



ORGANIC FARMING PRACTICES BY FARMERS OF MIZORAM

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ABSTRACT

Organic farming is one of the approaches to sustainable agriculture, which is necessity in today's unstable and degrading natural resource base. The present study was conducted in Tlangnuam block of the Aizawl district of Mizoram in 2010-2011. Out of three blocks namely, Tlangnuam, Aibawk and Thingsulthliah. Tlangnuam block was randomly selected for present study. There are six villages in Tlangnuam block, namely Sihphir, Selesih, Durtlang, Muthi, Sairang and S.Hlimen which were selected randomly for present study. From these villages 10 organic practicing farmers were selected by simple random sampling technique for the study purpose by proportional allocation method. From these villages' five farmers who belong to organic cultivation of different crops were selected by simple random sampling technique for the study purpose by proportional allocation method. Thus, there were total 30 numbers of farmers. This finding indicates that nearly half of the farmers had high knowledge (46.7%), rest of them having medium (36.7%) and low (16.7%) levels of knowledge regarding organic farming practices. The major contributing organic farming practices for this knowledge gap were use of HaNPV (43.34%), use of trichocards (41.12%), and use of bio-pesticides (40.00%)

Key Words : Organic farming, Farm women, Frequency, Percentage.

Organic farming is an age old practice which our forefather done for centuries together. Before population explosion starts and modern day intensive agriculture practice, all the available non monetary input was used in agriculture. In one way, that practice is part of sustainable or subsistence agriculture, crop rotation in true spite was practiced to keep up the soil fertility. The production was just enough to meet the then requirement of the population.

As population grew, to meet the demand, green revolution era started with HYV, extension of irrigation areas, use of high analysis NPK fertilizers and increase in cropping intensity, which propelled not only India but also many countries of the world towards self-sufficient in food production. In the process, relative contribution of organic manures as a source of plant nutrients via-a-vis chemical fertilizers declined substantially. Imbalanced application of major nutrient without crop rotation and over use of inorganic drastically affected the soil productively, fertility and also the

bio-ecology of agriculture. Thus, the problems and concerns posed by modern day natural farming, biodynamic agriculture, do-nothing agriculture, eco farming etc. The essential concept of all is to use or recycle all the available and possible organic sources with least disturbance to the soil and environment. Organic farming is not new to our country. Since immemorial time several types of organic practices have been followed. For almost the last fifty years Indian agricultural practices have mainly concentrated on increasing yield, leading to cultivation of more mono crops. This in turn has made the crops highly vulnerable to pest attacks, soil becoming barren and ground water, toxic. In addition, the raising input cost and fertilizer shortage have made farmers to try organic methods as an alternative to chemical farming.

In India, organic farming has received considerable attention and the Government of India emphasized to give boost to organic farming in rain fed areas and in the area of limited use of agricultural chemicals especially in north-eastern

states. Uttarakhand and Sikkim have declared themselves as organic states. It is estimated that there is around 76, 00 ha of certified organic food at the farm level and 2.4 million ha of certified forest area for collection of wild herbs in India, but the actual area under organic is much more (Kumar and Singh, 2009)

Possibilities of organic farming in Mizoram are bright because of low use of chemical fertilizers in fields (10kg/ha/annum). By this practices environment balance and sustainability, can be maintained, besides in national and international market, a good earning can be made possible by export of organic produce are among various practices of organic farming. Present studies were undertaken to assess the knowledge gap of organic farming practices of farmers of Aizawl district of Mizoram.

MATERIALS AND METHODS

The present study was conducted in Tlangnuam block of the Aizawl district of Mizoram. Out of three blocks namely, Tlangnuam, Aibawk and Thingsulthliah). Tlangnuam block was randomly selected for present study. There are six villages in Tlangnuam block, namely Sihphir, Selesih, Durtlang, Muthi, Sairang and S.Hlimen which were selected randomly for present study. From these villages 10 organic practicing farmers were selected by simple random sampling technique for the study purpose by proportional allocation method. Thus, there were total 60 numbers of farmers. The collected data were then analyzed using appropriate statistical tools namely, frequency, percentage, mean, standard deviation. To measure the knowledge gap of farmers, they

were asked to reply different questions regarding knowledge about concept of organic farming, use of bio-fertilizers, vermicompost use of bio-pesticides, use of organic manure and crop residues, use of mechanical cultivation, use

of Ha NPV, use of NADEP compost and use of trichocards.

The following device was developed to measure the knowledge of farmers on the basis of organic farming practices

$$\text{Knowledge} = \frac{\text{Total obtained knowledge scores}}{\text{Maximum obtained knowledge scores}} \times 100$$

RESULTS AND DISCUSSION

Knowledge level :

Knowledge is defined as the set of concepts, meanings, skills and routines developed over time by individuals and groups through processing of information. Once the knowledge is acquired, it also brings about changes in overt behaviour such as adoption. Knowledge level of farmers refers to the information which they possess in respect of organic farming practices.

Table 1 As reported by the farmers, the major contributing practices for this knowledge gap were use of HaNPV (43.34%) followed by use of trichocards (41.12%), use of bio-pesticides (38.88%), use of NADEP compost (37.77%), use of bio-fertilizers (35.55%), use of mechanical cultivation (32.22%), use of organic manure and crop residues (26.66%), use of vermin-compost (17.77%) and knowledge about concept of organic farming (15.56%). Overall knowledge gap of the farmers in organic farming practices were 32.10 per cent, respectively. These findings were found to partially support by reports of Singh (2007) and Kirar and Mehta (2009).

It is clear from table 2 that majority (46.7%) of farmers had high knowledge level of organic farming practices. While 36.7 per cent had medium and 16.7 per cent had low knowledge level of organic farming practices. Similar findings were also reported by Dube and Sawarkar (1992) and Naik *et.al.* (2009).

Conclusion :

Organic farming is an alternative agriculture, which has

Sr. No.	Organic farming practices	Maximum obtained knowledge (score)	Total obtained knowledge (score)	percentage of Knowledge gap	Rank
1.	Knowledge about concept of organic farming	180	152	15.56	IX
2.	Use of bio-pesticides	180	110	38.88	III
3.	Use of organic manure and crop residues	180	132	26.66	VII
4.	Use of mechanical cultivation	180	122	32.22	VI
5.	Use of vermicompost	180	148	17.77	VIII
6.	Use of bio-fertilizers	180	116	35.55	V
7.	Use of HaNPV	180	102	43.34	I
8.	Use of NADEP compost	180	112	37.77	IV
9.	Use of trichocards	180	106	41.12	II
	Over all knowledge gap	1620	1100	32.10	

Table 2 : Distribution of farmers according to their knowledge level about organic farming practices (N=60)

Sr. No.	Category of knowledge	Numbers of farm women	Percentage
1.	Low	10	16.7
2.	Medium	22	36.7
3.	High	28	46.7

been proposed as a solution to problem associate with intensive use of agro-chemical. It adopts an ecological approach nutrient supply and crop protection rather that a chemical one. Crop rotation is the central tool that integrates the maintenance and development of soil fertility with different aspects of crop and livestock production in organic systems. It may be concluded that majority farmers were found in the range of high level of knowledge of organic farming practices. The wide knowledge gapes are in the areas of organic farming practices like use of HaNPV, use of trichocards, use of bio-pesticides and use of NADEP compost. The farmers need to

be made well aware about the use of such practices so that the basic concept of organic farming and its application part could be familiar to the farmers.

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