Agric. Res. J, Kerala, 1983, 21 (l) 35—38

TECHNOLOGICAL GAP IN PADDY CULTIVATION

M. Anantharaman, C. Bhaskaran[1] and S. Ramanathan
Central Tuber Crops Research Institute, Sreekaryam, Trivandrum 695 017

Most of the technological innovations resulting from agricultural research are not adopted by farmers. This creates an unfortunate gap between results of research and their adoption by farmers. Extension machinery of our country is trying its utmost to reduce this technological gap which can be successfully bridged only if one knows where this gap exists. A knowledge on technological gap on the cultivation of various crop becomes imperative to develop suitable extension strategy. It is sagacious to find out the technological gap in paddy cultivation as it forms the major staple food crop of Kerala state. With this in view a study was undertaken to find out technological gap in paddy cultivation and to find out the relationship between technological gap and personal, socio-economic and communication characteristics of farmers.

Materials and Methods

The study was conducted in Vellanad block of Trivandrum district. Farmers having minimum of 20 cents of paddy land formed the respondents of the study and 60 of such farmers were selected randomly by using Tippet's random numbers. The data were collected by well structured and pre-tested interview schedule.

Technological gap in this study was quantified by assigning scores of '0' •V and '2'for 'no gap', 'less gap' and 'high gap' respectively keeping in view the relative importance of the practice and the deviation of practices followed from those recommended. Socio-economic and educational characteristics were quantified as per the scoring system followed by Trivedi (1963). Mass media exposure and extension agency contact were measured by the methods developed by Singh (1972) and Knight (1973) respectively. The scoring method followed by Bhaskaran (1979) was used to measure the level of extension participation of respondents.

Results and Discussion

Technological gap in paddy

The cultivation practices included in the study for assessing the technological gap are furnished in Table 1. From the rank order analysis it could be inferred that the magnitude of technological gap in cultivation practices was high and equal in the case of liming, seed treatment and water management followed by disease control, pest control, potassium application, phosphorus application, nitrogen application (top dressing), seed rate, seeds (high yielding varieties), nitrogen application (basal dressing), spacing, transplanting age, depth of planting, time of top dressing and season of planting in the descending order.

1 College of Agriculture, Vellayani 695 522, Trivandrum, Kerala

Practices like liming, water management and seed treatment- disease control, pest control and potassium application emerged as important ones from technological gap point of view as their scores are more than average score (55.18). From the results furnished in Table 1 this could be verified from the high proportion of farmers found in high gap with reference to these practices.

This is suggestive of concentrating the extension efforts to educate farmers primarily on the practices such as liming, seed treatment, water management, pest and disease control and potassium application.

Relationship between technological gap and personal, socio-economic and communication characteristics

Out of the six characteristics mentioned in Table 2, two characteristics namely age and socio-economic status did not show any significant correlation with technological gap. The other four characteristics namely education, mass media

Table 1

Technological gap in paddy cultivation

Sl, No.	Practices	Technological gap (percentage) No gap	Less gap	High gap	Techno-logical gap score	Rank
1	Season	100,00	—	—	0	16
2	Seeds	40.00	60.00	—	36	10
3	Seed rate	60.00	18.33	21.67	37	9
4	Seed treatment	—	—	100.00	120	2
5	Transplanting age	73.33	26.67	—	16	13
6	Spacing	70 00	30,00	—	18	12
7	Depth of planting	80.00	20.00	—	12	14
8	Nitrogen (basal)	63.33	36.67	—	22	11
9	Phosphorus	46.46	36.67	16.87	42	7
10	Potassium	26.67	33.33	40.00	63	6
11	Nitrogen (top)	50 00	36.67	13,33	38	8
12	Top dressing time	96.67	3.33	—	2	15
13	Liming	—	—	100	120	2
14	Water management	—	—	100	120	2
15	Pest control	—	26.67	73.33	104	5
16	Disease control	—	3.33	96.67	118	4
				Average score	55.18	

Table 2

Relationship between technological gap and farmers characteristics

Sl No.	Characteristics	Correlation coefficient
1	Age	0.2201
2	Education	0.9067**
3	Mass media exposure	0.7084**
4	Extension agency contact	0.751**
5	Sccio-economic status	0.0034
6	Extension participation	0.4094**

** Significant at 1 per cent level

exposure, extension agency contact and extension participation showed significant but negative correlation with technological gap. It is quite obvious that when farmers have high education, more of mass media exposure, extension participation, and extension agency contact they are likely to be convinced about the relative advantages of the improved practices, which might result in positive adoption of these practices thereby emitting a negative correlation with technological gap.

Summary

A study conducted among 60 paddy cultivators in Vellanad block of Trivandrum district revealed that out of sixteen practices, high technological gap exists in practices such as liming, seed treatment, water management, pest and disease control and potassium application. Characteristics of the farmers such as education, extension agency contact, mass media exposure and extension participation were significantly and negatively related TO technological gap.

സംഗ്രഹം

തിരുവനന്തപുരം ജില്ലയിലെ വെള്ളനാട് ബ്ലോക്കിലുള്ള 60 നെൽക്കൃഷിക്കാരിൽ നടത്തിയ ഒരു പഠനത്തിൽ നിന്നും പതിനാറു കൃഷി പരിപാലനമുറകളിൽ കുമ്മായം ചേർക്കൽ, വിത്തു സംസ്കരണം, ജലവിനിയോഗം, കീടനിയന്ത്രണം, രോഗ നിയന്ത്രണം, പൊട്ടാഷ് വളപ്രയോഗം എന്നിവയ്ക്ക് പ്രയോഗ തലത്തിൽ സാങ്കേതികമായ വിടവ് നിലവിലുള്ളതായി തെളിഞ്ഞു. കർഷകരുടെ വിദ്യാഭ്യാസ നിലവാരം വികസന പ്രവർത്തനവുമായുള്ള സമ്പർക്കം, ബഹുജന ffioa0ajjffl സമ്പർക്കം, വികസന പ്രവർത്തനങ്ങളിലെ പങ്കാളിത്തം എന്നീ സ്വഭാവങ്ങളും ഈ സാങ്കേതിക വിടവുമായി പ്രതികൂല ബന്ധമാണുള്ളതെന്നും മനസ്സിലായി.

References

Bhaskaran, C. 1979. A critical analysis of the inter-personal communication behaviour of small and other farmers in a less progressive, progressive and more progressive village in Kanyakumari district of Tamil Nadu *Ph. D. thesis, University of Agricultural Sciences, Bangalore.*

Knight, A. John 1973. A study of relative effectiveness of three modes of presentation, preference, listening and post listening behaviour of farm broadcast listeners. *Ph. D. thesis, I. A, R. I., New Delhi.*

Singh, A. N. 1972. A study of characteristics, expectation and listening behaviour of the listeners and its impact on acquisition of knowledge, *Ph. D. thesis, I. A. R. I., New Delhi.*

Trivedi, G. 1963. Measurement and analysis of socio-economic status of rural families. *Ph. D. thesis, I. A. R. I., New Delhi.*