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Small–Scale Farmers Perception on Organic Farming Status in Ondo State, Nigeria

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Abstract: The study examined farmers' perception about organic farming status in Ondo State, Nigeria with a view of expanding their knowledge on organic practices. This study adopted a random sampling technique to select one hundred and twelve respondents. Descriptive statistic like frequencies, percentage and mean were used to present study findings. Pearson product moment correlation coefficient (PPMC) was used to analyse the hypothesis where p<05 determined significance. Data indicated that out of the four communities visited Ipinsa community responded very with 37.0 percent above others. Also findings revealed that majority of the respondents were male (71.4 percent) with mean age of 41 years while majority of the respondents were primary school certificate holder. Majority of the farmers had favourable perception towards organic farming in the study area only that most farmers were yet to adopt the organic system of farming. Majority of the respondents (60.7 percent) were of the opinion that organic farming was not of benefit to them. Findings the study showed that majority of the respondents practiced integrated organic farming with 76.7 percent while only 23.3 percent of the farmers practiced pure organic farming. The study recommended that women and youths should be encouraged to be actively involved when providing training on organic farming in the study area.

Keywords: Perception, Small-Scale, Farmers, Organic Farming, Nigeria

1. Introduction

There's no soil on Earth that lacks the nutrients to grow a plant, the concept that your soil is deficient and needs added phosphorus or nitrogen etc. in order to grow plants is seriously flawed, and largely orchestrated by the chemical companies, because it's based on looking at the soluble, inorganic nutrients that are partly present in your soil [1]. The National Organic Standard Board (NOSB) has defined organic agriculture as 'an ecological production management system that promotes and enhances biodiversity. It is based on minimal use of off-farm inputs and on-farm management practices that restore, maintain and enhance ecological harmony [2]. Fertilizers and plant protection chemicals have a short –term effect on productivity but a long term negative effect on the environment where they remain for years after leaching and running off, contaminating ground water and water bodies. The use of fertilizers and pesticides has led to enormous levels of chemical build up in our environment-soil, water, air, animals and even in our bodies.

[3] Reported that the pathogenic effects of pesticides exposure are manifested in different ways. Highly toxic cumulative pesticides can cause acute or chronic poisoning, alter immune responses and induce allergic reactions. [4] reported that the liver and the central nervous system are most significantly affected by heptachlor, although effects can also be seen in the reproductive, immune and renal system. The unsustainability of modern agricultural practices have led farming communities the world over to look for alternatives. The majority of these alternatives indicate a return to traditional, eco-friendly practices; organic farming is one among them. Organic farming over the last few decades has proved to be successful; but the differences in culture, ecology and geographical factors necessitate adoption of situation-specific principles and techniques [5]. Organic farming works in harmony with nature rather than in conflict with natural systems. It adopts an approach that minimizes the use of non-renewable forms of energy. Organic farming may be a low 'external' input system, but, more importantly, it is also an optimum 'internal' input

system. It may not be the most efficient in terms of output per acre per man, but it is certainly the most efficient in terms of output per unit of input. In a finite world such as we have, this is important. This involves using techniques to achieve good crop yields without harming the natural environment or the people who live and work in it [5].

In an attempt to promote organic agriculture and ensure the production of agricultural goods at a sustainable level, the second national conference on organic agriculture was held in Nigeria, under the auspices of the International Federation of Organic Agricultural Movement (IFOAM), where the participants were charged with the responsibilities of developing organic agriculture in Nigeria [6].

1.1. Problem Statement

The side-effects of the modern agricultural chemicals and machines raise serious questions about the overall benefits of the new technology. Chemical fertilisers and pesticides pollute our air and water. Agricultural chemicals, including hormones and antibiotics leave residue in food that may cause cancer or genetic damage. Soil and energy resources are being depleted. Instead of recycling our wastes back onto land as fertiliser, we allow them to pollute our water. We use non-renewable energy resources to produce artificial fertiliser. In the future we may be forced to make radical adjustments on such agricultural practices [7]. Despite the global awareness of environmental degradation and climatic change that could result from continuous practice of inorganic farming, and the threats it poses on sustainable agricultural production, the farmers in Ondo State are still very much in a system of producing using inorganic materials [6]. It is based on this foregoing that the study was designed to answer the following research questions.

a. What are the socio-economic characteristics of the farmers in the study area?

b. What are the perceptions of farmers about organic farming in the study area?

c. What are the constraints being faced by farmers on organic farming?

1.2. Objectives of the Study

The main objective was to examine the Perception of small holder farmers on organic farming status in Akure South L.G.A of Ondo State, while the specific objectives were to:

(i) ascertain the socio-economic characteristics of farmers in Akure South L.G.A.

(ii) determine the perception of farmers on utilization of materials for farming.

(iii) identify the constraints to organic farming in Akure South L.G.A.

1.3. Hypothesis of the Study

Ho_1: There is no significant relationship between the farmers' socio-economic characteristics and Perception of farmers organic on agriculture

2. Methodology

The study was carried out in Akure South Local Government Area, Ondo State of Nigeria, due to its well-known agricultural activities. The state is located at latitude 7° 40'N and longitude 5°15'E and is mainly an upland zone (above 250 meters above sea level). The area is underlain by metamorphic rocks and has a generally undulating land surface.

Due to the number of farmers, this study adopted a random sampling technique. One local government area was randomly selected from the state which was Akure south local government area (L.G.A). From the Communities in the local government, Eight (8) communities were randomly selected. Each community was divided to three (3) wards out of which two wards were selected; seven (7) respondents were randomly selected from each ward and interviewed. Thus, making a total of one hundred and twelve (112) respondents. The study made use of primary data collected through a well-structured questionnaire containing both close and open ended questions. The validity of the data collection instrument was done by giving the instrument to experts in the field for both face and content validity. Descriptive statistics such as frequency, percentages and means were used to present study findings.

3. Result and Discussion

3.1. Socio-economic Characteristics of Farmers

Findings from the study showed that farmers at Ipinsa responded well to the interview with 33.0 percent compared to those in Ibule with 17.0 percent. This implies that the farmers at Ipinsa will adopt organic farming if they are encouraged and taught how to make manure. Table 1 showed that both men and women were involved in organic farming production but men (71.4 percent) were actively involved than the female (28.6 percent) counterparts in the study area as was also found by [8] and [9].

This also implies that farmers are predominantly males due to many factors like differences in strength, woman likes gossiping, while the females support the farming, this is in line. In the observed communities it was noticed that females are usually engaged in post harvesting operations such as transportation, processing and marketing of agricultural produce.

The mean age of the respondents was 41 years; majority of the respondents fell within the age grade of 31-40years (40.2 percent), 34.8 percent in the age range of 41- 50 years while 10.7 percent were in the range of 21-30 years. These imply that young people are not actively involved in agriculture and the aged are too weak to practice farming. At this stage, farmers will be more responsive to organic farming production improvement programmes in the study area, if they are given necessary information and support.

Table 1 indicated that majority of the respondents (65.2percent) of farmers completed primary school education while 26.8 percent completed secondary school, and 8.0

percent of the respondents completed tertiary school. Education has been shown to be a factor in the adoption of modern farm practices; educated farmers are usually innovators, they adopted a new technology related to organic farming faster than non-literate farmers. Education has also been reported as a significant factor affecting consumer attitudes towards organic food products. People with higher education are more likely to express positive attitudes towards organic products [10].

According to findings in Table 1 the household mean was 5 with the majority having 5-8 household members (48.2 percent) which is closely followed by household size with 1-4 members (42.9 percent). This implies that more family labour for farming production would be readily available since relatively large house hold size is an obvious advantage in terms of farm labour supply.

Findings from the Table indicated that majority of the farmers grew plantain (35.6 percent) while 25.4 percent grew banana. This implies that if the farmers are stimulated they will practice organic farming to increase their output of plantain, banana and other plant grown.

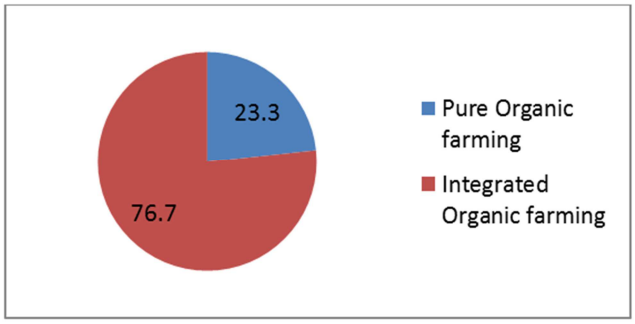
Table 1. *Percentage distribution of respondents according to socio-economic characteristics n=112.*

Characteristics	Category	Frequency	Percentage (%)	Mean (x)
Respondents community	Ipinsa	37	33.0	
	Ilara Mokin	31	27.7	
	Aba Oyo	25	22.3	
	Ibule	19	17.0	
Sex	Male	80	71.4	
	Female	32	28.6	
Age (years)	21-30	12	10.7	
	31-40	45	40.2	
	41-50	39	10.7	41
	51-60	7	6.3	
	60 and above	9	8.0	
Level of education	Primary	73	65.2	
	Secondary	30	26.8	
	Tertiary	9	8.0	
Household size	1-4	48	42.9	
	5-8	54	48.2	
	9 and above	10	8.9	5
Crops grown	Plantain	21	35.6	
	Banana	15	25.4	
	Cassava	9	15.3	
	Others	14	23.7	

Source: Field survey, 2015

3.2. Type of Organic Farming Practised

Findings from Figure 1 showed that majority of the respondents practiced integrated organic farming with 76.7 percent while only 23.3 percent of the farmers practiced pure organic farming.

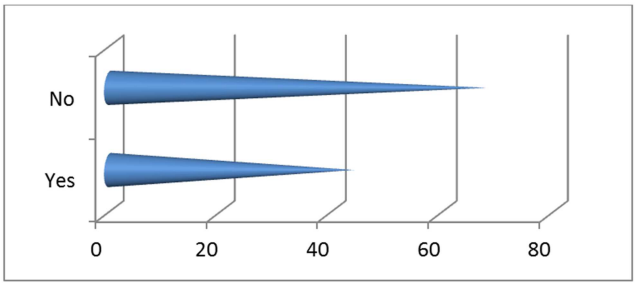


Source: Field survey, 2015

Figure 1. *Type of Organic Farming Practiced by Respondents.*

3.3. Benefits of Organic Farming

Minority of the farmers (Figure 2) were of the opinion that organic farming is beneficial with 39.0 percent, while majority with 60.7 percent were of the opinion that it was not beneficial this is because they were not concerned about the income gotten from it, but considered the health and environmental benefit and most importantly that it did not improve their standard of living. They were also of the opinion that organic food causes purging for them especially in vegetables.



Source; Field survey, 2015

Figure 2. *Benefit of Organic Farming to Respondents.*

3.4. Perception About Organic Farming

Table 2 indicated the perception on organic farming which was assessed by asking the respondents in their local language to indicate their opinion on 20 positive and negative perception statements. Their responses were recorded on a five-point Likert scale of SA (Strongly Agreed), A (Agreed), U (Undecided), D (Disagreed), SD (Strongly Disagreed), which were 5, 4, 3, 2, and 1, respectively. The general mean score obtained from the survey conducted is 2.4 which indicated that majority of the farmers in the study area were undecided about the perception of organic farming.

This supports the findings of [8] that farmers, in general, had a positive perception of organic produce. Also, [11] observed that the attitude of farmers towards organic agriculture was positive. The implication of this finding is that farmers in the study areas will adopt organic farming if farmers are encouraged and motivated through adequate training on how to produce and use organic manure to produce a reasonable output.

Table 2. *Perception Statements.*

N	Factor Statements	SA F (%)	A F (%)	U F (%)	D F (%)	SD F (%)	Mean Score	Remark
1	Improving crop production using organic agriculture is the best thing to do	1	10	92	7	2	2.99	Undecided
2	The life of organic farming has enhanced my sources of livelihood	10	10	10	2	80	4.81	strongly disagree
3	Organic agric is expensive	20	15	20	5	52	3.48	Disagree
4	Production of organic reduce unnecessary erosion on farmland	20	6	1	5	80	4.06	strongly disagree
5	Organic agric is environmentally friendly	14	73	5	10	10	2.37	Disagree
6	Organic foods are completely safe to eat	10	3	6	91	2	3.64	Disagree
7	organic ingredient improve the nutritional quality of food	1	10	92	7	2	2.99	Undecided
8	Organic food are useful to prevent diseases	15	23	61	10	3	2.67	Undecided
9	Introducing organic into livestock gene pool will improve the quality of life of animals	10	89	4	4	5	2.15	Agree
10	Animals will benefit from organic farming	11	80	1	5	15	2.38	Agree
11	I see no risk in the consumption of organic food	70	9	87	24	1	2.79	Undecided
12	Organic will harm society more than help	95	8	2	4	3	1.32	strongly agree
13	It will use lesser amount of pesticide	90	14	4	2	2	1.32	strongly agree
14	I will live longer if i eat organic foods	102	4	1	2	3	1.21	strongly agree
15	Foods contain fewer carbon and more protein if they contain organic ingredient	99	3	3	4	3	1.29	strongly agree
16	It helps to improve source of farm income	3	6	2	2	99	1.18	strongly disagree
17	Organic threatens natural order of things	100	5	4	1	2	1.19	strongly agree
18	It takes more chemical to raise organic crops	10	6	4	10	80	4.31	strongly disagree
19	The balance of organism has been upset by the use of organic production	100	2	3	2	5	1.30	strongly agree
20	Organic has lower cost therefore it is okay	107	3	7	1	1	1.21	strongly agree

Source; Field survey, 2015

4. Constraints

The results in Table 3 revealed that majority 83.9 percent of respondents had severe constraints and 4.5pecent little constraints that require more time and energy. In addition 8.0 percent had severe constraints and 82.2 percent of little constraints respondent that said it was expensive produce organic crop. 81.2 percent of severe respondents and 4.5percent or respondents little constraints find it very hard to get information on how and when to produce are gotten from the agencies. This implies that major organic fertilizer was not difficult to obtain. The farmers claim to have had little difficulty in obtaining organic fertilizer, as they would have to travel as long as 20-30kms to purchase it. Also, farmers had 75.9% severe difficulty and 16.1 little constraints in processing organic fertilizers.

Table 3. *Constraints statements.*

No	To what extent are you affected by the following constraints?	Severe constraints F (%)	Moderate constraints F (%)	Little constraints F (%)	MEAN SCORES
1	Obtaining organic fertilizer, as we have to travel as long as 20-30kms to purchase it	7(6.3)	11(9.8)	94(83.9)	2.78
2	It is very expensive to produce organic crop	9(8)	11(9.8)	92(82.2)	2.74
3	It requires more time and energy	94(83.9)	12(10.7)	5(4.5)	2.02
4	Lack of adequate materials for organic matter decomposition	14(12.5)	82(73.2)	16(14.3)	1.40
5	The process of producing organic fertilizer is complex and tedious	85(75.9)	9(8.0)	18(16.1)	1.32
6	Inadequate labour for the world	85(75.9)	9(8.0)	18(16.1)	1.23
7	It is very hard to get information on how and when to produce from the agencies	91(81.3)	16(14.3)	5(4.5)	1.20

Source; Field survey, 2015

Testing of hypotheses

Hypothesis (Ho_1): There is no significant association between farmer's socioeconomic characteristic and their perception on organic farming

In the table below it was hypothesized that there is no significant association between gender of respondents, educational level, major occupation and the perception score of the respondents. The correlation results revealed that level of education of the respondents had negative but weak correlations at $p \leq 0.05$ with farmers' perception score with Correlation values of 0.020.

Table 4. *Correlation between Perception Score of Respondents and Socio-economic Characteristics of Respondents Using Organic Farming.*

Socio-economics	P-Value	R-value	Decision
Gender	0.288	0.127	Not significant
Education	-0.146	0.020	Significant
Occupation	-0.42	0.662	Not significant

*Significance level, P<0.05
NS = Not Significant
S = Significant

5. Conclusion

Based on the findings of this study, it can be concluded that the farmers were mostly men and married. Put more positively, majority of the respondents' had favourable perception towards organic farming in the study area only that most farmers are yet to adopt the organic system of farming. Many of the respondents opined that processing of organic fertilizers is complex and tedious, it requires more time and energy to obtain organic fertilizer and that they have to travel as long as 20-30kms to purchase it.

Recommendations

Based on the conclusion of this study, the following recommendations were made:

a. Women and youths should be encouraged to be actively involved when providing training on organic farming in the study area.
b. Farmers should form their self into cooperatives which will make it easier for them to get loans and other input facilities at cheaper prices.
c. Farmers should also be encouraged by government and non - governmental organization to realize that health is wealth. Organic foods are healthy and contain nutrients that are useful for the body.
d. Farmers should be motivated through credit facilities and series of training on technical know-how of organic farming in order to ensure sustainable production of food, since the farmers have favourable perception towards organic farming.

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