Characterization of Cowpea Producing Households in Warawa Local Government Area of Kano State, Nigeria.

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ABSTRACT

The research was conducted in Warawa Local Government area of Kano state to investigate the characteristics of cowpea producing households. Warawa was once an area where cowpea production was high. Four villages were purposively selected and fifty respondents were drawn through simple random sampling. Data collected were analyzed using descriptive statistics and gross margin. The results revealed that majority of the farmers ages were within the 25-35 year of age, and had 1-10 years of farming experience. Despite the negligence of government on farming sector, the farmers were still able to produce at a profitable rate with a marginal gross margin of **₦5,447.37** per hectare. Major constraints identified in the study include irregular inputs prices, antagonistic government policies and farmers' declining interest in cowpea production. The paper recommend prompt delivery of subsidized inputs, and farmers re-orientation for production be encouraged by government and farmers' associations in the study area.

Keywords: Characteristic, Cowpea Producers, Profitability, Government Policies, Farmers re-orientation

INTRODUCTION

Cowpea is an annual crop and one of the major important crops to the livelihood of millions of relatively poor people in the less developed countries in the tropics (Duke, 1990). Cowpea is a unique crop that serves as source of protein in the diet of those who cannot afford animal protein like meat and fish (IITA, 2006). It has a protein value of about 23%, fat 0f 1.3%, fibre 1.8%, carbohydrate 67% and water of 8-9%. As it is with all leguminous crops, its amino acid profile complements that of cereal grains (Jefferson, 2010). Brainard (2005) stated that cowpea is very effective in weed control as its provide a good shade that denies the weed light for their survival. Singh (1997) reported that from the production of cowpea, families derived food, animal feed and cash, with spillover benefit to their farmland from decayed root residues. Its market price fluctuates due to seasonality and demand (Anjiorin, *et al* 2009).

The major cowpea producers in the world are Nigeria, Niger, Burkina Faso, Senegal, China, Chad, Cameroun etc IITA (1992). Cowpea can be processed into various form of food such as bean cake, or mixed with rice, potatoes, flour etc. (Kay, 1985). Cowpea in Nigeria is economically sound, it contributes to the general improvement in living standard of the farmers growing it since farmers sale it as cash crops and the stalk and leaves are used for livestock feed and in soil improvement (Onwueme, 1974).

Its production in Nigeria is faced by problems of low grain yields, this is probably due to a number of physical, biological, technical and socio-economic constraints, drought, insect pests and diseases (Omisore and Mohammed, 2007).

Warawa LGA of Kano state was once known for its cowpea production potentials but the production now is low with other ventures like sorghum, millet and maize production dominating the area. These happen as a result of limited farm input, inadequate credit facilities, poor knowledge of market and marketing, vulnerability to pest infestation both at farm and as stored product. Furthermore, part of the problem might be due to inefficient utilization of resource. Therefore, this study aims at describing the socio-economic profile of the farmers and to determine their profitability in cowpea production.

METHODOLOGY

Study Area

Warawa LGA is one of the 44 local governments in Kano state, which is located between latitude 11^0 53' N and longitude $8^0$41'E. It has a total land area of 360 km^2. The local government falls within the Sudan savanna vegetation, with temperature that reaches between 30-35^{o}C in hot season around March-May. In cold season temperature falls to as low as 10^{o}C mostly in the month of December-January. The average relative humidity and annual temperature are 45% and 30^{o}C respectively (Kano State Local Government, 2001). The average annual rainfall ranges between 850-900mm with its peak period around the months of August-September (Olofin *et al*, 2008). People of the area are predominantly farmers and traders with women engaging in small scale groundnut oil production. Other crops grown in the area includes, sorghum, groundnut, maize, pearl millet etc.

Sampling procedure and sampling size

The population of Warawa LGA is 128,787 (NPC, 2006), a sample frame of 208 was used and 50 farmers were randomly selected as they are homogenous with similarities in both their social and economic life. The villages of Kanta, Burku, Bagoji, and Rinji were purposively selected because they were among the areas that were producing huge quantity of cowpea in the study area.

Instrument for data collection/Method of data collection

Primary data was sourced using a structured questionnaire. Twenty (20) structured questionnaire were administered to Kanta as they have more population of cowpea farmers while 10 structured questionnaires were administered to the villages of Burku, Bagoji and Rinji respectively, forming a total of Fifty (50) respondents.

Specification of Tools of Analysis

Descriptive statistics was used to describe the socio-economic characteristics of the farmers through the use of frequency tables and percentages. This helps to describe the proportion of the respondents to a particular response.

Cost and Returns Analysis

Farmers in this locality were mostly small scale in nature and as such were not normally using large farm implement like tractor, so their fixed cost were very minute and negligible. This led to the adoption of gross margin as tool for determining the profitability and it is given by;

Gross Margin = Gross Receipt – TVC……(1)

Where;

TVC=Total Variable Cost.

RESULTS AND DISCUSSION

Table 1 shows that 56% of the farmers were in the 25-35 year age group which implies that farming in the study area was in the hands of the most productive age group. They were young and energetic and could cope with the tedious agronomic practices required of the crop. This is followed by the respondents (24%) in the 36-45 year age group. The least goes to the unproductive age grade that is class 45 – 55 because they are old and could not work in farms and it forms only 6% of the respondents. Majority of the farmers (88%) were married implying farming was left in the hands of the married people in the study area. This is probably due to their early marriage practiced in the area. The table also shows most of the respondents (80%) depended on other secondary occupations thereby using farming to serve as a means of securing family livelihood (food) with only 10% of the respondents having farming as their primary source of income.

Table 1: Socio-economic Characteristics

Ages	Frequency	Percentage (%)
15-25	7	14
25-35	28	56
36-45	12	24
45-55	3	6
Marital Status		
Single	6	12
Married	44	88
Major Occupation		
Farming	10	20
Non-Farm	40	80
Source of Income		
Processing	7	14
Marketing	26	52
Transportation	17	34
Educational Background		
Primary	12	24
Secondary	4	8
Tertiary	2	4
Qur'anic	32	64
Years of Experience		
1 to 10	25	50
11 to 20	21	42
More than 20	4	6
Reason for Production		
Home consumption	4	8
Income generation	5	10
Both	41	82

Field survey, 2012

Table 2: Cost and Returns Analysis

Inputs (₦)	Average Cost	Minimum Value	Maximum Value
Seed	1,489.00	1,500.00	3,850.00
Labour	7,144.03	6,528.46	20,228.15
Fertilizer	7,172.80	660.00	35,000.00
Pesticide	2,550.00	1,500.00	8,000.00
Output	23,801.20	15,900.00	97,500.00

Field survey, 2012

G.M = TR - TVC
G.M = 23,801.20 - (1,489.00 + 7,144.03 + 7,172.80 + 2,550.00)
G.M = 23,801.20 – 18,355.83
G.M = **₦5, 447.37 ……. (1)**
Returns per naira investment from (1) above can be computed as; =TR/TVC =₦23,801.20/₦18,355.83
Returns per naira invested=**₦1.30 ……. (2)**, This means for every ₦1 spent it returning power is ₦1.30.

The majority (64%) of the farmers in the study area had no formal education but only Islamic education while 24% had primary education. In essence, the level of literacy was enough to enable farmers understand basic farm instructions in local *Hausa* language to help in adoption of innovation. However, the far north hardly accepts western education and at certain level do consider it as inappropriate thereby keeping themselves and their children away. Class of 1-10 year forms the modal class which implies that the majority of the farmers in study area had farming experience that falls within the range of 1-10 years. The category that ranges from 20 years and above were mostly the old aged whom were less productive normally depending on the efforts of the productive age category. Most of the farmers (82%) represent both consumption and income generation, since the output obtained only served as source of food to the farmer and his family with no or little for sale, 8% and 10% represents home consumption and income generation respectively.

From Table 2, it could be seen that the farmers in the study area were able to produce cowpea at profitable rate though less government support has been a major limitation to the rural farmers. It went further to show the returns per naira invested and found out that for every ₦1 spent, it generates ₦1.30. This agrees with the findings of Mohammed (2009), that says cowpea is a profitable ventures and had cost/benefit ratio of 1.52 which is a bit more than 1.30. By implication, with more government support on the venture, farmers will be able to produce at a much more profitable rate thereby increasing their living standards.

CONCLUSION AND RECOMMENDATIONS

The socio-economic characteristics of the respondents denote that the farmers were all subsistent farmers. Therefore, the farmers were not solely dependent on agriculture as their source of livelihood. Despite the availability of fertile land, the inhabitants are running away from farming due to the difficulties associated with farming. Cowpea production in the study area was a profitable venture but very difficult to practice which was probably why the farmers are running away for other crops like millet, sorghum etc.

Based on the findings of the study, the following recommendations are hereby proffered;
1. Enlightenment through extension should be intensified to encourage farmers to use their resources efficiently for reaping maximum profit and thus increasing their interest in cowpea production.
2. Government's subsidized inputs should be made available to the targeted farmers without the needless diversions and unnecessary delays.

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