



*An International Journal*

12

**Agricultural Sciences Research Journal**

UNIVERSITY OF IBADAN LIBRARY

### **Aims and Scope**

The **Agricultural Sciences Research Journal** publishes original articles and reviews in agriculture and related interdisciplinary studies that explore and exploit the production of food for mankind. It also publishes scientific works related to strategic and applied studies in all aspects of agricultural science.

The journal publishes regular issues as well as special issues including symposia, conferences etc.

### **Editorial Office**

Editor-In-Chief: Professor J.A. Oluyemi  
(asrjasrj@yahoo.com)  
Assistant Editors: Dr. A.O. Fasuyi  
(dejifasuyi@yahoo.com)  
Dr. A.E. Salami  
(ayosalami@hotmail.com)

ASRJ – Editorial Office,  
Faculty of Agricultural Sciences  
University of Ado-Ekiti  
Ekiti State, NIGERIA.  
E-mail: asrjasrj@yahoo.com

UNIVERSITY OF IBADAN LIBRARY

### **EDITORIAL**

The backwardness of the Nigerian agriculture and especially its inadequacy as a panacea for the diversification of the nation's economy is considered to be of ominous potent to the nation's destiny. Even though, steps are being taken to avert disaster, the promised land of agricultural renaissance may be of mirage as it appears to be threatened by a dangerously prolonged gestation.

Nevertheless, a major positive step notable in this respect is the expansion of tertiary institutions of agriculture with a corresponding impressive increase in the number of agricultural scientists. However for effectiveness, this development should be balanced with adequate research facilities and outlets for research findings.

In addition to the existing number of agricultural journals should therefore be seen as a step in the right direction. Agriculture is perpetually on the march; and even in the developed economies, researchers are consistently challenged with a profusion of problems. Availability of journals should under no circumstances constitute a constraint to progress in this endeavour.

This consideration impinges on institutionalized constraint to publications in form of insistence or premium on publications in foreign journals for academic advancement. This could make sense in the bygone era of scarcity of locally available qualified scientists as reviewers of manuscripts, which are now in relative advance. Indeed, Agricultural Sciences Research Journal boasts a galaxy of such seasoned scientists; and the message is clear that the journal is not a safe haven for the 'publish or perish' gambit.

Agricultural problems and interests are subject to local variations. But fundamental issues transcend national boundaries and findings in one locality may be useful in another. Hence in line with the international practice, this journal publishes articles from all over the world, subject to favourable reviews.

Finally, a catch them young policy is being advocated by exposing students at the latter stage of tertiary education to scientific journals. This represents part of their induction to the scientific culture. Apart from this being an additional stimulus for high quality publications, this journal embraces from the outset the ideals and standards compliant with international repute. The pursuit of these ideals call for the joint efforts of all stake holders, especially in providing adequate resources. The resultant generation of research findings and of expertise would guarantee such confidence as to preclude the invitation of foreigners to modernize commercial agriculture in Nigeria.

Professor J.A. Oluyemi

Editor-in-Chief (ASRJ)

### **EDITORIAL ADVISERS (not exhaustive)**

#### *AGRICULTURAL ECONOMICS AND EXTENSION*

Prof. Janice E. Olawoye

Dr. (Mrs) Odeyinka

Dr. J.O Akintola

Prof. S.O. Ewuola

Dr A. Farinde

Prof. S.F. Adedoyin

Prof. J.A. Akinwumi

Dr A.O. Akinsorantan

Dr I.A. Ajibefun

Prof. Remi Adeyemo

*ANIMAL PRODUCTION/SCIENCE AND HEALTH*

Prof. V.A. Aletor  
Prof. Bamgbose  
Prof. (Mrs) Adebambo  
Prof. P.O Aina  
Dr. C. Adeboye  
Prof. K.L. Ayorinde  
Prof. G.M. Babatunde  
Prof. Mrs. O.G. Longe  
Prof. (Ven.) E.A.O. Laseinde  
Dr. (Mrs) Odeyinka  
Prof. E.A. Iyayi  
Prof. L.O. Ngere  
Prof. D. Adene  
Prof. Abiodun  
Prof. S. Abiola

*CROP, SOIL, PESTS & ENVIRONMENTAL STUDIES*

Prof. C.O. Alofe  
Prof. S.O. Ojениyi  
Prof. T.A. Okusanmi  
Prof. A. Olayinka  
Prof. M.E. Akin'ova  
Prof. M.A.K. Smith  
Prof. A.O. Ogunkunle  
Prof. I.O. Obigbesan  
Prof. M.T. Adetunji  
Prof. T. Ikotun  
Dr. R.D. Aladesanwa

*FORESTRY, WILD LIFE & FISHERIES*

Prof. A.M. Balogun  
Prof. S.O. Bada  
Prof. E.A. Fasakin  
Dr. (Mrs) Omitogun

UNIVERSITY OF IBADAN LIBRARY

**Rural Poverty and Child Labour among Cassava Processors in Ogun State, Nigeria****K.O. Adenegan, O.A. Adewusi and Fashina, T.O.**

Department of Agricultural Economics, University of Ibadan.

**Abstract:** This study was undertaken to assess the influence of child labour participation on the poverty profile of cassava processors in Odeda Local Government Area of Ogun State. It also examined the socio-economic characteristics of the respondents involved in cassava processing in the study area. FGT model was used to analyse the poverty profile of cassava processors while descriptive statistics were used to describe the socio-economic characteristics of cassava processing households in the study area using primary data set. A poverty line of N1775.6 was determined using two-third mean per capita household expenditure. The study finds that poverty bears a direct link with child labour and therefore suggests that Government should focus on improving the income generating capacity of the rural people through allocation of financial resources to small-scale cassava processors in the area.

**Key words:** Child labour, rural poverty, cassava processing.

**Introduction**

Poverty in Nigeria (as in most developing countries) is a rural phenomena correlating directly with family size and the number of earners in the household (Okunmadewa, 2001). This sector is also characterized by inadequate infrastructures such as safe water, rural feeder roads, electricity as well as communication. There is also low level of literacy as well as other human development indicators. For instance, Nigeria ranked 152<sup>nd</sup> in the Human Development Index of 2001.

Moreover, poverty is symmetrical with high child labour participation rate in any society. The predominance of child labour, especially in developing countries, cannot be over-emphasized. ILO estimates, for 1996 indicate that over 250million children are involved in economic activities about half of which worked full time (Ashagrie, 1998). ILO (1996) indicates that 120million children are full time workers and 80 percent of them are between 10-14 years of age. In terms of child labour force participation rates, Africa ranks highest, 33 percent in East Africa, 24 percent in middle Asia, followed by East Asia and South Asia with 20 and 14 percent respectively.

In Nigeria, there is also a growing involvement of children in the labour force with work ranging from trading to load carriage, construction work, house maids, etc. (Adekola, 2001). Of a total of 38,061,333 children aged 5-17 years estimated during the 2001 FOS/ILO/SIMPOC survey in Nigeria. 15,027,612 (39.4 percent) are child worker.

However, as the global movement against child labour grows, there is need for more precise as well as detailed estimates on child labour. The child labour force participation rate given above indicates the intensity of child labour and the necessity to address it, in order to

eliminate its adverse effects on human capital development and the future growth potential of developing countries.

It has been observed that the major factor which predisposes children to work especially in agriculture is poverty, as a matter of fact, agricultural child labour is thrice what can be seen in other sector, (Federal Office of Statistics). It was stated that the number of rural poor is roughly thrice that of the urban poor, the depth of poverty was more than two-third lived on the farm (World Bank, 1997).

These children workers virtually come from these rural households where people just manage to work out our living from subsistence agriculture. The needs of these poor rural households make them send their wards to work rather than go to school. The implications is that these children may be able to provide extra income for their family and so reduce their poverty level. However, this will only be in short term. When one is interested in the long run effect or what happens to these children when they grow up, the opportunity cost of reduction in human capital development must be considered.

The importance of human resource contribution as a critical factor in any development process can not be overemphasized, so there is need to know how intra household decisions affect children's participation in labour, also the relationship between poverty status of the rural households and the involvement of children in labour.

This study, therefore, intends to shed more light on determinant of child labour participation and also to assess the poverty level of cassava processing household resident in Odeda Local Government Area.

Poverty is a multidimensional phenomenon. World Bank (1997) stated that the consequences of poverty often

reinforces its complex cause, leading to impoverishment. World Bank (1998) lists the major characteristics of poor households as inadequate access to employment opportunities, inadequate physical assets such as land and capital, inability to satisfy basic needs, lack of control over resources, lack of education and skills, poor health, malnutrition, lack of shelter, poor access to water, sanitation, vulnerability to shocks, violence and crime, lack of political freedom and voice. This definition of poverty no doubt, exposes the link between poverty and the woes of children in all ramifications.

The economics of child labour are known in general terms, the supply of working children is found primarily among rural poor families in need of the supplementary income provided by their children's labour. The burden of expenditures required to attend school as well as the loss of income provided to the family by children who are attending schools, combine to make education too costly for such families.

The major causes of poverty as inadequate access to means for supporting rural development in poor regions; inadequate participation of the poor in the design and development of programmes; low endowment of human capital, inadequate access to assistance for those living in the margins and in transitory poverty caused by drought, floods, pest and war, destruction of natural resources, which has led to degradation and reduced productivity, inadequate access to markets where the poor can buy goods and services and lack of basic social amenities such as health centers, water supply, schools and others (World Bank, 1996).

In Nigeria Achoyamen (2001) observes that the increasing poverty rate in the country has made families to use their children as a means of augmenting their needs. These children (usually below 18 years) are engaged in domestic services, work on family farms, street hawking, bus conductors as well as in factories and restaurants.

Canagarajah (1997) indicated that households are willing to send their children to school as long as they have enough resources to do so and that child labour will probably exist as long as the threat of poverty lingers in the household forcing them to send their children to work. He also discovered that in poor households 7.3 percent and in non-poor households 8.6 percent of the children were working while the corresponding figures for schooling were 54.2 percent and 56.6 percent.

Empirical studies revealed that children contribute as high as one third of household income at times and their income source cannot be treated as insignificant (Partinus and Psachropovlovs, 1994). It would therefore be expected that high cost of schooling increases the probability of working.

This is because if the children find out that they cannot afford schooling expenses they are forced into working in order to enable them attend school or it may just completely prevent them from going to school and participate in household enterprise since according to Canagarajah (1993) on the average in Ghana, children earn one sixth of what adults earn.

The main objective of the study therefore is to examine the impact of child labour on poverty status of small-scale cassava processing households in rural areas of Ogun State, Nigeria. The specific objectives are:

1. To describe the child labour characteristics of cassava processing households.
2. To determine the poverty profile of cassava processing households involved in child labour.

## Materials and method

### Sampling technique

A three-stage sampling procedure was adopted in the primary data collection. The first stage was the purposive choice of Odeda Local Government Area which is located in the South western part of Nigeria. The choice of this local government was based on the fact that it is a rural community and the major occupation of the residents are farming and cassava processing. The second stage is the random sampling of ten villages in the local government while the final stage is the random selection of ten households from each of the selected villages. One hundred households heads involved in small-scale cassava processing either as their primary occupation or as their secondary occupation were interviewed with the aid of questionnaires.

### Analytical technique

The tools that were used in analysis were:

1. Descriptive analytical tools used include frequencies, percentages and cumulative percentages.
2. Foster, Greer and Thorbecke (FGT) (1984) was used to analyze the poverty status of the cassava processors.

### Analytical framework

A relative poverty line was constructed for this study population to classify the study population into poor and non-poor. The poverty line was estimated based on the expenditure profile of the respondents on basic needs items. However, the total household per capita expenditure of the household studies was used as a proxy of standard of living. In this study, total per capita expenditure is the sum of cash expenditure of food and non-food items.

Per capita expenditure =  $\frac{\text{Total household monthly expenditure}}{\text{Household size}}$

Mean per capital expenditure is calculated by

MPCHHE =  $\frac{\text{Total per capital expenditure for all household}}{\text{Total number of households}}$

From this mean per capita household expenditure (MPCHHE) two lines are set relative to the standard of living in the area. From these two lines household can be grouped into three mutually exclusive classes which are:

- i. The moderate poverty line equivalent to 2/3 of the MPCHHE.
- ii. A core poverty like, equivalent to 1/3 of MPCHHE.
- iii. The non poor

Poverty measure using Foster, Greer and Thorbecke (1984) is adopted in this study to estimate the incidence, depth and severity of poverty in the study area. Then FGT measure is given mathematical as follows:

$$P\alpha = \frac{1}{n} \sum_{i=1}^q \left[ \frac{z-y}{z} \right]^\alpha \text{ ----- } \alpha \geq 0$$

Where  $\alpha = 0, 1, 2$

$n$  = Total number of households

$q$  = number of household below the poverty line

$(z - y)$  = poverty gap of the  $i^{th}$  household

$$\left[ \frac{z-y}{z} \right] = \text{poverty gap ratio}$$

$y$  = Expenditure of the  $i^{th}$  household

$z$  = poverty line (using 2/3 of mean per capita monthly household expenditure)

$F$  – ranges between zero and two

$F_0$  – incidence of poverty

$F_1$  – Depth of poverty

$F_2$  – Severity of poverty

The FGT measure is calculated by taking the proportional short fall in expenditure for each poor person and raising the short falls to a power to reflect the concern for the depth of poverty taking the sum of these for all poor individuals and normalizing the sum by the population size. As  $\alpha$  changes,  $P$  also changes to give an indication of depth of poverty.

When  $\alpha = 0$

$$\text{Then } P_0 = q/n = H \text{ (1)}$$

This imply the proportion of the poor to the total population i.e. Head count ratio. Equation (1) measures the incidence of poverty.

If  $\alpha = 1$

$$P_1 = \frac{1}{n} \sum_{i=1}^q \left[ \frac{z-y}{z} \right] \text{ .....(2) If } \alpha = 1$$

$$P_2 = \frac{1}{n} \sum_{i=1}^q \left[ \frac{z-y}{z} \right]^2 \text{ .....(2)}$$

Equation (2) measures the depth of poverty otherwise called the poverty gap between poor household and poverty line.

$$P_i = \frac{1}{n} \sum_{i=1}^q \left[ \frac{z-y}{z} \right]^2 \text{ .....(3)}$$

Equation (3) measures the severity of poverty.

**Results and discussion**

The result of socioeconomic characteristics of the cassava processing households on Tables 1 and 2 show that majority (54 percent) of the households have two children between age 6 and 10 engaged in child labour activities. Also, 50 percent of the households have at least two of their ward between ages 11 and 16 engaged in child labour activities. However, 12 percent of the households are not engaged in child labour activities.

**Table 1.** Distribution of households by number of children (6 – 10 years) engaged in child labour activities

No of children (6 – 10years)	Frequency	Percentage
.00	12	11.0
1.00	23	23.0
2.00	54	54.0
3.00	10	10.0
4.00	1	1.0
Total	100	100.0

**Table 2.** Distribution of households by number of children (11 – 15 years) engaged in child labour activities

No of children (11 – 15years)	Frequency	Percentage
.001	12	12
.002	38	38.0
.003	29	29.0
.00	21	21.0
Total	100	100.0

The result on Table 3 shows that the average and modal household size are approximately nine and eight respectively. This indicates that the households are large. However, on the average, about two children per household are engaged in child labour activities. Averagely, children between 6 and 10 years spend over two hours during child labour activities while children between ages 11 and 15 years have about three hours of child labour activities on the average daily. Also mean wage per hour for children less than 11 years is N56 while it is N75 for those above 10 years. Thus, returns to child labour are low. The result further shows that the modal number of children from a household is engaged in child labour activities while number is two.

About 60 percent of the households have cassava processing as their primary source of income while about 40 practise cassava processing as their secondary source of income. About 77 percent of the cassava processors do not have access to loan. This could limit the expansion of scale of their agrobusiness and keep them in the vicious circle of poverty.

**Table 3.** Statistical distribution of household characteristics

Statistics	6 10yrs	11-16yrs	HHSIZE	LS10HRSD	LS15HRSD	LS10WGDY	LS15WGDY	LBQTY
Mean	1.6600	1.5900	8.6900	2.4400	2.910	56.3000	75.0000	1.8800
Median	2.0000	1.5000	8.0000	3.0000	3.0000	50.0000	80.0000	2.0000
Mode	2.00	1.00	8.00	2.00	3.00	50.00	50.00	2.00
Std. Deviation	.8435	.9545	3.1065	1.2253	1.3640	41.7401	44.7778	.9564
Minimum	.00	.00	3.00	.00	.00	.00	.00	.00
Maximum	.004	3.00	17.00	5.00	6.00	300.00	200.00	4.00

HHSIZE = Household size

LS10HRS = Number of hours worked per day by children ≤ 10yrs

LS15HRS = Number of hours worked per day by children 11 - 15yrs

LS10WGD = Average wage per day for children (6 - 10yrs)

LS15WGD = Average wage per day for children (11 - 15yrs)

LBQTY = Number of children engaged in child labour per household.

**Table 4.** Distribution of household heads by occupation and access to loan

Occupation	Percentage
Cassava processing as primary occupation	59
Cassava processing as Secondary occupation	41

Access to loan

Do not have access	76.8
Have access	22.5

**Table 5.** Distribution of monthly gross income from cassava processing activities

Amount (N)	Frequency	Percentage
< 5000	3	3.0
5001 - 10000	40	40.0
10001 - 15000	25	25.0
15001 - 20000	16	16.0
20001 - 25000	3	3.0
25001 - 30000	2	2.0

**Table 6.** Distribution of household total monthly food expenditure

Amount (N)	Frequency	Percentage
1001 - 1500	2	2.0
1501 - 2000	6	6.0
2001 - 2500	38	38.0
2501 - 3000	31	31.0
3001 - 3500	20	20.0
3501 - 4000	3	3.0
Total	100	100

The result of Table 5 shows the modal gross monthly income of household who are involved in cassava processing as either their primary or secondary occupation. The result shows that the modal income range is between N5,001 and N10,000. The mean gross monthly income is N11,489. About sixty percent of the households earn more than the average gross monthly income from cassava processing.

The mean food expenditure is N2600. Majority (77 percent) of the households spend less than N3001 on food

monthly (table 6). Considering the large household sizes in the area, it can be presumed that the households are poor and cannot meet their food needs. This could be the reason for high prevalence of child labour in the area. Also, figures on Table 7 above shows that the mean monthly expenditure of household on non-food items is N1137.88. Thus, an average household spends half of what it spends on food and non-food items. This shows that food takes a larger proportion of their expenditure.

This is an indication of poverty. The minimum and maximum monthly expenditure are N208.00 and N2292.50 respectively while the modal group falls between N1251.00 - N1667.00

**Table 7.** Distribution of household total monthly non-food expenditure

Amount (N)	Frequency	Percentage
< 416417 - 833	6	6.0
834 - 1250	25	25.0
1251 - 1667	24	24.0
1668 - 2084	35	35.0
2085 - 2500	5	5.0
Total	100	100

The result on table 8 indicates that majority (98 percent) of the households engage their wards in child labour activities. This shows that child labour is prevalent in the study area.

**Table 8.** Distribution of households involved in child labour

Child labour involvement	Frequency	Percentage	Cummulative percentage
Involved	98	98.0	98.0
Not involved	2	2.0	100.0
Total	100	100.0	

Table 9 shows that the main reason for households engaging in child labour in the study area is for the children to earn money for themselves, thus relieving the parents of their responsibilities towards them.



**Table 9.** Reasons for engaging in child labour

Response	Frequency	Percentage
To keep children busy	1	1.02
To earn money to support the family	30	30.61
To earn money for themselves	67	68.37
Total	98	100.00

About thirty percent household heads allow their children to work as labourers in cassava processing in order to generate income support for the households. It is obvious that most household heads in the study area cannot sufficiently provide for their wards, therefore engaged their wards in child labour activities in order to relieve them of their responsibilities.

#### **Household poverty indices in the study area**

The poverty line was determined using the two-third mean per capita household expenditure. Table 10 shows the derivation of the poverty line.

**Table 10.** Derivation of poverty threshold

Total per capital household	N266,340.00
Total number of household	100
Mean per capital household expenditure (MPCHHE)	N2663.40
Moderate poverty (2/3 of MPCHHE)	N1775.60
Core poverty(1/3 of MPCHHE)	N887.80

Household with per capital expenditure less than N1775.60 are classified as being moderately poor while those with per capital expenditure less than N887.80 are considered as core or extremely poor.

**Table 11.** Poverty profile of households

Poverty status	Overall		Child involvement		Non-Child involvement	
	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage
Non-poor	33	33.0	31	33.0	2	2.0
Moderately poor	51	51.0	51	51.0	-	-
Poor	16	16.0	16	16.0	-	-

The identified cassava processors are classified into poor and non-poor based on the average monthly returns (AMR) of the households involved in these activities. The cassava processors with average monthly returns (AMR) below the poverty line (i.e. N1775.60) are classified as poor household and those having average monthly returns above the poverty line are classified as non-poor household.

Table 11 shows that 67 percent of the interviewed households are poor. The result also indicates that child labour cuts across all economic strata. All households in the moderately poor and core poor strata engage in child

labour. Most of the households in the non-poor stratus engage in child labour. However, all the households not engaged in child labour are non-poor, showing that child labour is prevalent among the poor. Child labour is therefore a social menace in the community that needs to be addressed with alacrity.

#### **The incidence, depth and severity of poverty**

The incidence, depth and severity of poverty among household that participate in child labour activities are shown in Table 12. The table indicates that the headcount ratio of households involved in child labour activities is 0.82. This implies that eighty-two percent of the households involved in child labour are below poverty level. The depth of poverty and severity are 0.26 and 0.22 respectively. This shows that there is a high level of poverty gap and income inequality among household engaged in child labour.

**Table 12.** Poverty profile of households involved in child labour

Poverty profile	
Incidence	0.82
Depth	0.26
Severity	0.22

#### **Conclusion**

The study shows that the cassava processing households are large and that on the average, about two children per household are engaged in child labour activities. Most household heads in the study area cannot sufficiently provide for their wards, therefore engaged their wards in child labour activities in order to relieve them of their responsibilities. However, returns to child labour is low.

An average household spends half of what it spends on food and non-food items. This shows that food takes a larger proportion of their expenditure. Majority of the households engaged in cassava processing are engaged in child labour and are below the poverty level and do not have access to loan from any source, formal or informal. About sixty percent of the households earn more than the average gross monthly income from cassava processing.

None of the households above the poverty level engages in child labour. Thus, it is concluded that child labour bears a direct link with poverty. Therefore any policy designed

to ameliorate the suffering and unpleasant poverty situation and check child labour activities of these rural poor must among other things recognize increased awareness of birth control a viable tool. Also, government should focus on improving the income generating capacity of the rural people through allocation of financial resources to small-scale cassava processors in the Local Government Area.

#### References

- Achoyamen, E.R. (2001): The Social Economic Effects of Child Labour. A case study of Obafemi Awolowo University, Ile-Ife (OAU). Proceedings of CIAP, 2002. pp 101-123.
- Adegeye and Dittoh, (1985): Essential of Agricultural Economics. Impact Publisher Ltd., Ibadan, Nigeria.
- Adekola, O.O. (2001): Determinants of Child Labour Participants in Ibadan, Oyo State. Unpublished M.Sc Thesis. Department of Agricultural Economics, University of Ibadan.
- Ashragie, K. (1998): Statistics of Child Labour; Bulletin of Labour Statistics, Issue No. 3. International Labour Organization (ILO), Geneva.
- Canagarajah, S. (1993): Child Labour and Schooling in Ghana. World Bank Policy Research working paper 1744 World Bank, Washington D.C.
- Canagarajah, S.J.; Ngwafon and Thomas, S. (1997): Evolution of Poverty and Welfare in Nigeria 1985 - 1992. World Bank Policy research working paper 1715, American Writing Corporation, Washington, D.C.
- Ravololomanga & Schlemmer, (1994): Children's and Women's Right in Nigeria. A wake-up call situation assessment and analysis 2001. Published by UNICEF Chapter 5 pp 201-207.
- Ezewu and Tahir, E-1997; Falajayo et al. E-1997: Child Labour Profiles, [www.erf.org.eg/html/jackline/wahba.pdf](http://www.erf.org.eg/html/jackline/wahba.pdf).
- Federal Office of Statistics/UNICEF (2000): Multiple Indicator Survey 1999. Draft data tables fos/unicef.Lagos.
- FOS/ILO/SIMPOC (2001): Nation Modular Child Labour Survey Report.
- Foster, J.; Greer, J. and Thorbecke, E. (1984): Class of Decomposable Poverty Measures. *Econometric* 53(3) pp 761-766.
- International Labour Organisation (1996): Economically active populations. Estimates and Projections 1950-2010. Geneva: International Labour Congress.
- IPEC SIMPOC (2002): Every child counts: New Global Estimates on Child Labour. International Programme on the Elimination of Child Labour and Statistical Information and Monitoring Programme on Child Labour (SIMPOC). Geneva: International Labour Office. <http://www.sim poc.com>
- Okunmadewa, E. (2001): Poverty Reduction in Nigeria. A four point demand. The House Publishers, University of Ibadan, Ibadan.
- Partnius and Psachropovlovs, G. (1994): Family Size, Schooling and Child Labour in Peru. *Journal of Population Economics* Vol. 10: pp 387-405.
- World Bank (1997): Poverty and Welfare in Nigeria. Federal Office of Statistics, National Population Commission and the World Bank.
- World Bank (1998): Evolution of Poverty and Welfare in Nigeria 1985-92. World Bank Policy Research Working paper 1715, Washington D.C.

# Agricultural Sciences Research Journal

## CONTENTS

Volume 1 Number 1, January 2007

### Papers

- Impact of Grass Mulch on some Soil Physical Properties and Fruit Yield of Late Season Tomato (*Lycopersicon esculentum* Mill.).  
**I. A. Adeniji, S.O. Agele and J.G. Bodunde** 1
- Effects of Graded Levels of Fluted Pumpkin (*Telfairia occidentalis*) Leaf Meal on the Nutrition, Biochemistry and Haematology of Broiler Finisher.  
**A.O. Fasuyi** 5
- Rural Poverty and Child Labour among Cassava Processors in Ogun State, Nigeria  
**K.O. Adenegan, O.A. Adewusi and T.O. Fashina** 13
- Morphological Variability in Roselle (*Hibiscus sabdariffa*) Germplasm in a Rain-Forest-Transition Ecology  
**J. G. Bodunde** 19
- Socio-Economic Factors Impeding the Use of Mass Media in Information Dissemination in Ekiti State.  
**G.M. Adebo and O.M. Apata** 23
- Effect of N, P and K Fertilizers Application on Fruit and Seed Yields of Melon (*Citrullus lanatus*).  
**O.J. Ayodele, S.O. Omotoso and C.O. Akinrinsola** 27
- Efficacy of Seeds of *Mimosa communis* and *Blighia sapida* in the Control of two Fungal Pathogens (*Macrophomina phaseolina* & *Colletotrichum gloeosporioides*).  
**M.J. Falade and A.A. Oso** 33
- Relative Asymmetry in Bilateral Traits of four Broiler Strains.  
**K. L. Ayinde, T. R. Fayeye and F. O. Atolagbe** 36
- Proximate Composition, Metabolizable Energy, True Metabolizable Energy and their Nitrogen Corrected Values for Sun Dried and Fermented Coconut Oil Meal  
**F.A.S Dairo and T.A. Oluwasola** 39
- Comparison of the Assessment of the Quality of Two Detailed Soil Maps Produced from South-Western Nigeria  
**A.S. Fasina, A.O. Ogunkunle and T.S. Babalola** 43