Study of Type and Extent of Training Received by KVK Trainees

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Authors’ contributions

This work was carried out in collaboration between both authors. Both the authors have contributed in all the aspects of conducting the present research like, conceptualizing, data collection, statistical analysis and preparation of manuscript. Both authors read and approved the final manuscript.

ABSTRACT

The present study has been conducted in three blocks of Nadia district with the specific objectives to ascertain the preferences of the trainees about different broad areas of training imparted by Gayeshpur Krishi Vigyan Kendra (hereafter to be mentioned as KVK); to ascertain the extent of training attended by trainee; and to study the extent of training received by KVK trainees on different aspects of farming. Data related with different aspects of research like, extent of attending training; preference of respondents for different aspects of training, extent of training received on different aspects etc. have been collected from 120 respondents of two study blocks by administering structured interview schedule. Data so collected were analyzed by use of appropriate statistical tools as discussed in methodological section. The results of the study showed that majority of the respondents attended training program in once in a three-month followed by once in six months and twice in a month respectively. The study also depicted that respondents had differential preferences for different aspects of training as well as they have received differential levels of training on different aspects of training imparted through KVK. The study can be concluded that respondents...
attended training program moderately to the tune of once in three months and once in six months; they were found to have semi-medium level of preferences about different aspects of training; primarily they have received medium level of training on seed science, crop production, plant protection and animal husbandry. In case of horticulture, it was found that majority of the respondents received high level of training followed by semi-medium level.

Keywords: KVK, training; preference; aspects of training; training received; extent of training.

1. INTRODUCTION

KVK is an innovative science center mainly established by ICAR, New Delhi to impart vocational skill training to the farmers and field level extension workers and to demonstrate the methods and results of different improved farm technologies. KVK’s training programme has contributed immensely in increasing productivity of farm enterprise [1] family income [2], and higher productivity [3]. KVKs are grassroots level organizations meant for application of technology through assessment, refinement and demonstration of proven technologies under different ‘micro farming’ situations in a district [4]. Trainings organized by KVKs are helping to ameliorate the poor socio-economic conditions of the farmers, farm women and rural youths in rural India by raising the level of farm productivity, income and employment with the application of agricultural innovation generated at the research station [5]. The type of training program covered are usually package of practices for various cereals, pulses, oilseeds, vegetable and fruit crops, fertilizer management, plant protection, farm mechanization, care and feeding of animals, sheep and goat rearing, poultry farming, pisciculture, irrigation and water management, soil and moisture conservation, income generating activities, farm planning, marketing of produce etc. Training consists of well-organized opportunities for the participants to acquire necessary understanding and skill [6]. In order to understand the impact of KVK training it’s very important to study the trainees’ orientation about training program conducted by KVK, extent of using the training provisions and trainees’ preference about different aspects of training. KVK (Farm Science Centre) is a grass root level innovative project of ICAR for testing and transfer of agricultural and allied technologies to bridge the gap between technology generation at one end and their increased utilization at the other by the farming communities [7]. Considering this importance, the present study has been conducted in three blocks of Nadia district with the following specific objectives:

(a) To study the preferences of respondents about the different aspects of training imparted by KVK
(b) To ascertain the extent of KVK training attended by trainee
(c) To study the extent of training received by KVK trainees on different aspects of farming

2. MATERIALS AND METHODS

Present study has been conducted among the trainee of Gayeshpur KVK of Nadia district, West Bengal. Purposive as well as simple random sampling techniques were adopted for the study. For selection of district and block purposive sampling techniques was adopted considering the concentration of KVK trainees in different blocks. Accordingly, the present study was conducted in two sub-divisions like, Kalyani and Ranaghat sub-divisions. Two blocks from Kalyani sub-divisions like, Haringhata and Chakdah and one block from Ranaghat sub-division namely, Ranaghat II were selected for the purpose. In case of selection of respondents purposive and simple random sampling technique was taken up. Twenty farmers from six villages (2 from each block) each covering a total sample of 120 respondents were selected. A list of farmers who have attended KVK training program at least for last three years was prepared in consultation of KVK for selection of respondents. From the said list 40 farmers from each block were selected totaling to 120 respondents for the present study. The present research study comes under “Ex-post facto” in nature. For collection of data structured interview schedule was employed. Different variables like, preference for different broad areas of training, extent of training received in different aspects of farming etc. were measured by using standard scales. For ascertain the trainees’ preference about different broad areas of training, eight broad areas have been selected and mentioned in result discussion section. Respondents were asked to mention their preference of training against each aspect in a three-point scale containing, Highly Preferred,
Preferred and Not Preferred with the corresponding score of 2, 1 and 0 respectively.

For ascertaining the frequency of training received, respondents were asked to mention their responses in a seven-point scale containing, Once in a year, Once in six month and Once in three months, Once in a month, Twice in a month, Thrice in a month and Every week with corresponding score of 1, 2, 3, 4, 5, 6 and 7 respectively.

For ascertaining the extent of training received by the respondents on different aspects of farming, a number of broad areas have been considered like, Seed science, Agronomy, Horticulture, Plant protection and Animal Husbandry. Under each broad area a number of training aspects have been included which are discussed in result discussion section. Respondents were asked to mention their extent of training received against each aspect in a three-point scale containing, Regularly, Occasionally and Never with the corresponding score of 2, 1 and 0 respectively.

For analyses of the data percentage and Index values were calculated. Index values were calculated by following the formula (Moktan and Mukhopadhyay, 2012)[8]:

$$Index = \left( \frac{Score_{obtained}}{Score_{Max}} \right) \times 100$$

3. RESULTS AND DISCUSSION

The results of the present study are presented below in different sections.

3.1 Respondents’ Preferred Areas of Training

To ascertain the areas of training preferred by the respondents on different aspects of farming a number of broad areas have been considered like, crop production, vegetable production, fruit cultivation, plant protection measures, dairy farming, goat and sheep rearing, poultry farming and piggery etc. Responses of the respondents about their preferences were measured by following the scale as mentioned in the methodology section. Respondents’ Preference Index (PI) was calculated separately for each broad area of training as well as taking all broad areas of training together by the formula as mentioned in the methodology section. Distribution of respondents on the basis of PI is presented in Table 3.1. A in four class intervals like, Low (PI ranges from 0-25), Semi-medium (PI ranges from 26-50) Medium (PI ranges from 51-75) and High (PI ranges from 76-100). Results are also presented in two levels i.e., Major 1 with highest concentration of respondents and Major 2 having second highest concentration of respondents.

Table 3.1.A depicts that in case of broad areas like, crop production, plant protection, goat and sheep rearing, poultry farming and piggery; majority (Major 1) of the total respondents had semi-medium level of preference of training (46, 66, 71, 78 and 52 numbers respectively) followed by high level (Major 2) of preference (34, 54, 37, 7 and 10 numbers respectively).

In case of broad areas like, vegetable production, fruit cultivation and dairy farming; majority of the total respondents were found to have high level (90, 61 and 52 numbers respectively) of training preference (Major 1) followed by semi-medium level (30, 46 and 36 numbers respectively) of training preference (Major 2).

Table 3.1.B represents the respondents’ preference of all training program conducted by the KVK taking all training areas together. It can be observed from the table that majority of the total respondents had semi-medium (40%) level of preference of training conducted by KVK to medium level of preference followed by medium (35.83%) and high (24.16%) level of preference in descending order. The results imply that training program conducted by KVK on different aspects of farming were appropriate to the training need of the respondents and had been preferred by the respondents to the tune of semi-medium to high level of preference.

3.2 Frequency of Attending Training Program

Frequency of training program attended by the respondents was measured by the scale as mentioned in the methodology section. The results obtained after analysis of data have been presented in Table 3.2.A.

From Table 3.2.A it can be observed that majority of the respondents (45%) attended training program in Haringhata block once in a three-month followed by once in a six month (30%), twice in a month (22.5%) and thrice in a month (2.5%) in descending order of frequency of training attended.
Table 3.1.A. Respondents’ preferred broad areas of training (n=120)

| Training Areas            | Haringhata (n=40) | Ranaghat (n=40) | Chakdaha (n=40) | Total (n=120) |
|---------------------------|-------------------|-----------------|-----------------|---------------|
|                           | No.               | No.             | No.             | No.           |
|                           | Major1 | Major2 | Major1 | Major2 | Major1 | Major2 | Major1 | Major2 |
| Crop production           | 21(H)  | 19(SM) | 21(SM) | 19(H)  | 25(SM) | 15(H)  | 46(SM) | 34(H)  |
| Vegetable production      | 26(SM) | 14(H)  | 30(SM) | 10(H)  | 34(SM) | 6(H)   | 90(SM) | 30(H)  |
| Fruit cultivation         | 27(H)  | 13(SM) | 24(H)  | 16(SM) | 23(SM) | 17(H)  | 61(H)  | 46(SM) |
| Plant protection          | 21(SM) | 19(H)  | 22(SM) | 18(H)  | 23(SM) | 17(H)  | 66(SM) | 54(H)  |
| Dairy farming             | 22(H)  | 18(SM) | 20(SM) | 20(H)  | 22(SM) | 18(H)  | 42(SM) | 36(SM) |
| Goat and sheep            | 27(SM) | 12(H)  | 24(SM) | 11(H)  | 20(SM) | 14(H)  | 71(SM) | 37(H)  |
| Rearing                   | 27(SM) | -      | 28(SM) | 3(H)   | 23(SM) | 4(H)   | 78(SM) | 7(H)   |
| Poultry farming           | 21(SM) | -      | 18(SM) | 4(H)   | 13(SM) | 6(H)   | 52(SM) | 10(H)  |

*L=Low; M=Medium; SM=Semi-medium; H=High; Where, No.=Number

Table 3.1.B. Overall preference of different training areas by the respondents (n=120)

| Preference Index (PI) | Level          | Haringhata Block (No. & %) | Ranaghat Block (No. & %) | Chakdaha Block (No. & %) | Total (No. & %) |
|-----------------------|----------------|-----------------------------|---------------------------|---------------------------|-----------------|
|                       |                | No. & %                     | No. & %                   | No. & %                   | No. & %         |
| 0-25                  | Low            | 0 (0)                       | 0                         | 0                         | 0               |
| 26-50                 | Semi-Medium    | 13 (32.5)                   | 16 (40)                   | 19 (47.5)                 | 48 (40)         |
| 51-75                 | Medium         | 18 (45)                     | 14 (35)                   | 11 (27.5)                 | 43 (35.84)      |
| 76-100                | High           | 9 (22.5)                    | 10 (25)                   | 10 (25)                   | 29 (24.16)      |

Figures in the parenthesis indicates percentage; Where, No=Number and %=Percentage
### Table 3.2.A. Frequency of attending training program

| Frequency of Training Received | Haringhata Block (n=40) (No. & %) | Ranaghat Block(n=40) (No. & %) | Chakdaha Block(n=40) (No & %) | Total (n=120) (No.) | Percentage |
|-------------------------------|----------------------------------|---------------------------------|-------------------------------|---------------------|------------|
| Once in a Year                | 0 (0)                            | 0 (0)                           | 0 (0)                         | 0 (0)               | 0%         |
| Once in Six Months            | 12 (30%)                         | 17 (42.5%)                      | 10 (25%)                      | 39 (32.5)          | 32.5%      |
| Once in Three Months          | 18 (45%)                         | 8 (20%)                         | 14 (35%)                      | 40 (33.33)         | 33.33%     |
| Once in a Month               | 0 (0)                            | 0 (0)                           | 0 (0)                         | 0 (0)              | 0%         |
| Twice in a Month              | 9 (22.5%)                        | 9 (22.5%)                       | 11 (27.5%)                    | 30 (25)            | 25%        |
| Thrice in a Month             | 1(2.5%)                          | 6 (15%)                         | 5 (12.5%)                     | 12 (10)            | 10%        |
| Every Week                    | 0 (0)                            | 0 (0)                           | 0 (0)                         | 0 (0)              | 0%         |

*Figures in the parenthesis indicates percentage; Where, No= Number and %= Percentage*

In case of Ranaghat block majority of the respondents found attended training program once in six months (42.5%) followed by twice in a month (22.5%), once in three months (20%) and thrice in a month (15%) respectively.

And in case of Chakdaha block majority of the respondents found attended training program once in three months (35%) followed by twice in a month (27.5%), once in six months (25%) and thrice in a month (12.5%) respectively.

Taking all these three blocks together it can be observed that majority of the total respondents attended training program once in a three-month (33.33%) followed by once in six months (32.5%), twice in a month (25%) and thrice in a month (10%) respectively in descending order.

It can be generalized from the above table that two third of the respondents attended KVK training either once in three months or once in three months and rest one third have attended training with the frequency of twice in a month and thrice in a month which is pretty good in terms of imparting training on improved farm practices to the farming community.

### 3.3 Extent of Training Received by KVK Trainees on Different Aspects of Farming

To ascertain the extent of training received by the respondents on different aspects of farming, a number of broad areas have been considered. These are: Seed science, Agronomy, Horticulture, Plant protection and Animal Husbandry. Under each broad area a number of training aspects have been considered that are mentioned in the respective tables below.

Responses of the respondents have been captured against the scale as mentioned in the methodology section. Further, Training Index (TI) has been calculated separately for all aspects by following the formula as mentioned in methodology section. Finally, distribution of respondents on the basis of the TI is presented in four class intervals namely, Low (with TI 0-25), Semi-medium (TI = 26-50), Medium (TI = 51-75) and High (TI = 76-100) respectively in two level that is Major 1 (with highest concentration of respondents) and Major 2 (with second highest concentration of respondents).

#### 3.3.1 Training received on seed science

To ascertain the training received on seed science, seven aspects were considered as mentioned in the table 3.3.1.A. Table 3.1.A represents the distribution of respondents against each aspects of seed science on the basis of the TI.

From the Table 3.3.1.A it can be observed that in case of training aspects like, seed production for total cereals, seed production for paddy, seed production for vegetables and seed production of lentil crops; majority of the total respondents (Major 1) received medium level of training from KVK (56, 51, 57 and 69 numbers respectively) followed by semi-medium level (27, 34, 26 and 31 numbers respectively) of training (Major 2). While in case of aspect like production of vermicompost from coconut leaves, majority of the respondents (Major 1) received semi-medium level of training (61 numbers) followed by (Major 2) medium level of training (19 numbers). In case of aspects like, wheat seed production and seed treatment procedures all 120 respondents found received semi-medium level of training.
Table 3.3.1A. Training received on seed science

| Aspect                                      | Distribution of the respondents |  |
|---------------------------------------------|---------------------------------|---|
|                                             | Haringhata (n=40)               | Ranaghat (n=40) | Chakdaha (n=40) | Total (n=120) |
|                                             | (No.)                           | (No.)           | (No.)           | (No.)         |
| Seed production of cereals (total)          | Major1 29 (M) | Major2 11 (SM) | Major1 26(SM) | Major2 7(SM/H) | Major1 27 (M) | Major2 9 (SM) | Major1 56 (M) | Major2 27(SM) |
| Seed production of paddy                    | Major1 27 (M) | Major2 13 (SM) | Major1 24(SM) | Major2 9(SM/H) | Major1 24 (M) | Major2 12 (SM) | Major1 51 (M) | Major2 34(SM) |
| Seed production of vegetable crops          | Major1 32 (M) | Major2 8 (SM)  | Major1 26(SM) | Major2 7(SM/H) | Major1 25 (M) | Major2 11 (SM) | Major1 57 (M) | Major2 26(SM) |
| Seed production of lentil                   | Major1 20 (M) | Major2 20 (H)  | Major1 25(M)  | Major2 15(SM)  | Major1 24 (M) | Major2 16 (SM) | Major1 69 (M) | Major2 31(SM) |
| Production of vermin-compost from coconut leaf | Major1 29(M) | Major2 11(SM)  | Major1 31(SM) | Major2 9 (M)   | Major1 30(SM) | Major2 10 (M)  | Major1 61(SM) | Major2 19 (M) |
| Seed production of wheat                    | Major1 40(SM) | Major2 -         | Major1 40(SM) | Major2 -         | Major1 40(SM) | Major2 -         | Major1 120(SM) | Major2 -         |
| Seed treatment procedures                   | Major1 40(SM) | Major2 -         | Major1 40(SM) | Major2 -         | Major1 40(SM) | Major2 -         | Major1 120(SM) | Major2 -         |

*L= Low, M= Medium; SM= Semi Medium, H= High; Where, No= Number
Table 3.3.1.B. Distribution of respondents according to extent of training received on seed science

| TI      | Distribution of the respondents | (n=120) |
|---------|----------------------------------|---------|
|         | Level                            | Haringhata Block (No. & %) | Ranaghat Block (No. & %) | Chakdaha Block (No. & %) | Total (No. & %) |
| 0-25    | Low                              | 0 (0)   | 0 (0)   | 0 (0)   | 0 (0) |
| 26-50   | Semi-Medium                      | 20 (50) | 15 (37.5) | 16 (40) | 51 (42.5) |
| 51-75   | Medium                           | 20 (50) | 25 (62.5) | 24 (60) | 69 (57.5) |
| 76-100  | High                             | 0 (0)   | 0 (0)   | 0 (0)   | 0 (0) |

Table 3.3.1.B represents the distribution of respondents regarding extent of training received taking all seven aspects of seed science together. From the table it is found that majority of the respondents of all three study blocks and total respondents have received medium level training on different aspects of seed science (50%, 62.5%, 60% and 57.5% respectively) followed by semi-medium level (50%, 37.5%, 40% and 42.5% respectively). That amply establishes respondents’ considerable participation in training on seed science aspects imparted by KVK.

3.3.2 Training received on crop production

To ascertain the training received on crop production, seven aspects were considered and mentioned in table below. Table 3.3.2.A represents the distribution of respondents against TI of each aspects of agronomy of crops in two levels i.e., Major 1 and Major 2. From the table it can be observed that in case of training aspects like, paddy cultivation through drum seeder, nursery management in kharif rice, production technology of hybrid napier and organic manure and vermicomposting; respondents have received medium level training (80, 78, 82 and 76 numbers respectively) imparted by KVK (Major 1) followed by semi-medium level (80, 78, 82 and 76 numbers respectively) of training (Major 2). In case of aspect like, off season vegetable cultivation sp. ref. to seedling production and skill development training on high value crop management Majority (Major 1) of the total respondents found received medium level of training (58 and 57 numbers respectively) followed by high level of training (44 and 45 numbers respectively). For aspects like, skill development training on seedling production & management and kitchen gardening, majority of the total respondents found received medium level of training (58 and 57 numbers respectively) followed by high level of training (44 and 45 numbers respectively). The results amply speak if favor of the considerable extent of training received by respondents on crop production.

In case of training aspects like, fodder production technology, nutrient management in kharif rice and production technology of kharif maize as fodder crop; majority of the total respondents have received semi-medium level (87, 85 and 101 numbers respectively) of training (Major 1) followed by medium level (33, 35, 29 numbers respectively) of training (Major 2). The results amply speak if favor of the considerable extent of training received by respondents on crop production.

Table 3.3.2.B depicts that majority of the respondents of all the study blocks and total respondents had medium level of training (57.5%, 67.5%, 65% and 63.33% respectively) as imparted by KVK followed by semi-medium level (42.5%, 32.5%, 35% and 36.66% respectively). The results amply speak that respondents have received considerable extent of training on crop production from KVK.

3.3.3 Training received on horticulture

To ascertain the extent of training received on horticulture seven aspects were considered and are mentioned in the table below. Table 3.3.3.A represents the distribution of respondents against each aspects of horticultural training on the basis of the TI in this regard.

From the Table 3.3.3.A it can be observed that, in case of training aspects like, vegetable seedling production, horticulture based multitier cropping system and Planning & management for off season vegetable; majority of the total respondents (Major 1) received medium level of training (54, 63 and 66 numbers respectively) from KVK followed by semi-medium level (38, 30 and 39 numbers respectively) level of training Major 2). In case of aspect like, off season vegetable cultivation sp. ref. to seedling production and skill development training on high value crop management Majority (Major 1) of the total respondents found received medium level of training (58 and 57 numbers respectively) followed by high level of training (44 and 45 numbers respectively). For aspects like, skill development training on seedling production & management and kitchen gardening, majority of the total respondents (Major 1) found received semi-medium (34 and 109 numbers respectively) level of training followed by medium level (Major 2) of training (30 and 11 numbers respectively) imparted by KVK on horticulture.
### Table 3.3.2.A. Training received on crop production (n=120)

| Aspect                        | Distribution of the respondents | Haringhata Block (No.) | Ranaghat Block (No.) | Chakdaha Block (No.) | Total Block (No.) |
|-------------------------------|---------------------------------|------------------------|----------------------|----------------------|-------------------|
|                               | Major1 | Major2 | Major1 | Major2 | Major1 | Major2 | Major1 | Major2 | Major1 | Major2 |
| Paddy cultivation through drum seeder | 27 (M) | 7(SM)  | 27 (M) | 9(H)   | 26(M)  | 8(SM)  | 80(M)  | 15(SM) |         |         |
| Nursery management in kharif rice | 27 (M) | 7(SM)  | 25 (M) | 10(H)  | 26(M)  | 8(SM)  | 78(M)  | 15(SM) |         |         |
| Production technology of hybrid Napier | 29 (M) | 7(SM)  | 27 (M) | 6(H)   | 26(M)  | 10(SM) | 82(M)  | 17(SM) |         |         |
| Organic manure and vermicomposting | 23(M)  | 17(SM) | 27 (M) | 13(SM) | 26(M)  | 14(SM) | 76(M)  | 44(SM) |         |         |
| Fodder production technology | 30(SM) | 10 (M) | 28 (SM) | 12(M) | 29(SM) | 11(M) | 87(SM) | 33(M) |         |         |
| Nutrient management in kharif rice | 30(SM) | 10 (M) | 28 (SM) | 12(M) | 27(SM) | 13(M) | 85(SM) | 35(M) |         |         |
| Production technology of kharif maize as fodder crop | 33(SM) | 7 (M)  | 36(SM) | 4(M)   | 32(SM) | 18(M) | 101(SM) | 29(M) |         |         |

*L= Low, M= Medium, SM= Semi Medium, H= High; Where, No= Number

### Table 3.3.2.B. Distribution of respondents according to extent of training received on crop production (n=120)

| TI     | Level       | Haringhata Block (No & %) | Ranaghat Block (No & %) | Chakdaha Block (No & %) | Total (No & %) |
|--------|-------------|---------------------------|--------------------------|--------------------------|----------------|
| 0-25   | Low         | 0 (0)                     | 0 (0)                    | 0 (0)                    | 0 (0)          |
| 26-50  | Semi-Medium | 17 (42.5)                 | 13 (32.5)                | 14 (35)                  | 44(36.66)      |
| 51-75  | Medium      | 23 (57.5)                 | 27 (67.5)                | 26 (65)                  | 76(63.33)      |
| 76-100 | High        | 0 (0)                     | 0 (0)                    | 0 (0)                    | 0              |

*Figures in the parenthesis indicates percentage; Where, No= Number and %= Percentage*
Table 3.3.3.A. Training received on horticulture (n=120)

| Aspect                                                                 | Haringhata | Ranaghat | Chakdaha | Total       |
|------------------------------------------------------------------------|------------|----------|----------|-------------|
|                                                                        | Major1     | Major2   | Major1   | Major2     | Major1     | Major2   | Major1   | Major2   |
| Vegetable seedling production technique                                | 21 (M)     | 19 (H)   | 17 (M)   | 13 (SM)    | 16 (M)     | 15 (H)   | 54 (M)   | 38 (SM)   |
| Off season vegetable cultivation sp. ref. to seedling production       | 23 (M)     | 17 (H)   | 19 (M)   | 12 (H)     | 16 (M)     | 15 (H)   | 58 (M)   | 44 (H)    |
| Skill development training on high value crop management              | 20 (M)     | 20 (H)   | 19 (M)   | 12 (H)     | 18 (M)     | 13 (H)   | 57 (M)   | 45 (H)    |
| Skill development training on seedling production & management        | 25 (M)     | 10 (H)   | 18 (SM)  | 15 (M)     | 16 (SM)    | 15 (M)   | 34 (SM)  | 30 (M)    |
| Horticulture based multitier cropping system                          | 29 (M)     | 6 (H)    | 18 (M)   | 15 (SM)    | 16 (M)     | 15 (SM)  | 63 (M)   | 30 (SM)   |
| Planning & management for off season vegetable                        | 25 (M)     | 15 (H)   | 21 (M)   | 19 (SM)    | 20 (M)     | 20 (SM)  | 66 (M)   | 39 (SM)   |
| Kitchen garden                                                         | 40 (SM)    | 34 (SM)  | 6 (M)    | 35 (SM)    | 5 (M)      | 109 (SM) | 11 (M)   |

*L= Low; M= Medium; SM= Semi Medium; H= High; Where; No.= Number
Table 3.3.3.B. Distribution of respondents according to extent of training received on horticulture (n=120)

| Index | Distribution of the respondents | Haringhata Block (No. & %) | Ranaghat Block (No. & %) | Chakdaha Block (No. & %) | Total (No. & %) |
|-------|---------------------------------|-----------------------------|--------------------------|--------------------------|-----------------|
| 0-25  | Low                             | 0 (0)                       | 0 (0)                    | 0 (0)                    | 0 (0)           |
| 26-50 | Semi-Medium                     | 5 (12.5)                    | 18 (45)                  | 16 (40)                  | 39 (32.5)       |
| 51-75 | Medium                          | 16 (40)                     | 9 (22.5)                 | 9 (22.5)                 | 34 (28.33)      |
| 76-100| High                            | 19 (47.5)                   | 13 (32.5)                | 15 (37.5)                | 47 (39.17)      |

Figures in the parenthesis indicates percentage; Where, No. = Number and %= Percentage

Table 3.3.3.B represents the distribution of respondents regarding extent of training received taking all seven aspects of horticulture together. From the Table it is found that majority of the respondents of Haringhata blocks and total have received training on different aspects of horticulture to the tune of high level (47.5%, and 39.17% respectively) followed by medium level (40%) in case of Haringhata block and semi-medium level in case of total respondents 32.5%). In case of Ranaghat and Chakdaha block, majority was found to receive semi-medium level of training (45% and 40% respectively) followed by high level (32.5% and 37.5% respectively). That amply establishes respondents’ considerable participation in horticulture related training imparted by KVK.

3.3.4 Training received on plant protection

To ascertain the training received on plant protection seven aspects were considered and presented in following table. Table 3.3.4.A represents the distribution of respondents against each aspects of training on plant protection.

From the Table it can be observed that, in case of training aspects like, pest and disease management in chilli, application procedure of bio-pesticides in soil, cultivation and disease pest management of black gram and disease and pest management of brinjal through integrated approach; majority of the total respondents (84, 85, 87 and 84 numbers respectively) received medium level of training (Major 1) from KVK followed by high and semi-medium (36, 35, 33 and 23 numbers respectively) level of training (Major 2).

In case of training aspect like pest and disease management in nursery bed and bio-pesticides and its effect in winter season vegetables majority (Major 1) of the total respondents (46 and 90 numbers respectively) received semi-medium level of training from KVK followed by (Major 2) medium level of training (15 and 17 numbers respectively).

And lastly, in case of pest and disease management in banana; all the respondents found received semi-medium level of training from KVK.

Table 3.3.4.B represents the distribution of respondents regarding extent of training received taking all seven aspects of plant protection together. From this table it is found that majority of the respondents of all three study blocks and total respondents have received training on different aspects of plant protection to the tune of medium level (70%, 72.5%, 67.5% and 70% respectively) followed by semi-medium level of training from KVK (17.5%, 17.5%, 22.5% and 19.16% respectively) and high level (12.5%, 10%, 10% and 10.84% respectively). That amply establishes respondents’ considerable participation in plant protection related training imparted by KVK.

3.3.5 Training received on animal husbandry

To ascertain the training received on animal husbandry seven aspects were considered and presented in following table. Table 3.5.A represents the distribution of respondents against TI of each aspects of training on animal husbandry. From the Table 3.3.5.A it can be observed that, In case of training aspects like, poultry management, ghongroo pig management and black bengal goat management; majority (Major 1) of the total respondents received medium level of training (90, 96 and 91 numbers respectively) from KVK followed by (Major 2) high level of training (19, 23 and 22 numbers respectively).
### Table 3.3.4.A. Training Received on Plant Protection (n=120)

| Aspect | Distribution of the respondents | Haringhata | Ranaghat | Chakdaha | Total |
|--------|---------------------------------|------------|----------|----------|-------|
|        | (No.)                           | Major1     | Major2   | Major1   | Major2 |
| Pest and disease management in chilli | 30 (M) | 10 (H) | 24 (M) | 16 (H) | 30(M) | 10(H) | 84(M) | 36(H) |
| Application procedure of bio pesticides in soil | 28 (M) | 12 (H) | 25 (M) | 15 (H) | 32(M) | 8(H) | 85 (M) | 35 (H) |
| Cultivation and disease pest management of black gram | 34 (M) | 6 (H) | 22 (M) | 18 (H) | 31(M) | 9(H) | 87 (M) | 33 (H) |
| Disease and pest management of brinjal through integrated approach | 28 (M) | 7 (SM) | 29 (M) | 7 (SM) | 27(M) | 9 (SM) | 84 (M) | 23 (SM) |
| Pest and disease management in nursery bed | 20 (M) | 15 (SM) | 24(SM) | 12(M) | 22(SM) | 14(M) | 46(SM) | 15(SM) |
| Bio pesticides and its effect in winter season vegetables | 28 (SM) | 7 (M) | 30(SM) | 6 (M) | 32(SM) | 4 (M) | 90(SM) | 17(M) |
| Pest and disease management in banana | 40 (SM) | - | 40(SM) | - | 40(SM) | - | 120(SM) | - |

*L= Low; M= Medium; SM= Semi Medium; H= High; Where; No.= Number

### Table 3.3.4.B. Distribution of respondents according to extent of training received on plant protection (n=120)

| Index | Level | Distribution of the respondents |
|-------|-------|---------------------------------|
|       | Level | Haringhata Block (No. & %) | Ranaghat Block (No. & %) | Chakdaha Block (No. & %) | Total (No. & %) |
| 0-25  | Low   | 0 (0) | 0 (0) | 0 (0) | 0 (0) |
| 26-50 | Semi-Medium | 7 (17.5) | 7 (17.5) | 9 (22.5) | 23 (19.16) |
| 51-75 | Medium | 28 (70) | 29 (72.5) | 27 (67.5) | 84 (70) |
| 76-100| High  | 5 (12.5) | 4 (10) | 4 (10) | 13 (10.84) |

*Figures in the parenthesis indicates percentage; Where; No.= Number and %= Percentage*
### Table 3.3.5.A. Training received on animal husbandry  
(n=120)

| Aspect                          | Distribution of the respondents | Haringhata No. | Ranaghat No. | Chakdaha No. | Total No. |
|--------------------------------|---------------------------------|----------------|--------------|--------------|-----------|
|                                |                                 | Major1         | Major2       | Major1       | Major2   | Major1 | Major2   |
| Poultry management             |                                 | 31(M)          | 5(H)         | 29(M)        | 6(H)     | 30(M)  | 8(H)     | 90(M)    | 19(H) |
| Ghoonggroo pig management      |                                 | 30(M)          | 9(H)         | 32(M)        | 6(H)     | 34(M)  | 8(H)     | 96(M)    | 23(H) |
| Black Bengal goat management   |                                 | 31(M)          | 7(H)         | 30(M)        | 8(H)     | 30(M)  | 8(H)     | 91(M)    | 22(H) |
| Dairy production management    |                                 | 30 (M)         | 10(SM)       | 26(M)        | 14(SM)   | 32(M)  | 8(SM)    | 88(M)    | 32(SM) |
| Coconut based integrated farming|                                 | 22(SM)         | 18(M)        | 25(SM)       | 15(M)    | 23(SM) | 17(M)    | 70(SM)   | 50(SM) |
| Fodder production management   |                                 | 22(SM)         | 18(M)        | 29(SM)       | 11(M)    | 32(SM) | 8(M)     | 83(SM)   | 37(M) |
| Feed management                |                                 | 36 (SM)        | 4 (M)        | 35(SM)       | 5(M)     | 37(SM) | 3(M)     | 108(SM)  | 12(M) |

*L= Low; M= Medium; SM= Semi Medium; H= Hig; Where, No.= Number

### Table 3.3.5.B Distribution of respondents according to extent of training received on animal husbandry  
(n=120)

| Index  | Level       | Distribution of the respondents |
|--------|-------------|---------------------------------|
|        |             | Haringhata Block | Ranaghat Block | Chakdaha Block | Total |
| 0-25   | Low         | 0 (0)             | 0 (0)           | 0 (0)          | 0 (0) |
| 26-50  | Semi-Medium | 10 (25)           | 14 (35)         | 8 (20)         | 32 (26.66) |
| 51-75  | Medium      | 30 (75)           | 26 (65)         | 32 (80)        | 88 (73.34) |
| 76-100 | High        | 0 (0)             | 0 (0)           | 0 (0)          | 0 (0) |

*Figures in the parenthesis indicates percentage*
In case of training aspects like, dairy production management; majority (Major 1) of the total respondents (88 numbers) received medium level of training from KVK followed by (Major 2) semi-medium level of training (32 numbers).

In case of training aspects like, coconut based integrated farming, fodder production management and feed management; majority of the total respondents (Major 1) received semi-medium level of training (70 and 83 numbers respectively) from KVK followed by medium level of training (50 and 73 numbers respectively).

Table 3.3.5.B represents the distribution of respondents regarding extent of training received taking all seven aspects of animal husbandry together. From this above Table it is found that majority of the respondents of all three study blocks and total respondents have received training on different aspects of animal husbandry to the tune of medium level (75%, 65%, 80% and 73.34% respectively) followed by semi-medium level (25%, 35%, 20% and 26.66% respectively). That amply establishes respondents' considerable participation in animal husbandry related training imparted by KVK.

4. CONCLUSION

The aim of the study was to develop a strategy for conducting effective training programs and its adoption by the farmers for increasing production, income and living standard as a whole.

The study showed that respondents are having primary preferences for different aspects of training like, crop production, plant protection, goat and sheep rearing, poultry farming and piggy; were preferred by majority of the respondents to the tune of semi medium level followed high level of preference. While aspects like, vegetable production, fruit cultivation and dairy farming were highly preferred by the majority of the respondents followed by semi-medium level of preference.

While taking all aspects together, it was found that majority of the respondents had semi-medium level of preference of training program conducted by the KVK followed by medium level of preference.

The study showed that majority of the respondents attended considerably frequently training program imparted by KVK in once in a three-month followed by once in six months and twice in a month respectively.

The study also showed that respondents have received differential extent of training on different broad areas of training.

In case of all the broad areas of training like, seed science, agronomy of crops, horticulture, plant protection and animal husbandry; majority of the respondents found received medium level of training followed by semi-medium level of training and in some cases high level of training.

The results of the present study amply establish that Gayeshpur KVK imparted farm training program which respondents have attended, preferred and received training on different aspects of farming to a considerable degree.

CONSENT

As per international standard or university standard, respondents’ written consent has been collected and preserved by the authors.

ETHICAL APPROVAL

Not applicable for the present research work

COMPETING INTERESTS

Authors have declared that no competing interests exist.

REFERENCES

1. Ahmad N, Singh SP, Parihar P. “Farmers’ assessment of KVK training programme.” Indian Research Journal of Extension Education Special Issue (I). 2012;186-188

2. Singh K, Peshin R, Saini SK. Evaluation of the agricultural vocational training programmes conducted by the Krishi Vigyan Kendras (Farm Science Centres) in Indian Punjab. Journal of Agriculture and Rural Development in the Tropics and Subtropics. 2010;111(2): 65-77

3. Vinaya Kumar, Biradar HM, Nagaraj GS, Gowda Govinda V. Impact of Community Based Tank Management Project on Socio-Economic Status of Beneficiary Farmers. Environment and Ecology. 2013;31(2A):620-625
4. Das P. As quoted from: ‘Proceedings of the Meeting of DDG (AE), ICAR, with Officials of State Departments, ICAR Institutes and Agricultural Universities, NRC Mithun, Jharnapani on 5th October 2007, Zonal Coordinating Unit, Zone-III, Barapani, Meghalaya, India; 2007.

5. Dubey AK, Srivastva JP, Singh RP, Sharma VK. Impact of KVK training programme on socio-economic status and knowledge of trainees in Allahabad district. Indian Res. J. Ext. Edu., 2008;8(2 and 3):60-61.

6. Lyton RP, Pareek U. Training for Development. Vistaar Publications: New Delhi; 1990.

7. Rachna RG, Sodhi GPS. Evaluation of vocational training programmes organised on mushroom farming by Krishi Vigyan Kendra, Patiala. Journal of Krishi Vigyan. 2013;2(1):26-29.

8. Moktan MW, Mukhopadhyay SD. Women participation in agro-sectors-A study in hill areas of West Bengal, Unpublished Ph.D thesis, Department of Agricultural Extension, Visva-Bharati; 2012.

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