The Pharma Innovation Journal 2021; SP-10(8): 806-808

www.ThePharmaJournal.com

The Pharma Innovation

ISSN (E): 2277- 7695
ISSN (P): 2349-8242
NAAS Rating: 5.23
TPI 2021; SP-10(8): 806-808
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www.thepharmajournal.com
Received: 19-06-2021
Accepted: 21-07-2021

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A study on adoption of eco-friendly management practices by green pea growers of Jabalpur (M.P.)

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Abstract
The study was undertaken in Jabalpur district of M.P. A study on adoption of eco-friendly management practices by green pea growers. Total six villages of Patan block were selected on the basis of highest green pea cultivation. A total of 120 green pea growers were selected by using proportionate random sampling and were interviewed through pre-tested structural interview schedule for the investigation. Knowledge of Eco-friendly farming combines some agricultural approaches like Knowledge of Integrated Pest Management, Knowledge of Integrated Nutrient Management, Knowledge of Integrated Weed Management, Knowledge of Soil, Water and Residue Management practices. These approaches advocated for use of resistant crop varieties, balanced nutrient supply, use of cow dung, cow urine, use of vermin-compost, use of parasites and predators, use of traps, neem oil and extract, crop rotation, mulching, use of biodegradable pesticides etc.

Keywords: adoption, eco-friendly management, green pea growers

Introduction
Eco-friendly and environmental friendly are synonyms used to refer to goods and services considered to inflict minimum or no harm on the environment. The main idea behind eco-friendly farming is zero impact on environment.

Eco-friendly farming is a comprehensive approach describing the way of farming which supports both agricultural production and biodiversity conservation working in harmony together to improve the livelihood of rural communities. According to Mishra (2013) [2] three important goals of eco agriculture are: Enhance rural livelihoods, Conserve or enhance biodiversity and eco-system services, Develop more sustainable and productive agricultural system without polluting the soil, water and surrounding area. Eco-friendly farming combines some agricultural approaches like Integrated Pest Management, Integrated Nutrient Management, Integrated Weed Management, Soil, Water and Residue Management practices. These approaches advocated for use of resistant crop varieties, balanced nutrient supply, use of cow dung, cow urine, use of vermin-compost, use of parasites and predators, use of traps, neem oil and extract, crop rotation, mulching, use of biodegradable pesticides etc.

Materials and Methods
Out of the total seven blocks of Jabalpur district, the present study was conducted purposively in Patan block, which is having maximum green pea growers. Total six villages were selected on the basis of highest green pea growers and 120 green pea growers were interviewed through pre-tested structural interview schedule for the investigation.

To assess the adoption of the eco-friendly management practices, six improved eco-friendly management practices were considered i.e., cultural practices, mechanical practices, biological pest control, use of bio-pesticides, use of organic manures and use of inorganic fertilizers.

Results and Discussion
The table 1 showed that Distribution of green pea growers according to adoption of eco-friendly management practices. Level of green pea growers regarding different eco-friendly management practices. Regarding the practice ‘summer deep ploughing, growing mustard / marigold / rapeseed as trap crop (23.33%), crop rotation with green pea crops (49.16%), inter crop in green pea (20.83%). Majority of the green pea growers possessed the knowledge of seed treatments with chemicals as a control measure of pest (53.33%), disease resistance varieties / hybrids in green pea (48.33%), hand picking of larvae (08.33%), monitoring of pest (31.66%), uprooting alternate host plant (35.83%), use of pheromone trap (07.50%), use of

light trap (04.16%), conservation and encouraging of predators (0.83%), conservation and encouraging of parasitic wasps (1.66%), use of NPV and concentration of spray (6.66%) , introduction of bio-control agents (5.16%), knowledge about neem seed kernel extract (03.33%), preparation of neem seed kernel extract (02.50%), concentration of neem seed kernel extract (5.00%), frequency of spraying neem seed kerneI extract (05.83%),farm yard manure / green manure / vermin-compost (90.00%), press mud / seed cake (17.50%), application of recommended dose (66.66%), time of application (75.83%) and method of application (91.66%).

A close examination of the Table 1 revealed that deep summer ploughing, application of farmyard manure/ green manure/ vermin compost and method of application were well known to all the farmers. Whereas, majority of the farmers know about knowledge of seed treatments with chemicals as a control measure of pest, time of application of inorganic fertilizers.

Application of recommended dose of inorganic fertilizers, crop rotation with green pea and disease resistance varieties/hybrids in green pea. The practice of components which are technically skill orientated are less know to farmers namely pheromone traps, light traps, biological pest control measures which consists of conservation and encouraging predators and parasitic wasps and introduction of bio-control agents.

It is logical to derive from the above discussion that practices, which are complex and difficult to remember, are least known to farmers, on the other hand the practices which are simple and are being practices by forefathers are known to most of the farmers.

Table 1: Distribution of green pea growers according to adoption of eco-friendly management practices

S. N.	Adoption of eco-friendly management practices	Adoption		
		F.	%	Rank
1.	**Cultural control:**			
	Summer deep ploughing	120	100.00	I
	Growing trap crops	28	23.33	XI
	Crop rotation	59	49.16	VII
	Intercroping in pea	25	20.83	XII
	Seed treatment with chemicals	64	53.33	VI
	Cultivation of disease resistant varieties	58	48.33	VIII
2.	**Mechanical control:**			
	Hand peeking of Iarvae	10	08.33	XIV
	Monitoring of pests	38	31.66	X
	Uprooting aIternate host plant	43	35.83	IX
	Use of pheromone traps	09	07.50	XV
O	Use of light traps	05	04.16	XIX
3.	**Biological pest control:**			
	Conservation and encouraging the predators	01	0.83	XXIII
	Conservation and encouraging the Parasitic wasps	02	01.66	XXII
	Use of NPV	08	06.66	XVI
	Introduction of bio-control agents	04	03.33	XX
4.	**Use of bio-pesticides:**			
	Knowledge about neem seed kernel extraction	04	03.33	XX
	Preparation of seed kerneI extract	03	02.50	XXI
	Concentration of seed kerneI extract	06	05.00	XVIII
	Frequency of spraying neem seed kernel extract	07	5.83	XVII
5.	**Application of organic manures**			
	Farm yard manure/green manure/ vermi compost	108	90.00	III
	Press mud/seed oil cake	21	17.50	XIII
6.	**Use of Inorganic fertilizer:**			
	Application of recommended dose	80	66.66	V
	Time of application	91	75.83	IV
	Method of application	110	91.66	II

Practice wise adoption of the improved in eco-friendly management practices among the green pea growers were ranked on the basis of frequency and percentage. adoption of Cultural control (Summer deep ploughing) management practice was ranked first followed by, Use of Inorganic fertilizer(Method of application), Application of organic manures (Farm yard manure/green manure/ vermi-compost), Mechanical control(Uprooting alternate host plant), Biological pest control (Use of NPV) and Use of bio-pesticides(Frequency of spraying neem seed kernel extract) respectively.

Table 2: Distribution of the respondents according to over all adoption of eco-friendly management practices

S. No.	Categories	Frequency	Percentage
1.	Low	80	66.67
2.	Medium	24	20.00
3.	High	16	13.33
Total		120	100.00

Overall green pea growers, 66.67 per cent had low adoption, whereas 20.00 per cent had medium adoption and 13.33 per cent were found in the category of high adoption of eco-

friendly green pea production.

Thus, it can be concluded that majority of green pea growers (66.67%) were having low to (20.00%) medium adoption of eco-friendly green pea production.

This finding is conformity with the finding of Pyasi, R.D (2009) [6], Patel N. *et al*. (2013) [5], Machhar *et al.* (2015) [4], Pisure *et al.* (2015) [7], Patidar *et al.* (2015) [8] Chandrasekhar (2017) [1] and Markam N. *et al.* (2018) [3].

Conclusion

It is concluded that out of six improved eco-friendly management practices, adoption of eco-friendly management practice, Cultural control (Summer deep ploughing) eco-friendly management practice was ranked first followed by, Use of Inorganic fertilizer (Method of application), Application of organic manures (Farmyard manure/greenmanure/vermi-compost), Mechanical control (Uprooting alternate host plant), Biological pest control (Use of NPV) and Use of bio-pesticides (Frequency of spraying neem seed kernel extract) respectively. On the whole, majority of the cultural control (summer deep ploughing) 100.00 per cent had eco-friendly management practices green pea growers. Involving the eco-friendly green pea growers in different extension activities and capacity building programmes may enhance the knowledge of improved eco-friendly management practices resultant increase the green pea production and eco-friendly product.

Acknowledgment

The authors are thankful to the Dean, College of Agriculture, JNKVV, Jabalpur (M.P.) and the Authorities of university for providing necessary facilities to carry out the research work.

References

1. Chandrasekar GK, Satyanarayan K, Jagadeeswary V, Shree JS. Relationship between Socio-economic and psychological factors of dairy farmers with days open a study in rural Karnataka. International Journal Pure Applied Bioscan 2017;5(1):171-177.
2. Mishra M. Role of eco-friendly agricultural practices in Indian Agriculture Development. International Journal of Agriculture & Food Science Technology 2013;4(2):11-15.
3. Markam N, Tiwari A, Pyasi VK. Perception of eco-friendly farming practices of paddy crop among the tribal farmers of Baihar Block of Balaghat District (M.P.). India. International Journal Current Microbiology Applied Scence 2018;7(05):1945-1949.
4. Machhar RG, Patel SK, Kacha HL, Patel UM, Patel GD, Radha Rani R. Environment friendly management system problem imperatives for eco-friendly management system. Asian Journal of Research in Business Economics and Management 2015;3(6):376-379.
5. Patel N, Choudhary S, Swarnakar VK. Eco-friendly farming, ecological balance, agrochemical, sustainable farming 2013;2(4):22-25.
6. Pyasi RD. A study on management of eco-friendly practices by vegetable growers in Indore block in Indore District of Madhya Pradesh. M.Sc.(Ag.) Thesis (unpublished), JNKVV, Jabalpur 2009.
7. Pisure BL, Thombre BM, Jamadar CR. Relationship between personal, socio-economic and psychological characteristic of dairy farmer with their entrepreneurial behavioure. Research Journal of animal husbandry and dairy science 2015;6(1):1-5.
8. Patidar S, Patidar H. A Study of perception of farmers towards organic farming. International Journal of Application or Innovation in Engineering & Management 2015, 269-277.