

# Creating Functional Marketing of Cowpea as Source of Employment for Nigerian Youth

Lawal Saidu Muhammad

Department of Agricultural Education, Federal College of Education, PMB 2041 Katsina, Nigeria

saidumuhdlawal@gmail.com

+2348036139147

## ABSTRACT

Cowpea (*Vigna unguiculata* L. Walp) is an important cash crop that can be used as means for economic development in Nigeria. Cowpea is also a cheap source of plant protein widely consumed in Nigeria in different forms. Significant quantity and quality of cowpea is lost annually due to poor marketing and production. This paper aims at suggesting ways of improving cowpea marketing through improved processing, grading, packaging, storage and pricing. Improved marketing system of cowpea can lead to increase production with less product loss due to pest, diseases and weather. Further processing means adding value to the product, expanding the marketing chain and channel, and this leads to increasing job opportunities to our teeming population. Nigeria is the largest cowpea producer and also the most populous in Africa hence ready market for cowpea since cowpea is consumed world wide with little or no religious taboos. Cowpea is an important means of increasing nutritive value of our diet and also increases employment opportunities.

**Keywords:** Cowpea, Marketing, Employment, Nigeria

## I. INTRODUCTION

Cowpea (*Vigna unguiculata* L. Walp) is one of the major pulse crop grown in humid and sub-humid tropics. Cowpea is nicknamed “crop of security” due to its ability to produce some 100 kgs in condition where many crops fails. Cowpea plays a critical role in the lives of millions of people in Africa and other parts of the developing world where it is a major source of dietary protein that nutritionally complements staple low-protein cereal and tuber crops and is a valuable and dependable commodity that produces income for farmers and traders (Lawal, 2015).

After the abolishing of state marketing boards Nigerian Produce Marketing Company (NPMC) by

decree No. 29 April 1977 seven commodity boards were established with the following objectives;

1. to secure the most favourable arrangement for the purchase of the relevant commodity and subsequent sale thereof to meet domestic requirements and evacuation to ports of shipment of any surplus for export,
2. purchase all relevant commodities which are offered for sale to the board which conform with the grades and standard of quality prescribed under any enactment,
3. to promote the development and rehabilitation of the producing areas,
4. to allocate funds to the appropriate authorities by means grants, loans, investments and endowment for the purpose of economic development and research,
5. to supply produce to local processors for processing plants and

6. to stabilize price by fixing legal minimum buying price at a time and by seeking to minimize price fluctuation within and between seasons. (Olukosi and Isitor 1990).

### Uses of Cowpea

The cowpea plant, after pods are harvested is used as a nutritious livestock fodder. Medicinally, cowpeas are sacred to Hausa and Yoruba tribes; they are used in folk medicinal practices and are prescribed for sacrifices to abate evil and to pacify the spirits of sickly children. Hausa and Edo tribes use cowpea medicinally; one or two seeds are ground and mixed with soil or oil to treat stubborn bowel. Its diversity of uses, nutritive content and storage qualities has made cowpeas an integral part of the farming system in the West Africa region. Cowpea is an important grain legume grown for its protein-rich grains. It is also a cheap source of protein in the diets of people in Africa and other regions of the world. According to IITA (2009) all parts of the cowpea are used as all are rich in nutrients and fiber, the young leaves, immature pods, immature seeds and matured seeds are consumed. The grains are for human consumption cooked solely or in mixture with rice, yam, millet or other staple food. Cowpea is used to prepare "kose", "alale" ("moimoi") and "danwake" protein rich local dishes. Most consumers believe that cowpeas are good for their health and growth though slightly more than 50% also believe that cowpea caused digestion problem and discomfort due to flatulence (Ndiaga and Anthony, 2004). The stems, leaves and the pod shells are a good source of feed for livestock. The crude protein content of the cowpea haulms ranges from 13% to 17% with high digestibility and low fibre content as reported by IITA (2002).

Cowpea is used as pot-herb and fodder plant due to the fact that it continue producing new leaves if cut back regularly from early stage because they do not mature in definite time as pointed by Purseglove (1977). According to Adams (2003) cowpea is the second most important pulse crop in Africa that

produces over 95% of the world crop Nigeria being the biggest producer. Trading of fresh produces (green pods) and processed cowpea foods and snacks provide rural and urban women opportunity for earning cash income.

## II. MARKETING OF COWPEA

### A. Marketing system of cowpea in Nigeria and losses

Marketing is the performance of business activities that direct the forward movement of goods and services from producers to the final consumers. Olukosi and Isitor (1990) defined marketing from the macro view point as a system that examines the total system of activities concerned with the flow of products from producers to final consumers; the kinds of institutions and price making mechanisms that guides those flows; the interactions among consumers, agribusiness firms, farmers and government that determine the level of expenditures; and sharing of expenditures as income to market participants.

The marketing structure in Nigeria involves the farmer, middlemen, retailers and consumers.

Over the years our marketing system is fixed with marketing of raw agricultural produce with little or no value addition. The system is choked with numerous market middlemen that handle the produce without value addition. These middlemen are only speculators that cause seasonal price variation which is exploitative and result in high consumer price. The middlemen buy in bulk from the farmers, transport to the market and sell immediately at higher price or store for periods of scarcity.

According to Tylor (1971) losses in cowpea are categorized into losses in crop quantity and quality. These losses can be nutritive value loss, loss in taste, weight loss or loss of viability in seeds. The federal department of agriculture FDA (2010) reported four major causes of crop losses as follow;

1. Physio-chemical factors; Such as damage during processing and handling, chemical contamination during production and storage

2. Structural factors; these include damage due to storage facilities
3. Environmental factors; Such as solar radiation, rainfall, temperature and humidity.
4. Biological factors; this is the most pervasive and economically damaging.

The major causes of losses of cowpea in the markets are inadequate storage facilities and poor handling. Most of cowpea traders use traditional methods of storage and uses chemicals that are harmful to human being and his environment. They includes micro-organisms, insects, birds, rodents and larger animals. CBN (1994) projected that 1346, 1401, 1459, 1519, 1581, 1646 and 1714 (000mt) of cowpea will be produced by the year 1994, 1995, 1996, 1997, 1998, 1999 and 2000 respectively. And Agridem Consultant (1994) projected a post-harvest loss of 253, 264, 275, 287, 298, 310 and 323 (000mt) of cowpea in the year 1994, 1995, 1996, 1997, 1998, 1999 and 2000 respectively. This statistics shows the average of about 19% post-harvest annually.

Processing of commodity is crude involving threshing of the cowpea into grains only. This method results in breakage and poor quality produce.

Poor storage and processing of cowpea cause post-harvest losses in cowpea. There is no grading and no standardization of the commodity currently in the cowpea market. According to Fakyode et al. (2014) majority of the respondents in their study store their cowpea in bags and cribs and more 54% use phosphotoxin in their stores.

Much of the post-harvest losses in cowpea start from the farm as a results of pest and diseases attack in the field. Some insect pest like cowpea weevil and bugs laid their eggs in pods which hatch in store.

## **B. Improvement of cowpea marketing**

To create improved functional marketing the following functions must be improve so as to add

value to the commodity. Value addition is to make the commodity available in the form, quantity, time and place desired by the consumer.

### **i. Processing**

The primary objectives of processing according to Olukosi and Isitor (1990) are quality enhancement, product differentiation and preservation. Cowpea processing starts from drying of pods in the sun or dryers to prepare cowpea for threshing and winnowing.

Separation of cowpea seed can be achieved through manual winnowing or using machines.

Cowpea can be processed into powder or paste for preparation of 'alale/moimoi' or 'kose'(cake) for consumption. Cowpea seeds can be boiled and eaten in mixture with other food as mentioned above

### **ii. Grading and Standardization**

Grading and standardization of cowpea can be achieved by using sieves separate good healthy seeds from shriveled, infested and broken seeds. Moisture content and trash also affect the quality of the commodity. Cowpea consumers in Nigeria, Ghana and Mali prefer larger grain size and are willing to pay a premium for larger grain size (Fulgence et al., 2009) Standard can be established by grading the cowpea based on the purity, moisture content (<12% moisture) and size of the seeds.

### **iii. Packaging**

The primary objective of packaging is to make handling, transport and storage of the commodity easier with less spoilage. Over the years packaging of cowpea is carried out in the sack, pot and recently in the jerry cans.

Cowpea can be packaged in airtight transparent polythene bags of various kilograms. Improve packaging can be used to describe the product and also enhance form and time utilities. The package can be labeled with a trade name, description of the

product, safety and possibly NAFDAC registration number.

#### **iv. Storage**

Storage is aimed at creating time utility with very minimum spoilage and improvement of quality of the produce. The primary objective of storage is to make the commodity available throughout the year for the consumers. Storage is achieved through chemical treatment of the commodity or temperature control. Hermetic control is to store the cowpea in an airtight container that prevents biological activities of the pest with the aim of killing them without using pesticides. Cowpea storage can be improved using hermetic bags/packages. The package should be weather-proof, to avoid spoilage due to moisture or adverse temperature, and also airtight. Good storage of cowpea can ensure stable supply of quality cowpea throughout the year thereby stabilizing the price of the commodity.

#### **v. Pricing**

Pricing of cowpea is determined by qualitative and quantitative characteristics of cowpea and ability of the potential buyer to pay and take possession. According to Faye et al. (2004) the impact of testa colour and texture is significant where consumers are willing to pay more compared with cowpea with speckled skin.

In traditional marketing, pricing entails haggling between the seller and potential buyer before arriving at an agreed price. The actual price of a commodity is determined by the forces of demand and supply. The most stable price is the on equilibrium point, where there is no excess of demand and no shortage of supply. Seasonal price variation of cowpea is as a result of seasonality of cowpea production, where price comes down from October to January and rise there on.

Pricing of cowpea can be improved by proper storage, packaging and preservation.

With proper packaging it is possible to put a price tag on package to avoid haggling and undue exploitations.

### **III. SUMMARY AND CONCLUSION**

In summary this paper set out the strategy for the improvement of cowpea marketing to ensure steady supply of quality product in various packages convenient to traders and consumers. Improved marketing can also reduce extreme supply fluctuations and seasonal price variation.

In conclusion cowpea is an important proteinaceous cash crop consumed by all. It is therefore marketable commodity every where and all round the year hence reliable source of employment for our teeming population.

### **IV. RECOMMENDATION**

From the above discussion the following recommendation may further assist in creating a functional and improved marketing for cowpea.

1. To ensure abundant supply of good quality cowpea government should provide enabling environment through good agricultural policy like enacting grazing law to enable farmers produce late cowpea varieties. These varieties are better than the early varieties due to low humidity during their harvest, hence dry faster with little or no spoilage due to mould.
2. Government should introduce grades and standard for cowpea.
3. Government should adequately fund research to improve our cowpea varieties in terms of tolerance, disease and pest resistance, taste and size.
4. Cowpea breeders should broaden and intensify research on new varieties with emphasis on grain size, pest and diseases resistance.
5. Farmers should use diseases and pest resistant varieties to avoid the use pesticides during production and storage.

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