SHORT COMMUNICATION

ANALYSIS OF TIME ADOPTION OF NEW AGRICULTURAL INNOVATION IN SPECIAL REFERENCE SOYBEAN VARIETIES

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Abstract: Field extension may mean many things to many people, but what we mean by this is the production of desirable change in farmers behavior which is reflected in their field. The researchers and policy makers considered it as a vital impediment in enhancing agricultural production quite earlier and concentrated their efforts on the transfer of improved cultivation techniques amongst farmers. The efforts were focused mainly on increasing area coverage under agricultural innovations and scientific methods of cultivation at quicker pace.

Keywords: Agricultural innovation, Cultivation, Production, Farmers

INTRODUCTION

The speed adoption of improved agricultural technologies and innovations is most important for enhancing agricultural production at faster rate and hence is a crucial aspect under innovations diffusion process. One of the goals of diffusion research is thus to shorten this time lag.

The present study was undertaken with the following specific objectives:

To study the time of adoption required by farmers in respect of agricultural innovations.

To study the relationship of personal, social and psychological characteristics of farmers with time of adoption.

METHODOLOGY

The present investigation was carried out in Ujjain district of Madhya Pradesh and was confined to Rural Youth(25), KVK adopted farmers(25), Nehru yuva sangathn(25) and Ex-trainees of KVK(20). A suitable schedule was developed for interviewing farmers. Two leading varieties of Soybean namely JS- 93-05 and JS 95-60 introduced in the area for general cultivation in the year 2002. JS 93-05 and 2007, Js 95-60 were selected for study. Time span of three year.

The time of adoption referred to the actual period in years farmers required for adoption of agricultural innovations after it has been introduced in the area. The same was worked out for every farmers for both varieties under study and they were classified in four categories Rural Youth (who are taking cultivation), KVK adopter (farmers from KVK operational area, Ex-trainees(who attended the training programme and Nehru Yuva Sangathan Youth(who are working for rural development)

The weighted time of adoption (WTA) score was worked out to know combined adoption performance. For arriving at WTA score suitable weight gee were assigned to every respondents for stage of adoption, time of ad option, extent of adoption(area coverage against potential existed) and awareness time(period in years required for becoming aware about the agricultural innovation from its introduction in the area) in the following manner.

Stage of adoption process weight ages:

Awareness-1, Interest-2, Derisre-3, trial-4 and adoption-5

Time of adoption weight ages:

Adoption in the year of introduction-00, adoption one year later 02 adoption three year later-1.

Awareness time weight ages:

Similar to that of weight ages of time of adoption given above are adopted for awareness time. The time of becoming aware of the agricultural innovation from the year of its introduction is counted and scores assigned.

Weight ages for Extent of adoption:

The weightages of one was assigned to each 10% area covered under the innovation as the individual farmers score of WTA was worked out by summing up score assigned individually for time of adoption, stage of adoption, awareness time and extent of adoption. The cumulative score called as WTA then was divided by maximum obtainable score and the product multiply 100, which then was termed a time of adoption Index (TAI) of farmers.

Table 1. Distribution of respondents according to the socio-economic characteristics

SNo.	Categories	No.	EDUCATION			LAND HOLDINE			SOCIAL STATUS		
			Primary	Middle	Higher	Small	Medium	Large	Low	Medium	High
1	Rural Youth	25	07 (28.00)	09 (36.00)	09 (36.00)	09 (36.00)	09 (36.00)	07 (28.00)	11 (44.00)	07 (28.00)	07 (28.00)
2	KVK adopted farmers	25	15 (60.00)	09 (36.00)	01 (4.00)	07 (28.00)	10 (40.00)	08 (32.00)	03 (12.00)	16 (64.00)	06 (24.00)

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3	Nehru Yuva Sangathan Member(NYK)	25	02 (8.00)	03 (12.00)	20 (80.00)	12 (48.00)	06 (24.00)	07 (28.00)	04 (16.00)	13 (52.00)	08 (32.00)
4	Ex-trainees	25	08 (32.000)	10 (40.00)	07 (28.00)	05 (20.00)	09 (36.00)	11 (44.00)	09 (36.00)	08 (32.00)	08 (32.00)
	Total	**100**	**32**	**31**	**37**	**33**	**34**	**33**	**27**	**44**	**29**

Table 2. Distribution of respondents according to the extension

SNo.	Categories	No.	PARTICIPATION IN EXTENSION ACTIVITIES			INFORMATION SEEKING			COSMOPOLITAN			ACTIVITY		
			Primary	Middle	Higher	Small	Medium	Large	Low	Medium	High	Low	Medium	High
1	Rural Youth	25	08 (32.00)	10 (40.00)	07 (28.00)	04 (16.00)	08 (32.00)	13 (52.00)	08 (32.00)	07 (28.00)	10 (40.00)	04 (16.00)	11 (44.00)	10 (40.00)
2	KVK adopted farmers	25	06 (24.00)	03 (12.00)	16 (64.00)	05 (20.00)	06 (24.00)	14 (56.00)	02 (8.00)	06 (24.00)	17 (68.00)	05 (20.00)	16 (64.00)	04 (16.00)
3	Nehru Yuva Sangathan Member (NYK)	25	05 (0.00)	08 (32.00)	12 (48.00)	05 (20.00)	06 (24.00)	14 (56.00)	02 (8.00)	03 (12.00)	20 (80.00)	05 (20.00)	12 (48.00)	08 (32.00)
4	Ex-trainees	25	07 (28.00)	04 (16.00)	14 (36.00)	09 (36.00)	05 (20.00)	11 (44.00)	05 (20.00)	04	16 (64.00)	04 (16.00)	11 (44.00)	10 (40.00)
	Total	**100**	**26**	**25**	**49**	**23**	**25**	**52**	**17**	**20**	**63**	**18**	**50**	**32**

Distribution of Respondents as per time of adoption

Adoption Categories	Agricultural Innovations	
	JS 93-05	JS 95-60
Rural Youth(25)		
Innovators	10 (40.00)	11 (44.00)
Early adopters	08 (32.00)	08 (32.00)
Followers	04 (16.00)	03 (12.00)
Late adopter	03 (12.00)	03 (12.00)
KVK adopted farmers(25)		
Innovators	09 (36.00)	16 (64.00)
Early adopters	06 (24.00)	06 (24.00)
Followers	06 (24.00)	03 (12.00)
Late adopter	04 (16.00)	0 (00.00)
Nehru Yuva Sangathan Member (25)		
Innovators	02 (8.00)	03 (12.00)
Early adopters	06 (24.00)	05 (20.00)
Followers	12 (48.00)	07(28.00)
Late adopter	05 (20.00)	10 (40.00)
Ex-trainees of KVK(25)		
Innovators	03 (12.00)	13 (52.00)
Early adopters	07 (28.00)	05 (20.00)
Followers	09(36.00)	05 (20.00)
Late adopter	11(44.00)	04 (16.00)

RESULT AND DISCUSSION

I. Profile of respondents

It is evident from table 1 that about 80 respondents were higher educated in case of NYK members while about 60 percent respondent were having primary level education in case of KVK adopted farmers. It was noticed that only 4% respondents from KVK adopted hiving higher education while only 8% respondents were primary education level. In case of rural youth 36 % youth had higher & middle, followed by 28% rural youth who were primary level. The land holding was no any different, almost all respondents from four categories were not more than 50% while 48% NYK's members having small size land holding, followed by 28 % NYKs members who had large holding size. Social status covered by membership of any societies, assets, infrastructure facilities and agricultural implements. Majority of respondents (64%) had medium level from KVK adopted farmers category while 12% had low social status. Incase of Ex-trainees 36% had low social status, followed by 32% had medium and large social status.

The extension activities like demonstration, field day, exhibition, Kisan mela, Krishak Sangoshti etc conducted at village level, block level and district headquarters by extension agencies, Deptt. of Agriculture, KVK & private extension agencies. Keeping this view the participation of extension activities, majority of respondents (64%) from KVK adopted farmers category had high participation, followed by NYK category(48%) and 36% Ex-trainees also had high participation. In the category of Rural youth 40% rural youth were medium participation in extension activities followed by 32% rural youth were low participation in extension activities.

Information seeking behaviour also showed in table 2 that over all majority of respondents 52% high and category of KVK adopted farmers & Nehru Yuva Sangathan 56% had high information seeking

behaviour. While in case of ex-trainee category 36% low information seeking behaviour. Cosmopolite a psychological variable, in the category of NYK members had high 80% followed by KVK adopted farmers and 64% respondent from Ex-trainees category. Leadership ability also determined during study, the 64% respondents from KVK adopted category had medium level len ability followed by 48% respondents from NYK member had medium while 40% respondent from both category is rural youth & ex-trainee.

Adoption categories by time of adoption: It was observed from table 2 that 44.00% rural youth adopted JS 95-60 and 40.00 %youth adopted JS 93-05 in innovator category, 64.00 percent KVK adopted farmers adopted JS 95-60 and 36percent adopted JS 93-05 in innovator category. In case of Ex-trainees also majority of (52%) innovators adopted JS 95-60 while only 12 percent innovators adopted JS 93-05.

It is evident that both agricultural innovations i.e. soybean high yielding varieties JS 95-60 have been adopted by farmers, majority innovators from rural youth (44%), KVK adopted farmers(64%) and ex-trainees meet categories (52%) while innovators from NYK members only 12 percent adopt JS 95-60. In case of Soybean variety JS 93-05 have been also adopted by farmers, majority of late adopter from ex-trainees 44%.

CONCLUSION

The findings of the present study indicated that the time of adoption of agricultural innovations namely soybean high yielding varieties JS 95-60 ranged from 2 years to 5 years and adopters mainly belonged to mix categories no any class of innovators from all categories were clear. Majority of KVK adopted farmers and ex-trainee were timely adoption of there innovations.

REFERENCES

Sanginga, P.C., Adesina, A.A., Manyong, V.M. and Dashiell, K.E. (1999). Social impact of Soybean in Nigeria's Southern Guinea Savanna,International Institute for Tropical Agriculture, Ibadan.

Smith, J., Woodsworth, J.B. and Dashiel, K. (1995). Government policy and farm level technology: The expansion of soybeans in Nigeria. Agricultural Systems in Africa, 3(1): 20-32.