

# Information Needs of Organic Crop Farmers in Ekiti State of Nigeria

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## ABSTRACT

*This study examines the areas of information needs of organic farmers in Ekiti State, so as to promote the practice given its numerous benefits to human beings and preservation of the environment. Organic Agriculture is a farm production management system whose activities and practices favour ecosystem balance and sanity, biodiversity, biological cycles, soil biological activities, as well as eliminating food poisoning; all of which are promoted by the conventional practices of intensive agro-chemical use and other off-farm inputs. One hundred and twenty (120) registered organic farmer of Justice, Development and Peace Commission of the Ekiti State Catholic Diocese were selected by simple random sampling from 2 of the 16 Local Government Areas in the State (Ido/Osi and Oye). It is revealed that majority of the respondents were young, physically and economically active. Majority of the respondents are educated to tertiary level. Radio is their main source of information with a weighted score of 119 while manure application is the organic farming method mostly involved in the practice with a weighted score of 200, and the most important areas of information needs is the organic product price with a weighted score of 170.8. Consequently, a significant relationship is established between involvement and areas of information needs using PPMC to test the formulated hypothesis. It is, therefore, recommended that radio programme on Agriculture should be richly encoded with indicated areas of information needs of the organic farmers to improve their expertise and the advantages derivable there-in.*

**Keywords:** *Information needs, Organic crop farming;*

## INTRODUCTION

Organic farming is the application of scientific techniques, which are in harmony with nature, to achieve good crops yields without harming the environment or the people who live and work on it. It sees many of the farming methods used in the past as being useful today. It takes the best of these methods and integrates them with modern scientific knowledge to optimize agricultural production with the maintenance of a balance between nature and farming. The indigenous methods thus become an old wine, rebranded scientifically to make a better wine today. HDRA Organic Organization (1998) summarizes organic farming methods and materials as:

1. To keep and build good soil structure and fertility by recycling and composting crop wastes and animal manures,
  - Application of right soil cultivation method at the right time,
  - Use of crop rotation method,

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- Application of green manures and legumes, and
  - Mulching on the soil surfaces.
2. To control pests, disease and weeds through,
- Careful planning and crop choice,
  - The use of resistant crops,
  - Good cultivation practices,
  - Crop rotation,
  - Encouraging useful predators that eat pest,
  - Increasing genetic diversity, and
  - Using natural pesticides.
3. Other methods are:
- Careful use of water resources, and
  - Good animal husbandry.

Organic farming provides long-term benefits to people and the environment such as: increase long term soil fertility, controls pests and disease without harming the environment, ensures that water stays clean and safe, uses the resources which the farmers already have, so the farmers need less money to buy farm inputs and production of nutritious foods, feed for animals and high quality crops to sell at good prices. In Nigeria, with the urge for increase agricultural production and productivity, to meet the need of the ever rising population of the country, the use of inorganic fertilizers (with heavy concentration of nutrients), chemical herbicides and pesticides were promoted in the 80s by agencies involved in Agricultural development. After a while, with keen empirical observations, especially the modern intensive agriculture (although it has its advantage of large scale production), some of the chemical materials (pesticides, herbicides and even inorganic fertilizer) have been found to cause many of the problems including the following:

- i Artificial fertilizers and herbicides are easily wasted from the soil and pollute rivers, lakes and water courses,
- ii The prolonged use of artificial fertilizers results in soil with a low organic matter content which is easily eroded by wind and rain,
- iii Over dependency on fertilizers which require greater amount of money to be spent year in year-out to produce the same yield of crops,
- iv Artificial pesticides can stay in the soil for a long time and enter the food chain where they build up in the bodies of animals and humans, causing health problems,
- v Artificial chemical destroys soil micro-organisms resulting in poor soil structure and aeration and decreasing nutrient availability,
- vi Pests and diseases become more difficult to control as they become resistant to artificial pesticides,
- vii Pesticides also kill and reduce the number of pests' natural enemies.

Lever (1990) opines that in addition to use of tractors, ploughs and other implements, herbicides and other agro-chemicals have become an integral part of the complex world of technical inputs required for modern agricultural production and are accepted as a standard tool of the trade by farmers throughout the world.

Explaining further, Avav and Oluwatayo (2006) assert that the conventional methods of raising farm productivity since the World War II has centered on employing the use of externally acquired inputs like inorganic fertilizers and protection chemicals among others. In fact, one of the major government interventions in developing agriculture is subsidy and incentives on fertilizer and agro-chemicals. This could be seen as an emergency measure of meeting the immediate needs of feeding her teeming and ever growing population, as well as probably have excess for exportation. Miller (2002) finds that in addition to agricultural diversification and yield optimization, synthetic chemical weed control has formed an integral part of the policies of many governments world over. However, literature is in favour of environmental and soil fertility sustaining practices. Most of these findings discourage the use of these synthetic or inorganic agro-chemicals.

Miller (2002) goes further that with the benefits of herbicides control, ranking high negatives effect on the environment and human health mainly by lack of knowledge regarding safety parameters on the part of users has made herbicides use in agriculture one of today's most controversial issues. Kughur (2012) asserts that although agricultural chemicals have significantly increased crop yield in the short term by limiting damage for pests competition for water and nutrients from weeds and by providing large amount of nutrients in a form that is easily available to plants; in the long-run these processes can lead to serious depletion of soils because the natural processes of soils converting organic matter and the balance of micro-organisms in the soils have been disrupted. There is, therefore, an ardent need for a better alternative farming system which would be sustaining. Miller (2004) advocates the use of biological pest control (such as pheromones and microbial pesticides) genetic engineering and methods of interfering with insect breeding as alternative to the use of synthetic chemicals for farming.

Kellogg, Nehring, Grube, Gross and Plotkins (2002) recommend that not using the chemicals results in higher soil quality with the additional effect that more organic matter in the soil allows for higher water retention. This helps increase yield from farms in drought years when organic farms have had yields 20-40% higher than their conventional system of intensive chemical use. Hence, these underscore the importance of organic farming. Suffice it to give the empowerment of the organic farmers, in terms of information requirement, an adequate attention. This study is to ascertain the personal characteristics of the organic farmers; their source of information about the practice, their extent of involvement as well as the important areas of information needs by them. The study therefore formulates a comprehensive research hypothesis in a null form to guide the study, thus, there is no significant relationship between respondents' involvement in organic agricultural practice and their areas of information needs in the practice.

## METHOD

Ekiti State is situated entirely within the tropics. It lies South of Kwara and Kogi States; East of Osun State and bounded by Ondo State in the East and in the South. It has 16 Local government Areas (LGAs) highly homogeneous where only one local dialect cut

across board. It has a population of 2,398,957 (NPC 2006). It enjoys tropical climate with two distinct seasons (rainy and dry seasons). Also, it is endowed with water resources with the higher number of farming population. Two out of the 16 Local government Areas were randomly selected. These 2 Local government Areas are Ido/Osi and Oye local government areas. The study focused on respondents who had benefited from sensitization on organic agricultural businesses in the State through Justice, Development and Peace Commission (JDPC) of the Ekiti State Catholic Diocese. Sixty registered organic farmers were selected, using simple random sampling from their records, from each of the two LGAs. These make a total of 120 farmers/respondents. Data were collected from the primary source with the aid of interview guide. The data collected were analyzed using descriptive statistics such as frequencies and simple percentage; while inferential statistics of Pearson Product Moment Correlation (PPMC) was used to test the relationship between the variables in the stated hypothesis of this study.

## RESULTS AND DISCUSSION

The results on table 1 show that majority of the respondent were between 31 and 41 years of age, 29% were of 42-52 years old. And just a very few of them were above 63 years of age. Their mean age was 24, this indicates that the farmers are still active physically and economically; and will have remarkable urge for innovations. This is in agreement with Nkamleu and Manyong (2005) who assert that younger persons are usually more willing to adopt new practices. It also reveals from the results that majority of the farmers are male; while only 30% of them are female. This may be borne out of the fact that organic agriculture is labour intensive. It is also evident from the findings that majority of the farmers were married while 10% of them were single and 5% of them are widowed. This finding is in consonance with the observations of Meludu and Yekinni (2012), who see marriage as being important in the process of adoption of agricultural innovations. An appreciable proportion of the respondents are educated to tertiary level, while minority of them had no form of formal education (table 1).

Organic agriculture as an innovative practice could be said to have been embraced probably based on Manyong *et al* (2005) observation that the propensity to take new technologies increase with education attainment. Majority of the respondents have between 11 and 15 years farming experience. This is understandable as majority of the respondents are relatively young as previously reported. Access to information to farmers about organic farming was encapsulated on table 2. The analysis of the collated data shows that the respondents access information mostly through radio, professional colleagues, family and friends as well as television as indicated by the weighted scores of 119, 81, 59, and 58 respectively. Hence, radio source is very germane to the respondent's information accessibility to organic farming. Professional colleagues, family and friends, as well as television are also significant sources of information, in descending order, to the respondents. This is a slight departure from the findings of Meludu and Yekinni (2012). The extent of involvement in the use of organic farming practices are presented on table 3. It shows that majority (weighted score of 200) practise manure application, followed by mulching (195)

and management system (194) among others; while minority of them (50) indicate tillage as one of the organic farming practice they apply. As shown on table 4, the most important area of information need by the respondents is organic product price as indicated by the weighted score of 170.8; and next to it is on skill acquisition (168.4); while the least area of information requirement by the respondents is on non agriculture (marketing). Frantic effort was made to see if there is a relationship between respondents' involvement and areas for further information requirements in organic agriculture, since the practice is relatively new. The result of the Pearson Product Moment Correlation (PPMC) analysis on table 5 reveals that the relationship between respondents involvement in organic farming has actually significantly affected their involvement and shows the important areas of information needs to further enhance the respondents in organic agriculture, as could be inferred with the p-value of 0.017 and r-value of 0.148 at 0.05 level of significance.

**Table 1:** Demographic Characteristics of the Respondents

S/N	Variables	Frequency	Percentage (%)	
1	<b>Age (in years)</b>	18-30	12	10
		31-41	54	45
		42-52	35	29
		53-63	14	12
		Above 63	5	4
2	<b>Sex</b>	Male	84	70
		Female	36	30
3	<b>Religion</b>	Islam	36	30
		Christianity	84	70
		Traditional	Nil	Nil
4	<b>Marital status</b>	Married	102	85
		single	12	10
		divorced	nil	nil
		widowed	6	5
5	<b>Years of formal education</b>	Incomplete primary		
		Complete primary	33	18
		Incomplete secondary	36	30
		Complete secondary	50	42
		Tertiary education	12	10
		No formal education		
6	<b>Years of farming experience</b>	Below 5 years	1	1
		5-10 years	12	10
		11-16 years	66	55
		17-22 years	29	24
		23-28 years	8	7
		29-34	2	2
		35 and Above	2	1

**Source:** Field survey, 2014

**Table 2:** Distribution of respondents by sources of information

Sources of information	To a great extent		To a lesser extent		Not at all		Weighed score
	freq.	%	freq.	%	freq.	%	
Professional colleagues	42	35		11	24	20	81
Family & Friends	30	25	11	9	12	10	59
Neighbours	6	5	18	15	84	70	25
Radio	61	51	2	17	26	22	119
Television	31	26	7	6	48	40	58
Workshops	4	3	14	12	81	68	18
Trainings	12	10	10	8	71	66	28

**Source:** Field survey, 2014

**Table 3:** Distribution of Respondents according to extent of involvement in Organic farming practices

S/N	Organic Farming practices	Organic farming Activities	Frequency of use			Weighted score
			Always	Occasionally	Not at all	
1	Planting of cover and leguminous and increase soil nutrients	Planting of melon	68	55	14	160
Planting of groundnut		(57)	(46)	(12)		
Planting of potatoes						
Planting of cowpea						
Planting of pumpkin						
2	Mulching to control leaching of soil nutrients, weeds and protect soil moisture	Use of -polythene	84	66	25	195
-Dried plant materials		(70)	(55)	(21)		
-Others						
3	Use of plant residues to supply nutrients into the soil.	Use of	60	84	54	170
-Decay cleaned weeds		(50)	(70)	(45)		
-maize cobs/stocks						
-dried cassava leaves						
-cocoa pod residues						
4	Crop rotation	-To replace lost nutrients	26	96	60	124
-controlling of pests and diseases infestations		(22)	(80)	(50)		
-others						
5	Bush fallowing	-To allow soil to regain lost nutrients	19	31	72	58
-To reduce pests infestations		(16)	(26)	(60)		
-others						
6	Weeds management system	-Biological methods (use of plant extracts to control weeds)	92	60	4	194
(77)		(50)	(3)			
-Cultural methods (planting of cover crops)						
-Mechanical methods (uswe of hoes, cutlasses or machine)						
-Others						
7	Pests management system	-cultural pests control (crop rotation, mixed cropping)	48	60	12	130
(40)		(50)	(10)			
-Biological control (use of plant extract, insect predating insect e.g praying manthis						

8	Shifting cultivation	-To control pests and diseases -To allow soil regain its lost fertility -Others	18 (15)	30 (25)	96 (80)	55
9	Manure application	-compost -green manure -animal manure (like poultry waste, goat, sheep dung, cow dung, swiredung)	108 (90)	24 (20)	2 (2)	200
10	Cropping system	-mixed cropping/ intercropping -alley cropping.	96 (80)	24 (20)	8 (7)	180
11	Organic waste	-use of off-farm organic wastes	24 (20)	48 (40)	72 (60)	80
12	Tillage	Practice of minimum or zero tillage	6(5)	48(40)	96(80)	50

Multiple Response

**Source:** (Adapted from Meludu and Yekinni, 2012) Field survey, 2014.

**Table 4:** Distribution of Respondents according to areas of information needs on organic Agriculture

Information items	To a lesser extent	To a greater extent	Not at all	Weighted score importance
Organic Agric techniques	62(52.0)	25(20.5)	35(29.5)	93.0
Organic product price	25(20.8)	90(75)	5(4.2)	170.8
Other Agric marketing	40(33.3)	60(50)	20(16.7)	133.3
Health information	20(16.7)	80(66.7)	105(87.5)	150.1
Non-Agric marketing	10(8.3)	5(4.2)	75(62.5)	16.7
Weather information	15(12.5)	20(16.7)	35(29.2)	45.9
Food nutrition	45(37.5)	40(33.3)	35(29.2)	104.1
Community development	35(29.2)	50(41.7)	10(8.3)	112.6
Education	35(29.2)	75(62.5)	100(83.3)	154.2
Politics	14(11.7)	6(5)	95(79.2)	21.1
Religion	15(12.5)	10(8.3)	10(8.3)	29.1
Skill acquisition	18(15)	92(76.7)	10(8.3)	168.4

**Source:** Field survey 2014.

**Table 5:** PPMC for test of relationship between involvements and information needs of respondents in organic Agriculture

Variables	r - value	p - value
Involvement in organic-Agriculture	0.148	0.017

### Areas of information needs in the practice

\*Correlation is significant at 0.05 level (2- tailed)

## CONCLUSION AND RECOMMENDATIONS

The interests of young farmers, coupled with their relatively high level of education are substantial pointers to real entrenchment of the farming practice with its inherent benefits.

Radio programme on agriculture should be richly encoded with indicated areas of information needs of the organic farmers to improve their expertise and the advantages derivable there-in. Therefore, the following recommendations are pertinent:

1. Efforts should be tailored towards facilitating financial assistance to the farmers because the practice is cost intensive;
2. The organic agricultural promotion organization should emphasize relatively permanent land acquisition methods by the practitioners due to the nature of the activities;
3. There must be conscious efforts at promoting opinions and perceptions of organic agriculture to the larger society in order to ensure its acceptability by the people and increased profitability to the farmers, and
4. Concerted efforts should be made towards the design and utilization of relevant machines, equipment and implement to reduce the drudgery and labour intensity of the organic agricultural practice/activities.

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