Profile and constraints faced by the beneficiaries of Seed Village Programme on Soybean crop

ABSTRACT

The study was conducted in Betul district of Bhainsdehi blocks M.P. The seed village programme was launched in the Betul district since 2007-08 by the department of farmer welfare and agriculture development govt. of M.P. Thus, 120 respondents were selected to constitute the sample of the study. The study revealed that the majority of beneficiaries 56.67% belonged to middle age group, 30.83% educated uptomiddle school, 58.33% beneficiaries belongs to Scheduled caste, 55.83% had medium family size, 46.67% had low social participation, 60.83% beneficiaries were engaged in Agriculture + Labour as an occupation, 29.17% of the beneficiaries were having small size of land holding, 45.83% of the beneficiaries were having medium annual income, 77.5% per cent of beneficiaries were having 0.2 ha area under seed programme, 37.50% of beneficiaries had medium market orientation, 45.00% of beneficiaries had low production increment (up to 2 q./ha.) in production of quality seed, 41.67% of beneficiaries were using JS.95-60 Variety for Varietal replacement, percentages 43.34% of the beneficiaries were having high economic motivation, 46.67% of the beneficiaries had medium aspiration level, 41.66% of beneficiaries were having low mass media exposure, 52.50% of beneficiaries had medium participation in extension activities, 49.17% of beneficiaries were having medium Seed Replacement Rate. Major constraints faced by the farmers were inadequate supply of seed, Lack of regular guidance and training programme, Lack of extension services, lack of storage facilities, Lack of knowledge about seed production, Lack of storage facility, Lack of sufficient finance for Programme, Lack of information about loan and subsidy etc.

Keywords: Seed Village Programme, Beneficiary, Constraints

INTRODUCTION

Soybean is cultivated asmajor rainy season crop in India particularly in central part of thecountry. The Miracle crop of the twenty-first century, Soy (Glysine Max)is farmed as a rainfed kharif season crop (Vyas., et al 2023). Madhya Pradesh has its major share in area (70%) andproduction (65%) in India and hence knows as “Soy State”. In thestate the average productivity of soybean is very low (10-12 q ha-1) as compare to its genetic potential (25 q ha^{-1})(Rajanetal, 2021).In Madhya Pradesh it accounts for more than 50 percent of the cropped area during *kharif* season and therefore major portion of farmers’ income is dependent on this

crop which is having 95 percent marketable surplus (Nahatkaret al., 2017). Agriculture has been and will continue to be the lifeline of our national economy at least in the foreseeable future. Besides, sustaining livelihood and providing directly employment, it forms the backbone of the agro-based industries (Rajan, et al 2016).To produce and distribute quality seed tosmallholder farmers locally at affordable prices, the government depends on decentralized seed production and distribution through the Seed Village Programme (SVP) (Bhavani et al,2022). A village where in trained group of farmers are involved seed production of various crop's and serve to the essentials of themselves, fellow farmers of the village and farmers of the neighboring village in appropriate time and at economical cost is called Seed Village (Varsha et al,2023).To improve the productivity of the crop, it is very necessary to adopt a suitable strategy (Rajan, et al 2019). The Seed VillageProgramme includes the participation of state government, SAU system, public sector, cooperative and private sector institutions (Krishnamoorthy *et al.* 2002). Seed is the starting point of agriculture and dictates ultimate productivity of other inputs. Despite implementation of the organized seed programme since the mid-60s, the seed replacement rate has only reached the level of 15%. 85 per cent of the seeds used are farm saved(Bhavani et al., 2019).However, shortage of quality seed during the sowing season is a recurring phenomenon in India, as the government's capacity to produce sufficient seed is limited and private seed is costly and available for only a few crops. The use of farm-saved seeds continuously leading to genetic degeneration of the seeds resulted in reduced yields and plant vigour within 2–3 years. In the recent past, private seed companies increase seed prices exorbitantly with monopolistic market power, leading to higher input costs and reduced incomes to farmers, which are unbearable to small landholding farmers. It is therefore necessary to improve the stock of farm saved seeds for enhancing crop production and productivity. Many studies indicated that higher SRR is essential for maintaining crop vigour and higher yields and returns. For this, seed production, seed distribution and other connected aspects will have to be improved and strengthened at the farmer's level. To upgrade the quality of farmer-saved seed this is about 80-85% of the total seed used for crop production programme(Bhavani et al 2022). The seed produced in these seed villages will have to be preserved till the next sowing season. Seed village programme is a component of the Central Government scheme for development and strengthening of infrastructure facilities for production and distribution of quality seed and is being implemented on all India bases from the year2005-06(Bordolui et al.,2020).The government has covered about 64,000 villages under this component since inception in 2005-06. In Madhya Pradesh during 2014, Soybean was cultivated in 6.38 m hawith annual production of 5.37 m ton and productivity 842 kg/ha. (Agricultural Statistics at a Glance

2014). In Betul district soybean was cultivated on 189.4(000ha.) with annual Production of 180.6(000t), and productivity 1003(kg/ha.)during 2013-14 (Agriculture contingency plan for Betul district 2013-14). The seed village programme was launched in the Betul district since 2007-08 by the department of farmer welfare and agriculture development govt. of M.P.The implementing agencies will be State Department of Agriculture, State Agriculture Universities, Krishi Vigyan Kendra, State Seed Corporation, National Seed Corporation, and State Farms Corporation of India (SFCI), State Seed Certification Agencies, and Department of Seed Certification.In M.P. the good quality seed is being distributed to farmers through Farmers Welfare and Agriculture Development throughthe Seed Village Programme, due to this there is a considerable improvement in Seed Replacement Rate for Wheat, Soybean and Chickpea.

METHODOLOGY

The study was conducted in Betul district of Madhya Pradesh.The district has 1341 villages having 556 Gram panchayat. There are two important agriculture seasons viz., kharif and rabi and main crop grown soybean, sorghum, Maize, Rice, wheat, sugarcane and mango, guava, Orange(Agriculture Contingency Plan for District: Betul 2009-10). There are 10 blocks in Betul district out of which Bhainsdehi block will be selected purposively because there is maximum number of beneficiaries as compared to another block of the district. From each selected village 20 farmers were selected through simple random sampling method to make the sample size 120 for the study.The primary data were collected through personal interview method with the help of pre-tested interview schedule, which was prepared on the basis of objectives of investigation and variables. The interview schedule was thoroughly discussed with the member of the advisory committee and their suggestions were incorporated. The statistical tests and procedures were used for analyzing the data with the help of statistical tools like- frequency, percentage, mean and chi-square test was used for analysis of data.

RESULTS AND DISCUSSION

Table 1: Profile of selected beneficiaries

S. No	Attributes	Categories	Respondents N=120	
			Frequency	Percentage
1	Age	Up to 35yr	28	23.33
		36 to 55yr	68	56.67
		56 and above	24	20.00
2	Education	Illiterate	30	25.00
		Up to Primary	35	29.17

		Up to Middle	37	30.83
		Higher secondary & above	18	15.00
3	Caste	General	26	21.67
		Other Backward Classes	24	20.00
		Scheduled Caste/ Scheduled Tribal	70	58.33
4	Family size	Small	21	17.50
		Medium	67	55.83
		Large	32	26.67
5	Social participation	Low	56	46.67
		Medium	48	40.00
		High	16	13.33
6	Occupation	Solely Agriculture	40	33.33
		Agriculture+ Labour	63	52.50
		Agriculture+Subsidiary Occupation	17	14.17
7	Size of Land holding	Marginal	25	20.83
		Small	35	29.17
		Medium	32	26.67
		Large	28	23.33
8	Annual income	Low	46	38.33
		Medium	55	45.83
		Higher secondary & above	19	15.84
9	Area under Seed Programme	0.2 ha	93	77.50
		0.3 to 1 ha.	27	22.50
10	Market Orientation	Low	44	36.67
		Medium	45	37.50
		High	31	25.83
11	Production of quality seed	Low	54	45.00
		Medium	37	30.83
		High	29	24.17
12	Varietal Replacement	JS.93-05 (V1)	40	33.33
		JS.95-60 (V2)	50	41.67
		JS.97-52 (V3)	30	25.00
13	Economic Motivation	Low	22	18.33
		Medium	46	38.33
		High	52	43.34
14	Aspiration Level	Low	21	17.50
		Medium	56	46.67
		High	43	35.83
15	Mass Media Exposure	Low	50	41.66
		Medium	47	39.17
		High	23	19.17
16	Extension Participation	Low	31	25.83
		Medium	63	52.50
		High	26	21.67
17	Seed Replacement	Low	45	37.50

	Rate	Medium	59	49.17
		High	16	13.33

Table 1:shows profile of beneficiaries. The study revealed that the majority of beneficiaries 56.67% belonged to middle age group. The data indicates that their level of education was middle school about 30.83% of the beneficiaries had education up to middle school. In case of cast 58.33% beneficiaries belongs to Scheduled caste.Thus, it may be inferred from the data that maximum percentages of beneficiaries 55.83% had medium family size.The table shows that maximum percentages of beneficiary46.67% had low social participation.In case of Occupation maximum percentages of beneficiary that is 60.83% beneficiaries were engaged in Agriculture + Labour.On the basis of the data, it can be concluded that maximum percentages 29.17% of the beneficiaries were having small size of land holding (1.01 to 2 ha.).Therefore, from the above table, it is clear that the maximum percentages 45.83% of the beneficiaries were having medium annual income (Rs. 66001-1,23,000/-). The higher percentages 77.5% per cent of beneficiaries were having 0.2 ha area under seed programme. And the table shows that higher percentages 37.50% of beneficiaries had medium market orientation.Thus, it can be concluded that higher percentages 45.00% of beneficiaries had low production increment (up to 2 q./ha.) in production of quality seed**.**The maximum percentage 41.67% of beneficiaries was using JS.95-60 Variety for Varietal replacement. In case of economic motivation maximum percentages 43.34% of the beneficiaries were having high economic motivation.The study revealed thatmaximum percentages 46.67% of the beneficiaries had medium aspiration level. About 41.66% of beneficiaries were having low mass media exposure. The table shows that maximum percentage 52.50% of beneficiaries had medium participation in extension activities.The maximum percentage 49.17% of beneficiaries was having medium Seed Replacement Rate.

Table2:Constraints faced by the beneficiaries in obtaining benefit of the programme

S.No.	Constraints	No. of Beneficiaries	Percentage	Rank
1	Inadequate supply of seed	61	50.83	I
2	Lack of regular guidance and training programme	30	25.00	VI
3	Lack of extension services	39	32.50	III
4	Lack of knowledge about the programme.	44	36.66	II
5	Lack of knowledge about seed production	32	26.66	V

6	Lack of storage facility	34	28.33	IV
7	No cooperation with neighbor	27	22.50	VII
8	Lack of sufficient finance for Programme	25	20.83	VIII
9	Lack of information about loan and subsidy	23	19.17	X
10	Lack of soil testing information	24	20.00	IX

The constraints faced by the beneficiaries in implementation of Seed Village Programme are presented in table 2. Out of the total beneficiaries 50.83 per cent reported that Inadequate supply of seed, 25.00 per cent reported that Lack of regular guidance and training programme, 32.50 per cent reported that, 36.66 per cent reported that lack of storage facilities, 26.66 per cent reported that Lack of knowledge about seed production, 28.33 per cent reported that Lack of storage facility, 22.50 per cent reported that. No cooperation with neighbor, 20.83 per cent reported that, Lack of sufficient finance for programme 19.17 per cent reported that Lack of information about loan and subsidy,20.00 per cent reported that Lack of soil testing information.This finding is supported by (Rajan etal 2014).

Table 3: Suggestions made by the Seed Village Programme beneficiaries for better functioning of the programme

S. No.	Suggestion	No. of Beneficiaries	Percentage	Rank
1	Enlarge the target area of programme.	57	47.50	I
2	Field Extension workers should make frequent contact with farmer.	33	27.50	VII
3	Seed production process should be made simple and easier.	48	40.00	II
4	Amount of subsidy should be increased.	40	33.33	IV
5	More information should be provided about improved seed and seed production.	37	30.83	V
6	Seed storage facilities should be available nearby village.	45	37.50	III
7	Pre-Planned Programme information provided to former at right time.	35	29.16	VI
8	Proper training should be provided time to time through Agriculture department.	32	26.67	VIII

9	Government agencies should be involved in marketing.	28	23.33	IX
10	Resistant variety should be distributed through Agriculture Department.	25	20.83	X

Table 3: shows the suggestion given by the Seed Village Programme beneficiaries for making Seed Village Scheme more effective. Out of the total beneficiaries 47.50 per cent suggested that enlarge the target area of programme, 27.50 per cent suggested that Field Extension workers should make frequent contact with farmer , 40.00 per cent suggested that seed production process should be made simple and easier, 33.33 per cent suggested that Amount of subsidy should be increased, 30.83 per cent suggested that More information should be provided about improved seed and seed production 37.50 per cent suggested that Seed storage facilities should be available nearby village, 29.16 per cent suggested that Pre-Planned Programme information provided to former at right time. 26.67 per cent suggested that Proper training should be provided time to time through Agriculture department, 23.33 per cent suggested that Government agencies should be involve in marketing, 20.83 per cent suggested that resistant variety should be distributed through Agriculture Department.

Conclusion

The major constraints reported by the beneficiaries were Inadequate supply of seed, Lack of regular guidance and training programme, Lack of extension services, Lack of knowledge about the programme, Lack of storage facility, No cooperation with neighbor, Lack of sufficient finance for Programme, Lack of information about loan and subsidy, Lack of soil testing information. The main suggestion given by the Seed Village Programme beneficiaries for making Seed Village Scheme more effective were enlarge the target area of programme, Field Extension workers should make frequent contact with farmer, Seed production process should be made simple and easier, Amount of subsidy should be increased, More information should be provided about improved seed and seed production, Seed storage facilities should be available nearby village, Pre-Planned Programme information provided to former at right time, Proper training should be provided time to time through Agriculture department, Government agencies should be involve in marketing, Resistant variety should be distributed through Agriculture Department.

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