



Research Article

Scale to measure information efficiency of agricultural expert system

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SUMMARY : A study was conducted to develop a scale for measuring the information efficiency of the agricultural expert system-‘Diagnos-4’, developed by Kerala Agricultural University. Forty researchers in Transfer of Technology and forty extension personnel formed the sample of the study. After a series of systematic procedures, Information Efficiency Scale was constructed including five dimensions with forty seven items. The information efficiency index was composite, reflecting the ability of the system to provide maximum information to the users at ease. The standardisation of the scale was done by establishing the reliability and validity of the scale.

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Agricultural expert system, Information efficiency scale, User friendliness

BACKGROUND AND OBJECTIVES

The world is witnessing a revolution in Information and Communication Technology leading to the swift and accurate transfer of message from source to the receiver. The advances in the field of Information Technology has evolved a number of new modes of communication and the evolution is so rapid that it is becoming difficult to keep pace with acquiring and utilizing the new tool. Local information resource centres are gaining importance with computers carrying expert systems to help farmers to make decisions. It is known that many Agricultural Research Institutes are involved in the development of Agricultural Expert System to satisfy the information needs of farmers. Hereafter Agricultural Expert System is referred as AES. The dissemination of the technologies could be enhanced by using expert systems and other artificial intelligence technologies (Hadi *et al.*, 2006).

In this context, Kerala Agricultural University developed an Agricultural Expert System (AES) for diagnosing pests and diseases of nine major crops of Kerala called ‘DIAGNOS-4’. The modified version of it is likely to be released shortly for the benefit of all the stakeholders involved in agricultural development. User

friendliness of the system needs special attention, which is mostly a forgotten area in any of the technology development process. Before releasing the software, it is appropriate to assess the information efficiency of the AES so as to make suitable modifications for making it more user friendly.

RESOURCES AND METHODS

‘Diagnos-4’ is the Agricultural Expert System, specially designed software for tackling the problems in transfer of technologies related to plant protection aspects of important crops of Kerala. The research was conducted among the researchers from the Agricultural Research Institutes all over India, which are involved in developing AES and the Transfer of Technology (TOT). Forty researchers and forty extension personnel formed the sample of the study. The respondents were selected purposively who were either having an exposure or awareness about the performance of agricultural expert system.

The main aim behind the scale development was to construct a scale of general nature so as to enlarge the scope of application of the scale to measure the information efficiency of computer aided instruction tools. A review on various aspects of measurement of communication

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