

## **Agro-Based Training Needs of Rural Youths of Tikamgarh District, Madhya Pradesh**

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### **Abstract**

*The strategy of increasing the agriculture production and improving the economic condition of youth to a certain extent depends on their knowledge level and adoption behavior of improved package of practices by young farmer. The rural youths not only required knowledge of the technologies but also skills in performing various agriculture and allied operations. The main purpose of the study was to assess the agro-based training need of rural youth in Tikamgarh district of Madhya Pradesh and to examine the Agro-based training need of the rural youth. The study was limited within three selected blocks of Tikamgarh district namely, Tikamgarh, Jatara, and Prithvipur. From the selected three blocks, four villages were selected randomly and from each selected village, 10 respondents were selected randomly. Thus total 120 respondents form the sample size. The result obtained indicated that highest percentage of rural youth i.e. 72.50 per cent had medium to high level of training needs on agriculture and allied sector. Among identified nine major thematic area, crop production was the top most area of training need as reported by respondents followed by live stock production and management, soil health and fertility management, horticulture, plant protection, agriculture engineering, home science/women empowerment, fisheries and others.*

**Key words:** Training, Agro-based, Rural youth

### **Introduction**

The increase in agricultural production and improvement in the economic condition of youth to a certain extent depends on knowledge level and adoption behavior of improved package of practices by young farmers. Due to the lack of training opportunities and weak extension services in rural areas most rural youth are engaged in traditional subsistence agriculture. The only tool that can bridge the gap between the remarkable yield achieved by the scientist and obtained by the farmers is training.

The strategy of increasing the agriculture production and improving the economic condition of youth to a certain extent depends on their knowledge level and adoption behavior of improved package of practices by young farmer. The

programme of young farmers training has claimed as an effective tool of agriculture technology to develop special attitude to gain confidence with willingness for the recommended farm practice. The source of advance technique of farming largely depends on the extensive agriculture production programme. Training only can bridge the enormous gap between remarkable yield achieved by the scientists and obtained by the farmers. In designing any training programme for the rural youths, the need assessment is the first step and is a process of systematic identification of needs and problems of a specific target group. With this view present study was conducted in Tikamgarh district of Madhya Pradesh to assess the agro-based training need of rural youth.

## Materials and Methods

A descriptive research design was used in investigation because it is a sort of fact finding operation with adequate interpretation and states clearly the characteristics of a particular situation or group or individual. The sample of present study was drawn through following three stages - Selection of block, Selection of villages and Selection of respondents. From each selected village, 10 respondents were selected randomly. Thus, total 120 respondents were selected for the study purpose.

In order to determine the main areas of training in relation to agriculture and allied sectors, a list of 9 major

components/thematic areas were prepared. Under each major component, specific and relevant training need items were collected through different review of literature, discussion with KVK staff and scientist of College of Agriculture, Tikamgarh and were systematically incorporated in the interview schedule. The schedule were administered to the indented respondents for data collection. In this regard, the respondents were requested to give a tick (√) in one of the three response categories viz. most important, somewhat important and less important by assigning scores 3, 2 and 1 respectively.

## Results and Discussion

### 1. Area wise agro-based training needs of rural youth

**Table 1 Area wise agro-based training needs of rural youth**

S.N	Training need	Response categories			Mean scale value	Rank
		MI	SI	LI		
1.	Crop production	104 (86.66)	10 (8.33)	6 (5)	2.81	I
2.	Horticulture	81 (67.5)	30 (25)	9 (7.5)	2.6	III
3.	Soil health and fertility Management	86 (71.66)	22 (18.33)	12 (10)	2.58	IV
4.	Livestock production and Management	91 (75.83)	22 (18.33)	8 (6.66)	2.70	II
5.	Home Science/Women Empowerment	37 (30.83)	55 (45.83)	28 (23.33)	2.07	VII
6.	Agril. Engineering	44 (36.66)	55 (45.83)	21 (17.5)	2.19	VI
7.	Plant protection	55 (45.83)	46 (38.33)	19 (15.83)	2.3	V
8.	Fisheries	27 (22.5)	58 (48.33)	35 (29.16)	1.93	VIII
9.	Others	24 (20)	25 (20.83)	71 (59.16)	1.60	IX

MI = (Most Important), SI = (Somewhat Important), LI = (Less Important)

(Figures in parentheses indicate percentage)

Table 1 reveals that among nine thematic area of training needs crop production was ranked first followed by

livestock production and management, soil health and fertility management, horticulture, plant protection, agriculture

engineering, home science/Women empowerment, fisheries and other ranked second, third, fourth, fifth, sixth, seventh,

eighth and ninth, respectively. These results confirm the opinion of past workers<sup>[1, 2, 3, 4]</sup>.

## 2. Training needs of rural youth under sub components of major nine thematic areas.

**Table 2(a) Rank of the training needs of rural youth under crop production, plant protection and soil health and fertility management.**

S.N.	Thematic Area	VI	SI	LI	Mean Scale Value	Rank
<b>1.</b>	<b>Crop Production</b>					
a.	Weed Management	88	24	8	2.66	I
b.	Resource conservation technologies	41	56	23	2.15	VIII
c.	Cropping System	73	35	12	2.50	III
d.	Crop Diversification	55	20	45	2.08	IX
e.	Integrated farming	68	25	27	2.34	V
f.	Water management	72	12	36	2.3	VI
g.	Nursery management	85	17	18	2.55	II
h.	Fodder management	60	23	37	2.19	VII
i.	Seed Production	73	17	30	2.36	IV
<b>2.</b>	<b>Plant Protection</b>					
a.	Integrated pest management	82	15	23	2.49	II
b.	Integrated Disease management	76	34	10	2.55	I
c.	Bio-control of pest and diseases	59	39	22	2.30	III
<b>3.</b>	<b>Soil health and fertilizer management</b>					
a.	Soil fertility management	79	29	12	2.55	I
b.	Soil and water conservation	48	31	41	2.05	VI
c.	Integrated nutrient management	69	44	7	2.51	II
d.	Nutrient use Efficiency	57	44	19	2.31	IV
e.	Soil and water testing	68	40	12	2.46	III
f.	Management of problematic soils	63	22	35	2.23	V

(i) **Crop production:** Under crop production training (Table 2(a)) on weed management was the most sought for training need by rural youth (ranked I) followed by nursery management (ranked II) and cropping system (ranked III) and on seed production (rank IV). Integrated farming in field crops, water management, fodder production, resource conservation technologies and crop diversification were the areas ranked V, VI, VII, VIII and IX, respectively.

(ii) **Plant Protection:** Training on integrated disease management of the crops was the most important (I rank)

need in plant protection followed by integrated pest management and bio-control of pests and diseases by use of biological agents as ranked II and III, respectively {Table 2(a)}. This is attributed to the fact that farmers in Tikamgarh district of Madhya Pradesh resort to over adoption of fertilizers and pesticides/fungicides. Impact of over adoption of those chemicals in the long run is ignored by them. With KVK interventions through extension activities, farmers in the study area have realized the importance of integrated pest management in

agriculture for sustainable production and development (Table 2(a)).

**(iii) Soil Health and Fertility Management:**

It is observed from Table 2(a) that under soil health and fertility management, majority of the respondents had expressed their needs for skill oriented trainings on

technologies for management of soil fertility (I rank), integrated nutrient management (II rank). These were subsequently followed by soil and water testing, nutrient use efficiency, management of problematic soils and soil and water conservation rank III, IV, V and VI, respectively.

**Table 2(b) Rank of the training needs of rural youth under Horticulture sector**

S. N	Thematic area	VI	SI	LI	Mean scale value	Rank
<b>1.</b>	<b>Vegetable Crops</b>					
a.	Production of low volume and high value crops off-season vegetable	52	21	47	2.04	III
b.	Nursery raising	65	25	30	2.29	II
c.	Exotic vegetables like broccoli	50	20	50	2.00	IV
d.	Export potential vegetables	39	6	75	1.70	VI
e.	Grading and standardization	36	35	49	1.89	V
f.	Protective cultivation (green houses, shade, Net)	78	25	17	2.50	I
<b>2.</b>	<b>Fruits/ Pomology</b>					
a.	Training and pruning	56	44	20	2.3	II
b.	Cultivation of fruits	66	22	32	2.28	I
c.	Management of Young plants/orchards	44	31	45	1.99	V
d.	Rejuvenation of old orchards	45	23	52	1.94	VI
e.	Micro irrigation system of orchards	51	40	29	2.18	III
f.	Plant propagation techniques	52	33	35	2.14	IV
<b>3.</b>	<b>Ornamental plants</b>					
a.	Nursery management	45	36	39	2.05	I
b.	Management of potted plants	40	31	49	1.40	III
c.	Propagation techniques of ornamental plants	43	34	43	2.00	II
<b>4.</b>	<b>Tuber Crops</b>					
a.	Production and management technology	56	21	43	2.10	I
b.	Processing and value addition	50	17	53	1.97	II
<b>5.</b>	<b>Spices</b>					
a.	Production and management technology	61	33	26	2.29	I
b.	Processing and value addition	52	23	45	2.05	II

With regard to horticultural sector Table 2(b), the study reveals that training needs on cultivation of protective cultivation (green houses, shade net) under

vegetable sector emerged the most important (I rank) followed by nursery raising (II rank), production of low volume and high value crops off-season vegetable

(III rank). Under Pomology, cultivation of fruits was the most important training needs (I rank) as perceived by respondents, followed by training and pruning (II rank) and micro irrigation systems of orchard (III rank). Under ornamental plants sector nursery management was the most

important need followed by propagation techniques and management of potted plants, ranked I, II and III, respectively. Under tuber crops and spices, production and management technology of tubers and spices was ranked I followed by processing and value addition.

**Table 2(c) Rank of the training needs of rural youth under animal husbandry and management, fisheries and agricultural engineering**

S.N.	Thematic area	VI	SI	LI	Mean Scale value	Rank
<b>1.</b>	<b>Animal husbandry</b>					
a.	Dairy management	75	25	20	2.45	II
b.	Poultry management	56	33	31	2.20	V
c.	Goat rearing	67	31	22	2.37	III
d.	Feed management	51	25	44	2.05	VI
e.	Production of quality animal product	70	23	27	2.35	IV
f.	Disease management	78	30	12	2.55	I
<b>2.</b>	<b>Fisheries</b>					
a.	Integrated fish farming	70	30	20	2.41	I
b.	Carp breeding and hatchery management	52	43	25	2.22	II
c.	Composite fish culture	45	21	54	1.92	IV
d.	Fish processing and value addition	40	36	44	1.96	III
<b>3.</b>	<b>Agricultural Engineering</b>					
a.	Installation and maintenance of micro irrigation system	54	36	30	2.20	III
b.	Use of plastic in farming practices	60	35	25	2.29	II
c.	Production of small tools and implements	45	35	40	2.04	V
d.	Small scale processing and value addition	62	21	37	2.08	IV
e.	Post harvest technology	72	26	22	2.41	I

Regarding animal husbandry sector {Table 2(c)}, majority of the respondents opined to have training in overall information about infectious diseases as the most important. This might be due to the fact that, rural youth have inadequate knowledge about technical aspects of diseases such as etiology, symptoms, diagnosis, prevention and control measures of the diseases This was followed by dairy management, goat rearing, production of quality animal product, poultry

management, and feed management. In fisheries sector, integrated fish farming was reported the most needed training area by majority of the respondents followed by carp breeding and hatchery management, fish processing and value addition and composite fish culture. Under agriculture engineering it can be seen that training on post harvest technologies (PHT) was reported by majority of farmers (1st rank) as the most important training need. This was followed by training needs in areas of use

of plastics in farming practices, installation and maintenance of micro irrigation systems, small scale processing & value addition and production of small tools and implements.

Table 2(d) reveals that Training on income generating activities for empowerment of rural women and rural crafts (I and II rank, respectively) were found as the most sought for training need. This was followed by training on household food security by kitchen gardening and value addition. Women and child care, storage loss minimization techniques, design and development of low/minimum cost diet, designing/development for high nutrient efficiency diet and minimization of nutrient loss in processing were the other

important areas where farmers stressed for their training programmes. Regarding training needs on other vocational areas, rural youth separately identified some of the areas which are presented Table 2(d). Among them training on post harvest technology and value addition seems to be the most important in need as responded by majority of the rural youth (I rank) followed by bee keeping, seed production, commercial fruit production, integrated farming, vermi manure production, bio-agent production, protective cultivation of vegetable crops, bio-fertilizer production and mushroom production. In other category sericulture, small scale processing, tailoring and stitching were also the training areas sought by some of the youths.

**Table 2(d) Rank of the training needs of rural youth under home science/women empowerment and other vocations**

S. N.	Thematic area	VI	SI	LI	Mean Scale value	Rank
<b>1.</b>	<b>Home science/Women empowerment</b>					
a.	Household food security by kitchen gardening and nutrition gardening	70	30	20	2.41	III
b.	Design and development of low/minimum cost diet	56	30	34	2.18	VII
c.	Designing/development for high nutrient efficiency diet	50	25	45	2.04	VIII
d.	Minimization of nutrient loss in processing	45	22	53	1.93	IX
e.	Storage loss minimization techniques	66	20	34	2.26	VI
f.	Value addition	69	29	22	2.39	IV
g.	Income generation activities for empowerment of rural women	78	26	16	2.51	I
h.	Rural crafts	68	40	12	2.46	II
i.	Women and child care	69	20	31	2.31	V
<b>2.</b>	<b>Other vocation</b>					
a.	Mushroom production	25	45	50	1.79	X
b.	Bee-keeping	70	18	32	2.31	II
c.	Integrated farming	55	35	30	2.20	V
d.	Seed production	60	35	25	2.29	III
e.	Post-harvest technology and value Addition	68	23	29	2.32	I
f.	Bio-agent production	35	56	29	2.05	VII
g.	Bio-fertilizer production	45	21	54	1.93	IX
h.	Vermi-manure production	56	26	38	2.15	VI
i.	Protective cultivation of vegetable crop	45	22	53	1.93	VIII
j.	Commercial fruit production	45	31	74	2.25	IV
k.	Other	31	26	63	1.73	XI

## Conclusion

On the basis of the above findings it can be concluded that highest proportion of rural youth had medium to high level of training needs on agriculture and allied sector. The respondents' training need was highest in crop production while it was least in other vocations. From the above findings we can easily conclude that in rural areas youth is still engaged in traditional agriculture practices and they need trainings to adopt new technologies and tools in crop production. The training need of the youth varies according to their

situation. If the trainings provided to rural youth are need based then it will help them to increase the production by acquiring new skills. The present study was limited under nine thematic areas and their sub areas further some more sub areas can also be included under training need i.e. training on marketing of agriculture produce, organic farming, mat making, candle making, integrated farming system etc. that will help the youth to earn their livelihood.

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