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Training Needs Assessment of Agro-input Dealers in Banda District of Uttar Pradesh

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ABSTRACT

In Indian social structure agro-input dealers plays an important role in agricultural production and marketing system. They forms a strong link and contribute towards strengthening the Agricultural Extension System by providing valuable service to the farming community in a mode of technology dissemination. It is essential that they are equipped with latest agriculture knowledge through refresher training courses. The present investigation was conducted during 2017-18 at Banda University of Agriculture and Technology in Banda district of Uttar Pradesh at the time of starting Diploma in Agriculture Extension Services for Input Dealers (DAESI) programme to ascertain training needs of agro-input dealers. Data was collected through personal interview and written feedback of 40 retailers using structured interview schedule. 95 per cent respondents were male and found to be highly educated with >52 per cent of them having senior secondary and higher degrees. 80% input dealers belong to young and middle age group and 77.5 percent were dependent on bank credit for the business. Respondents ranked 1st priority of training needs in package of practices of major crops, rabi weed management, government laws and regulation of fertilizers, insect-pest management of pigeon pea & gram, cattle farming, filing of GST & E-billing, respectively. Training in computer and its application in business was another preferred area. Lack of need based training, complications in GST filling and low profit in the business were some of the constraints identified by the input dealers of Banda district.

Keywords: Training need assessment, Agro-input dealers, Subject matter, Constraints

INTRODUCTION

Being the largest component of Indian economy, agriculture has outmost importance for the vast number of people. Agriculture sector employs 54.6 per cent of the total workforce in the country. Rapid rate of increasing population of India places constant pressure on agriculture to improve productivity (Girawale and Naik, 2016). Agriculture needs technology infusion to accelerate the growth, so that food sustainability is maintained with the concern of sustainability of natural resources and environment. Agriculture is still technology deficit resulting in lower yields per hectare of food grain, fruits and vegetables in our country as compared to the global average (Raghav *et al.,* 2020). Most population of farming community belongs to illiterate or low literate category, leads the minimum use of latest agricultural technologies in farm production system. The harmful effects of the unscientific approaches, agro-chemicals and fertilizers are now established worldwide. Farmers and agricultural labourers are the direct users of pesticides and are more likely to get affected by the acute toxicity of pesticides. The indirect effect of chronic toxicity affects the whole population. The farmers were found to be largely unaware of correct usage of pesticides. The outreach of state agriculture

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universities and departments to the farmers was minimal (Bhushan *et al.,* 2013). Similarly, side and long run effect of chemical fertilizers showed their harmful effects in soil, water and products. Regarding the selection, uses and doses of these inputs are mostly guided by the dealers/retailers in general and particular in remote rural area of the country (Singh *et al*., 2015). Mono cropping is very often and followed by vegetable cultivation, where agro-input dealers playing vital role in farm production (Kumar *et al*., 2019). To achieve targeted production and productivity is possible only way of harnessing yield gap by adopting new niches, precision farming, quality inputs, soil test based INM, timely weed management and mechanized method of crop and allied production complimented with generous governmental policies and appropriate funding support to implementing states/stake holders (Tiwari and Shivhare, 2017; Gupta *et al*., 2020; Gill *et al.,* 2020). In present scenario it may be possible only by timely dissemination of scientific agri-technologies to needed farming community.

Public extension service is often criticized for not being able to disseminate technical agricultural knowledge and handle the multifarious demands of the farming community. Private sector extension providers viz., Input Dealers, Producers Association, NGOs, Corporate sector, local byers etc. have entered the extension scenario. About 2.82 lakh Agri-Input Dealers are operating in rural areas covering almost all parts of the country (Goel, 2003). Agri-input dealers have become one of the important sources of agri-farm information to the farming community though not equipped with adequate knowledge (Kumar *et al.*, 2020). The network of dealers has spread to the very remote area of villages and is accepted as a potent media to reach out to large farming community. In order to enable this net-work serve the farming community in a better way, they need to be trained in scientific agriculture. Hence, the present study was undertaken to assess their training needs, knowledge upgradation requirements and to identify the constraints faced by the input dealers to serve the farming community.

METHODOLOGY

The study was conducted during 2017-18 in Banda district of Uttar Pradesh., Banda University of Agriculture and Technology, Banda has been nominated as Nodal Agency to conduct Diploma for Agricultural Extension Services for Input Dealers (DAESI) programme by ATMA body of District, Government of UP. The course christened as Diploma for Agricultural Extension Services for Input Dealers (DAESI) is being offered through weekly class room contact method under the supervision of MANAGE, Hyderabad. Total 48 days full time training was scheduled including 8 field exposure visits. During the course 4 objectives type, 1 mid-term and 1 final exam were also scheduled for proper evaluation of knowledge of input dealers. A total of 40 participants (input dealers) from the district were selected by district agriculture department and nominated for training.

Before starting the programme, respondents were surveyed through personal interview using pre-tested structured interview schedule to record their socio-economic status and training need. After thorough review of relevant literature and in consultation with experts of relevant field the potential training areas were identified. These areas were rated by the respondents on three-point rating scale as 'Most needed' 'Needed' and 'Not needed' for which score 3, 2 and 1 was assigned. Training need was measured by computing the weighted mean score. Areas of training were ranked as per the weighted mean score. Simple statistical measures like frequency, percentage and weighted mean were used to interpret the data.

RESULTS AND DISCUSSION

Out of 40 respondents 95 per cent were male, 35 per cent belonged to young age group (<35 years) and 45 per cent belonged to middle age group, 72.5 per cent were educated up to senior secondary level. Educated and mature people entering the agro-input business are an encouraging trend. Significant percentage (77.5%) of respondents had bonded with banks and other financial institutions, 72.5 per cent had more than one source of income and 75 per cent with more than medium level of managerial ability. Risk bearing capacity, motivation ability, knowledge and aspiration level of input dealers were also found in majority at low to medium levels. Mande and Darade (2011) and Singh *et al*. (2013) also

found that majority of the farm input dealers had medium level of knowledge about advance technology related to use of seeds, fertilizers and pesticides.

Training needs of agro-input dealers in major agriculture areas

Training needs of the input dealers in different areas of agriculture as presented in Table 1 reveals that Package of practices of major crops of Banda district emerged as the most needed training area with mean score 2.95. Weed control and E-billing system ranked second with 2.90 mean score followed by online marketing, integrated pest management, integrated nutrient management, micro nutrients, bio fertilizers, knowledge of allied sector, maintenance of small equipment and protected cultivation with decreasing trends of mean score. Mande and Darade (2011) observed that all farm input dealers of Latur District in Marathwada region of Maharashtra State perceived (100%) training needs on various aspects of pesticides applications. These findings are also confirmed by Ganiger (2012); Sharma (2014) and Thorat (2015).

Weeds are the main biotic drawback to crop yield in agroecosystems. Nowadays, following the request for setting up eco-friendly weed control practices which are agronomically and economically sustainable, the IWM system has become a consolidated approach, especially in organic agriculture and, more generally, in low-input agricultural systems (Raghav *et al.,* 2020). Weed existence in district Banda under rain-fed condition is a major challenge in agriculture. In this thematic area major *rabi* weeds and their management ranked 1st training need with 2.98 weighted mean score followed by *kharif* weeds management, identification of major weeds, different herbicides and management of perennial weeds (Table 2). Training need importance on weed

Table 1: Training needs of agro-input dealers in major agriculture areas

S.No.	Training areas	Weighted Mean Score	Rank
1.	Package of practices of major crops grown in Bundelkhand	2.95	I
2.	Integrated nutrient management	2.78	V
3.	Protected cultivation	2.13	XII
4.	Insect pest, management and its components viz. Cultural, mechanical, biological, chemical and legal.	2.80	IV
5.	Mode of chemical action in soil, plant and human.	2.30	X
6.	Diagnostic and characteristic symptom and damagecaused by insect pest.	2.65	VIII
7.	Control of non-insect pest-rat, birds, termites, etc.	2.78	V
8.	Trade name, chemical name and properties of pesticides and their uses.	2.55	IX
9.	Trade name, chemical name and properties of herbicides and their uses.	2.90	II
10.	Trade name, chemical name and properties of micronutrients and their uses (growth hormone).	2.75	VI
11.	On line marketing and finance system of banks to farmers	2.85	III
12.	Agriculture allied sectors like bee keeping, Mushroom, dairy, goatry, poultry, piggery, vermi culture etc.	2.55	IX
13.	Maintenance, selection, use and care of different sprayers, dusters, etc.; and their minor repairs.	2.15	XI
14.	Precautions in handling- storing and use of antidotesin case of accidents.	2.30	X
15.	E-Billing system of inputs	2.90	II
16.	Bio-fertilizer - its use and importance.	2.73	VII
17.	Different equipment for pruning, grafting, spraying, etc.	2.05	XIII
18.	Government sponsored programmes for farmers	2.78	V

Table 2: Specific Training needs of input dealers related to various subject matter

S. No.	Weed Control	Weighted Mean Score	Rank
1.	Identification of major weeds	2.85	III
2.	Major weeds of kharif crops and their management	2.93	II
3.	Major weeds of *rabi* crops and their management	2.98	I
4.	Problematic perennial weeds and their management	2.58	V
5.	Different herbicides, trade name and chemical names	2.75	IV
Fertilizer			
1.	Soil testing for fertilizer application	2.85	II
2.	Integrated Nutrient Management	2.68	V
3.	Methods of fertilizer application	2.48	VIII
4.	Bio-fertilizers	2.73	IV
5.	Govt. Laws & Regulations related to fertilizer	2.93	I
6.	Micro-nutrients fertilizers	2.48	VIII
7.	Nutrient contents in fertilizers	2.23	XI
8.	Cake fertilizers	2.33	IX
9.	Fertigation	2.58	VI
10.	Implements used for fertilizer application	2.53	VII
11.	Liquid fertilizer and methods of use	2.75	III
12.	Different type of fertilizers	2.28	X
Crop wise Insect-pest management			
1.	Wheat	2.83	II
2.	Rice	2.48	IV
3.	Pigeon pea	3.00	I
4.	Gram	3.00	I
5.	Field pea	2.23	V
6.	Mustard	2.83	II
7.	Vegetables	2.53	III
8.	Fruit crops	2.23	V
9.	Spices	1.95	VI
10.	Allied sectors		
11.	Organic farming	2.83	III
12.	Bee keeping	2.35	VII
13.	Mushroom production	2.68	V
14.	Goat Farming	2.90	II
15.	Cattle farming	3.00	I
16.	Piggery	1.88	IX
17.	Poultry	2.10	VIII
18.	Fishery	2.38	VI
19.	Protected farming	2.70	IV
20.	Fruit plant nursery	2.35	VII
Computer application and record keeping			
1.	Stok and stock book entry	2.90	II
2.	Other Record keeping	2.00	VI
3.	Record keeping software	2.60	V
4.	Online e-billing	2.88	III
5.	Internet, E-mail, Scanning etc.	2.65	IV
6.	GST and E tax	2.98	I

management was also reported by Verma *et al.* (2015). In thematic area of fertilizer application, Government laws and regulation topic ranked 1st with 2.93 mean score and soil testing area as 2nd (2.85 WMS) in list of training demand followed by liquid fertilizers, bio fertilizers, integrated nutrient management, fertigation etc., while lowest mean score was found 2.23 for training in nutrient content in fertilizers. It may be due to the practical knowledge of dealers in their profession. Similarly, Waghmode *et al*. (2014) also observed that there were various areas of agriculture input dealers required training need like that 'business management' (88.00%) and Integrated nutrient management (78.67%). Among crop specific insect-pest management training needs; pigeon pea and gram crops ranked first with mean score 3.0. Training in wheat, mustard, vegetable, rice, fruit crop, field pea and spices were the other areas indicated by the dealers. The probable reason may be due to that, the agro-climatic conditions are quite conducive for pulses cultivation specially during *rabi* season in Banda district. Consumption of insecticides and pesticides in gram, pigeon pea and vegetable farming is quite high. Hence, insect-pest management in these crops has assumed significance among the retailers. These findings are also accordance with Prajapati *et al*. (2012) and Ram *et al*. (2014). Further, cattle farming

was the most demanded area for training with 3.0 weight mean score followed by goat farming, organic farming, protected cultivation, mushroom production, fish farming, beekeeping and poultry farming. The least preferred area for training was recorded with 1.88 mean score for training of pig farming. It may be due to no social acceptance of this enterprise in rural area of the district. The extension approaches followed by different extension organization have resulted in to wider spread of modern technologies and increase in agriculture production. However, in agri-allied sector these extension approaches are not fully adopted due to several reasons (Kareem *et al*., 2018). Filling of GST and e-tax for billing and accounting purposes ranked first with mean score 2.98. Other preferable areas of training in descending order were stock and stock book entry, online e-billing, internet; record keeping software; E-mail, scanning etc. and other related record keeping. The application of ICT has brought about enormous changes in the work culture of world, especially in the field of marketing. These changes bring professional challenges to equip, train, and retrain the personnel in distributing and marketing with modern skills. Using Information Communication Technologies (ICTs), is crucial to most businesses, regardless of size. It is important to a retailer aiming to expand and to improve efficiency. Singh *et al.* (2015) concluded that the use of ICT also improves customer services and consequently customer satisfaction. Kumar *et al*. (2019) has also presented that respondents being educated and young in age have the potential to use ICT to their advantage.

Constraints faced by Agro-input dealers

It is evident from Table 3 that over 92.5 per cent of the respondents faced high intensity of constraints regarding no facility of need based trainings and complication in filling GST and e-billing with 2.93 mean score. Low profit in business and high cost of transportation are indicated by majority of respondents followed by fluctuation of seasonal selling and irregular contact of extension officials with dealers. Earlier the distributor used to deliver goods to the retailers at their sale point. As this practice is discontinued the retailers incur expenditure in transportation while they are bound to sell at maximum retail price. Problem of fluctuation in sale of inputs on seasonal basis is also reported as constraints faced by majority of the respondents. Delay in supply of inputs, lack of capital, lack of knowledge in

Table 3: Constraints faced by Agro-input dealers

S.No.	Statements	Intensity (No)			Weighted Mean Score	Rank
		High	Medium	Low		
1.	Delay in supply of inputs	27	10	3	2.60	VI
2.	High cost in transportation	35	4	1	2.85	III
3.	Lack of capital	31	2	7	2.60	VI
4.	Non-availability of bank loan	21	3	16	2.13	VIII
5.	Fluctuation of selling on seasonal basis	32	6	2	2.75	IV
6.	Low margin money	36	3	1	2.88	II
7.	Uncertain demand	16	8	16	2.00	X
8.	Irregular contact of extension officials	33	1	6	2.68	V
9.	Lack of need based training	37	3	0	2.93	I
10.	Lack of knowledge in maintaining stock Book and records	27	6	7	2.50	VII
11.	No facility of on spot supply	17	5	18	1.98	XI
12.	Filling GST and E-billing	38	1	1	2.93	I
13.	Lack of technical knowledge of theretailers about brands of product	17	10	13	2.10	IX
14.	Delay in renewal of the license	13	6	21	1.80	XII

maintaining stock books, non-availability of bank loan, lack of technical knowledge about brand of products, uncertain demands of inputs and delay in license renewal are also indicated as constraints by majority of the respondents. Most of these constraints have been also reported by Singh *et al.* (2013); Girawale and Naik (2016) and Kumar *et al.* (2020).

CONCLUSION

The study revealed that the core areas of rabi and kharif crop production and allied sectors dominated agro-input dealers training need. Among crop specific training need insect -pest management in pigeon pea & Gram ranked first followed by wheat and mustard. Application of computer in their business and other tools help advancing the business and dealers desires to have training. Professional Institutions offering training like MANAGE, SAUs, ICAR Institutes, KVKs may lay emphasis on these preferences while designing and conducting training programme for retailers and input suppliers. The more equipped the dealers are the more efficient service could be rendered. Training them will minimize the problems faced by them and ensure the quality of service; advices rendered and contribute to evolving the input dealers into para- professionals.

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