rank followed by Pioneer, Nuziveedu, Bayer and Ganga Kaveri. The other category brands were ranked on the

top for the availability of seed whereas Ganga Kaveri, Nuziveedu, Bayer and Pioneer took 2nd, 3rd, 4th and 5th positions. Germination percentages was good for NSL brand and therefore, had the highest mean score of 94.33 followed by Bayer, Ganga Kaveri, other brands and Pioneer. Bayer brand stood first for its brand image, whereas Nuziveedu stood at 2nd, Pioneer at 3rd, Ganga and Kaveri at 4th and other brands at 5th position. Promotional activities were effective for Bayer brand followed by Nuziveedu, Pioneer, other brands and Ganga Kaveri in the order of 1st, 2nd, 3rd, 4th and 5th rank. Thus, the overall analysis clearly shows that Bayer brand is perceived by the farmers as the best with respect to yield, grain quality, brand image and promotional activity. The other important player in the market which commands good reputation is the Nuziveedu wherein the farmers perception about hybrid paddy resistance to pest and disease and germination % is good besides other parameters which also received good scores. Availability of seed, crop duration and seed cost were perceived by the farmers as good for the other brands category.

Conclusion:

The most popular brand with high awareness among

Table 1: Farmer's awareness with regard to NSL brand of hybrid paddy

Sr. No.	Brands	Farmer awareness	Percentage
1.	Champion	163	20.92
2.	Winner	169	21.69
3.	Raja	124	15.92
4.	Karishma	297	38.13
5.	Basha	22	2.82
6.	2003	4	0.52
	Total	779	100.0

Table 2: Farmer's perception about NSL brand of hybrid paddy seed *vis-à-vis* competitor's brand

Sr. No.	Parameters	NSL	Bayer	Pioneer	Ganga Kaveri	Others
1.	Yield	2 (88.62)	1 (92.15)	3 (82.14)	5 (71.34)	4 (72.65)
2.	Seed cost	4 (82.63)	5 (79.11)	3 (87.44)	2 (89.78)	1 (90.13)
3.	Grain quality	2 (89.62)	1 (91.41)	4 (81.36)	3 (88.15)	5 (80.40)
4.	Resistance to pest and disease	1 (89.65)	2 (84.61)	5 (70.18)	4 (76.33)	3 80.28()
5.	Crop duration	3 (79.34)	4 (73.15)	2 (84.18)	5 (70.66)	1 (88.32)
6.	Availability of seed	3 (89.64)	4 (84.18)	5 (79.11)	2 (91.66)	1 (93.41)
7.	Germination%	1 (94.33)	2 (91.31)	5 (82.15)	3 (89.68)	4 (88.14)
8.	Brand image	2 (90.44)	1 (95.68)	3 (86.71)	4 (84.65)	5 (81.11)
9.	Promotional activity	2 (87.61)	1 (88.61)	3 (84.11)	5 (80.24)	4 (81.39)

the farmers in the selected districts of Uttar Pradesh is Karishma accounting to 38.13 per cent of the responses followed by Winner (21.69%) and Champion (20.92%). Bayer brand is perceived by the farmers as the best with respect to yield, grain quality, brand image and promotional activity.

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