Review Article

A Study on Knowledge Level and Attitude of Farmers towards Organic Farming in Ananthapuramu District, Andhra Pradesh, India

Abstract

Organic farming is practicing in 187 countries, and 72.3 million hectares of agricultural land were managed organically by at least 3.1 million farmers. India is home to 30% of total organic producers in the world having 2.30 million ha (NCOF, 2021). A study was conducted in ten mandals of Ananthapuramu district with sample size of 100 and farmers were selected randomly. Pearson correlation, frequency, percentage, mean were calculated. From the results it was noticed that farmers have more knowledge related to statements viz., organic farming is a type of farming system in which crops are grown without the use of chemical inputs (85%) and knowledge gap percentage was 15. Farmers have positive attitude on statement I can obtain optimum production level in organic farming if we rear livestock at our farm with score of 244 and attitude gap percentage of 20 followed by organic farming will decrease the production cost by reducing the input purchases score of 243 and attitude gap percentage of 19. Education, extension contact, information seeking behaviour and awareness about organic farming variables were positively significant and highly correlated with attitude of farmers towards organic cultivation. Major constraints faced by the farmers were lack of skill regarding the preparation and usage of organic inputs (80%) followed by complicated methods for production of organic inputs and absence of premium price for organic produce in the local market (71%). Major suggestion were direct procurement of organic produce by government and supply to Midday Meals Scheme and Public Distribution System.

Key words: Organic farming, knowledge, attitude score, attitude gap, constraints, suggestions

Introduction

Organic farming referred as a system of management and agricultural production that combines a high level of biodiversity with environmental practices that preserve natural resources and has rigorous standards for animal welfare. Organic farming is practicing in 187 countries, and 72.3 million hectares of agricultural land were managed organically by at least 3.1 million farmers. With the most organic agricultural land in Australia (35.69 m hectares) followed by Argentina (3.63 m hectares), Spain (2.35 m hectares) and India consists of 2.3 m hectares. In India, Madhya Pradesh, Rajasthan and Maharashtra states were majorly contributing in organic production. India is home to 30% of total organic producers in the world having 2.30 million ha. Total organic cultivation farmers was 27, 59, 660, 1703 total processors and 745 traders (National Centre for Organic and Natural Farming, 2021). In the present study, objectives were study on level of knowledge, attitude, constraints and suggestions of farmers towards organic farming cultivation.

Methodology

Study was conducted in ten mandalas (Singanamala, Narpala, Bukkarayasamudram, Bathalapalli, Kotthacheruvu, Rapthadu, Tadipatri, Putlur, Peddavaduguru, Yellanur) of Ananthapuramu district of Andhra Pradesh. From each mandal one village was selected. Total ten villages were selected for the study. From each village ten farmers were selected. Total sample size for the study was 100 (10x10). Mandalas and villages were selected purposively and farmers were selected randomly. In this knowledge level, attitude, constraints and suggestions of farmers regarding organic farming were studied. Correlation, frequency, percentage, mean were calculated for the study. In order to evaluate the knowledge defined in this study as the set of concepts, meanings, skills and routines developed overtime by individuals and groups through processing of your information, it was considered the of the information that the farmers have in respect of organic farming cultivation. In order to evaluate the knowledge defined in this study as the set of concepts, meanings, skills and routines developed overtime by individuals and groups through processing of your information, it was considered the of the information that the farmers have in respect of organic farming cultivation. Attitude is referred as a positive or negative feeling towards any objective or person or anything. In this objective, attitude of farmers towards organic farming cultivation was studied. Knowledge gap percentage was calculated

as maximum total score minus total obtained score divided by maximum total score multiplied by 100. Attitude gap percentage was calculated as maximum total score minus total obtained score divided by maximum total score multiplied by 100 (Sahu *et al*., 2010). Pearson correlation was used to analyse the relationship between the variables.

Results and discussion

1. To assess the knowledge level of farmers on organic farming

Table 1: Knowledge level of farmers on organic farming

S. No.	Knowledge	Total obtained score	Knowledge gap percentage
1	Organic farming is a type of farming system in which crops are grown without the use of chemical inputs	85	15
2	Green manure or plant cover crops reduce soil erosion and increase soil fertility	81	19
3	Organic weed, pest and disease control measures help in protecting the environment	77	23
4	Doing mulching control weeds	63	27
5	Knowledge about preparation and use of vermi-compost	60	40
6	Use trap methods to control pests and diseases	57	43
7	Information about the incentives given for practicing organic farming	56	44
8	Products grown organically fetch more price	54	46
9	Knowledge about preparation and use of Farm Yard Manure	51	49
10	Minimum support price for organic products	48	52
11	Availability and usage of bio-fertilizers	46	54
12	Information regarding the marketing of organic produce	43	57

S: Knowledge gap percentage =maximum total score minus total obtained score divided by maximum total score multiplied by 100, n=100
Maximum total score= 100

From the table.1 it was stated that farmers have more knowledge on statement of organic farming is a type of farming system in which crops are grown without the use of chemical inputs (85%) and knowledge gap percentage was 15 and Information regarding the marketing of organic produce (43%) and knowledge gap percentage was 57. Similar findings were recorded by Naik *et al*., (2009), Sahu *et al*., (2010), Jaganathan *et al*., (2016), Singh and Sharma (2016), Sihare *et al*., (2017) and Islam (2020).

2. **To study the attitude of farmers towards organic farming practices**

Table 2: Attitude of farmers towards organic farming

S.No	Attitude Statement	Total score	Attitude gap (%)	Rank
1	I can obtain optimum production level in organic farming if we rear livestock at our farm	244	18.66	I
2	Organic farming will decrease the production cost by reducing the input purchases	243	19.00	II
3	*I will have the problem in sourcing and purchasing of organic inputs	230	23.33	III
4	Organic farming will balance the nutrient status and farm eco-system for long time	230	23.33	IV
5	*The rule and regulation for the product to be certified as organic is complicated	227	24.33	V
6	Organic farming is effective in increasing the texture and fertility of soil	225	25.00	VI
7	I believe that organic farming will keep environment free from pollution	224	25.33	VII
8	*Organic agriculture practice provide more tedious agronomic practices than convectional agriculture	203	32.33	VIII
9	*Organic farming only benefits the consumers not the producers	202	32.66	IX
10	Adoption of organic farming is a boon to agriculture	199	33.66	X
11	Organic farming gives higher yields	177	41.00	XI
12	Organic fertilizers are more suitable to control pests	173	42.33	XII
13	*I feel that the amount required to convert the field to organic farming is much higher	171	43.00	XIII
14	*I believe that the organic farming will not be able to feed the whole population of country	165	45.00	XIV

S=Rank, Attitude gap (%) = maximum total score minus total obtained score divided by maximum total score multiplied by 100, n=100, Maximum total score=300

From the table.2 it was evident that farmers have positive attitude on statement I can obtain optimum production level in organic farming if we rear livestock at our farm with score of 244 and attitude gap percentage of 20 and *I believe that the organic farming will not be able to feed the whole population of country with score of 165 and attitude gap

percentage of 45. Results were similar with Patidar (2015), Philip and Sivaraj (2018), Ghosh *et al*., (2019), Kalyani (2021) and Priyadarshini *et al*., (2022).

3. To examine the relationship between the independent variables and attitude of farmers towards organic farming

Table 3: Relationship between independent variables and attitude of farmers

S.no.	Variable	r value	Type of scale
1	Age	0.64^{NS}	Nominal
2	Land size	0.37^{NS}	Ordinal
3	Education	0.92**	Ordinal
4	Family size	0.24^{NS}	Nominal
5	Income	0.16^{NS}	Ordinal
6	Extension contact	0.26**	Ordinal
7	Livestock possession	0.01^{NS}	Nominal
8	Information seeking behaviour	0.78**	Nominal
9	Awareness about organic farming	0.52**	Nominal

R: Correlation, P_{valvue}=0.05 significant (**), NS=Non-Significant

From the table.3 it was noticed that, education, extension contact, information seeking behaviour and awareness about organic farming variables were positively significant and highly correlated with attitude. Age, land size, family size, income, livestock possession were positive and non-significant. Similar findings were recorded by Singh, 2020.

4. Constraints analysis in adoption of organic farming by the farmers in Ananthapuramu district

Table 4: Constraints faced by the farmers in organic farming

S.No.	Constraints	Farmer's respondents	Rank
1	Lack of skill regarding the preparation and usage of organic inputs	80	1
2	Complicated methods for production of organic inputs	75	2
3	Absence of Premium price for organic produce in the local market	71	3
4	Higher cost involved in the certification charges	70	4
5	Lack of market for organic produce	69	5

6	Non availability of organic inputs in critical time (Bio-pesticides, Bio-agents and Pheromone Traps)	68	6
7	Non - availability of biologically treated/organically produced seeds in the market	66	7
8	Lack of knowing standard package of practices for practising organic farming	60	8

S: Frequency and Rank, n=100

From the table 4 it was observed that lack of skill regarding the preparation and usage of organic inputs (80%) was the major constraint faced by the majority of the farmers and Lack of knowing standard package of practices for practicing organic farming (60%). Similar results were stated by kumari *et al*., (2016), Sivaraj *et al*., (2017), Haneef *et al*., (2019) and Singh *et al*., (2020).

Table 5: Suggestions given by the farmers in organic farming cultivation

S.no.	**Suggestions**	**Farmer's respondents**	**Rank**
1	Direct procurement of organic produce by government and supply to Mid day Meals Scheme (MMS) and Public Distribution System (PDS)	75	1
2	More awareness may be created among the farmers on skilful handling of various methods of biological pest control under organic farming and seed treatment.	72	2
3	The data on market intelligence of organic marketing should be strengthened and made availability to the farmer	68	3
4	Providing organic certification through single window system	66	4
5	The market for organic produce should be made available	62	5
6	Farmers need subsidies on on-farm production of different organic inputs	57	6
7	Minimum Support Price should be given for organic produce	56	7
8	Timely availability of organic inputs	52	8

S: Frequency and Rank, n=100

From the table.5 it was stated that farmers suggestions regarding organic farming cultivation was Direct procurement of organic produce by government and supply to Midday

Meals Scheme (MMS) and Public Distribution System (PDS) 1st rank and Timely availability of organic inputs (8th rank). Similar result was observed by Sivaraj *et al*., (2017).

Conclusion:

Farmers have known about organic farming and their benefits of cultivation. Farmers need more information particularly pest and disease management, availability and usage of bio-fertilizers, Farm Yard Manure preparation and market information related to organic produce therefore demonstrations and trainings have to be conducted on those aspects. Policy measures on incentives and premium prices can increase maximum area under organic farming cultivation.

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