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Use and Dissemination of Information Communication Technology to Farming Women is Boon in Indian Agriculture

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Abstract

A major part of Indian agriculture is supported by farming illiterate women. More than 45% of the working population comprises of farming women especially in western Uttar Pradesh, India. The study area emphasizes the empowerment of farming women for adopting and implementing IPM technologies through the use of the latest information and communication tools. They are involved in agricultural operations right from the selection of seeds, raising healthy nursery, sowing of crop plants to the final harvest of the products and are the key supporters and keen listeners for carrying forward the promising and economically viable IPM technologies for different crops. The paper will discuss the various activities that should be planned keeping the women as the center point which can enlighten and change the face of rural India as the women are never seen as key farmers due to lack of control over agricultural inputs and holdings but their role cannot remain hidden, isolated and deprived.

Introduction

In Uttar Pradesh, India, the women's sizeable and increasing crop production has been well documented, it is commonly observed that gender can easily influence knowledge acquisition and on-farm spot/ well thought decision making and must be thoroughly understood if National/ State Agricultural Department and extension programs are to design appropriate technologies for small/ marginal -scale farming systems. In order to improve IPM program design and delivery in western Uttar Pradesh and to explore perceptual and knowledge differences between men and women about crop production and protection, special focus is to be given for sustainable development of female in this area. It is equally documented that females are overlooked or excluded from any important decision either in household activities or agricultural operations. Integrated Pest Management (IPM) is a broad and system-based approach which integrates to reduce the pest population below Economic Injury Level (EIL). The socio-economic studies results indicate that women play an important role in the agricultural production and protection; however, there is little information available that women play a predominant role in either of decisions. However, it was also found women have a greater knowledge of Pest Management than men, particularly awareness of the harmful effects of chemical pesticides. Thus it was felt that researchers must target the women community for faster spread and adoption of IPM.

Recently developed newer approaches in agriculture and allied fields advocate specifically targeting the ignored groups such as women, either of any caste or religion, belong to an

advanced family or economically poor family, now efforts are being made to ensure active participation in various Good Agricultural Practices and its implementation. In India successful implementation of IPM was initiated in 1995 with small/ marginal farmers and has the main goal to develop socially acceptable, economically viable IPM in farmers' participatory mode. During these validations and promotion of IPM, it has been observed that women frequently lack access to new information which is highly benefited to the farmers. In the present studies, efforts were made to assess the women's knowledge and to find difficulties faced, especially in the extension tools and methods, because of one of the constraints of the slow spread of IPM which is inequitable and unsustainable development of female in this area.

ICT Enforcing IPM Technologies

Information Communication Technology (ICT) has proved to be a very powerful tool in pest forewarning/ forecasting as a prop giving well-advanced priority to take various remedial measures and also very useful for making forecasts which is very helpful in terms of enforcing IPM. The agricultural growth is, therefore found to be very crucial for increasing economic development; however, it is unable to reduce the pest population in an economic way that can be easily achieved by the ICT applications. In actual practice, ICT is the integration of information and communication technology or using fixed and mobile phone networks with stand-alone desktops/ laptops. Nowadays wireless sensor network in-field monitoring and forewarning of invasive pest and use of remote sensing and radar monitoring in IPM are well documented. These ICT tools are varied sets of modernized technological tools which are able to generate and produce value and manage the desired information in minimum possible time. This includes Computer hardware, software, mobile, television broadcasting and other electronic media. In the present years, it has been reported that many changes were also observed in ICT tools, which are important tools for enhancing the agricultural growth by managing the pest-diseases in many developing countries including India.

In the present day, there is also an increase in the familiarity of ICT tools amongst the number of farmers and their family members even in the villages. Not only about the recognition they do understand its importance and even self-learning methods.

Urge to Educate Women Force about ICT

Hence, there is a need to educate the women farmers regarding ICT tools like internet, conferencing and agricultural movies by means of providing training and make availability of these ICT tools in rural areas by farmer field schools, group discussion and making female more

literate as well as computer literate. Major constraints faced by farmers in using ICT tools were availability of less time to learn to use ICT tools and lack of training centers. The broadcasting of agricultural programs was also not convenient. The women force is involved in agricultural operations right from the selection of seeds, raising healthy nursery, sowing of crop plants to the final harvest of the products and are the key supporters and keen listeners for carrying forward the promising and economically viable IPM technologies for different crops. Women, being the major part and contributor for this main state of agricultural production, training should be organized on a broader scale to improve the literacy rate about IPM technologies which can hence accelerate the IPM programs. To impart skills, Farmer field schools, group discussions, the meeting also plays the important role and hence can develop the level of confidence among the female workers.

Results and Discussion

The females are not given much importance due to inadequate information, awareness and knowledge, even though they are actively involved in the agricultural operation especially plant protection strategies. Moreover, the female has less reach to the money they generate from their hard work, due to challenging the existing gender disparities in villages, considering women's access to ICTs usage of these tools by them and create a barrier for using these and impact of ICT's on plant protection strategies and finally the empowerment of farm women is essential. Efforts were made to study the reason for such above-mentioned facts; simple random techniques were selected for the present studies. The core primary data on the access and usage of ICT tools by farm women were collected from female respondents of small/ marginal farm families through a well-structured and pretested schedule. This also followed by the PRA studies as well as personal interviews. The data collected through this method were scored. Quantified, categorized and analyzed by using statistical methods. The farmers have a favorable attitude towards ICT tools followed by the least favorable attitude and most favorable attitude towards ICT tools. The majority of the respondents had knowledge about TV and mobile which are providing agricultural information but the majority of the respondents did not know regarding much of usages of internet, Whatsapp, IPM APP on google play store, agricultural DVDs, social media and interactive conferencing.

Conclusion

Information and communication technology in agriculture (ICT in agriculture), also known as e-agriculture focuses on the enhancement of agricultural and rural development through improved information and communication processes.

Hence, there is a need to educate the farmers regarding ICT tools like internet, video conferencing and agricultural movies by means of providing training and make availability of these ICT tools in rural areas by farmer field schools, group discussion and making females more literate as well as computer literate for the wider spread of Integrated Pest Management practices and hence the women farmer participation would increased in a better adoption rate.

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