



Professor S.O. Awonorin  
M.Sc Ph.D (Leeds)  
Dean, College of Food Science and Human Ecology

The College of Food Science and Human Ecology is a new Academic College in the School. It was created in 2008. Currently, the College comprises of four academic departments as follows:

1. Department of Food Science and Technology (FST);
2. Department of Home Science and Management (HSM);
3. Department of Nutrition and Dietetics (NTD); and
4. Department of Food Service and Tourism (FSTO)



*Frontal view of the College of Food Science and Human Ecology*

The College is involved in various practical oriented research activities aimed at solving societal problems in the areas of innovation in new food product development, post-harvest processing and technology, textile technology and home improvement techniques.

### **ACTIVITIES**

The year 2009 marks the 22<sup>nd</sup> anniversary of the University and twenty-six years of existence of the Department of Food Science and Technology. The department made progress in the various activities of the department during the year

#### **Graduation**

The 16<sup>th</sup> Convocation ceremony was held in 30<sup>th</sup> January, 2008 and 57 students of Food Science and Technology graduated with a Bachelor's degree in various classes. It is expected that about 48 additional students of Food Science and Technology will graduate during the forthcoming 17<sup>th</sup> Convocation and this would have brought to about 848 B.Sc. Food Science and Technology which the Department had produced in the last 26 years.

### Postgraduate Programme

A total of about 20 fresh admissions registered for 2008/2009 comprising 8 Ph.D's, 2 M.Sc/Ph.D and 6 M.Sc students. 8 M.Sc and 2 Ph.D students successfully defended their dissertations and thesis during the current session. A total of 28 M.Sc and 8 Ph.D's had been awarded by the department since inception. Our Postgraduate programmes have been acclaimed even by our external examiners as one of the most dynamic and functional among Food Science and Technology departments in Nigeria.

### Grants/Awards/Honours

Some members of staff and students who have distinguished themselves in various ways were rewarded in form of grants, awards or honours given to them as shown in the table below:

#### Staff Awards

| S/N | Type of Award/Honours  | Recipient   | Date        |
|-----|--|---|-------------|
| 1.  | MRCI – AAU Grant – Partnership for Regional Food Developers initiative. Capacity Building Support Strategy for Poverty Reduction in West Africa. | <b>Project Team:</b><br>Dr. L.O. Sanni – Coordinator and Principal Investigator.<br>Prof. I.O.O. Aiyelaagbe – Coordinator of Organic Agriculture component<br>Dr. M.A. Idowu and Dr. (Mrs.) I.O. Olayiwola – Co-investigators | 2008-2010   |
| 2.  | Cassava Adding Value for Africa (C:AVA)  | Prof. L.O. Sanni (Country Coordinator), Dr. M.A. Idowu,<br>Dr. T.A. Shittu, Dr. A.A. Adebawale  | 2008-2011   |
| 3.  | EU-ACP Science & Tech. Capacity building in Africa & Caribbean   | Prof. L.O. Sanni  | 2009 – 2012 |
| 4.  | MRCI325 Est. of Food Science & Nutrition Network in West Africa  | Prof. L.O. Sanni, Dr. (Mrs.) S.A. Sanni<br>Dr. (Mrs.) J.M. Babajide,<br>Dr. A.A. Adebawale, Dr. A.O. Obadina, Dr. (Mrs.) I. Olayiwola, Dr. (Mrs.) S.A. Sanni  | 2009 – 2010 |
| 5.  | NUTRICA Research Foundation Netherlands fellowship for advancement of research in human nutrition.   | Dr. (Mrs.) J.M. Babajide (Coordinator)<br>Dr. O.O. Atanda   | 2007 - 2009 |

#### Student Awards

| S/N | Type of Award/Honours   | Recipient  |
|-----|---|--|
| 1.  | Late Dr. (Mrs.) O.O. Apampa Price – Best Student in the Department of Food Science and Technology       | <b>ODUSE, K.A.</b><br>Matric No.<br>2002/0173            |
| 2.  | Late Madam D.A. Sopade prize – Best final year project in the Department of Food Science and Technology | <b>OYERINDE, I.A.</b><br>(Miss) Matric. No.<br>2002/0190 |

The awards were given to the recipients at the 16<sup>th</sup> Convocation ceremony of the University.

The Department of Food Science and Technology at 26 years of her existence has come to be recognized as one of the front liners among her pairs in Nigeria. Our vision for the years ahead is to consolidate on our achievement and forge ahead to become one of the best in the whole world. It is our hope that the University will be awarded the monetary grant from the Government for improvement of Teaching and research facilities.

### New Department

Department of Food Service and Tourism comes on board with the transfer of some staff from Department of Food Science and Technology .

## **COLLEGE OF ANIMAL SCIENCE & LIVESTOCK PRODUCTION (COLANIM)**



Professor (Mrs) Daisy Erubetine  
B.V.Sc. (Andhra Pradesh), M.Sc., Ph.D (Alberta)  
Dean, College of Animal Science & Livestock Production

The College of Animal Science and Livestock Production was established in the year 1988 at the inception of the University. At the time of its establishment, the college had three (3) Departments which were the Departments of Animal Breeding and Genetics, Animal Nutrition and Animal Production and Health. In 1995, the department of Pasture and Range Management was transferred from the College of Plant Science and Crop Production to the College of Animal Science and Livestock Production putting the number of Departments in the college to four (4). In 2006 a new department was established as the department of Animal Physiology, and this department had its initial students' enrolment in the 2006/2007 academic session. By special permission of senate, interested students from other departments within the college were allowed to transfer to other levels.

The primary philosophy guiding the training of students is the production of skilled manpower that is adequately furnished with the comprehensive information required for engaging in economic livestock production in an environment characterised by rural setting and adequate land endowment. The college from its inception has been contributing its part to the realisation of the university's tripodal mandate of Teaching, Research and Extension. Currently, the College comprises of five academic departments as follows:

1. Department of Animal Breeding and Genetics (ABG);
2. Department of Animal Nutrition (ANN);
3. Department of Animal Physiology (ANP).
4. Department of Animal Production and Health (APH)
5. Department of Pasture and Range Management (PRM)



*Frontal view of the College of Animal Science & Livestock Production*

### Accreditation Status

Programmes run under the College of Animal Science and Livestock Production have been accredited by the National Universities Commission. The last accreditation exercise was conducted in the year 2006 and the programme earned a full accreditation status.

### ACTIVITIES

#### (a) Conference & Research Collaborations

##### Attendance of Conferences

|                          | ABG | ANN  | ANP | APH | PRM |
|--------------------------|-----|------|-----|-----|-----|
| Academic staff           | 9   | 14   | 11  | 10  | 6   |
| Non Teaching Staff       | 11  | 4    | 8   | -   | 4   |
| International Conference | -   | None | 1   | -   | 4   |

##### Training/Fellowships Awards

|        |                          |   |
|--------|--------------------------|---|
| (i)    | Dr. S.O. Peter (ABG)     | Ph.D Molecular Biology, New Mexico State University, New Mexico USA (USDA Scholarship)  |
| (ii)   | M.O. Akinola (APH)       | University of Kiel, Germany. 4 Months Training/Research toward Ph.D.  |
| (iii)  | Mr. A. Adeleye (APH)     | Ph.D New Castles University, U.K. Sponsored by ETF.   |
| (iv)   | Prof. O.O. Oduguwa (ANN) | Alexandra Von Humboldt Fellowship – University Bonn Germany (Sabbatical)  |
| (v)    | Mr. U.Y. Anele (PRM)     | Invitation of Animal Science, Bonn Germany (Ph.D Research).   |
| (vi)   | Mrs. Egbowon (ANP)       | Commonwealth Scholarship, University of Nottingham – U.K. (Ph. D Studies).  |
| (vii)  | Dr. O.S. Sowande (APH)   | Staff exchange programme at Kwame Nkrumah University of Science and Technology, Kumasi, Ghana (3 weeks)                             |
| (viii) | Mr. Ayankoso, M. T.      | Postgraduate student exchange programme at Kwame Nkrumah University of Science and Technology, Kumasi, Ghana (8 weeks)              |
| (ix)   | Dr. Arigbede O.M.        | the Institute of Animal Science University of Bonn Germany for AVH Fellowship for Experienced Researchers (July 2009 – April, 2011) |

### Collaborations

- (i) Memorandum of Understanding with Dr. G.I. Immomorin from the University of Cornell. (Training of Ph.D. & M. Agric Students, Supply of Equipment etc) (ABG).

### **Equipment / Facilities**

- (i) Supply of equipment by Nigerian Institute of Animal Science for development of Animal Breeding and Genetics Department as a centre of excellence in Animal Breeding and Genetic.
- (ii) Upgrading of Animal Physiology Department with state of the art offices to house staff.
- (iii) Provision of specialized equipment to Animal Physiology Department by a special grant in recognition of outstanding performance.
- (iv) Provision of 2 nos Zinox laptop computer to all Departments and 1 no to the Dean's Office.

### **Other Noteworthy Activities**

- (i) Inauguration of Nigerian Institute of Animal Science (NIAS) in July 2009. Many staff of the College attended this historic occasion and were inducted into the institute.
- (ii) Re – election of Dean – Prof. D. Erubetine for a second term of 2 years. (August 1, 2009)
- (iii) Presentation of 26<sup>th</sup> Inaugural Lecture by Prof. D. Erubetine titled “Revolutionising the Feed Industry for Increased Poultry Production” (Nov 25, 2009).
- (iv) College Farm: The livestock farms have been re-located to the newly established Teaching and Research Farm Directorate.

### **Workshops**

1. The department held the Second genomics workshop titled “Animal Genomics and Bioinformatics Workshop with Dr Ikhide Imumorin of Department of Animal Science, Cornell University as the resource person. The workshop was held on the 14<sup>th</sup> to 21<sup>st</sup> June, 2009 and was supported by the World Bank assisted Science and Technology Education Post Basic Project (STEP B). The workshop had in attendance 22 participants from all over the country.
2. Proteomics workshop titled: Techniques for functional proteomic analyses of indigenous and crossbred Nigerian chickens was held on 14<sup>th</sup> to 21<sup>st</sup> September, 2009 with Dr Macdonald Wick of Department of Animal Science, College of Food, Agricultural and Environmental Sciences, The Ohio State University, USA as the resource person. The workshop was supported by the Science and Technology Education in Post Basic Project (STEPB) and had in attendance 44 participants from all over the country.

### **Awards**

1. The department was awarded Animal Breeding and Genetics Centre of Excellence by National Institute of Animal Science (NIAS) with a promise of biotechnology equipments to be supplied to the departmental laboratory. The equipments include refrigerated centrifuge, computerized gel documentation system set, dry ice making machine and a PCR thermal cycler.

### **Memoranda of Understanding (MOU)**

1. MOU signed with Cornell University to carry out research in small ruminants under the supervision of Dr. Ikhide Imumorin of the Department of Animal Science, Cornell University
2. MOU signed with Ohio State University to carry out research in indigenous chicken proteomics under the supervision of Dr. Macdonald Wick of the Department of Animal Science, College of Food, Agricultural and Environmental Sciences, The Ohio State University, USA
3. MOU signed with Biotechnology Trust Africa for research into tropicalized vaccines under the supervision of Dr. Joseph Wecunda

### **Major Research Breakthroughs.**

- Hay produced from locally fabricated metallic balers.
- Growth and biomass yield of Tephrosia – Brachiaria mixtures.
- Evaluation of animal manures on yield and quality of selected grasses.

### **Staff Development**

1. 3 staff attended the annual conference of the Nigeria Society for Animal Production.

2. Prof. (Mrs) Jolaosho won the African Women in Agricultural Research and Development Award and attended workshop in Kenya.
3. Dr. O. M. Arigbede won the 2009 AVH Fellowship for Experienced Research and took up the Fellowship in University of Bonn, Germany.

### **Current Research**

Low cost silage and hay making processes

*In-vitro* gas production of different hays

*In-sacco* studies of grasses, herbaceous legumes and indigenous browse plants.

Studies on effects of animal manures on forages yield, nutrient and silage quality of Panicum species.

Evaluation of forage potentials of Sorghum alnum and Pearl millet in South –West Nigeria.

### **Future plans**

- To become better entrenched in the College of Animal Science and Livestock Production playing a major role in ruminant Livestock Production Research and Nutrition with specialization, at the Post-graduate level, in Range Management, Range Ecology, Pasture Production and Management, Pasture Conservation and Utilization.
- To be able to service the other Departments and Farm Units with needs for ruminant feed resources, especially during the off season. Production of conserved forages (hay, silage) in large quantities for sale to other departments and farm units that have needs for feeding ruminant animals.
- Establishment of a germplasm centre and cold room for seed storage.

## **COLLEGE OF PLANT SCIENCE & CROP PRODUCTION (COLPLANT)**



Professor O.B. Kehinde  
B.Sc., M.Sc., Ph.D (Ibadan)  
Dean, College of Plant Science & Crop Production

The College of Plant Science and Crop Production (COLPLANT) was established on 1<sup>st</sup> October, 1989 and since then, the College has grown in terms of Departments, staff and students. The five academic Departments in the College at present are:

- i. Department of Crop Protection (CPT)
- ii. Department of Horticulture (HORT)
- iii. Department of Plant Breeding and Seed Technology (PBST)

- iv. Department of Plant Physiology and Crop Production (PPCP)
- v. Department of Soil Science and Land Management. (SSLM)



*Frontal view of the College of Plant Science and Crop Production*

The operations of the University farms which provides the necessary logistics for crop farming aspects in the B.Agric. Curriculum are under the supervision of the College. Seed and grain production as well as provision of materials and support for staff crop production are parts of the objectives of the University farm.

#### **Accreditation Status**

The College of Plant Science and Crop Production runs a B. Agric programme. All the options within the College that contribute to the award of a Bachelors' degree in Agriculture have been visited and accredited by the National Universities Commission (NUC). The programme currently has a full accreditation status.

#### **ACHIEVEMENTS**

##### **Renovation of the College Auditorium**

The College Auditorium was given a befitting look following the renovation of the Auditorium during the year under review. Some repairs were carried out while unserviceable fans, fluorescent tubes and doors were replaced. The Auditorium was also provided with good window blinds.

##### **Colplant Farm**

The College established a 15 hectare arable farm land located some distance behind the students hostels in 2007. About three thousand heaps were made and white yam tubers planted therein late last year (2008). The yams were harvested this year and sold to interested buyers. The College Farm also planted maize and cassava during the year. While the produce from maize had also been sold, the cassava plantation is being nurtured.

##### **Prospects**

We look forward to attain greater achievements in the coming year. With God on our side and the caliber of academic and non-academic staff in the College, all mountains on our path of progress will be surmounted. We hope that some of our staff will add more feathers to their caps in the coming year and the College will continue to wax stronger and stronger.

##### **Visits, Workshops and Seminars**

During the year 2009, *Dr. J. J. Atungwu* who is the national coordinating Scientist of Organic Agriculture in Tertiary Institutions attended an International Food policy Research Institute Seminar at Abuja on January 27, 2009. He also traveled to China to attend a Seminar on Agric. and Livestock for University Teachers from African Countries from August 24 to September 12, 2009.

**Dr. Atungwu** visited Universite D' Abomey Calavi Cotonou in Benin Republic as part of Exchange Programme of the West African Network on Organic Agric. Research and Training in collaboration with European Union for 3 weeks in December 2009.

**Dr. C. G. Afolabi**, a Plant Pathologist, attended the Real-Time PCR workshop at the Department of Plant Pathology, Kansas State University, Manhattan, USA between June 29 and 30, 2009. He also attended the *Fusarium* Laboratory Workshop between 21<sup>st</sup> and 26<sup>th</sup> June 2009.

On June 1 and 14<sup>th</sup> 2009, Dr. (Mrs.) E. I. Ayo-John attended Agric. Systems Measurement and modeling at University of Edubrough, UK. She also attended USDA Faculty Exchange Programme in Sanitary Phytosaritary Issues between 7<sup>th</sup> August and 13<sup>th</sup> December 2009, at Texas A and M University, United States of America

**Staff Development:** Prof. O. J. Ariyo attended a 2-day conference on “Good Agricultural practices for production of underutilized vegetables in Sub-Saharan, Africa” held in Tanzania, organized by AVRDC, The Vegetables Centre, Intemational Society for Horticultural Sciences (ISHS) and Food & Agricultural Organization (FAO) between December 7 and 8, 2009.

### Current Research Projects in the Department

| STAFF                     | Recent and Ongoing Research Projects  |
|---------------------------|---|
| Dr. I. O. Daniel          | Seed longevity modeling, seed invigoration by priming, genetic analysis of hybrid seeds, evaluation of genetic purity and evaluation of genetic deterioration during seed storage using molecular markers.  |
| Prof, O. J. Ariyo         | Investigation of G x E interaction in West Africa Okra ( <i>Abelmoschus caillei</i> ). Development of lines of <i>Abelmoschus esculentus</i> and <i>Abelmoschus caillei</i> . Effect of environment on the performance of accessions of groundnut ( <i>Arachis apogea</i> )   |
| Prof. O. B. Kehinde       | Mutation Studies and genetic variability in agro-morphological characters in Okra ( <i>Abelmoschus esculentus</i> and <i>Abelmoschus caillei</i> ).<br>Molecular Characterization in Melon, <i>Citrullus lanatus</i> , using molecular techniques   |
| Prof. M. O. Ajala         | Recalcitrant nature of seeds and storage behaviour. Variability and relation of seed quality traits to field performance of hybrid maize.   |
| Dr. D. K. Ojo             | Phylogenetic evaluation of interspecific crosses of <i>Oryza</i> species using morphological and molecular marker techniques. Genetic analysis of pod characters in cowpea and soybean cultivars. Genetic analysis of black sigatoka resistance in plantain germplasm and Genetic evaluation of maize inbred lines for heterosis and combining ability. |
| Dr. (Mrs.) D. C. Akintobi | Effect of pre-sowing treatments and growth hormones on rapid multiplication of <i>Tectonia grandis</i> & <i>Gmelina arborea</i> .<br>Effect of organic and inorganic fertilizers on growth and yield of grain amaranth ( <i>Amaranthus cruentus</i> ) and sweet potato ( <i>Ipomea batatas</i> )  |
| Dr. M. A. Adebisi         | Storage life of water melon under ambient humid conditions. Physiological studies in <i>Capsicum</i> species in relation to seed weight and pre-soaking water treatment.  |
| Mrs. M. A. Ayo-Vaughan    | Characterization and investigation of G x E interaction in cowpea. Combining ability in cowpea using diallel crosses.   |
| Mr. C. O. Alake           | Genetic studies on seed yield of West African Okra [ <i>Abelmoschus caillei</i> (A. Chev)]. Parametric stability analysis in West African Okra [ <i>Abelmoschus caillei</i> (A. Chev)] in derived savanna ecology of Nigeria.   |
| Mr. I. O. Idehen          | Molecular characterization, reproductive biology and genetic transformation in ‘egusi’ melon [( <i>Citrullus lanatus</i> (Thumb.) Matsun and Nakai)]  |
| Mr. O. A. Oduwaye         | Cytogenetic characterization and genetic diversity in germplasm of amaranth ( <i>Amaranthus</i> spp) using Agro-morphological and PCR-based molecular markers   |



|                    |   |
|--------------------|---|
| Mr. O. O. Ajani    | Studies on variability and relation of seed quality traits to field performance of hybrid maize under different environments. |
| Miss T. O. Adekola | Studies on genetic deterioration of sesame seed during storage  |

## **FUTURE PLANS**

The future plan for the Department includes the following:

- Development of seed production to the point of supplying certified seeds to farmers and researchers in Ogun State and Southwestern Nigeria.
- Development of proper packaging for certified seeds produced in the Department.
- Production of certified organic seeds of vegetables and some arable crops.
- Development of Seed/Biotechnology laboratory in the Department with modern-day equipment to serve as a centre of serving both students and researchers in UNAAB.
- To send out junior academic staff and laboratory technologists abroad to advance laboratories for training in the areas of Plant Breeding, Seed Science and Technology and Biotechnology.
- To increase the capacity of the Department's facilities to accommodate the present increase in enrolment of students in the Department.

The programme of the Department acknowledges the important position of Plant Breeding and Seed Production in a developing economy like Nigeria. The Department is committed to excellence in the tripod mandate of the University (Teaching, Research and Extension service) in the areas of breeding and production of improved crop varieties and distribution of pure and high quality seeds.

## **Plantation Unit**

In agricultural enterprise there is scarcely any "close" season. This is because we are establishing permanent crops which remain on the field even when the rain has stopped and they require maintenance.

At the end of 2008 wet season the contract labourers were paid off. We retained the guards for the plantain and oil palm plantations. At the beginning of 2009, new labourers were engaged. The activities for the season were still carried out using the Sub-committee basis. Below is the report of 2009 activities:

### **i. Farm Activities**

#### **1. Report on Teak Plantation along Iberekodo Axis of University Land**

The 2009 planting activities at the Teak plantation along Opeji Road is a continuation of the 2008 planting exercise. As a result, the 2009 planting programme took off from where the 2008 exercise stopped. At the beginning of the planting exercise, six hired contract labourers were employed on the farm to facilitate farming operations. These labourers would receive N70,000.00 per head at the end of the contract period that will lapse in early December, 2009. The period of the contract covers one year. They were paid N2,500.00 each every month for feeding.

In 2009, planting started in the month of May, 2009 in accordance with the work plan submitted for the year. All necessary land preparation activities were done before the planting exercise. As a way of reducing cost, both Teak stumps and seedlings were used as planting stock for the planting exercise. However, due to the effect of climate change experienced this year in terms of delayed rain fall or prolonged dry period in between coupled with poor shimmers of rainfall, there were crop failures which went above the 5% annual failure acceptable in platinum establishment. Despite this, the Teak platinum was established with regular beating-up carried out to ensure good stocking.

A total of five hectares of Teak platinum was established in 2009. That brings the total hectarage covered to date up to 9 ha i.e. about 11 km length of the boundary along the Iberekodo axis.

Cultural operation was carried out regularly on the farm by the hired contract labourers on the farm. The labourers carried out clearing and fire tracing towards the end of the year before concluding their contract period for the year 2009.

Consequent to the new structure of the farm management put in place by the University, we hereby suggest that effective from 2010 planting season, ICETOPP activities be limited to supervision on the farm.

During the coming season (2010), we hope to complete the perimeter fencing to Opeji by which time the University would have about 22 ha of Teak Plantation.



*Oil Palm Plantation*