

STATUS OF CASSAVA PRODUCTION, DISTRIBUTION AND UTILIZATION IN OSUN STATE, NIGERIA

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ABSTRACT

Nigeria is the largest producer of Cassava (*Manihot esculenta* Crantz) in the world but production is declining with attendant increase in food insecurity. A state wide survey was conducted to document cassava production, distribution and utilization in Osun state, Nigeria. Production areas included the savannah, forest and forest/savannah agro ecological zones of the state with the highest yield (18.6tons/ha) occurring in the savannah zone and the lowest (11.1tons/ha) in the forest/savannah transition. Major sources of planting materials were farmer owned previous season's cuttings (56%) and collection of cuttings from friends within the neighbourhood (22%). Most farmers (68.7%) claimed that cassava production has reduced significantly within the last five years while some (0.7%) opined that the decline is negligible. Distribution and utilisation of cassava in Osun state is traditional; most of the produce is processed and consumed locally within the farming communities (91.3%) while only 1.3% gets into industries. The most important cassava production constraints were shortage of good planting materials, lack of standard marketing boards, pests and diseases. This study therefore indicates the necessity to improve on the distribution of healthy and high yielding varieties, the establishment of marketing boards and cassava flour processing centres to enhance production.

KEYWORDS: Cassava, Production, Distribution, Processing, Utilisation

INTRODUCTION

Cassava originated from the Southern border of the Amazon River basin in Brazil (Sachal and Olsen, 1999) and was introduced to Africa during the 16th century and later into Asia in the 18th century. The crop is made up of the aerial part and the underground part which consists of two types of roots: the ones responsible for the plant nutrition and the other called the tubers which are edible. Cassava tubers are rich in starch, poor in protein and highly perishable (Hahn *et al.*, 1979). The crop has ability to adapt to various agro ecological conditions; it is also considered to be a low risk crop because it is highly resistant to drought and can grow in poor marginal soils (Pandey *et al.*, 2000).

Nigeria is the largest producer of cassava in the world (FAO, 2010). The crop has played an important role as food security and cash crop in the country. Two third of world cassava is used for human consumption in the natural form as flour or in fermented forms such as *gari*, *fufu* and *tapioca* (Giraud, 1993). This is then followed by the use in the animal food industry while the least amount is used by the textile and paper industry.

The Nigerian presidential initiative on cassava production and export since 2002 has called for increased production to meet both local and export markets (Omonoma *et al.*, 2010). Governmental and non-governmental organisations have made several efforts to encourage increased cassava production in Nigeria (Fresco, 1993 and Otoo, 1994) but the major challenges have been the fact that production is mostly done by rural small holder farmers that use

low-level production techniques and the lack of established marketing channels and poor infrastructure required for an

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effective production and marketing system (Omonoma, 2009; Oyegbami *et al.*, 2010 and Nweke *et al.*, 2002). This study was undertaken to collect information on the current status of cassava production in Osun state as well as assess the current challenges of production, distribution and utilization thereby enhancing productivity.

METHODS

Survey for cassava production, distribution and utilization in Osun state was conducted in January-February, 2009 and January-February, 2010. The study area covered three agroecological zones within the state; Forest/savannah transition, Forest and Savannah agroecological zones. The itinerary and field samples were selected on the basis of accessibility by road and the importance of cassava in the zones. Fifty farmers were selected in each zone; data gathering was done with the aid of structured questionnaires administered on randomly selected cassava farmers in individual interview sessions. A total of 150 questionnaires were administered and the data were expressed in percentage of responses obtained.

RESULTS AND DISCUSSIONS

Cassava is widely grown in Osun State but mostly as small holders (Figure 1), Most farmers (70%) in the forest/savannah transition agroecological zone grow cassava on approximately 1 to 3 ha of land at a time while only 6 % of them grow cassava on more than 3 ha of land at a time. In the forest agroecological zone also, majority of the farmers (78%) grow cassava on about 1 to 3 ha of land at a time and only 2% farmers grow cassava on more than 3.1 ha of land at a time. The same trend was observed in the savannah agroecological zone. Figure 2 showed sources of planting materials used by cassava farmers in Osun state.

More farmers used their own previous season's cuttings (56%) or collected from friends (22%) within the neighbourhood. Other sources were buying from markets (15.3%) and supply from agrochemical manufacturers and researchers (6.7%) for trial purposes.

Four cassava varieties were commonly grown in the state (Aboyade, Idileruwa, IITA and Oko-Iyawo) with the IITA variety being the most popular in all the zones (Table 1). This was then followed by *oko iyawo* (a local variety) while *Aboyade* was the least cultivated variety. Sources of information on cassava production were mainly from farmer's previous experience and friends. Other sources of information include the Osun State Agricultural Development Programme and Agro allied Chemical companies (Table 2).

A high percentage of farmers (68.7%) agreed that cassava production has reduced significantly within the last five years but a small proportion (0.7%) suggested that the reduction is however negligible (Figure 3).

High proportion (95%) of tubers produce are processed in to *gari*, *lafun* etc within the neighbourhood for family consumption or at best sold to the cottage industries (60%) (Figure 4). Only one privately owned processing centre was observed at Osogbo in the savannah agroecological zone where unfermented flour is produced from cassava grown by the company's farm (Figure 4).

Lack of funds, improved varieties, standard marketing and processing channels, pests and diseases were the major constraints of production in Osun state, Nigeria (Table 3).

Cassava is an important crop in Osun state where it serves as food and source of income for the farming families, the crop is produced in all the agroecological zones with the highest average yield/ha occurring in the savannah zone (18.6 tons/ha) and the lowest in the forest/savannah transition (11.1 ton/ha) (*OSADEP annual production data*) .

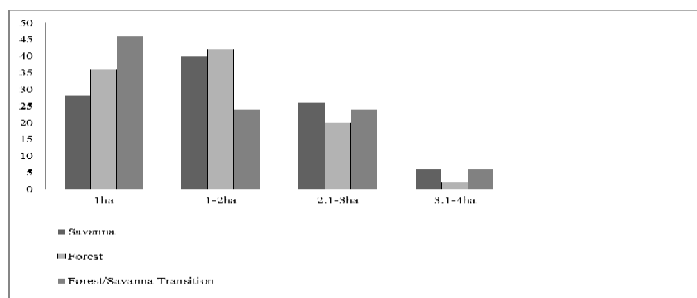


Figure 1: Percentage Distribution of Land Area Cultivated to Cassava in Osun State

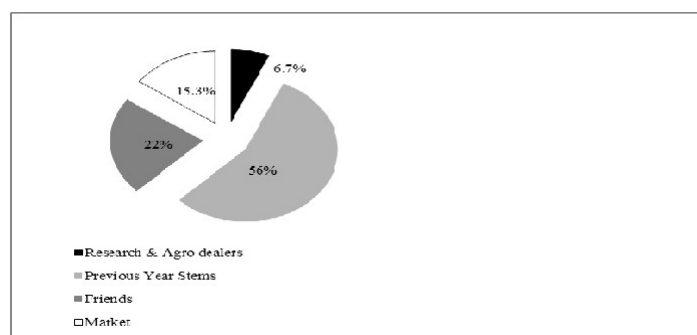


Figure 2: Sources of Planting Materials Used by Cassava Farmers in Osun State

Table 1: Types of Cassava Varieties (%) Grown by Farmers in Osun State

Agroecological Zone	Aboyade	Idileruwa	IITA	Oko-Iyawo
Savannah	6	16	40	38
Forest	6	18	42	34
Savannah/Forest Transition	8	12	44	36

Table 2: Farmers Sources of Information (%) on Cassava Production in Osun State

Agroecological Zone	Agro Dealers	Friends	OSADEP	Previous Knowledge
Savannah	4	22	20	54
Forest	6	22	14	58
Savannah/Forest Transition	10	22	12	56

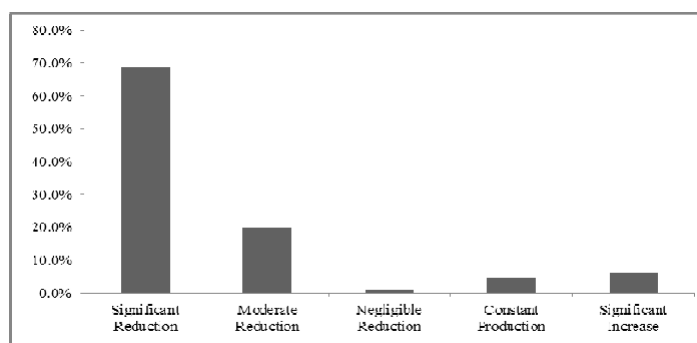


Figure 3: Percentage Distribution of Farmers in Relation to Decline in Cassava Production in Osun State

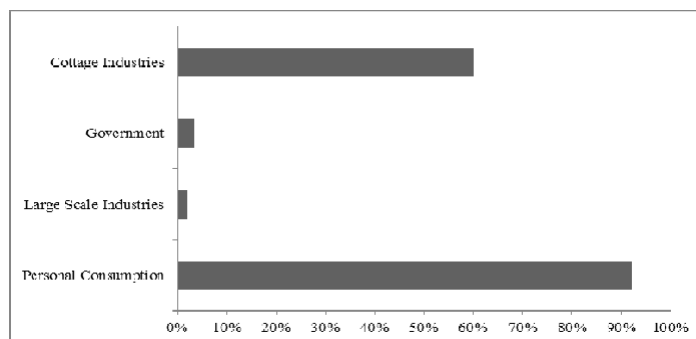


Figure 4: Percentage Distribution and Utilization of Cassava in Osun State

Table 3: Major Constraints of Cassava Production (%) in Osun State

Agroecological Zone	Lack of Fund	Lack of Improved Varieties	Lack of Standard Market/Processing Centres	Pests and Diseases
Savannah	16	20	40	24
Forest	8	30	42	20
Savannah/Forest Transition	16	28	46	16

Farmers grow cassava on small scale basis, this approach may not encourage the use of modern input that could increase yield for example, smaller fields (less than 5 ha of land) have been reported to be easier to work with using human labour but are far more costly than the larger fields that are tractor operated, larger field sizes are thereby recommended for increased productivity (Akoroda *et al.*, 2004). Traditionally, farmers tend to replant their old cuttings and may source for more only when not sufficient. This can lead to accumulation of diseases and pests over time as old planting stock could serve as a host to inoculum. The International Institute of Tropical Agriculture over the years have developed and distributed high yielding and disease resistant varieties to farmers, IITA varieties distributed to farmers in and around Osun state were (1) *TME 419*, *TMS 30572*, *TMS 98/0581* and *TMS 92/0057*. There is the need for periodic assessment of their performances and farmers should be encouraged to keep adequate records on production performances and identification of the varieties. Research outcomes and information should be made readily available to farmers through the extension and other agencies. This agrees with the report of Munyuli *et al.*, (2004) that improvement in extension services, introduction and dissemination of healthy and high yielding varieties among others will improve cassava production.

CONCLUSIONS

Management of pests and diseases, improvement in genetic research and better agronomic practices are possible ways of increasing productivity and availability of cassava products for both local and export market without causing strain on domestic consumption. However, there is the need for corresponding improvement in marketing, Trade Corporation, value addition and utilization to enhance farmers' response to the Federal Government of Nigeria's initiative on cassava production.

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