SUMMARY

Introduction

Agricultural scientists made an attempt to generate technology and thereafter, disseminate it among farmers. Presently, they realized that most of the technology they developed was not appropriate to the majority of farmers. Therefore, farmer-oriented technology development should receive some attention from researchers, extensionists and policy makers. However, it is evident that present farmer-oriented technology does not neatly fit to the pressing problems of the farmers.

This study examined the limitations of the farmer instigated research. The study defined the farmers' problems as they become evident through: 1.the farmers' reactions to the technology introduced; 2.their intentions to seek solutions for their problems; and 3.the request they make for new technology. Attempts were made to explore the existing communication channels which transfer farmers' problems to research using four main functions. These were: 1.farmer problem identification; 2.transfer of farmers' problems to research; 3.setting research priorities for these problems; and 4.conducting research on the farmers problems.

Area of the study

One of the Southern Sri Lankan district, Matara was selected for the study. Food crop farmers in the district were considered as the farmers category for the study. The researchers in Angunakolapalassa Regional Research Center who are responsible for investigating the farmers' problems in the district made the research sub-system. Extensionists in the district were considered as the extension sub-system for the study.

Methodology

The study was limited for four selected cases. The selected cases were based on the on-going research which were directed to solve farmers' problems in the district. Four cases were selected from the five on-going research. The reasons to use the methodology were: 1.the field data collection had to be completed within two months in Sri Lanka; 2.limited funds and facilities were available for the study: and 3.a large number of different problems faced by farmers in the district. The cases were

examined through an exploratory study. The analysis of the study was done qualitatively.

The interviews were conducted during the exploratory study in the following order:
1.Researchers,
2.Extensionists and
3.Farmers

According to the results of the discussions with the researchers, five researches were identified as cases which were conducting to solve farmers' problems in the district. Among them, four research were selected as cases for the study. They were: 1.unidentified caterpillars in paddy; 2.empty grains and discolouration of paddy; 3.selection of a chilly variety; and 4.improvement of indigenous brinjal variety. The researcher explained: 1.how he received information on the farmers' problems; 2.the way the problems were considered for research priority; and 3.the locations and villages of the district where he visited to investigate the problems.

The extensionists who were involved in the cases were interviewed to collect the following information. 1.How they received the farmers' problems; 2.How they identified the farmers' problems; 3.The way the problems were transferred through extension links; and 4.How they transferred the problems to researchers.

Selection of farmers was done in a non-random way and depended on who interacted with the extensionists to communicate the problem. Interviews with the farmers facilitated to collect the information on: 1.when and how they identified the problem; 2.when and how they transferred the problems to extensionists or researchers; 3.their experience with a particular crop and the problem; and 4.the degree of intensity of the problem which affected the farmers.

Cases

1.Unidentified caterpillar in paddy

Farmers noticed the caterpillar and its damage to paddy in 1984 yala, 1984/85 maha and 1985 yala seasons. As the pest damage was not so serious, they were reluctant to search control measures. However, in 1985/86 maha season, the caterpillar caused severe damage to the paddy cultivation. Therefore, farmers complained to the KVS about the damage.

A higher number of complaints made by farmers influenced KVS to forward the problem to the AI through calling an urgent meeting. The AI, SMO and AO were not able to solve the problem with their knowledge and experience. Therefore, the AO transferred the problem to the research through the monthly research-extension dialogue in December 1986.

After a detailed discussion at the monthly research-extension dialogue, it was decided to hand over the problem to RO (entomology) for further investigations. Presently, the RO conducts field observations in the district and also reviews the literature to identify the pest and to find remedial measures.

2.Empty grains and discolouration of paddy

The farmers in severely affected village noticed the problem during 1984 yala season. They visited and complained to the KVS as the damage was so severe. Although the farmers in the slightly affected village noticed the problem during the same season, they did not complain to the KVS, as it was considered as a minor damage.

The KVS of the severely affected village transferred the problem to the AI through a urgent meeting. The KVS of the slightly affected village transferred the problem to the AI through the bi-weekly meeting. Although the AI, SMO and AO made several attempts, they were unable to solve the problem. Hence, the AO transferred the problem to the research through the RTWG meeting in 1985/86 maha season. The same problem was transferred to RTWG meetings by the AO in 1986 yala and 1986/87 maha seasons.

During the RTWG meeting in 1985/86 maha season, the problem was discussed in detail and it was decided to hand over the problem to the RO (paddy) for further investigation.

The RO was conducting research in the field and also in the laboratory to identify the pathogens to find a remedial measure. Further, he transferred the problem to Bathalagoda Regional Research Center for further investigation.

3.Selection of a chilly variety

Farmers cultivated a recommended chilly variety purchased from the KVS for a long time. In the mean time, they found a long pod, high pungency and prolonged harvesting variety from the dried chilly purchased from the market. Farmers realized that there was

a higher market demand for this variety as it could be used as a vegetable as well as green chilly.

Farmers requested the RO and KVS to select the new variety from the mixed varieties in 1984 yala season. As they did not receive any solution, they did a selection for their own seeds. As a result, the purchase of the recommended seeds by farmers was reduced to 50 per cent during 1985/86 maha season.

The reduction of the demand made the KVS transfer the problem to the AI through the bi-weekly meeting in the 1985/86 maha season. The AI transferred the problem to the AO at the bi-weekly training class. Finally, the AO transferred the problem to the researcher through the RTWG meeting in the 1986 yala season.

The RO made his own decision to carry out the selection procedure during the 1984/85 maha season. Although the problem was forwarded to the RTWG meeting by the AO, he was informed on the research activities already conducted by the RO. The RO paid several field visits and conducted research in the station to select the best variety.

4.Improvement of indigenous brinjal variety

Farmers requested the KVS to improve the yield capacity of the indigenous variety in 1978. Although the recommended variety gave a higher yield, it had a low keeping quality and was more susceptible to the stemborer attacks than the indigenous variety. The better taste of the indigenous variety attracted more consumers. As a result, farmers demand for the recommended seeds was reduced to 10 per cent in the 1985 yala season and it made the KVS transfer the problem to the AI. The AI transferred the problem to the AO through the fortnightly meeting and training sessions in the 1985 yala season. The AO transferred the problem to the research through the RTWG meeting in the 1985/86 maha season. As a result of the discussion at RTWG meeting, the problem received research priority.

The RO paid several field visits and maintained several experimental plots in the station.

Conclusions

Farmers themselves identify not only the agronomic problem but also the problems such as low yield, low market demand and less

profit margines. They are more concerned about the problems when it affect their crops and income severely than slightly. They themselves do research to solve their own problems.

When farmers make many complaints, the extensionists pay more attention to the problems. The extensionists do not pay attention to the problems different from agronomic problems.

Farmers problems are transferred to research mainly by the extensionists. However, the SMO has a weak link between research and extension. More problems are transferred through the RTWG meetings. Extensionists transfer the urgent problem to research through the monthly research-extension dialogue.

Researchers were conducting only five research to solve farmers' problems in the district. However, they conduct experiment at the station but not in the farmers' fields. An adaptive research unit do not conduct research to solve the farmers' problems. The research center faces several limitations due to insufficient staff and lack of equipment to conduct experiments so as to solve the farmers' problem.

The Angunakolapelessa regional research center does not represent the agro-climatic conditions of the Matara district. As a result, the research center does not pay enough attension to the farmers' problems in the district.