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FARMERS PERCEPTION OF ORGANIC VEGETABLE FARMING IN AKINYELE LOCAL GOVERNMENT AREA OF OYO STATE

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ABSTRACT

Organic farming is a production system that sustains the health of the soils, ecosystems and people. This study assessed the small-scale farmers' perception of organic-based vegetable production in Akinyele Local Government Area of Oyo State, Nigeria. A multi-stage sampling procedure was used in the selection of 120 respondents for the study. Primary data were collected for the study and analyzed using descriptive and inferential statistics. The results indicated that the mean age of the respondents was 40years. Seventy per cent of the respondents were married. Information on organic-based vegetable production was majorly sourced from farmers association (77.5%) and friends/family (75.8%). The major perceived effect of organic vegetable production were healthy for consumption ($\bar{}$mean=4.85) and enhances soil fertility (mean $\bar{}$=4.80). There were significant relationships between marital status (χ^2=0.004, p< 0.05), educational status (χ^2 = 0.002, p< 0.05), and perceived effect of respondents. It was concluded that organic based vegetable production is a panacea for sustainable agriculture.

Keywords: Organic-based vegetable production, perceived effect, small scale farmers

INTRODUCTION

Organic farming can be defined as a system that is designed and maintained to produce agricultural products by the use of methods and substances that maintain the integrity of organic agricultural products until they reach the consumer. This is accomplished by using substances, to fulfil any specific fluctuation within the system so as to maintain long term soil biological activity, ensure effective peak management, recycle wastes to return nutrients to the land, provide attentive care for farm animals and handle the agricultural products without the use of extraneous synthetic additives or processing in accordance with the act and the regulations. (FAO), (2002). The origin of organic farming goes back, in its recent history, to the 1940s. During this period, the path breaking literature on the subject published by organic agriculture is a process that develops a viable and sustainable agro ecosystem. Interest in organically produced food is increasing throughout the world in response to concerns about intensive agricultural practices and their potential effect on human health. The growth in consumer demand for organically produced food and the standardization of organic farming methods have created a distinguished marketing opportunity for agricultural producers (IFOAM, 2000). Organic farming systems differ from conventional systems in several aspects such as no artificial pesticides or fertilizers are used on organic farms. Organic farms generally have a wider crop rotation scheme, and also have larger areas of non-crop habitats (Seyed et al., 2010). By not using soluble chemical fertilizers that limit the use of natural biocides, thus organic farming is largely dependent on biological processes for the supply of nutrients and protection of crops from pests and disease (Gosling et al., 2006).

Organic practices produces safe and nutritious food as it helps prevent soil pollution by stopping risky chemical reactions in the soil and avoiding produce contamination, as well as soil erosion, by wind and rain. Hadriman (2004) in his study found that the nutritional value was an important factor that influences consumers' preferences in purchasing chemical-free vegetables, followed by desire, freshness, health effect and taste.

However, vegetable production in Nigeria is characterized by the use of crude implements, non-availability of inputs (*Mofeke et al., 2003*), illiteracy, expensive and complex technologies. The farming being practiced for the last three decades in India and other developed country has increasingly been found non-sustainable. For the past three decades, farming practices in India have increasingly proven to be unsustainable. The current system prioritizes high production with little regard for ecological balance or human well-being. However, organic vegetable farming is rapidly gaining momentum, and several countries are now commercially producing organic food. (Reddy, 2010). Consequently, there is enormous potential in practicing organic farming , because organic agriculture is productive and sustainable (*Mader et al., 2002*). Organic cultivation is attracting farmers all over the world due to its various advantages over conventional agricultural practices. Essentially it is a farming system which supports and strengthens biological processes without recourse to inorganic remedies such as chemicals or genetically modified organisms Modern agricultural farming practices along with irrational use of chemical inputs over the past some decades have resulted in not only loss of natural habitat balance and soil health but have also caused many hazards like soil erosion, decreased groundwater level, soil salinization, pollution due to fertilizers and pesticides, genetic erosion, ill effects on environment, reduced food quality and increased the cost of cultivation, rendering the farmer poorer year by year. Some of the factors that contributed to the present crisis in farming could be the shooting-up of the price of factory-made external inputs and the government's slow withdrawal of investment as well as market intervention and more significantly, shifting of subsistence farming (mainly with homegrown inputs) to commercial farming (largely with purchased inputs) In other words, local indigenous farm techniques have been wiped out and replaced by the modern techniques, resulting in an unviable and unsustainable farm enterprise. It is in this context that alternative farm techniques and strategies for growing crops ought to be found in the larger interest. The principle of organic cultivation is attracting farmer's world over due to its various advantages over modern agricultural practices. Essentially, it is a farming system which supports and strengthens biological processes without resource to inorganic remedies such as chemicals or genetically modified organisms.

Organic farming is productive and sustainable (Letourneau and Mader et al., 2002). From the following specific objectives were determined in the study:

the socio-economic characteristics of organic vegetable farmers in the study area;

sources of information on organic vegetable farming

farmers perception of organic vegetable farming and :

the constraints faced by organic vegetable farmers in the study area

Hypothesis of the study

Ho_1: There is no significant relationship between the respondents' socio-economic characteristics and their perception of organic vegetable farming.

METHODOLOGY

The study was conducted in Akinyele Local Government Area of Oyo State. The Local Government Area consists of tweleve wards namely: Ikereku, Olanla/Oboda/Labode, Arulogun / Eniosa / Aroro, Olode / Amosun / Onidundu, Ojo-emo / Moniya, Akinyele / Isabiyi / Irepodun, Iwokota / Tolonta / Idi-oro, Ojoo / Ajibade / Laniba, Ijaye / Ojedeji, Ajibade / Alabata / Elekuru, Olorisa-oko / Okegbemi / Mele and Iroko. It occupies a land area of 575 square kilometers and a population of 239,745 as of the 2006 census with longitude 3.9152°E and latitude 7.5249°N. The climatic condition in the area favours the cultivation of vegetables like amaranthus, celosia, jute leaf, okra, fluted pumpkin, tomatoes, e.t.c Also crops like maize, yam, cassava, millet, rice, plantains, cocoa, cashew palm produce.

A multiple stage sampling procedure was used for selecting respondents for the study. In the first stage, six (6) wards namely Ikereku, Obada, Arologun Aroto, Onidudu and Moniya were purposively selected from the existing twelve (12) wards because of the dominance production of vegetables. The second stage involved random selection of two villages each

from the six wards making a total of twelve (12) villages). The third stage involved the random selection of ten (10) respondents from each village making a total of 120 respondents.

RESULTS AND DISCUSSION

Socio-economic characteristics of the respondents

The results in Table 1 revealed that the mean age of the respondents was 40 years with 32.5% of them were less than or equal 40 years. This implies that vegetable farmers are in their active, economic and productive age group. Majority (70.8.0%) of the respondents were female with 70.0% married and 5.8% single. The mean household size of the respondents was 7 members and 39.2% had a household size of between 7 and 9 persons. The result was similar to the report of Fabusoroand Akinloye (2007) cited in Olaoye (2010) that the average household size in Nigeria was about 7 persons per household. . it was observed that from 1-10 years' experience of the respondents was 44.2% while above 40 years was 5.0% with the mean of 16.6%. The educational qualification of the respondents was 45.0% for Secondary Education while Non-formal Education was 25.8%. This implies that the respondents in the study area are averagely educated.

Sources of Information on Organic Vegetable Production

The findings revealed that 77.5% indicated that farmers association were the major sources of information on organic vegetable production in the study area while 75.8% indicated friends/family as a sources of information of organic vegetable. This implies that farmers association and friends or family sources of information on organic vegetable production in the study area.

Farmers' perception towards organic based vegetable production

Table 3 showed that most of the respondents with 88.3% strongly agreed that organic vegetable are healthy for consumption, 75.0% of the responded were strongly agree that organic vegetables are readily available for purchase while 80.8% of the respondent strongly disagree that organic vegetables contribute to climate change.

It was also observed in the study area that 22.5% of the respondents disagree that organic vegetables are healthy for consumption while 54.2% were strongly agree that organic practices enhance soil fertility. This is in line with the American association for the advancement of science in 2009 featured a presentation on soil health and its impact on food quality concluding that healthy soil indeed leads to higher level of nutrients in crop.

Categorization of Respondents based on perception towards organic-based vegetable production

Result in Table 4 shows the categorization of farmers based on perception towards organic vegetable production. Above average (65.5%) and below (39.5%) of the farmers indicates their favorable and unfavorable perception towards organic vegetable production respectively.From the result, it showed that greater percentage of the farmers have a perception towards involving the organic vegetable production.

The constraints faced by organic vegetable farmers

The result in Table 4 showed that infestation of pests and disease ($x = 1.39$) was a very severe constraints faced by organic vegetable farmers. Other constraints identified include, high level of perishability ($x = 0.80$), a high cost of labour ($x = 0.77$) were severe constraints faced by organic vegetable farmers in the study area. These results are in line with the report of Ogbalu and Ekeozor (2002) that pests and diseases attack the leaves of vegetables and inflict much injury by making small round holes and pinching off parts of the plants thereby, reducing the leaf area which affects plant assimilation and leaf surface for photosynthesis

Hypothesis Testing

Test of relationship between socio-economic characteristics of respondents and perception towards organic-based vegetable production.

The result of test of relationship between the respondents socio-economic characteristic and perception of organic vegetable farming presented in Table 5 reveals that marital status ($\chi^2 = 21.17$, $p < 0.05$), and Educational status ($\chi^2 = 16.85$, $p < 0.05$) significantly related with

farmers' perception of organic vegetable farming. Whether the respondents are married or being educated or not has nothing? to do with the perspective of the farmers in the study area while there is no significant relationship between the respondents' religion or not and the perception of the farmers on organic vegetable farming.

Conclusion and Recommendations

This study shows that organic vegetable farming is still a growing concept in the study area, with the organic vegetable farming practices adopted by the farmers being less robust but productive to efficient result-based of low input agriculture.

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

i. Due to the farmers positive perception towards organic vegetable farming, Men and youths should be greatly encouraged to be actively involved in it.

ii. Farmers should be enlightened on various organic vegetable methods used in controlling infestation of pests and diseases through the farmers' regular sources of information.

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Table 1: Distribution of respondents according to socio-economic characteristics (n=120)

Variables	Frequency	Percentage	Mean
Age (years)			
Less or equal to 40	39	32.5	40
41-50	14	11.7	
51-60	27	22.5	
61-70	25	20.8	
71-80	14	11.7	
Above 80	1	0.8	
Gender			
Male	35	29.2	
Female	85	70.8	
Marital status			
Single	7	5.8	
Married	84	70.0	
Divorced	5	4.2	
Widowed	24	20.0	
Religion			
Islam	47	39.2	
Christianity	73	60.8	
Educational qualification			
No formal education	31	25.8	
Adult education	1	0.8	
Primary education	29	24.2	
Secondary education	54	45.0	
Tertiary education	4	3.3	
Household size			
1-3	8	6.7	
4-6	38	31.7	
7-9	47	39.2	
10-12	23	19.2	7
Above 12	4	3.3	
Years of experience			
1-10	53	44.2	
11-20	27	22.5	
21-30	24	20.0	16.6
31-40	10	8.3	
Above 40	6	5.0	
Farm size in acres			
1-3	64	53.3	
4-6	28	23.3	3.0
7-9	16	13.3	
Above 9	12	10.0	

Source: field survey 2022

Table 2: Sources of information on organic-based vegetable production (n=120)

Sources of Information	Frequency	Percentage
Radio and Television	15	12.5
Newspapers/Magazines	39	32.3
Friends/family	91	75.8
Workshop/seminars	79	65.8
Internet	22	18.3
Street publicities	16	13.3
Ministry of agriculture	15	12.5
Farmers association	93	77.5
Extension Agent	12	10.0

Sources: Field survey, 2022

Table 3: Farmers' perception towards organic based vegetable production (n=120)

Statements	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree	Mean	Rank
Organic vegetable are healthy for consumption	1 (0.8)		1(0.8)	12(10.0)	106(88.3)	4.85	1st
Organic vegetable are environmentally friendly		2(1.7)	75(22.5)	57(47.5)	61(50.8)	4.48	6th
Organic vegetable are cheaper than inorganic vegetable	12(10.0)	27(22.5)	3(2.5)	2(1.7)	4(3.3)	2.66	10th
Organic vegetable are readily available for purchase	1(0.8)	3(2.5)	5(4.2)	21(17.5)	90(75.0)	4.69	3rd
Organic vegetable enhance soil fertility	1(0.8)	1(0.8)	16(3.3)	37(30.8)	65(54.2)	4.80	2nd
Organic vegetable are highly demanded	1(0.8)	4(3.3)	4(3.3)	20(16.7)	91(75.8)	4.63	4th
Organic vegetable requires more land to grow	8(6.7)	27(22.5)	6(5.0)	64(53.3)	15(12.5)	3.43	8th
Organic vegetable contributes to climate change	97(80.8)	12(10.0)	1(0.8)	8(6.7)	2(1.7)	4.62	5th
Organic vegetable is more expensive to produce	53(44.2)	38(31.7)	1(0.8)	18(15.0)	10(8.3)	3.88	7th
There is difficulty in accessing organic materials	12(10.0)	64(53.3)	1(0.8)	25(20.8)	18(15.0)	3.23	9th

Sources: Field survey, 2022

Table 4: Distribution of the respondents according to categorization of respondents based on perception towards organic-based vegetable production (n=120)

Variables	Categorization	Frequency	Percentage
Mean			
Unfavorable	**1-60**	**45**	**39.5**
Favorable	**61-120**	**75**	**60.5**
50.5			

Table 5: Distribution on the constraints faced by organic vegetables farmers

Constraints	Very severe	Severe	Not severe	Mean	Rank
Low production	116(96.7)	4(3.3)	0(0.00)	0.03	9th
High input costs	100(83.3)	18(15.0)	2(1.7)	0.18	5th
Non-availability of organic materials	76(63.3)	23(19.2)	21(17.5)	0.54	4th
Inadequate marketing and distribution network	109(90.8)	8(6.7)	3(2.5)	0.12	6th
Infestation of pests and disease	18(15.0)	37(30.8)	65(54.2)	1.39	1st
High cost of labour	52(43.3)	44(36.7)	24(20.0)	0.77	3rd
High level of perishability	35(29.2)	74(61.7)	11(9.2)	0.80	2nd
Inadequate information on organic vegetable farming	109(90.8)	10(8.3)	1(0.8)	0.10	7th
Inadequate extension service	113(94.2)	6(5.0)	1(0.8)	0.07	8th

Source: Field survey, 2016

Table 6: Test of analysis between selected socio-economic characteristics and farmers' perception on fluted pumpkin marketing

Variables	χ^2	df	p-value	Decision
Marital status	21.66	3	0.004	S
Religion	7.584	5	0.181	NS
Educational status	16.846	1	0.002	S

Source: Field survey,2016