

Profits Analysis of Organic and Non-Organic Fluted Pumpkin among Small Holder Farmers in Cross River State of Nigeria

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ABSTRACT

The study analyzed the profit of organic and non-organic farming among small holder fluted pumpkin farmers in Cross River State. A multistage sampling technique was employed in the selection of location and respondents. The data were collected from 240 organic and non-organic small holder fluted pumpkin farmers. The primary instrument used for data collected was structured questionnaire. Data obtained was analyzed by Enterprise budgeting method. Results indicated that the profit realized by organic fluted pumpkin farmers in Cross River State was ₦260,060, while that of non-organic (conventional system) was ₦187,360 per farmer per one hectare.

Keywords: Profit, Organic Farmers, Non-Organic Farmers, Fluted Pumpkin, Small Holder farmers.

INTRODUCTION

Fluted pumpkin (*Telferia occidentalis*) is a major grown vegetable in Cross River State of Nigeria, and among the cheapest vegetables for cultivation and of high demand all through the year. Its affordability and the nutritive value make it an important diet to the populace [1]. It produces fruit and have abundance leaves all over the stem [2]. It is a source of vitamins which include vitamin C, B₁, B₂, E and K, with some minerals including magnesium, potassium, calcium, iron, zinc, sodium, phosphorous and fibers [3]. Fluted pumpkin production is encouraging to farmers because the returns from the farm does not take much duration like other crops. The method of

technology for production depends mainly on the decision and financial capacity of the farmers, whether to embark on Organic or non-organic [4].

Objective of the study

The broad objective of this study is to analyze the profits of organic and non-organic fluted pumpkin among small holder farmers in Cross River State.

Specifically, this study seeks to:

- i. analyze the profits of organic and non-organic fluted pumpkin production

Null Hypothesis (H₀): There is no significant difference between the profits of organic and non-organic fluted pumpkin production in the study area.

METHODOLOGY

Area of the Study

The study was carried out in Cross River State in South-South geopolitical zone of Nigeria. Cross River State is a coastal state in south-south Nigeria. It occupies 20,156 square kilometers. It shares boundaries with Benue State to the North, Ebonyi and Abia State to the west, to the east by Cameroon Republic and to the south by

Akwa-Ibom and the Atlantic Ocean. Its capital is Calabar. The estimated population of about 2.89 million people (NPC, 2006) with a unique and rich cultural heritage. Ejagham and Efik are the major languages of this state, but the Igbo tribe and language are also present in its western land borders. The state belongs to tropical rainfall belt where

rainfall is usually seasonal and at times very heavy. Humid tropical climate of about 1300, 3000mm rainfall and 30°C mean annual temperature prevail over the state [5].

Sampling Technique and Sample Size

The list of registered organic and non-organic fluted pumpkin farmers in the state was obtained from ADP Cross River State which comprises of 3251 (2200 Organic and 1051 non-Organic). A multistage random sampling technique was adopted in the selection of states, agricultural zones, local government areas, communities and respondents in the study area.

Stage one, two Agricultural Zones were randomly selected from the three zones in the state. These were Ogoja Zone and Ikom Zone.

Method of Data Analysis

Enterprise budgeting method were the statistical tool used for the study. Thus, the enterprise budgeting method is stated as:

Enterprise budgeting method

Enterprise budgeting method

The enterprise budgeting method used in the determination of enterprise profitability is given as:

$$NR/NI = TR - TC$$

$$GM = TR - TVC$$

Stage two, 3 LGAs were randomly selected from each of the 2 agricultural zones. This gave 3 LGAs each, giving a total of 6 LGAs that were randomly selected. For Ogoja zone (Ogoja, Obanliku, and yala) and Ikom Zone (Yakurr, Ikom and Boki).

Stage three, 4 communities were randomly selected from each of the 6 LGAs. This gave a total of 24 communities.

In the **fourth stage**, 10 farmers were randomly selected from each of the 24 communities giving a total of 240 respondents that were selected for the study. Furthermore, 160 respondents were used for (non-organic fluted pumpkin farmers), while 80 respondents were used for (organic fluted pumpkin farmers).

Where:

NR/NI = Net returns/Net income

TR = Total revenue ($Q \times P_q$ = Quantity of output x its unit price)

TC = Total cost (TVC + TFC)

TVC = Total variable cost ($\sum X_i \cdot P_i$ = quantity of variable inputs x unit price of the inputs)

TFC = Total fixed cost (Annual depreciation values of FC items and rental value of land)

GM = Gross margin.

RESULTS AND DISCUSSION

Table 1: Difference between means of profits of organic and non-organic farmers in Cross River State

One-sample Statistics				
Technology	N	Mean	Std. Deviation	Std. Error Mean
Organic	80	260,060.7854	125789.5689	35671.5789
Non-organic	160	187,360.5689	589647.4457	12589.3352
One-Sample Test				
Technology	T	Df	Sig. (2-tailed)	Mean difference
Organic	19.335	79	0.000	260,060.7854
Non-organic	29.127	159	0.000	187,360.5689

The results showed that the mean profit realized by organic fluted pumpkin farmers in Cross River State was ₦260,060 while that of non-organic (conventional system) was ₦187,360. A mean difference of ₦72,700 was computed. The result of Difference between profits of organic and non-organic (conventional system) fluted pumpkin production in Cross River State.

One Sample test (Table 4.17) indicated a significant difference between the means in favour of organic fluted pumpkin production, implying that organic fluted pumpkin production was more profitable than non-organic in Cross Rivers State.

Table 2: Difference between means of profits of organic and non-organic farmers in the study area

One-sample Statistics				
Technology	N	Mean	Std. Deviation	Std. Error Mean
Organic	80	1,331,120.4587	235987.7541	69874.6532
Non-organic	160	623,624.6589	854621.7512	69862.7584
One-Sample Test				
Technology	T	Df	Sig. (2-tailed)	Mean difference
Organic	19.335	79	0.000	1,331,120.4587
Non-organic	29.127	159	0.000	623,624.6589

The results showed that the mean profit realized by organic fluted pumpkin farmers in Cross River State was ₦1,331,120 while that of non-organic (conventional system) was ₦623,624. A mean difference of ₦707,496 was computed. The result of One Sample test

in table 2 indicated a significant difference between the means in favour of organic fluted pumpkin production, implying that organic fluted pumpkin production was more profitable than non-organic in the study area.

CONCLUSION

The mean profits of organic fluted pumpkin in Cross River States ₦1,331,120 and non-organic was ₦623,624. Meaning that organic fluted pumpkin production was more profitable in Cross River State. Organic fluted pumpkin production was a profitable enterprise and non-organic fluted pumpkin production was also profitable though less profitable than

the organic in Cross River State. The farmers should be strong in thrift contribution in cooperative societies to enable them have access to credit for efficiency, exchange ideas on latest and appropriate technologies, adopt better marketing strategies and thus make more profit.

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