

Original Research Article

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Impact of KVK Training Programmes on Adoption of Ginger Production Technology in Aizawl District of Mizoram

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ABSTRACT

Keywords

Ginger production technology; Impact; Training; Knowledge; Adoption

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The concept of vocational training in agriculture through KVK grew substantially due to greater demand for improved agricultural technology by the farmers. The study was carried out in Tlangnuam block of Aizawl District of Mizoram. The Tlangnuam block was purposively selected because of large number of farmers' participation in KVK's training programme. For the selection of respondents, a list of ginger trainees of KVK during preceding three years (2016-17 to 2018-19) was prepared. Out of 210 trainees list, only 60 farmers were randomly selected from KVK adopted villages of Tlangnuam block. The findings of the study revealed that farmers had gained knowledge about ginger production technology ranging from 10.0 per cent of land preparation to 80.0 per cent of seed treatment after attending training programmes organized by the KVK. The study showed that none of the farmers were following the improved package of practices of ginger production like soil testing, soil treatment, seed treatment, seed rate and spacing before acquiring the training whereas, after attending the training programme they adopted soil testing (51.7 %), soil treatment (20.0 %), seed treatment (36.7 %) and seed rate and spacing (65.0 %). The study also revealed that they started adopting the ginger production technologies ranging from 10.0 per cent for storage practices to 75.0 per cent for high yielding variety after attending training programmes.

Introduction

To find out the success of any training programme a periodic appraisal and evaluation of what is being done is essential, so that suitable changes can be made to make training programme more effective. The concept of vocational training in agriculture through KVK grew substantially due to greater demand for improved agricultural

technology by the farmers. They do not only requires knowledge and understanding of the intricacy of technology but also progressively more and more skills in various complex agriculture operations for adoption at their farms. The training programmes were designed to impart the latest knowledge to the farmers through work experiences by applying the principles of "Teaching by doing" and "Learning by doing". The freshly

harvested ginger is used for consumption as green ginger in whole northeastern states. Little amount of surplus is sold outside the state through middlemen at a very low prices. Sometimes due to marketing problem the farmers are not able to sell their produce since there is no local market big enough to absorb and handle green ginger in large quantities. Therefore, it is essential to convert a part of produce into low volume high value ginger to make the crop remunerative. As it is abundantly available in the region, different products like ginger oil, ginger oleoresin can be prepared for export, which are very common in developed countries. Dried ginger (called saunth) can also be prepared and it may be either sold as such or in the form of an off white to very light brown powder.

The dried ginger or ginger powder is generally used in manufacturing of ginger brandy, wine and beer in many western countries. Ginger oil is primarily used as a flavoring agent in confectionary and for soft drinks. The ginger is also used for several medicinal purposes. The total area under different spices in the region is 140.00 thousands ha with a production of 436.8 thousand tones at a productivity of 3.12 t/ha (anonymous, 2003). The area under ginger in NE region is 33.2 thousands ha which gives total production of 191 thousand tones at an average yield of 5.8 t/ha against the national productivity of 3.5 t/ha (Anonymous, 2000). Meghalaya is the major producer of ginger in the region, which is also second largest producer in the country with a total share of 19.59 % after Kerala, which contributes 23.08 % to the total production of the country (Anonymous, 2004).

The production of ginger is highest in Meghalaya followed by Mizoram and Arunachal Pradesh. However, the productivity is highest in Arunachal Pradesh. This shows that farmers are interested for the

cultivation of ginger as soil, climate and other ecological factors favour the growth and development of the crop and there is a tremendous scope to increase the yield per unit area and thereby the total production of ginger in North East region. Keeping in view of an effective extension approach of trainings for dissemination of technology, it was thought to assess the impact of trainings organizing by KVK in Tlangnuam block of Aizawl district of Mizoram. Therefore, the present study was undertaken with the specific objective to find out the extent of knowledge and adoption of ginger production technology by the KVK trainees.

Materials and Methods

Krishi Vigyan Kendra, Aizawl, CAU, Mizoram since its establishment has directed its effort towards agricultural development in the district and bringing about entrepreneurship and skills among practitioners of agriculture and stakeholders with a view to ensure livelihood security. The study was carried out in Tlangnuam block of Aizawl district of Mizoram. The Tlangnuam block was purposively selected because of large number of farmer participation in KVK's training programme. For the selection of respondents, a list of ginger trainees of KVK during preceding three years (2016 to 2018-19) was prepared. Out of 178 trainees list, only 60 farmers were randomly selected from KVK adopted villages of Tlangnuam block.

The data were collected through personal contacts with the help of well structured interview schedule. The gathered data were processed, tabulated, classified and analyzed in terms of percentage in the light of objectives of the study. Total twelve practices were selected to find out the extent of knowledge and adoption of ginger production technologies.

Results and Discussion

Gain in knowledge about improved ginger production technologies

It is assumed that the knowledge of the farmers to a large degree depends upon the extent of exposure given to them about the technology. The gain in knowledge by the respondents about improved package of practices of ginger was measured in term of percentage. The data regarding gain in knowledge about improved ginger production technologies were recorded fewer than two heads i.e. knowledge before training and knowledge after training.

The data in the table 1 depicts that the beneficiary farmers of ginger production training programmes were gained highest knowledge about seed treatment (80.0 %), followed by high yielding variety (70.0 %), seed rate and spacing (65.0 %), weed management (63.3 %), nutrient management (55.0 %), plant protection measures (46.7 %), irrigation management (45.0 %), storage and marketing (40.0 %), harvesting (35.0 %), sowing time (33.3 %) and land preparation (10.0 %). The findings of the study also revealed that they had gained knowledge ranging from 11.7 per cent of land preparation to 80.0 per cent of seed treatment after training programmes.

Extent of Adoption of Production Technologies

The data presented (Table 2) revealed that the none of the farmers were following the improved practices like soil testing, soil treatment, seed treatment, seed rate and spacing before acquiring training whereas, after attending training programme they adopted soil testing (51.7 %), soil treatment (20.0 %), seed treatment (36.7 %) and seed rate and spacing (65.0 %). Over 81.7 per cent

farmers were practicing land preparation before training programmes and the remaining 18.3 per cent began after training programmes.

Regarding high yielding variety 25 per cent farmers were using before training while after training programmes all the farmers started to grow high yielding variety of ginger crop on their farms. They were following improved practices of ginger production like irrigation scheduling (36.7 %), harvesting (28.3 %) plant protection measures (25.0 %), weeding (21.7 %), fertilizer application (18.3 %) and storage (15.0 %) before training programmes while other farmers were started adopting the improved practices like; weeding (60.0 %), irrigation scheduling (46.7 %), plant protection measures (41.7 %), fertilizer application (40.0 %) and harvesting (35.0 %) for ginger production after training programmes. Only 10 per cent farmers started storage practices for ginger after receiving training. It was due to lack of storage structure at farmer's level.

Farmers were adopting the production technologies ranging from 10.0 per cent for storage practices to 75.0 per cent for high yielding variety similar results have been found by Borthakur, Dharendra Nath (1992), Meena, K.C. and Gupta I.N. (2013) and Malabasari and R.T. and Hiremath, U.S. (2016).

This might be due the fact that increase in knowledge, skills and confidence level of farmers through training programmes on different production technologies like high yielding variety, seed rate and spacing, seed treatment, soil testing, soil treatment, weeding, plant protection measures, irrigation scheduling, fertilizer application and harvesting has helped farmers to improve the yield of ginger crop.

Table.1 Impact of training on change in knowledge level n=60

Sl.No	Technology	Before Training	After Training	Gain in Knowledge Level
1.	Soil testing	00 (00.0)	41 (68.4)	41 (68.4)
2.	Land preparation	54 (87.3)	60 (100.0)	06 (10.0)
3.	Soil treatment	00 (00.0)	29 (48.3)	29 (48.3)
4.	Seed treatment	03 (05.0)	48 (80.0)	48 (80.0)
5.	High yielding variety	18 (30.0)	60 (100.0)	42 (70.0)
6.	Sowing time	37 (61.7)	57 (95.0)	20 (33.3)
7.	Seed rate and spacing	09 (15.0)	48 (80.0)	39 (65.0)
8.	Irrigation management	29 (48.3)	56 (93.3)	27 (45.0)
9.	Weed management	17 (28.3)	55 (91.7)	38 (63.3)
10.	Nutrient management	13 (21.7)	46 (67.7)	33 (55.0)
11.	Plant protection measures	15 (25.0)	43 (71.7)	28 (46.7)
12.	Harvesting	19 (31.7)	40 (66.7)	21 (35.0)
13.	Storage and marketing	11 (18.3)	35 (58.3)	24 (40.0)

*Figure in parentheses indicates percentage

Table.2 Change in adoption level of the respondents regarding ginger production technologies n=60

Sl.No	Technology	Before Training	After Training	Adoption Level
1.	Soil testing	00 (00.0)	31 (51.7)	31 (51.7)
2.	Land preparation	49 (81.7)	60 (100.0)	11 (18.3)
3.	Soil treatment	00 (00.0)	12 (20.0)	12 (20.0)
4.	Seed treatment	00 (00.0)	22 (36.7)	22 (36.7)
5.	High yielding variety	15 (25.0)	60 (100.0)	45 (75.0)
6.	Sowing time	00 (00.0)	41 (68.3)	41 (68.3)
7.	Seed rate and spacing	00 (00.0)	39 (65.0)	39 (65.0)
8.	Irrigation management	22 (36.7)	50 (83.3)	28 (46.7)
9.	Weed management	13 (21.7)	49 (81.7)	36 (60.0)
10.	Nutrient management	11 (18.23)	35 (58.3)	24 (40.0)
11.	Plant protection measures	15 (25.0)	40 (66.7)	25 (41.7)
12.	Harvesting	17 (28.3)	38 (63.3)	21 (35.0)
13.	Storage and marketing	09 (15.0)	15 (25.0)	06 (10.0)

*Figure in parentheses indicates percentage

The findings of the study revealed that farmers had gained knowledge about ginger production technology ranging from 10 per cent of land preparation to 80.0 per cent of seed treatment after attending training programmes organized by the KVK. The study showed that none of the farmers were

following the improved package of practices of ginger production like soil testing, soil treatment, seed treatment, seed rate and spacing before acquiring the training whereas, after attending the training programme they adopted soil testing (51.7 %), soil treatment (20 %), seed treatment (36.7 %) and seed rate

and spacing (65.0 %). The study also revealed that they started adopting the ginger production technologies ranging from 10.0 per cent for storage practices to 75.0 per cent for high yielding variety after attending training programmes. Thus, it can be concluded that training programme conducted by the KVK is one of the important tool for dissemination of knowledge and technical skills to the farmers. Meanwhile, conductance of short duration trainings is playing an important role in motivating the farmers for adoption of improved agricultural technologies, thus resulting in their increased yields and profits.

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