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Obstacles in Practicing Organic Farming in Nyoma, Changthang Region in Ladakh

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ABSTRACT

The present study was conducted in the tehsil Nyoma of Ladakh, Jammu and Kashmir state during the year 2015 to know the obstacles faced by farmers practicing organic farming. The findings showed that major obstacles faced by the farmers were, unavailability of organic farming literature, inadequate availability of inputs like vermicompost, biofertilizers and organic manures, non availability of skilled labourer, lack of market information and market access, lack of minimum support price for the organic products, lack of skill about improved methods of compost making, inadequate knowledge of field functionaries about organic farming, non availability of recommended package of practice and laborious process involved in application of organic practices, lack of proper training about organic farming, difficulties in getting the organic manures compared to the chemical fertilizers, scarcity of FYM and other organic manures. The average FYM available was 5.2q which was maximum in Nidder village and the average minimum FYM available was 2.8q for Nyoma village. On the other hand, average FYM required for Nidder village was 8.1q and 5.0q for Nyoma. The average chemical fertilizer used was 36q. A maximum average chemical fertilizer used was in Nyoma village (42.25q) and minimum used in Nidder village(30.79q). Maximum pesticides used were in Mudh village followed by Henle and negligible in rest of the villages.

Key Words: Organic farming, Vermi-compost, Chemical fertilizers, Manure, Vermicompost.

INTRODUCTION

The relevance and need for an eco-friendly alternative farming system arose from the ill effects of the chemical farming practices adopted worldwide during the second half of the last century. People began to think of various alternative farming systems based on the protection of environment which in turn would increase the welfare of the humankind by various ways like clean and healthy foods, an ecology which is conducive to the survival of all the living and non-living things, low use of the non-renewable energy sources, etc. Organic farming is considered to be the best among all of them because of its scientific approach and wider acceptance all over the world.

Organic agriculture sustains the health of soils, ecosystems and people. It relies on ecological processes, bio-diversity and cycles adapted to local conditions, rather than the use of inputs with adverse effects. Organic agriculture combines tradition, innovation and science to benefit the shared environment and promote fair relationships and a good quality for all involved. According to Gill and Prasad (2009), organic farming aims at the minimizing cost of production, healthy food, augmentation of profit, improving soil health, counteract the climate change, minimize energy consumption and encourage natural habitats. According to Gill (2014), there was an urgent need to do follow the natural farming or zero budget

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farming by making use of the resources available at the farm itself. The use of bio-fertilizers, bio-dynamics formulations, recycling of crop residue, crop rotation, application of green manuring, farm yard manure, extracts of herbs, following bhumi sanskar,beej sanskar, use of bio agents not only would reduce the cost of production but simultaneously make the ecosystem more vibrant by making a choice of the various plantation crops based farming system.

Ayala (2001) was of the view that almost all benefits of high yielding varieties based farming accrue mostly in the short term and in the long term cause adverse effects. There is an urgent need for a corrective action. The authors ruled out organic farming based on the absolute exclusion of fertilizers and chemicals, not only for the present, but also in the foreseeable future. There ought to be an appropriate blend of conventional farming system and its alternatives. The average yields under organic and conventional practices are almost the same and the declining yield rate over time is slightly lower in organic farming. The authors also quote a US aggregate economic model, which shows substantial decreased in yields on the widespread adoption of organic farming. Decreased aggregate outputs, increased farm income and increased consumer prices are other results the model gives.

Table 1. Obstacles expressed by farmers practicing organic (N=120)

Sr .No.	Constraint	Number of farmers		
		Frequency	Per cent	Rank
1.	Unavailability of organic farming literature in the village.	119	99.16	I
2.	Inadequate availability of inputs like vermicompost, biofertilizers and organic manures.	118	98.33	II
3.	Non availability of skilled labourer.	117	97.50	III
4.	Lack of market information and market access.	116	97.00	IV
5.	Lack of minimum support price for the organic products.	115	95.83	V
6.	Inadequate knowledge of field functionaries about organic farming	106	88.33	VI
7.	Non availability of recommended package of practice and laborious process involved in application of organic practices.	105	87.5	VII
8.	Farmers are not sure whether all the nutrients with the required quantities can be made available by the organic materials.	104	87.00	VIII
9.	Lack of proper training about organic farming	102	85.00	IX
10.	Difficulties in getting the organic manures compared to the chemical fertilizers.	98	82.00	X
11.	Lack of skill about improved methods of compost making	98	82.00	XI
12.	Insufficient training.	97	81.00	XII
13.	Scarcity of FYM and other organic manures.	95	79.16	XIII

Table 2. FYM available, required and deficit at farmers' level. (N=24 in each village)

Sr . No.	Village	FYM available (in q)	FYM req (in q)	Deficit (Percentage)
1.	Nyoma	2.8±0.3 (1.0-7.0)	5.0±0.3 (2.0-9.0)	64
2.	Mudh	3.9±0.4 (1.0-10.0)	6.6±0.6 (2.0-15.0)	40
3.	Nidder	5.2±0.6 (1.0-11.0)	8.1±0.6 (3.0-14.0)	36
4.	Henley	3.3±0.2 (1.0-8.0)	5.8±0.2 (3.0-8.0)	43
5.	Chumathang	3.4±0.2 (2.0-6.0)	5.9±0.2 (4.0-7.0)	42
	Total	3.7±0.1 (1.0-11.0)	6.3±0.2 (2.0-15.0)	41

While the details about this US analysis are not known, its relevance to India where we already have the lowest yields of a number of crops under the conventional system appears to be open.

The present fertilizer consumption in J&K is 38.3 kg/ha as compared to 170 kg/ha in Punjab Chandra (2014). In contrast the estimated quantity of nutrients mined by crops in Kashmir is 48 kg/ha. Thus, there are better options for boosting organic production in J&K especially in the horticultural products, floriculture ,honey, basmati rice, aromatic and medicinal plants and have varied agro-climatic zones. The tehsil Nyoma is known for its excellence in animal husbandry thus makes more scope for farmers to go for organic farming. However, there are various obstacles being faced by the farmers of this region and all those have been delineated in this research paper.

MATERIALS AND METHODS

The study was carried out in tehsil Nyoma , Changthang ladakh at high altitude (4500m above sea level) in Jammu and Kashmir during the year 2015. Five villages in tehsil Nyoma namely Nyoma, Mudh, Nidder, chumathang and Henle were selected for investigation. Twenty four respondents were selected from each village, thus making a total of 120 respondents for the investigation. Data were collected through structured and pre-tested interview schedule. The collected data were coded, tabulated and analyzed and the results were interpreted accordingly.

RESULTS AND DISCUSSION

Obstacles expressed by the farmers practicing organic farming

Results (Table 1) revealed that majority of respondents (99.2%) expressed problem of unavailability of organic farming literature in the village and was ranked at number 1 followed by inadequate availability of inputs like vermicompost, biofertilizers and organic manures (98.3%), non availability of skilled labours(97.5%), lack of market information & market access (97.0%), lack of minimum support prize for the organic products (95.8%) of the respondents.

It was obvious (Table 2) that the average quantity of farm yard manure (FYM) available was 3.7q while the required quantity was 6.3q, thus, there was a deficiency of 41.0 per cent. Maximum quantity of FYM (5.2q) was available in Nidder village and minimum (2.8q) in Nyoma village. However , the required quantity for Nidder village was 8.1q and for Nyoma village (5.0q) . Hence, there is need for more quantity of FYM in these villages to meet the agriculture demand of the farmers.

On the other hand, average chemical fertilizer used was 42.3q in Nyoma, 36.1q in Mudh, 30.8q in Nidder, 36.5q and in Henley it was 34.5q in Chumathang village. It was evident that maximum chemical fertilizers used was in Nyoma village and minimum Nidder village.

Table 3. Use of pesticides in different villages.

Sr . No.	Village	Use of pesticides	Organic control
1.	Nyoma	-	+
2.	Mudh	++	+
3.	Nidder	-	++
4.	Henley	+	+
5.	Chumathang	-	+

Where "-" indicates not used, "+" indicates slightly used and "++" indicates used by most.

It was obvious from the above table that out of five villages selected for the present study, maximum pesticides used by Mudh village followed by Henle and negligible in rest of the villages.

CONCLUSION

There is need to standardize the practices on participating basis and evolve package of practices related to organic farming. In order to motivate farmers to take up organic farming provision has to be made profitable by providing minimum support price for organic produce by the government. Tehsil Nyoma department of agriculture and other institutions should give more stress on imparting training programmes to improve the skill of farmers, motivate the farmers to take up organic farming in future and efforts need to be taken towards minimum use of inorganic fertilizers, use of pesticides/ insecticides, conserving natural resources, using indigenous knowledge and improving status of farmers through organic farming. Stress has to be given minimum use of inorganic fertilizers, minimum use of pesticides/insecticides.

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