

## ASSESSING KNOWLEDGE LEVEL AND ANALYSING CONSTRAINTS OF ORGANIC FARMERS IN JAMNAGAR DISTRICT OF GUJARAT

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### ABSTRACT

*Organic agriculture is a unique production management system which promotes and enhances agro-ecosystem health, including biodiversity, biological cycles and soil biological activity, and this is accomplished by using on-farm agronomic, biological and mechanical methods in exclusion of all synthetic off-farm inputs. Study was conducted on 120 organic growers of Jamnagar districts to evaluate for knowledge of farmers about knowledge of eco-friendly organic farming practices followed in their cultivation practices. The study most of the groups covered in major age group, educate higher secondary level, medium to big farmers having nuclear family, main occupation was agriculture and animal husbandry. Krishi Vigyan Kendra or University level information for organic farming were rank first with weightage mean (42.29), followed by second printed literature (37.08), third television (22.71). They received guideline from Krishi Vigyan Kendra (48.06%) followed by Agricultural University (31.39%) and seed/pesticide dealer (31.39%). The area of information was on the management, marketing, cultivation practices on organic farming. Recycling of weed bio-mass, P-solubilizing microbes, minimum tillage for nutrient conservation and Beauveria bassiana for management of soil and above ground pests ranked in prime knowledge by (60.83%). Only few farmers (5 %) having knowledge on fish wastes; Vermin-culture; Strip cropping & vegetative /live bunds and Use of Sea weed liquid for better crop growth and high yielding. Thus, 71.67 per cent of the respondents having very low level of knowledge. Govt. subsidies (72.5%); premium price (72.5%); special incentive or awards (67.5%); lack of market facility (67.5%) and administrative setup (62.5%) were the major constraints faced by the organic farmers. The suggested same problem solve by the government for better development of organic farming.*

**Keywords :** organic farming, adoption level, constraints, knowledge source

### INTRODUCTION

Organic farming follows the principle of circular causation and has emerged in response to questions on health, environment and sustainability issues (Ananthnag *et al.*, 2014). It assesses the status, opportunities and sequestration potentials of in India. It identifies constraints that impede adoption of especially for small farm holders who constitute over 70% of farming community in India.

Although India occupies second position in terms of number of certified organic farms (44,926), it is 13th in terms of area under of representing only 0.3 % of total agricultural lands. This scenario appears poor compared to many other countries. Farmer's apprehension towards in India is rooted in non-availability of sufficient organic supplements, bio fertilizers and local market for organic produce and poor access to guidelines, certification and input costs. An integrated effort is needed from government and non-government agencies to encourage farmers to adopt of as a solution to climate change, health and sustainability issue.

India's organic food market has potential to grow more than 25 per cent annually to touch \$1.36 billion by 2020. (Anonymous, 2016).

Organic farming system in India is not new and is being followed from ancient time. It is a method of farming system which primarily aimed at cultivating the land and raising crops in such a way, as to keep the soil alive and in good health by use of organic wastes (crop, animal and farm wastes, aquatic wastes) and other biological materials along with beneficial microbes (Bio-fertilizers) to release nutrients to crops for increased sustainable production in an eco-friendly pollution free environment, Sanjay-Swami, 2017.

As per the identification of United States Department of Agriculture (USDA) study team on organic farming "organic farming is a system which avoids or largely excludes the use of synthetic inputs (such as fertilizers, pesticides, hormones, feed additives etc.) and to the maximum extent feasible rely upon crop rotations, crop residues, animal manures, off-farm organic waste, mineral

grade rock additives and biological system of nutrient mobilization and plant protection.” FAO suggested that “Organic agriculture is a unique production management system which promotes and enhances agro-ecosystem health, including biodiversity, biological cycles and soil biological activity, and this is accomplished by using on-farm agronomic, biological and mechanical methods in exclusion of all synthetic off-farm inputs”, Sanjay-Swami, 2017.

The concept of organic agriculture builds on the idea of efficient use of locally available resources as well as the usage of adapted technologies (e.g. soil fertility management, closing of nutrient cycles as far as possible, control of pests and diseases through management and natural antagonists) (Patel *et al.*, 2021). It is based on a system-oriented approach and can be a promising operation for sustainable agricultural intensification in tropics, as it may offer several potential benefits such as: (i) A greater yield stability, especially in risk-prone tropical ecosystems, (ii) higher yields and incomes in traditional farming systems, once they are improved and the adapted technologies are introduced, (iii) an improved soil fertility and long-term sustainability of farming systems, (iv) a reduced dependence of farmers on external inputs, (v) the restoration of degraded or abandoned land, (vi) the access to attractive markets through certified products, and (vii) new partnerships within the whole value chain as well as a strengthened self-confidence and autonomy of farmers (Sanjay-Swami, 2017).

Gujarat has remained a pioneer state in adopting organic farming. There is more than dozen groups and networks across the state working voluntarily for promotion, training and marketing of organic produce.

But still there is a huge gap in efforts being made by government and adoption of observe and do effort to document the practices followed by farmers who adopted organic farming in the region. Looking to this, the study was empirically carried out with following specific objectives

## OBJECTIVES

- (1) To study the socio-economic profile of farmers
- (2) To assess the adoption level of farmers about organic farming practices
- (3) To study knowledge of farmers for organic farming practices

## METHODOLOGY

Krishi Vigyan Kendra, Junagadh Agricultural University, Jamnagar working in Jamnagar and Devbhumi

Dwarka district. The present research study was conducted in jurisdiction of KVK, JAU, Jamnagar. **Four** talukas of Jamnagar district were selected purposively where organic farming is being practiced for conduction the present investigation. **Three** villages were further selected purposively from each selected taluka; where organic farming is being practiced and village wise organic farmers list will prepare. **Ten** farmers were selected randomly for the study purpose. Thus, overall, **120** farmers were selected study purpose and an interview schedule was developed as preferred by farmer time period and data were collected by personal interview method. The data collected by personal interview method were processed, tabulated, classified and analyzed in light of objectives.

## RESULTS AND DISCUSSION

The present study was conducted on 120 organic growers of Jamnagar districts to evaluate for knowledge of farmers about knowledge of eco-friendly organic farming practices followed in their cultivation practices. The data to statistical analysis and results are presented as per the objectives of study as below.

The results disclosed in Table 1 indicate that more than half (57.50 %) of farmers were from middle age group, followed by 23.33 per cent from old age and remaining 19.17 per cent of them were in young age group. The data indicated that 37.50 per cent of the farmers were educated up to higher secondary level, whereas 30, 11.67 and 10.83 per cent of the farmers were educate up to secondary, graduate and primary level. However, very few were illiterate (2.5%) and very low were post graduate (7.50%).

According to land holding of the farmers both big and medium size farmers having equally with 36.67 per cent. However, the farmers were small and marginal having 22.50 and 4.17 per cent, respectively. In this era of nuclear family, farming business were done on cooperative basis of their cousins and siblings. Though, joint farmer's family type were found 23.33 per cent whereas only 76.67 per cent were farming in nuclear type. The same way 36.67 per cent farmers of them were in annual income between ₹ 50000 to 100000, followed by 36.67 per cent (above ₹ 100000), 4.17 per cent (below ₹ 25000) and 22.50 per cent (₹ 25000 to 50000). Majority of the farmers (43.33 %) were kept buffalo, 29.17 per cent farmers kept cow & buffalo, 10 per cent having cow and 17.50 per cent farmers having no any animal keeping. According to occupation along with 46.67 per cent farmers having only agriculture, 36.67 per cent farmers have both agricultures along with animal husbandry business. The category of residence 36.67 per cent of the farmers having pakka house, 36.67 per cent have mix (half pakka + half Kachcha) house and 26.67 per cent have kachcha house.

## Socio-demographic characteristics

Table 1 : Socio-demographic characters of organic growers

(n=120)

Sr. No.	Particulars	Frequency	Per cent	Mean $\pm$ S.D.
1	<b>Age group</b>			
	Young (18 to 35 Years)	23	19.17	30.26 $\pm$ 6.031
	Middle Age (36 to 50 Years)	69	57.50	
	Old Age (Above 50 Years)	28	23.33	
2	<b>Educational status</b>			
	Post Graduate	09	07.50	
	Graduate	14	11.67	
	Higher secondary	45	37.50	
	Secondary	36	30.00	
	Primary	13	10.83	
	Illiterate	03	2.50	
3	<b>Size of land holding (Total)</b>			
	Marginal (<1 ha)	05	04.17	3.369 $\pm$ 1.927
	Small (1.1 to 2 ha)	27	22.50	
	Medium (2.1 to 4 ha)	44	36.67	
	Big (>4 ha)	44	36.67	
4	<b>Family Type</b>			
	Nuclear	92	76.67	
	Joint	28	23.33	
5	<b>Family income</b>			
	Up to ₹ 25000	5	04.17	
	₹ 25000 to ₹ 50000	27	22.50	
	₹ 50001 to ₹ 100000	44	36.67	
	Above ₹ 100000	44	36.67	
6	<b>Milch animal possession</b>			
	Cow	12	10.00	
	Buffalo	52	43.33	
	Others	0	0	
	Both (Cow + Buffalo)	35	29.167	
	Without animal	21	17.50	
7	<b>Occupation</b>			
	Agriculture	56	46.67	
	Agriculture and animal husbandry	44	36.67	
	Agriculture labour	16	13.33	
	Labour	04	03.33	
8	<b>Residence</b>			
	Pakka house	44	36.67	
	Kachcha house	32	26.67	
	Mix (Half Pakka + Half Kachcha)	44	36.67	
9	<b>Extension Participation</b>			
	Low extension participation (Below 0.48)	11	9.17	3.092 $\pm$ 2.05
	Medium extension participation (0.48 to 5.73)	92	76.67	
	High extension participation (Above 5.73)	17	14.17	
10	<b>Social Participation</b>			
	Low social participation (Below 0.68)	11	9.17	3.342 $\pm$ 2.13
	Medium social participation (0.68 to 5.99)	88	73.33	
	High social participation (Above 5.99)	21	17.5	

Note : Figures in parenthesis indicates frequencies in number of participants

According to participation of less than half of farmers (76.19%) of them were medium extension participation, 14.17 per cent were high extension participation and very few (9.17%) of them were low extension participation. Same way, in social participation, 73.33 per cent of them were medium, 17.5 per cent were high and 9.17 per cent were low participation. Similar trend were also noted by Latha, 2002;

Meena, 2010; Agunga, 2007; Patel, 2007.

## (2) Mass media exposure

The majority of farmers were using tools of mass media. The following table 2 show the results about the use of mass media means for communication for the management of pink bollworm management.

(n=120)

Sr. No.	Mass media exposure	Regularly (3)	Frequently (2)	Once in a week (1)	Not at all (0)	Wt. Mean	Percent	Rank
1	Radio	03	16	38	63	19.75	16.46	VI
2	Television	06	24	43	47	27.25	22.71	III
3	News paper	02	18	46	54	22.00	18.33	V
4	Printed literature	18	43	38	21	44.50	37.08	II
5	Agril. exhibition	0	12	34	74	14.50	12.08	VIII
6	Demonstration	01	19	54	46	23.75	19.79	IV
7	University level (KVK)	21	55	30	14	50.75	42.29	I
8	Kisan call centre	07	09	25	79	16.00	13.33	VII
9	Any other	0	02	24	94	07.00	05.83	IX

It can be concluded from table 2, Krishi Vigyan Kendra or University level information for organic farming were rank first (42.29%), followed by second printed literature (37.08%), third television (22.71%), fourth demonstration (19.79%), fifth newspaper coverage (18.33%), sixth radio (16.26%), seventh kishan call Centre (13.33%), eighth agricultural exhibition (12.08%) and lastly any other

means (5.83%).

## (3) Use of information sources

Majority farmers having different source of information according to their requirement for organic cultivation practices in proper way studied in table e were presented below

(n=120)

**Table 3 : Information source**

Sr. No.	Sources of information	Extent of Utilization			Wt. Mean	Per cent	Rank
		Often	Sometime	Never			
<b>A</b>	<b>Formal sources</b>						
1	Village level worker Agril. Extension officer	50	54	16	29	23.89	V
2	SMS/Sub-divisional officer	99	17	04	08	06.94	XI
3	Service of co-operative society	92	25	03	10	08.61	X
4	Agricultural University	48	31	41	38	31.39	II
5	Agricultural Research Stations/KVK	23	21	76	58	48.06	I
<b>B</b>	<b>Informal sources</b>						
6	Neighbors	64	51	05	20	16.94	VII
7	Fertilizer Depot.	52	48	20	29	24.44	IV
8	Progressive farmers	79	41	0	14	11.39	IX
9	Local leader	97	23	0	08	06.39	XII
10	Seed/pesticide dealer	55	17	48	38	31.39	III
11	Demonstrations	77	37	06	16	13.61	VIII
12	Self-experience/experimentation	73	32	15	21	17.22	VI

Now a days organic growing is the most crucial efforts for the healthy production. Proper guideline was taken from Krishi Vigya Kendra or Agricultural Research

Station and it come on first rank of information provide to farmers (48.06%) followed by Agricultural University (31.39%) Rank II. However, seed/pesticide dealer

(31.39%) stand on third rank, fertilizer depot (24.44%) stands on fourth position, village level worker/Agricultural Extension officer (23.89%) stand on fifth position. The subsequent information source decrease chronologically was Self-experience/experimentation (17.22%), Neighbours (16.94%), demonstration (13.61%), progressive farmers (11.39%), Service of cooperative society (8.61%), SMS/Sub

divisional officers (6.94%) and lastly local leader (8.33%). Research from Patel, 2007 were also supported to the present findings.

**Knowledge of farmer about organic farming**

The respondents were asked to show their opinion for the following listed area of organic farming.

**Table 4 : Knowledge of farmer about organic farming**

(n=120)

Sr. No.	Areas of information	Frequency	Percentage	Rank
<b>1</b>	<b>For in situ management</b>			
<i>a</i>	Green manures	26	21.67	29 <sup>th</sup>
<i>b</i>	Crop residues	21	17.50	30 <sup>th</sup>
<i>c</i>	Poultry manure	57	47.50	16 <sup>th</sup>
<i>d</i>	Urban and rural waste	65	54.17	12 <sup>th</sup>
<i>e</i>	Recycling the weed biomass	73	60.83	1 <sup>st</sup>
<i>f</i>	Recycling the agro based industrial wastes	55	45.83	21 <sup>st</sup>
<i>g</i>	Fish wastes	06	05.00	34 <sup>th</sup>
<i>h</i>	Use of oil industry products	71	59.17	8 <sup>th</sup>
<i>i</i>	Use of oil industry products	72	60.00	5 <sup>th</sup>
<i>j</i>	Sewage farming	51	42.50	26 <sup>th</sup>
<b>2</b>	<b>Use of pre-digested semi digested manure</b>			
<i>a</i>	Farm yard manure	33	27.50	28 <sup>th</sup>
<i>b</i>	Composting	56	46.67	20 <sup>th</sup>
<i>c</i>	Other livestock wastes	39	32.50	27 <sup>th</sup>
<i>d</i>	Biomass conversion of unconventional methods	54	45.00	25 <sup>th</sup>
<i>e</i>	Weed bio-mass	21	17.50	31 <sup>st</sup>
<b>3</b>	<b>Bio-fertilizers</b>			
<i>a</i>	N-fixing agents	57	47.50	17 <sup>th</sup>
<i>b</i>	N-containing vegetation	65	54.17	13 <sup>th</sup>
<i>c</i>	P-solubilizing microbes	73	60.83	2 <sup>nd</sup>
<i>d</i>	K-mobilizing microbes	55	45.83	22 <sup>nd</sup>
<i>e</i>	Vermin-culture	06	05.00	35 <sup>th</sup>
<i>f</i>	Vermin wash	71	59.17	9 <sup>th</sup>
<i>g</i>	N-fixing crops and trees	72	60.00	6 <sup>th</sup>
<b>4</b>	<b>Cultural methods</b>			
<i>a</i>	Crop rotation with pulses for N-fixation	21	17.50	32 <sup>nd</sup>
<i>b</i>	Crop rotation for diseases management	57	47.50	18 <sup>th</sup>
<i>c</i>	Intercropping with pulses for N-fixation	65	54.17	14 <sup>th</sup>
<i>d</i>	Minimum tillage for nutrient conservation	73	60.83	3 <sup>rd</sup>
<i>e</i>	Agro-forestry methods i.e. alley cropping	55	45.83	23 <sup>rd</sup>
<i>f</i>	Strip cropping and vegetative /live bunds	06	05.00	36 <sup>th</sup>



Sr. No.	Areas of Information	Frequency	Percentage	Rank
g	Mulching cover crops	71	59.17	10 <sup>th</sup>
h	Pheromone trap for trapping male moths	72	60.00	7 <sup>th</sup>
i	Light trap for trapping the adults	21	17.50	33 <sup>rd</sup>
j	Use of <i>trichogramma</i> for management lepidopteron pest	57	47.50	19 <sup>th</sup>
k	Use of <i>trichoderma</i> for soil borne diseases	65	54.17	15 <sup>th</sup>
l	Use of <i>Beauveria bassiana</i> for management of soil and above ground pests	73	60.83	4 <sup>th</sup>
m	Honey bee increase the production of crops	55	45.83	24 <sup>th</sup>
n	Use of Sea weed liquid for better crop growth and high yielding	06	05.00	37 <sup>th</sup>
o	Bird purcher is important of natural pest management	71	59.17	11 <sup>th</sup>

The respondents were scheduled interviewed and asked to opine their views about the organic farming. The area of information was on the management, marketing, cultivation practices on organic farming. The data presented in table 5 concluded that green manures(21.67)rank-29<sup>th</sup>; crop residues(17.5)rank-30<sup>th</sup>; poultry manure(47.5)rank-16<sup>th</sup>; urban and rural waste(54.17)rank-12<sup>th</sup>; recycling the weed biomass(60.83)rank-1<sup>st</sup>; recycling the agro based industrial wastes(45.83)rank-21<sup>st</sup>; fish wastes(5)rank-34<sup>th</sup>; use of oil industry products(59.17)rank-8<sup>th</sup>; use of oil industry products(60)rank-5<sup>th</sup>; sewage farming(42.5)rank-26<sup>th</sup>; farm yard manure(27.5)rank-28<sup>th</sup>; composting(46.67)rank-20<sup>th</sup>; other livestock wastes(32.5)rank-27<sup>th</sup>; biomass conversion of unconventional methods(45)rank-25<sup>th</sup>; weed bio-mass(17.5)rank-31<sup>st</sup>; farm yard manure(27.5)rank-28<sup>th</sup>; composting (46.67) rank-20<sup>th</sup>; other livestock wastes(32.5)rank-27<sup>th</sup>; biomass conversion of unconventional methods(45)rank-25<sup>th</sup>; weed bio-mass(17.5)rank-31<sup>st</sup>; n-fixing agents(47.5)rank-17<sup>th</sup>; n-containing vegetation (54.17)rank-13<sup>th</sup>; p-solubilizing microbes (60.83 )rank-2<sup>nd</sup>; k-mobilizing microbes(45.83)rank-22<sup>nd</sup>; vermin-culture(5)rank-35<sup>th</sup>; vermin wash(59.17)rank-9<sup>th</sup>; n-fixing crops and trees(60)rank-6<sup>th</sup>; crop rotation with pulses for n-fixation(17.5)rank-32<sup>nd</sup>; crop rotation for diseases management(47.5)rank-18<sup>th</sup>; intercropping with pulses for n-fixation (54.17)rank-14<sup>th</sup>; minimum tillage for nutrient conservation (60.83)rank-3<sup>rd</sup>; agro-forestry methods i.e. alley cropping(45.83)rank-23<sup>rd</sup>; strip cropping and vegetative /live bunds (5)rank-36<sup>th</sup>; mulching cover crops (59.17)rank-10<sup>th</sup>; pheromone trap for trapping male moths(60)rank-7<sup>th</sup>; light trap for trapping the adults(17.5)rank-33<sup>rd</sup> ;use of *trichogramma* for management lepidopteron pest (47.5)rank-19<sup>th</sup>; use of *trichoderma* for soil borne diseases(54.17)rank-15<sup>th</sup>; use of *Beauveria bassiana* for management of soil as well as (60.83)rank-4<sup>th</sup>; honey bee increase the production of crops (45.83)rank-24<sup>th</sup>; use of sea weed liquid for better crop growth and high yielding (5)rank-37<sup>th</sup>; bird purcher is

important of natural pest management (59.17)rank-11<sup>th</sup>. The results are in line with Kalasariya *et al.* (2022).

**Table 5 : Distribution of respondents according to the knowledge level regarding organic farming**  
(n=120)

Sr. No.	Knowledge level	No. of respondents	Percentage
1	Low	86	71.67
2	Medium	34	28.33
3	High	0	0.00

Knowledge is the cognitive behavior of an individual. The body of knowledge is the product of learning process. Once the knowledge is acquired, it produces changes in the thinking process of an individual, which would lead to further changes in attitude and helps the farmers in making rational decisions. It is prerequisite for adoption of any agricultural innovation. With this view, attempt has been made to determine the level of knowledge of farmers about organic farming. The data regarding extent of knowledge are presented in table. It is observed from the table that nobody having high level knowledge of the respondents, only 28.33 per cent having medium level knowledge. However, 71.67 per cent of the respondents having very low level of knowledge. The findings were nearer to the finding by the workers Naik *et al*, 2018; Bhole and Borkar, 2002; Bhole *et al*, 2001; Borkar *et al*, 2000; Chettergee *et al*, 2009; Prasadreddy, 2007; Sarthak and Prabuddharay, 2010.

#### Constraints faced by organic growers

The respondents were asked to show the problem or constraints for management of organic cultivation. On the basis of frequency and percentage were ranked and assign as for interpretation.

Table 6 : Constraints faced by organic growers

(n=120)

Sr. No.	Constraints	Frequency	Percentage	Rank
<b>A Technical</b>				
1	Lack of technical information and recommendation on organic farming	29	24.17	15 <sup>th</sup>
2	Inadequate and untimely supply of organic agricultural inputs	42	35.00	10 <sup>th</sup>
3	Distance between producer and market or delivery point	33	27.50	13 <sup>th</sup>
4	Poor contact or extension workers with farmers	42	35.00	11 <sup>th</sup>
5	Lack of market facility for organic produced commodity	81	67.50	4 <sup>th</sup>
6	Lack of publication on proven organic farming practices	33	27.50	14 <sup>th</sup>
7	It is difficult to manage pest & insect damage	42	35.00	9 <sup>th</sup>
8	Lack of trust regarding organic farming practices	59	49.17	6 <sup>th</sup>
9	Risk in adoption of new technology	59	49.17	7 <sup>th</sup>
10	Lack of crop specific scientific recommendations	42	35.00	8 <sup>th</sup>
11	Slow result of bio-products	37	30.83	12 <sup>th</sup>
<b>B Institutional</b>				
1	No Govt. subsidies for organic farming	87	72.50	1 <sup>st</sup>
2	Lack of premium price on organic product	87	72.50	2 <sup>nd</sup>
3	Lack of awareness	29	24.17	17 <sup>th</sup>
4	Lack of technical guidance	17	14.17	19 <sup>th</sup>
5	Less exposure of training	17	14.17	18 <sup>th</sup>
6	Lack of special administrative setup to promote organic farming	75	62.50	5 <sup>th</sup>
7	Lack of awareness regarding price and availability of organic food in people	12	10.00	20 <sup>th</sup>
8	Lack of marketing network for organic products	01	00.83	29 <sup>th</sup>
9	There is no special incentive or awards for adopters of organic farming practices	81	67.50	3 <sup>rd</sup>
<b>C Economic</b>				
1	Time consuming and tedious work for organic production	02	01.67	28 <sup>th</sup>
2	High labour requirement	03	02.50	27 <sup>th</sup>
<b>D Situational</b>				
1	Small holding	12	10.00	21 <sup>st</sup>
2	Fragmented holding	12	10.00	22 <sup>nd</sup>
3	Inadequate transport facility	04	3.33	26 <sup>th</sup>
<b>E Social</b>				
1	Problem of human labour in preparation	12	10.00	23 <sup>rd</sup>
2	Preferring adoption of traditional agricultural practices	10	08.33	24 <sup>th</sup>
3	Controversy among family members regarding organic farming	29	24.17	15 <sup>th</sup>

The respondents mentioned some problem in adoption of organic cultivation. The problems suggested by majority of organic growers : No Govt. subsidies for organic farming 72.5per cent (Rank-1st), Lack of premium price on organic product 72.5per cent (Rank-2nd), There is no special incentive or awards for adopters of organic farming practices 67.5per cent (Rank-3rd), Lack of market facility for organic produced commodity 67.5per cent (Rank-4th), Lack of special administrative setup to promote organic farming 62.5per cent (Rank-5th), Lack of trust regarding organic farming practices 49.17per cent (Rank-6th), Risk in adoption of new technology 49.17per cent (Rank-7th), Lack of crop specific scientific recommendations 35per cent (Rank-8th), It is difficult to manage pest & insect damage

35per cent (Rank-9th), Inadequate and untimely supply of organic agricultural inputs 35per cent (Rank-10th), Poor contact or extension workers with farmers 35per cent (Rank-11th), Slow result of bio-products 30.83per cent (Rank-12th), Distance between producer and market or delivery point 27.5per cent (Rank-13th), Lack of publication on proven organic farming practices 27.5per cent (Rank-14th), Lack of technical information and recommendation on organic farming 24.17per cent (Rank-15th), Controversy among family members regarding organic farming 24.17per cent (Rank-16th), Lack of awareness 24.17per cent (Rank-17th), Less exposure of training 14.17per cent (Rank-18th), Lack of technical guidance 14.17per cent (Rank-19th), Lack of awareness regarding price and availability of organic food

in people 10per cent (Rank-20th), Small holding 10per cent (Rank-21st), Fragmented holding 10per cent (Rank-22nd), Problem of human labour in preparation 10per cent (Rank-23rd), Preferring adoption of traditional agricultural practices 8.33per cent (Rank-24th), Inadequate transport facility 3.33 per cent (Rank-26th), High labour requirement 2.5per cent (Rank-27th), Time consuming and tedious work for organic production 1.67per cent (Rank-28th), Lack of marketing

network for organic products 0.83 per cent (Rank-29th).

**Suggestions from organic growers to overcome the constraints faced by them in adoption of organic growing**

The respondents were asked to give suggestion to overcome the constraints and minimize the problem for adaptation of organic farming.

**Table 7 : Suggestions from organic growers to overcome the constraints faced by them** (n=120)

Sr. No.	Suggestions	Frequency	Percentage	Rank
1	Government should give subsidies to increase area of organic farming	108	90.00	I
2	Premium price for organic product should be fixed by government	98	81.67	II
3	Establishment of market facility specially for organic produce with good support price	73	60.83	III
4	Research should be done on organic farming for minimize the cost of cultivation	61	50.83	IV
5	Technical information should be provide to the farmers	46	38.33	V
6	Literature should be print and distribute among farmers	35	29.17	VI
7	Mass media communication should be used for fast transfer of newer technology among organic farming	32	26.67	VII
8	Awareness campaign should be done for organic producer and consumers	13	10.83	VIII
9	Organic mall should be kept with the facility of online purchasing for wider market of organic products at premium price	07	05.83	IX

Suggestions from organic growers to overcome the constraints faced by them in adoption of organic growing different suggestion were given by different farmers and it were ranked as Government should give subsidies to increase area of organic farming 90 per cent (Rank-I), Premium price for organic product should be fixed by government 81.67 per cent (Rank-II), Establishment of market facility specially for organic produce with good support price 60.83 per cent (Rank-III), Research should be done on organic farming for minimize the cost of cultivation 50.83 per cent (Rank-IV), Technical information should be provide to the farmers 38.33 per cent (Rank-V), Literature should be print and distribute among farmers 29.167 per cent (Rank-VI), Mass media communication should be used for fast transfer of newer technology among organic farming 26.67 per cent (Rank-VII), Awareness campaign should be done for organic producer and consumers 10.83 per cent (Rank-VIII), Organic mall should be kept with the facility of online purchasing for wider market of organic products at premium price 5.83 per cent (Rank-IX). Similar work also carried out Middendorf (2007) which support the present investigation were

**CONCLUSION**

It can conclude that the organic growers were medium in extension as well as social participation. They usage Krishi Vigyan Kendra as a knowledge hub for the source of information as well as mass media exposure. The knowledge level of farmers was very poor in green manures, crop residues, bio fertilizer usages, and cultural methods for organic farming.

Government subsidy, premium price, lack of marketing facility, technical guideline are major constraints in organic farming. To overcome the constraints faced by farmers were subsidy, market facility with premium price, proper knowledge transfer by research and aware them about organic farming.

**IMPLICATION**

Government should setup special market facility for organic produce, and give special support to enhance organic cultivation.

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#### CONFLICT OF INTEREST

There is no conflict between author.

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