

## LEVEL OF GROSS MARGIN AMONG VEGETABLE FARMERS IN IWO ZONE OF OSUN STATE AGRICULTURAL DEVELOPMENT PROJECT

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### ABSTRACT

*The study examined the level of gross margin in vegetable farmers' production in Iwo zone of Osun State Agricultural Development Programme (ADP). Data for the study was collected through structured interview schedule with 150 vegetable farmers selected through multistage sampling technique. These data were subjected to descriptive statistics. The study found that the larger proportion (56%) of the respondents were between the ages of 46-50 years, with mean age of 46 years. About 62.7% and 37.3% of the respondents had no formal education and had over 13 years of farming experience respectively. The mean gross margin, total revenue and total cost of the vegetable farmers were ₦3,159.13, ₦33979.47 and ₦4918.67 respectively. This shows that the level of gross margin is low among the vegetable farmers. It was therefore recommended that improved vegetable production practices information should be provided to the respondents through the extension agents, to avail them the understanding of the use of modern technology, accessibility to subsidized equipment and agro-inputs by government partnered agro-input dealers. This will help to minimize the labour cost incurred by the vegetable farmer and invariably, improve their gross margin from vegetable production.*

**Keywords:** Vegetable, Gross Margin, Total Revenue, Total Cost

### INTRODUCTION

Productivity has been a key issue for agricultural development strategies for many years because of its impact on economic and social development of nations. It is generally believed that the surest means through which mankind can raise itself out of poverty to a condition of relative material affluence is by increasing his productivity. Agriculture posits a huge potential for vegetable farmers to improve their livelihood activities through prompt advisory and agri-support activities. Leafy vegetables offer good source of protein, vitamins, zinc and iron to Nigerians, highly relished in many homes, events like marriage, naming and burial ceremonies. Vegetable soup is the most preferred soup

relished with foremost traditional staple foods like pounded yam, yam flour and cassava flour by many people in the south western and the south eastern regions of the nation in ceremonial places for its nutritional and medicinal values.

In many south western and south eastern communities of Nigeria, the local diet served people in ceremonial places with vegetable soup is a reflection of their social status and cultural heritage. A balanced diet should contain 250-325g of vegetables and the average human requirement for vegetable is 285g/person/day for a balanced diet (Nwachukwu and Onyenweaku, 2007). The production constitutes about 4.6 % of the total staple food production in Nigeria between 1970-2003 (Central Bank of Nigeria, 2004). Vegetables can be grown throughout the year with irrigation farming during the dry season but irrigation method practiced currently for vegetables is manual that consumes high labour cost as well as large amount of water (Narvaratne and Kodithuwakku , 2009). This could possibly make vegetable farmers diversify into the production of other crops, if not non-farming activities that are less sustainable as livelihood activities for life sustenance.

Vegetables have tremendous potentials to address poverty alleviation and nutritional security because they are affordable and easily available, easy to grow, require minimum production inputs, rich in vitamins and minerals, and are loaded with phytochemicals and anti-oxidants properties (Eusebio, 2009). Scurvy and malnutrition are the results of high levels of vitamin A and iron deficiencies, due to inadequate vegetables in the dietary intake of many people ignorant of the importance of vegetables in their dietary intake for a balanced diet. The production and consumption of vegetable is challenged with dwindling production. The constraints to the rapid growth of food production seem to be mainly that of low crop yield and resource productivity (Udoh and Akpan 2007).

It is however important that increased agricultural productivity would help in attaining the needed food security through combined strategies of efficient farm resources utilization and improvement of farmers capacity building based on accessible extension services to the farmers. According to Udoh and Oluwatoyin (2006), fruits and vegetable handling with their transportation system in Nigeria seem not inadequate for enhancing profitable farming of fresh fruits and vegetable production. Vegetable farmers are helpless with inherent problems. However, there is room for improvement in the system so as to ensure deliverance of quality product, reduce the losses to perishability and promote markets both locally and internationally for this produce.

Sabo and Zira (2009), found out that in Nigeria, vegetable production has been ongoing for decades, providing employment and income for the increasing population especially during the long dry season. Vegetable production in Nigeria is characterized by the use of crude implements and non availability of inputs, illiteracy, expensive and complex technologies. (Mofeke, Ahmada and Mudiane, 2003). Other possible constraints confronting the farmers may include, non-availability of credit, low produce

price, high cost of improved inputs, non-availability of land, poor extension advice, shortage of irrigation water, over dependence on rainfed production, pests and diseases among others which may impact negatively on the farmers gross margin.

The specific objectives of the study were to:

- 1) examine some socio-economic characteristics of the vegetable farmers
- 2) estimate the level of gross margin among the vegetable farmers in the area.

## **METHODOLOGY**

The study was conducted in Iwo zone of Osun State Agricultural Development Programme (ADP). There are seven Local government Areas in the zone namely; Iwo, Irewole, Ejigbo, Ayedire, Ayedaade, Isokan, Ola-Oluwa. The vegetable farmers are concentrated in the rural areas of the zone. Iwo zone has an area of 245km<sup>2</sup> and a population of 120,919 people (National Population Commission, 2006). People of Iwo zone are primarily Yoruba descent and the zone's primary economic activity is agriculture with the primary crops being cocoa, yam, corn, cassava and vegetable. The geographical and topographical characteristics of the zone favor vegetable production.

### **Sampling and Data Collection**

Multistage sampling technique was employed in the selection of representative sample from the list of registered vegetable farmers gotten from the Iwo zone ADP for the study. The first stage involves the random selection of Iwo zone from the three (3) Agricultural zones in Osun State. The second stage involves the simple random selection of three (3) local governments, namely; Iwo, Olaoluwa and Aiyedire Local Government Areas. Two farming communities were randomly selected from each of the selected local government area. Twenty five (25) respondents were randomly selected from each of the community selected from the Iwo Zone Agricultural Development Programme to make up one hundred and fifty (150) sampled vegetable farmers. Structured interview schedule was used to obtain information from the farmers. The data collected were analyzed using descriptive statistics of frequency distribution and percentages for the study.

## **RESULTS AND DISCUSSION**

Table 1 shows that larger proportion (56%) of the vegetable farmers were between the ages 46-55 years, having a mean age of 46 years. This implies that the bulk of the vegetable farmers are of middle age. Ogunbameru (2001) supported this finding that young and middle aged people are the most active in agricultural production activities for increased productivity. Majority (82.0%) of the vegetable farmers are married. This implies that many of the farmers involve their spouses and children for labour in vegetable farming. Less than half (38.0%) of the respondents have more than 13 years experience in cultivation of vegetable. This depicts that not many of the respondents have long years of experience in vegetable production. It may plausibly be as a result of the

constraints faced by the farmers in vegetable production, not as pronounced in other crop production in the study area.

Less than half (39.3) sourced land for vegetable production through rent. This shows that the vegetable farmers cannot easily access land for vegetable production. Rent as the most pronounced form of land acquisition could likely prone vegetable farmers to marginal profit since the profit on production and sales of produce is shared with the land owners.

**Table 1: Distribution of Socio-economic characteristics of the respondents**

| Age (years)               | Frequency | Percentage | Mean Age |
|---------------------------|-----------|------------|----------|
| 41-45                     | 5         | 3.3        | 46.0     |
| 46-50                     | 84        | 56.0       |          |
| 51-55                     | 46        | 30.7       |          |
| 56-60                     | 15        | 10         |          |
| <b>Marital Status</b>     |           |            |          |
| Single                    | 2         | 1.3        |          |
| Married                   | 123       | 82.0       |          |
| Divorce                   | 25        | 16.7       |          |
| <b>Educational Status</b> |           |            |          |
| No formal education       | 94        | 62.7       |          |
| Primary education         | 22        | 14.7       |          |
| Secondary education       | 18        | 12.0       |          |
| Tertiary education        | 16        | 10.6       |          |
| <b>Farming Experience</b> |           |            |          |
| 1-6                       | 41        | 27.3       |          |
| 7-12                      | 52        | 34.7       |          |
| 13 and above              | 57        | 38.0       |          |
| <b>Land Source</b>        |           |            |          |
| Family                    | 24        | 16         |          |
| Community                 | 12        | 8          |          |
| Rent                      | 59        | 39.3       |          |
| Purchase                  | 55        | 36.7       |          |

Source: Field Survey, 2012

Table 2 shows the result of the gross margin of the vegetable farmers as, minimum level of gross margin ₦100 and maximum level of gross margin ₦9300 respectively. The

mean gross margin from the vegetable production in the study area was ₦3159.13. This implies that the economic return to farmers on vegetable production is low. The minimum and maximum total revenues (TR) accruing to the farmers from vegetable production were ₦13200 and ₦55800 respectively. The mean total revenue (TR) among the vegetable farmers in the study area was ₦33979.47. The results show that there is low revenue from vegetable production which invariably reduces the gross margin. The minimum and maximum total cost (TC) incurred by vegetable farmers were ₦3500 and ₦16500 respectively. The mean total cost (TC) was ₦4918.67. This result indicates that the cost of production among the vegetable farmers is high which accounts for their low revenue and consequently low gross margin.

**Table 2: The level of gross margin among the vegetable farmers**

|         | Gross Margin<br>(₦) | Total Revenue (TR)<br>(₦) | Total Cost (TC) (₦) |
|---------|---------------------|---------------------------|---------------------|
| Mean    | 3159.13             | 33979.47                  | 4918.67             |
| Minimum | 100.00              | 13200.00                  | 3500.00             |
| Maximum | 9300.00             | 55800.00                  | 16500.00            |

**Source:** Field Survey, 2012

## CONCLUSION

It can be concluded from this study that most of the vegetable farmers are middle-aged and have low gross margin. The mean total cost and total revenue are ₦4918.67 and ₦33979.47 respectively, accounting for low revenue of the vegetable farmers. Majority of the farmers are illiterates, sourced rented land for farming (56.0%) as their major source of farm land acquisition for vegetable farming, depended on little farming experience and marriage to raise farm family labour for vegetable farming, contributing to their low gross margin in vegetable production. Vegetable enterprise is only vibrant and profitable with appreciable gross margin income analysis by a vegetable farmer to identify the factors inclining profit gained or losses incurred in the vegetable enterprise.

## RECOMMENDATIONS

- Agricultural support activities should be given to the farmers through prompt delivery from the allocated agro-inputs companies by the government and extension agents should be well motivated to give advisory services on better vegetable practices for enhanced farmers' sales of vegetable produce.

- Government should assist vegetable farmers in the area of land acquisition, by providing agricultural land at a very subsidized rate for lease over a long period of time to the vegetable farmers, as well as efficient water distribution through subsidized small plot irrigation adaptive technique on farm lands, as a motivation for them to produce more vegetables. This will invariably impact their gross margin positively.

## **REFERENCES**

Central Bank of Nigeria (CBN) (2004). Annual Report and Statement of Account Nigeria

Eusebio, J.E. (2009): 'Promoting Utilisation of Indigenous Vegetables for Improved Nutrition in the Philippines'. First International Conference on Indigenous Vegetables and Legumes, RWC Auditorium. 12-15Dec.

Mofeke A, Ahmada A and Mudiane O. J (2003). "Relationship between yield and seasonal water use for tomatoes, onions, and potatoes grown under fadama irrigation". *Asset Series A*. 3:35-46.

National Population Commission (NPC) (2006). Federal Republic of Nigeria Official Gazette No. 2 Vol. 96, Abuja 2<sup>nd</sup> February, 2009

Navaratne, C.M. and Kodithuwakku, W.K.K.S.P.I. (2009): 'Improvement of Indigenous Vegetable Production in Sri Lanka Through Low Cost- Cost Micro-Irrigation Approach'. International Conference on Indigenous vegetables. University of Ruhuna, Mapalana.

Nwachukwu, I. N. and Onyenweaku, C.E (2007): Economic Efficiency of Fadama Telfairia Production In Imo State Nigeria: A Translog Profit Function Approach. *Journal of Agricultural Research and Policies, Nigeria* 2 (4) pp. 87-93.

Ogunbameru B.O (2001). Practical Agricultural Communication, Ibadan, Daily Graphic Publications. Ibadan. pp 104-106.

Sabo E and Zira Y.D (2009). "Awareness and effectiveness of vegetable technology information packages by vegetable farmers in Adamawa State, Nigeria". *African Journal of Agricultural Research* Vol. 4 (2), pp. 065-070.

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Udoh E. J and Akpan S.B (2007). “Meaning Technical Efficiency of Water Leaf (Talinum triangulare)”. *American-Eurasian J. Agric. & Environ. Sci.*, 2 (5): 518-522

Udoh E. J and Oluwatoyin F (2006). “Resource use efficiency and productivity among farmers in Nigeria. Department of Agricultural economics and extension , University of Uyo, Uyo Nigeria”. *Journal of Agriculture & Social Sciences* 1813–2235/2006/02–4–264–268 Accessed on 8<sup>th</sup> October, 2014 from <http://www.fspublishers.org>