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Contribution of Indigenous Vegetable Production to the Income Generation of Rural Vegetable Farmers in Egbeda Local Government Area of Oyo State

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Abstract

The study determined the contribution of indigenous vegetable production to the income of farmers in Egbeda Local Government Area of Oyo State. Five wards in Egbeda local government area were purposively selected due to their dominance in indigenous vegetable production. Thirty percent of registered indigenous vegetable farmers were randomly selected from each of the wards to give a sample size of 113 respondents. Data were analysed using frequency counts percentages, and Pearson's Product Moment Correlation (PPMC). The major findings include a high level income derived from indigenous vegetable production among farmers with an average yield of 2700 kg and an average monthly income of ₦50,740. Significant relationship existed between constraints faced by respondents and income generated from indigenous vegetable ($r = -0.191$, $p \leq 0.05$). The study recommends that more farmers should go into vegetable production because it is lucrative and to increase the food and nutrition security of the nation.

Key words: Contribution, Indigenous, Vegetable Production, Income

Introduction

In Nigeria, indigenous vegetables are generally regarded as plant species grown and consumed in specific location as part of traditional diets and have the potential of being nutritious with anti-diabetic potentials (Udenta, Obiozoba and Oguntibeju, 2014). Their characteristics are easy to grow, fast maturing, and has very vigorous growth. Hence their current consumption by many rural dwellers is widespread. There are wide of indigenous leafy vegetables found in Africa, which are chief sources of nutrients, vitamins, antioxidants, minerals and proteins. (Oladele, 2011). Some of the indigenous leafy vegetables are mainly used by inhabitants for medicinal purposes (Agboola, Adekunle, and Ogunjimi, 2015). Vegetable also form part of the daily staple diet of individuals and are rich in nutrients such as Vitamin A and Iron. Indigenous vegetable crops have a significant impact on both household food security and health among the rural vegetable farmers

(Legwanla, 2011). They provide sources of employments for those outside the formal sector in peri-urban areas because of their generally short production cycle, low investment and high yield (Kwenin, Wolli, and Dzomeku, 2011).

Over the year past, the role of indigenous vegetable farmers in the society cannot be underestimated because of its significant contribution both to the income of the rural farmers and the improvement in the economical stability of the country (Cervantes and Dewbre, 2010).The rural vegetable farmers have also engaged in relevant training with a view to improve the skills of farmers towards ensuring increased productivity, domestic supply and prevention of indigenous vegetable crops from extinction. (Baiphethi and Jacob, 2009). According to Chiwenge *et.al* (2011), indigenous vegetable crops are much easier to produce since they have adapted to the tropical environment. There are many examples of these crops (fireweed, garden egg, field pumpkin, Amaranth, Bologi, bitter leaf, snake tomato, glossy night shade, and fluted pumpkin). They may also be more profitably produced during specific periods of the year.

Indigenous vegetable production has become an important occupation for rural farmers because the crop can be harvested several times in a growing season. The productions of this vegetable play an important role in income generation and subsistence in low income- households. As a consequence, offer an opportunity for people to earn living as producers and traders without large capital input (Adhikari, 2008). Despite the importance of these crops there are various production constraints such as lack of fertile soil, environmental depletion and degradation, pest and disease attack, inadequate capital among others. These lead to low level of productivity and consequently reduce the income derive from the indigenous vegetable. Despite several efforts by the government, extension agents, and research institutes to encourage the farmers to produce indigenous vegetable in order to increase their income, farmers have shown little interest in producing indigenous vegetable to increase their income.

Purpose of the study

The major purpose of the study was to investigate on the contributions of indigenous vegetable production to the income generation of rural vegetable farmers in Egbeda LGA of Oyo state.

- Measure level of income generated from indigenous vegetable among rural farmers in the study area.
- State constraints faced by the farmers in the indigenous vegetable production in the study area

Research Questions

The research question sought answers to the following questions:

1. What is the level of income generated from indigenous vegetable among rural farmers in the study area?
2. What are the constraints faced by the farmers in the indigenous vegetable production?

Hypotheses of the study

1. There is no significant relationship between constraints faced by respondents and income derived from indigenous vegetable.

Methodology

***Design of the study*:** The study adopted a survey research method. It sought information from vegetable farmers who produce indigenous vegetables in Egbeda local government of Oyo state.

***Area of study*:** The area of study is Egbeda local government area of Oyo state, Nigeria with an area of 191Km^2 and a population of 281,573 (NPC, 2006). Egbeda local government is divided into 11 wards. The climatic conditions of the area include 1350-2900mm mean annual rainfall and a temperature range of 500-730^{0}F while relative humidity is low. The vegetation is rainforest type. It has heterogeneous population of Yoruba and Togolese.

***Population of the study*:** The target population are males and females literate and illiterate indigenous vegetable farmers in Egbeda local government of Oyo state. Most of farmers were major producers of cash and food crops especially cocoa, kolanut, oil palm, yam, cassava, maize and including indigenous vegetables.

***Sample of the Study*:** Five wards were purposively selected from the 11 wards in Egbeda Local government Area (LGA) due to their high involvement in indigenous vegetable production. Simple random sampling techniques was used to select thirty percent from the list of three hundred and seventy seven (377) registered indigenous vegetable farmers in each of the randomly selected wards in the LGA to give a sample size of one hundred and thirteen (113) respondents.

***Instrument for Data Collection*:** Questionnaire was used for data collection. The validity of the questionnaire was ascertained by three lecturers, two each from the Home economics unit and one from department of Agricultural extension and rural development of the University of Ibadan. The reliability of the instrument was tested using cronbach alpha to test the clusters. The coefficient of the reliability was 0.75, confirming the reliability and consistency of the instrument. The questionnaire comprised of two sections A and B. Section A solicited for responses about demographic characteristics of the respondents, namely age, sex, years of experience, section B contained questions relating to the three research questions.

***Data collection and analysis technique*:** A total of one hundred and thirteen (113) copies of the

questionnaire were distributed to the respondents with the assistance of the two trained research assistance. A total of one hundred and ten (110) of the questionnaire was completed and retrieved representing (97%) recovery rate. Data were analysed by frequency and percentage and represented as tables. Inferential statistics such Product moment Correlation (PPMC) was used to test the hypothesis.

Findings

The following findings were made

Fig 1: Showing the average daily income (₦) derived from indigenous vegetable

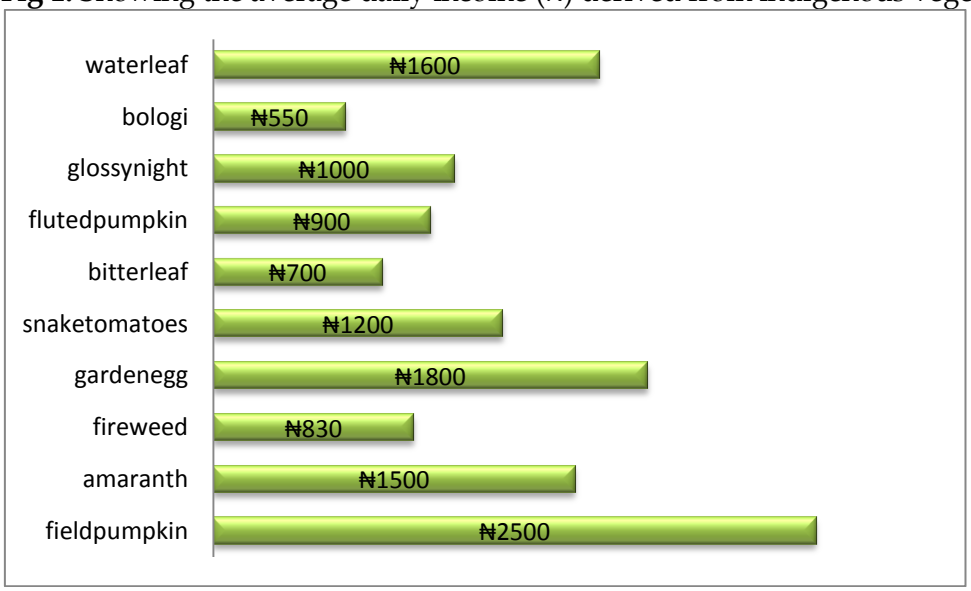

Figure 1: shows that an average income of ₦2, 500 was generated from daily sales of field pumpkin. The result further showed that an average income of ₦ 1,800, ₦ 1,600, ₦ 1, 500 and ₦1, 200 were generated from garden egg, waterleaf, amaranths and snake tomatoes.

Table 1: Percentage responses of farmers on level of production of indigenous vegetable production.

Level of income	Frequency	Percentage
Low	45	39.8
High	68	60.2

Table shows that more than half (60.2%) reported a high level of income from indigenous vegetable while the remaining 39.8% reported low level of income.

Table 2: Distribution according to the constraints faced by respondents

Constraints	Very severe	%	Severe	%	Not a constraint	%	Mean	Rank
Lack of fertility of the soil	38	33.6	40	35.4	35	31.0	1.03	5th
Environmental depletion and degradation	39	34.5	44	38.9	30	26.5	1.08	4th
pest and diseases infestation	46	40.7	35	31.0	32	28.3	1.12	3rd
Lack of improved seed	27	23.9	50	44.2	36	31.9	0.92	9th
Inadequate capital	44	38.9	43	38.1	26	23.0	1.17	1st
Inadequacy of planting materials	35	31.0	56	49.6	22	19.5	1.13	2nd
High level of illiteracy	25	22.1	37	32.7	51	45.1	0.77	8th
climate change	29	25.7	54	47.8	30	26.5	0.99	6th
Lack of technical know how	33	29.2	43	38.1	37	32.7	0.96	7th

Table 3 shows inadequate capital (1.17) to be the most severe constraint faced by the respondents and it was ranked first. In adequate planting material (l.13) was ranked second Pest and disease infestation (1.12) and environmental degradation (1.08) were ranked third and fourth respectively. However, high level of literacy (0.77) and lack of the technical (0.99) were not major constraints faced by the respondents.

Table 3: Categorization of level of indigenous vegetable production

Production level	Freq.	%	Mean
Low (0- 9)	79	69/9	
High (10-20)	34	30.1	
Total	113	100	2700kg

The mean 2700kg was derived by obtaining average score of the respondents on their level of indigenous vegetable production and respondents above the mean were categorised as high level of production while those below the mean were regarded as low. Table 1 reveals that most of (69.9%) the respondents recorded low level of indigenous vegetable production.

Table 4: Distribution according to the relationship between constraints faced by the respondents and their income generated from indigenous vegetable

Variable	r	p	Decision
Constraints	-0.191	0.042	Significant

The Pearson Product Moment Correlation (Table 4) shows that there is a significant relationship between the constraints faced by respondents (r = -0.191, p ≤ 0.05) and the income generated from indigenous vegetable production. This shows that constraints had negative effect on the income generated by respondents in the study area.

Discussion on Findings

The finding reveals that most of the respondents recorded low level of indigenous vegetable production. This result is corroborated with the findings of Makarau *et.al* (2014) that inadequate capital for vegetable production is a major constraint faced by farmers. The implication is that farmers who want to produce at large scale are limited as a result of financial inadequacies. In adequate planting material was ranked second which suggests that farmers are restricted to farm inputs within their reach which will adversely affect their level of production and consequently their level of income from the enterprise. Pest and disease infestation and environmental degradation were ranked third and fourth respectively. The implication of this is that the quality and quantity (yield) of vegetables will be affected and this in turn affects the returns or profit from the enterprise. However, high level of literacy and lack of the technical were not major constraints faced by the respondents. The finding is confirmed by Fabiyi and Akande (2015) that rural farmers are faced with constraints in their farming activities, and this reduces their productivity. **It also** shows that an average income of ₦2,500 was generated from daily sales of fluted pumpkin, an average income of ₦ 1,800, ₦ 1,600, ₦ 1,500 and ₦1, 200 were generated from garden egg, waterleaf, amaranths and snake tomatoes respectively. This finding suggests that indigenous vegetable is a viable enterprise and farmers should be provided with farm inputs so as to expand their scale of production and consequently generate more profit. This is in line with the findings of Oladele (2011) that indigenous vegetable is a means of sustaining farmers' income. There is a significant relationship between the constraints faced by respondents (r = -0.191, p ≤ 0.05) and the income generated from indigenous vegetable production. The negative correlation implies that the more constrained faced by farmers, the less income generated from indigenous vegetable production. This result is in consonance with Nor and Madukwe (2000) assertion that increased agricultural productivity and enhanced farmers income are only attainable when effective agricultural system is put in place.

Conclusion

The major constraints faced by respondents were inadequate credit facilities, inadequate planting materials, pest and disease infestation

and environmental degradation climate change. The level of indigenous vegetable production in the study area was on low with an average yield of 2700kg and an average income of ₦50,740. Age, farm size, educational qualification and constraints faced by respondents all had influence on the income generated from indigenous vegetable. Therefore the government should subsidies cost of inputs (i.e. improved seeds, subsidies cost fertilizer and farm implement) so as to encourage more farmers to purchase and use them judiciously.

Recommendations

Based on the conclusions of the study, the following recommendations are made:

- Government should set up more institution where extension agents can be well trained on how to disseminate new technology to the vegetable farmers so as to increase their level of production.
- Government and banks should give out loans to vegetable farmers so they can enlarge their enterprise and purchase modern equipment such as harrowing, plough etc.
- Government should of inputs (i.e. improved seeds, subsidies cost fertilizer and farm implement) so as to encourage more farmers to purchase and use them judiciously.

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