

Krishi Updates: Digital Agriculture Model

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ABSTRACT

Adequate, timely and region specific information is an important input for sustainable and profitable agriculture. Krishi Updates is providing digital extension services to the farmers, facilitating communication and outreach activities and organising need-based trainings. Information sources are very vast, and farmers are unable to segregate the information that is most suitable for them. Krishi Updates aims to fill this void by providing region-specific and research backed information to the farmers. The present study revealed that majority of farmers were satisfied with the present model of information dissemination by Krishi Updates and found posting content on social media (Facebook, Youtube and LinkedIn), followed by sharing in community of practice (CoP) as a most effective and suitable method of information dissemination. Use of ICTs facilitates the effectiveness of conventional extension services, but cannot replace it completely. Digital Agriculture models like Krishi Updates can prove a great asset to provide ICT support to agriculture extension and marketing, promoting collective farming and in making such entities viable and sustainable. During the study, ninety percent (90%) of the farmers agreed to recommend Krishi updates to other fellow farmers, to bring a positive change in their communities.

Key Words: Krishi Updates, Information and communication technology (ICT), Digital extension, Information need, Agriculture journalism

INTRODUCTION

Facilitating adequate information flow empowers farmers to take informed decisions and plays a very vital role in socio-economic development of rural communities. Effective use of Information and communication technology (ICT) facilitates flow of adequate and reliable information to the farmers and derives a societal transformation. Dhaka and Chayal (2010) highlighted the importance of ICT in disseminating agriculture technologies among farmers in a cost effective manner. Their research also revealed that most of the farmers regard ICT as an important source of information. Study carried out by Babu *et al.* (2012) revealed that majority of farmers perceive that the information should be free and were willing to pay nothing for information services, but the poor reliability and timeliness were the major constraints in access to information by farmers in India. Absence of formal and effective institutions deprived the farmers of Uttarakhand in effective use ICTs for agriculture development (Kameswari *et al.*, 2011). Supporting information needs of women farmers

can promote nutritional security and address constraints of mobility and time (Govil and Rana, 2017). Thus, the effective use of ICTs satisfies information needs of farmers and facilitates forward and backward linkages, for improving their profits.

Social media plays a very vital role in disseminating agricultural information, but still very less number of stakeholders are making effective use of this platform in agriculture domain. Study carried out by Suchiradipta and Raj (2018) suggests that through proper training and organisational setup, social media can be used as an effective tool to disseminate technical information among various stakeholders in agriculture. In recent years, Facebook, Youtube, Whatsapp, Twitter and LinkedIn have emerged as the most popular social media platforms in agricultural marketing. Use of digital media helps in dissemination of information and provides an opportunity for e-buying and e-selling of agricultural commodities (Balkrishna and Deshmukh, 2017; Bhowal *et al.*, 2022). With proper training and effective organisational setup, social media can be used effectively to strengthen supply

chain and improve access to technologies, inputs and services. Video mediated learning is gaining interest among farmers and have proved to be an effective tool for disseminating agriculture information (Ongachi *et. al.*, 2017). Many extension workers are now using videos as an effective tool for disseminating agricultural technologies among farmers (Gouroubera *et. al.*, 2023). At present, Access Agriculture and Digital Green, are the two main organisations that are dominating the international scene for production and distribution of videos for farmers (Mele *et. al.*, 2018). A study conducted by Bentley *et. al.* (2019) showed that internet (49%), social media (9%) and mass media (5.3%) acted as major platforms to connect farmers with the video mediated learning approach of Access Agriculture. Ninety-nine percent of the respondents reported to have a positive impact in their lives after watching videos of Access Agriculture (Bentley *et. al.*, 2022). Creating quality training videos and their systematic dissemination through social media can help in making women farmers well-informed, improve market linkages and attract youth in agriculture.

METHODOLOGY

The present study was conducted in Banjar block of Kullu district of Himachal Pradesh from January, 2022 to December, 2022. Five clusters established under Himachal Pradesh Horticulture Development Project were selected for the study purpose. From each cluster twenty (20) farmers were selected. After selection of clusters, in depth interviews were conducted with a total of One Hundred (100) farmers from five clusters. The questions were designed in English and farmers were contacted individually to get a clear and effective feedback. During the study period, the farmers were linked with Krishi Updates – Digital Agriculture Model, and their feedback on how they can benefit with such initiatives through market linkages and improving their farming practices was collected. The study will help us to improve the present model and come up with more such initiatives.

RESULTS AND DISCUSSIONS

3.1 Effectiveness of the present model of Krishi updates

Realising the importance of agricultural journalists in communicating information to different stakeholders in agriculture, National Institute of Agricultural Extension Management (MANAGE) came up with an idea to create National Network of Agri Journalists. At the start of the initiative in 2020, MANAGE trained few individuals in agriculture journalism with an aim to facilitate rapid communication of information to farmers. Krishi Updates is an outcome of this platform, and is working to provide digital extension services to the farmers in Himalayan region.

3.1.1 Feedback on most favourable method of information transfer

During the study majority of farmers (70%) responded that posting of content on social media (Facebook, Youtube and LinkedIn), followed by sharing in Whatsapp and other social media groups is the most effective and suitable method of information transfer, followed by posting in Facebook only (15%), Whatsapp only (10%), Youtube only (3%) and LinkedIn only (2%).

3.1.2 Feedback regarding usefulness of ICTs and Social Media in spreading useful information on agriculture and increasing the reach of departmental schemes/project activities

During the present study, we observed that majority of farmers responded (75%) that the use of ICTs and social media for disseminating agricultural information increased the reach of departmental schemes/ project activities very effectively and helped them to take informed decisions. Fifteen percent (15%) of the farmers responded that that the method of dissemination was effective but not very effective, while ten percent (10%) of the farmers responded that the initiative was not very effective in satisfying our needs.

3.1.3 Feedback on training videos and short technical message content by Krishi Updates

Around Seventy five percent (75%) of the farmers responded that videos accompanied with

short written technical messages helped them very effectively to understand the farming techniques properly, followed by fifteen percent (15%) to whom the content seemed effective but not very effective and ten percent (10%) to whom content was not very useful.

3.2 Suggestions for the improvement in the existing model and effective mode of delivery of Rural advisory services (RAS)

Study carried out by Suchiradipta and Raj (2018) highlights the importance of use of social media in increasing the reach of extension services. Their study also recommends making an effective use of social media with proper training and policy support. Effective use of ICTs can benefit the farmers and act as a complementary tool to conventional extension services. In our study, majority of farmers (80%) responded that the most effective method of RAS is Hybrid mode, i.e., offline need-based trainings, followed by use of digital media. Fifteen percent (15%) of the farmers responded to opt totally offline mode of RAS, while only five percent (5%) responded to opt for only video-led extension.

3.3 Role of Krishi Updates Model in sensitizing farmers to adopt collective farming through information services, capacity building, market linkages and incubation support

Digital agriculture models can play a very vital role in promoting collective farming. Farmer producer organisations (FPOs) have the potential to make farming profitable, but there is a need to provide them handholding support (Bishnoi and Kumari, 2020). Study carried out by Bhadauria and Singh (2021) highlights the importance of FPOs in making agriculture more viable and sustainable. Padmaja et. al. (2019) highlighted the importance of establishing incubators to support FPOs and make them profitable through regular business guidance.

In our study, eighty five percent (85%) of the farmers strongly agreed to adopt collective farming if there is an organisational setup like Krishi Updates to provide them information services, capacity building, market linkages and incubation support. The study highlights the importance of

digital agriculture in making farming more sustainable and profitable. Ten percent (10%) of the farmers responded that they can't say on this point, while Five percent (5%) disagreed with adopting collective farming even if there is an organisational setup to support them.

3.4 Will you recommend Krishi Updates to other fellow farmers?

In our study ninety percent (90%) of the farmers responded that they will surely recommend Krishi updates to other fellow farmers to take informed decisions and learn modern and scientific methods of farming, while ten percent (10%) of the farmers responded that they can't say whether they will recommend it to other fellow farmers or not.

CONCLUSION

Realising the importance of agriculture journalists in disseminating information to the farmers, MANAGE came up with an idea to provide a dynamic platform to such professionals. Krishi Updates is an outcome of National Network of Agri Journalists formed by MANAGE, in year 2020. Different online training programmes were organised by MANAGE to upskill agriculture journalists in facilitating information flow to the farmers. Different researchers have highlighted the importance of ICTs and social media in disseminating information to the farmers. But, due to lack of trained professionals, institutional support, and enabling policy, the desired results of use of ICTs for agricultural development could not be achieved. Krishi Updates – Digital Agriculture Model aims to fill this void and empower farmers to take informed decisions. There is a need to provide information services, capacity building, market linkages and incubation support to farmer collectives and digital agriculture initiatives like Krishi Updates can bring some concrete results in this segment.

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