

# OBAFEMI AWOLowo UNIVERSITY, ILE-IFE

## CURRICULUM VITAE

### A. PERSONAL DATA:

1. **Full name:** OLADEJO Atanda Samuel
2. **Date and Place of Birth:** 7<sup>th</sup> March 1974, Iwo.
3. **Contact Details:**
  - a. **Residential Address:** House 2 Awovarsity Estate Road 7, Ile-Ife.
  - b. **E-mail Address:** [soladejo@oauife.edu.ng](mailto:soladejo@oauife.edu.ng); [sooladejo@gmail.com](mailto:sooladejo@gmail.com)
  - c. **Mobile Phone Number:** 08033865689
4. **Nationality:** Nigeria
5. **State of Origin:** Osun State
6. **Senatorial Region:** Osun West
7. **Local Government Area:** Iwo LGA.
8. **Permanent home address:** No 19, Olororoku Lane, Isale-Oba, Iwo.
9. **Marital Status:** Married
10. **Number of Children and their ages:** 3 (12yrs, 10yrs & 3yrs)
11. **Name of Next of Kin:** Dr (Mrs) Opeyemi. A. Oladejo
12. **Contact Details of Next of Kin:**
  - a. **Residential Address:** House 2 Awovarsity Estate Road 7, Ile-Ife.
  - b. **E –mail Address:** [opeaoladejo@gmail.com](mailto:opeaoladejo@gmail.com)
  - c. **Mobile Phone Number(s):** 08033806525
13. **Date of Assumption of Duty:** 15<sup>th</sup> September, 2016
14. **Rank Status on First Appointment:** Lecturer II
15. **Present Status:** Lecturer I
16. **Present Salary Grade Level and Step:** CONUASS 4 Step 3
17. **Date of Last Promotion/Regrading:** 1<sup>st</sup> October, 2019.
18. **Date of Confirmation of Appointment:** 29<sup>th</sup> April, 2021
19. **Faculty:** Agriculture
20. **Department:** Crop Production and Protection

### B. EDUCATIONAL BACKGROUND

1. **Higher Education Institution Attended with Dates:**
  - (i) Obafemi Awolowo University, Ile-Ife, Osun State 1999 – 2005
  - (ii) Obafemi Awolowo University, Ile-Ife, Osun State 2006 – 2010
  - (iii) Obafemi Awolowo University, Ile-Ife, Osun State 2010 – 2015
2. **Academic and Professional Qualifications and Distinctions Obtained with Dates:**
  - (i) B.Agric. Plant Science, Second Class Lower Division 2005
  - (ii) M.Sc. Crop Production and Protection (Breeding and Genetics) 2010
  - (iii) Ph.D. Plant Science (Breeding and Genetics) 2015

### 3. Other Distinctions and Awards with Dates:

#### (a). Scholarship:

IITA R4D –Scholarship for PhD research (Tropical Legume II) 2012 – 2015

#### (b). Fellowship:

- (i) TETFUND Research Fellowship for Postdoctoral training at Utah State grant on yield improvement in Cowpea. 2021
- (ii) Thabo Mbeki/Tshwane University Travel Grant for Conference in Pretoria, South Africa 2016
- (iii) Netherlands/Nuffic Fellowship Programme for short training course on Plant Genetics Resources and Seeds: Community resilience in the face of change held in Chennai and Jeypore, India. 2014

#### (c). Research Grants:

- (i) \$52,234.49 Crop Trust Grant for the Duplicate Regeneration and Conservation of the Seed Resources of Local Legumes and Indigenous Vegetables of Nigeria: *CONT-0795 BOLD WP4*. 2022
- (ii) Finalist for the African Research Initiative for Scientific Excellence Pilot Program (ARISE-PP), Africa Academy of Science Grant: *ARISE-PP-EoI-873* 2021
- (iii) \$6,500 AATF Fund for the Training OAU Scientists on IPR/Samawati Electronic Research Notebook and printing of 1,200 copies OAU Intellectual Property Brochure. 2021

#### (d). National Awards: Nil

#### (e). International Awards: Nil

### C. WORK EXPERIENCE WITH DATES:

#### 1. Previous Work Experience Outside the University System

- (i) **Lead Community Facilitator**, World Bank Assisted Fadama III Project 2008-2013
- (ii) **Biosafety Consultant** on Public Awareness of Biosafety and Agricultural Biotechnology Products for Southwestern Nigeria Radio Programme for National Biotechnology Development Agency, Abuja and Programme for Biosafety Systems, New York, USA. 2016
- (iii) **Research Fellow**: International Research Institute of Agriculture (IITA), Ibadan, Nigeria. 2012 - 2015.

#### 2. Previous Work Experience in other University:

- (i) Postdoctoral/Visiting Scientist, Utah State University, Logan UT., United States of America. (Jan. 13 –Sept 31) 2022

#### 3. Work Experience in Obafemi Awolowo University with Dates

- (i) . Lecturer II 15<sup>th</sup> September, 2016 – 30<sup>th</sup> September, 2019
- (ii) Lecturer I 1<sup>st</sup> October, 2019 - till date

**4. Graduate Student Supervision within the Current Session:** (to list names, Registration numbers and titles of theses)

(a) **By Research:** Nil

**5. Undergraduate Students Supervision (Current Session):** 3

**D. MEMBER OF PROFESSIONAL BODY**

- |   |                |
|---|----------------|
| (i) Crop Science Society of America (CSSA)                            | 2022 till date |
| (ii) International Biometrics Society (IBS)                           | 2017 till date |
| (iii) Genetics Society of Nigeria (GSN)                               | 2006 till date |
| (iv) Biotechnology Society of Nigeria (BSN)                           | 2016 till date |
| (v) Ife Biotechnology Group (IBG)                                     | 2016 till date |
| (vi) African Society of Crop, Soil and Environmental Sciences (ASCES) | 2015 till date |

**E. PUBLICATIONS**

**1. Theses/Dissertations:**

- (i) **Oladejo, A. S.** 2010. Physiological determinants of yield in cowpea [*Vigna unguiculata* (L.) Walp]. MSc. Thesis. Pp 72
- (ii) **Oladejo, A. S.** 2015. Genetic analysis of resistance of cowpea [*Vigna unguiculata* (L.) Walp] to thrips (*Megalurothrips sjostedsti* Trybom). Ph.D. Thesis. Pp 176

**2. Books/Monograph:**

- (a) **Authored:** Nil  
(b) **Edited:** Nil

**3. Contribution to Books:** Nil

**4. Published Journals Articles:**

- (i) **Oladejo, A. S.,** Akinwale, R. O. and Obisesan, I. O. (2011): Interrelationship among grain yield and other physiological traits in cowpea (*Vigna unguiculata* L. Walp) cultivars; *African Crop Science Journal*, 19 (3) 189-200. (**Uganda**).
- (ii) **Oladejo, A. S.,** Toyinbo O. J. and Obisesan, I. O. (2016). Principal components as measures of morphological and physiological descriptors as indispensable determinants of yield in cowpea (*Vigna unguiculata* L Walp) *Nigerian Journal of Genetics*. 31: 65 – 76. (**Nigeria**).
- (iii) **Oladejo A. S.,** Boukar, O., Fatokun, C. A. and Obisesan, I. O. (2017). Genetic analysis of thrips resistance in cowpea (*Vigna unguiculata* [L.] Walp.). *Euphytica*. 213:216 – 227. DOI: 10.1007/s10681-017-2001-6. (**Netherlands**).
- (iv) **Oladejo A. S.,** Bolaji, A. O., Obisesan, I. O. and Omitogun, O. G. (2019): SDS characterization of some elite varieties of cowpea (*Vigna unguiculata* L Walp). *Nigeria Journal of Biotechnology* 36(2): 45 – 51. (**Nigeria**).

- \*(v) **Oladejo, A. S.**, Bolaji, A. O., and Olawuyi O. A. (2020): Inheritance pattern of seed coat texture in cowpea (*Vigna unguiculata* L Walp). *Ife Journal of Agriculture*. 32: 2. 46-51. (**Nigeria**).
- \*(vi) Bolaji, A. O., **Oladejo, A. S.** and Ebeagu, S. (2020). Diversity Studies in *Vigna* Species and Their Implications in further Breeding. *Journal of Experimental Agriculture* 42(4): 136-144. (**United Kingdom**).
- \*(vii) **Oladejo A. S.** Bolaji A. O., Okuniyi E. O, Gidado R. M. (2021). Segregation of genes controlling seed coat colour in cowpea (*Vigna unguiculata* [L] Walp). *Genet. Biodiv. Journal, Special issue (Aromatic and Medicinal Plants)* [http:// ojs.univ-tlemcen.dz/index.php/GABJ](http://ojs.univ-tlemcen.dz/index.php/GABJ). 198-206. (**Algeria**).
- \*(viii) Akinwale, R. O., Odulami, L. /K. Eze, C.E. and **Oladejo A. S.** (2021). Effectiveness of different apha designs in evaluation of maize (*Zea mays* L.) genotypes in a rainforest agroecology. *Heliyon* 7 e07414. Doi.org/10.1016/j.heliyon.2021.e07414. (**United States of America**).
- \*(ix) Bolaji, A. O., **Oladejo, A. S.**, Elegbeleye, O. T. Adesewa C. Ilori, Dauda, N. F. (2022). Molecular Characterization of *Basella alba* L. and *Basella rubra* L. Using Random Amplified Polymorphic DNA Profiling. *Nigeria Journal of Biotechnology Spec. Edtn. BSN-SW*. DOI: <https://dx.doi.org/10.4314/njb.v38i.5S>. (**Nigeria**).
- \*(x) Bolaji, A. O., **Oladejo, A. S.**, Adeniran. O. I. (2022). Reproductive biology of green-stemmed and red-stemmed *Basella alba* – *Botanica*, 28(1): 59–64. (**Luthuania**).
- \*(xi) Bolaji, A. O., **Oladejo, A. S.** and Adeniran, I. O. (2022). Segregation of genes controlling stem pigmentation in *Basella alba*. *Nigeria Journal of Genetics* 36 (2): 256–262). (**Nigeria**).

## 5. Edited Conference Proceedings

### (a) Refereed

- (xii) **Oladejo, A. S.**, Boukar, O., Fatokun, C. A. and Obisesan, I. O. (2015). Genetic variability among Fi genotypes of cowpea to flower bud thrips. African Society of agronomy, Crop, Soil and Environmental Sciences (ASCASES) Conference Proceedings. 1. Pp 106 – 109. (**Nigeria**).

### (b) Non-Refereed:

- (i) Odekuoye, O. J., **Oladejo A. S.** and Soyelu O. J. (2021). Biochemical Assays of Flower Buds Thrips-Resistant Cowpea (*Vigna unguiculata* L. Walp.) Lines. *Book of Abstract of the 2<sup>nd</sup> Annual International Conference of Nigeria Biotechnology of Nigeria, 2<sup>nd</sup> – 4<sup>th</sup> June, 2021, Moore Plantation, Ibadan, Oyo State, Nigeria*, pp 29.

- (ii) **Oladejo A. S.**, Sanwo, A. F and Adegbaaju, O. E. (2021). Interrelationships among Yield Components and Nodulation in Cowpea (*Vigna unguiculata* L. Walp.). *Book of Abstract of the 2<sup>nd</sup> Annual International Conference of Nigeria Biotechnology of Nigeria, 2<sup>nd</sup> – 4<sup>th</sup> June, 2021, Moore Plantation, Ibadan, Oyo State, Nigeria*, pp 31.
- (iii) **Oladejo, A. S.**, Obisesan, I.O. and Omitogun, O.G. (2010): Relationships among thirty elite cowpea (*Vigna unguiculata* L. Walp) varieties as revealed by physiological and molecular descriptors; published in book of abstracts and proceedings for the 5<sup>th</sup> World Cowpea Research Conference 2010 held in Saly, Senegal on 27<sup>th</sup> September – 1<sup>st</sup> October, 2010. (**Senegal**).

**6. Articles Accepted for Publication: Nil**

**7. Manuscripts Submitted for Publication:**

- (i) **Oladejo A. S.** Bolaji A. O., Adegbaaju E. O., and Gidado R. M. (2022). Genetics of seed size in cowpea (*Vigna unguiculata* [L] Walp). *Nigeria Journal of Biotechnology*.

**8. Creative Work/Patents:**

- (i) Ude, G., Micklos, D., John, S., Marian,U., Ogbonna, J., Peter,O., **Oladejo, A. S.** and Anieke, C. (2014). *Strophanthus preussii* isolate DNAS-5A-59748 ribulose-1, 5-bisphosphate carboxylase/oxygenase large subunit (rbcL) gene, partial cds; chloroplast. *American GenBank*: KJ746500.1.

**9. Technical Reports:**

- (i) Report of a Thirteen Week Radio Programme on Agricultural Biosafety and Biotechnology submitted to Open Forum on Agricultural Biotechnology - Nigeria Chapter, Abuja, 2016.
- (ii) Report on Southwest Agroecological Biosafety Awareness Workshop held at Obafemi Awolowo University submitted Program for Biosafety System, Washington DC, 2016.
- (iii) Report of National Biosafety Sub-technical Committee (NBTS) on the Application by Institute of Agricultural Research (IAR), Ahmadu Bello University Zaria to Conduct General Release/Commercialization of Genetically Modified Cowpea for Insect Resistance (event 709a) Application Ref: NBMA / CM/002, January, 2019.

**10. Papers and Works in Progress:**

- (i) Apomeiosis is inducible in cowpea by modifying brassinosteroid and abscisic acid signaling.
- (ii) Transgenerational fixation of phenotypes in *Arabidopsis thaliana* apomict knock-out lines.
- (iii) Secondary metabolites mediated resistance to flower thrips (*Megalurothrips sjostedti* Trybom) in selected cowpea [*Vigna unguiculata* (L.) Walp.] lines.

- (iv) Genetics of nodulation and yield components in cowpea (*Vigna unguiculata* (L) walp).
- (v) Genetic variability of cowpea to flower bud thrips.
- (vi) Traversing and Integrating Biodiversity, Biotechnology and Biosafety for Sustainable Agricultural Development in Africa.

#### F. **PROFESSIONAL ACCOMPLISHMENT**

The highlight of my accomplishment as an **Academic and Plant Breeder** revolves round my research outputs, capacity building facilitated and grants/fellowship won. My hybridization and genetic studies on cowpea resulted in the discovery of the preponderance of additive gene effect as a mode of inheritance of thrips resistance in cowpea, and thus giving insight to developing thrips resistant cowpea cultivars, where early generation selection is practicable to reduce time and resources for the cultivar development procedures by about forty-percent. Cowpea is a legume food crop that is being attacked by myriads of insect pests. My research efforts in quests for sustainable, cheap and environmental friendly methods of mitigating these insect pests infestation have led to the identification of cowpea lines that are resistant to flower bud thrips (TVnu 72, TVnu 1249, NGT 65B); using these lines in breeding programmes to develop enhanced resistant cowpea cultivars will cut the cost that farmers spent on insecticides down by sixty percent; with an added advantage of less occurrence of food poison occasioned by indiscriminate use of persistent insecticides.

Within the past six years of my career development, I won four grants and fellowships for both capacity building trainings and research. The most recent was one was the BOLD Project won from the Crop Trust, Bonn, Germany and government of Norway by my team in which I am the Principal Investigator. The project is on duplicate regeneration of local legumes and indigenous vegetables in Nigeria. The heart of this project is to preserve the genetic diversity of our food crops which is central to achieving food and nutrition security in the face changing adverse conditions – climate change and inversion of insect pests and diseases infestation. The achievement of these feats will accelerate my career goals and thus facilitating my visibility and that of my university. I facilitated more than five biosafety awareness workshops on GMOs and hands on training on basic molecular techniques between 2016 – 2019 that led to about forty – percent increase in the awareness of GM technology among the members of the public and scientists.

#### G. **CONFERENCES, SEMINARS AND WORKSHOP ATTENDED WITH DATES**

- (i) Workshop on DNA Barcoding organized by DNA Learning Center, Cold Spring Harbor, New York, U.S. held at Godfrey Okoye University Enugu between 3rd – 4th January, 2013.
- (ii) Advanced Training Course on Statistical Computing Analysis System (SAS) organized by Biometry Unit IITA, Ibadan held at Musa Room, IITA between 2-6 September, 2013.

- (iii) Training Course on The Use Geographical Information System (GIS) organized by IARSAF-IITA held at International Institute of Tropical Agriculture, Ibadan between 9th January –13th December, 2013.
- (iv) 17th Annual Symposium of International Association of Research Scholars and Fellows (IARSAF) on Agricultural Transformation Agenda held at IITA-Ibadan on 27th March, 2014.
- (v) Participant of the training on the use of R-Statistics and genome wide association studies in breeding and genetics organized by Cornell University delegates held at IITA-Ibadan between 7 – 11 July, 2014.
- (vi) Training course on Integrated Breeding Management for IITA cowpea and soybean field technicians at IITA-Ibadan, June, 2015.
- (vii) Presenter of paper at the African Society of Agronomy, Crop, Soil and Environmental Sciences held International Conference Centre, Abuja- Nigeria, 2nd – 5th November, 2015.
- (viii) Participant and Presenter of paper at the Colloquium for Journal and Book Publications on Innovation Research for an Integrated African Development, University of South Africa, Pretoria, 9th – 11th March, 2016.

*Paper presented*

Genetic variability among Fi genotypes of cowpea to flower bud thrips.

- (ix) Participant and Co-Presenter of paper at the Agricultural Biotechnology and Biosafety Workshop held at Sheraton Hotel and Towers, Federal Capital Territory Abuja, 17th - 18th March, 2016.
- (x) Workshop on Breeding Management System organized by Integrated Breeding Platform held at the Board Room, Faculty of Agriculture, Obafemi Awolowo University Ile – Ife, 29 November – 1st December, 2017.
- (xi) Workshop on Grantmanship and Plagiarism organized by Central Office of Research, Obafemi Awolowo University, Ile – Ife, 23rd – 24th July, 2018.
- (xii) Co-organizer (LOC Secretary) of the First Annual Southwest Agro-ecological Biosafety Awareness Workshop held at Obafemi Awolowo University, Ile – Ife, 18th – 21st September, 2018.
- (xiii) National Biosafety Management Technical Committee on review of application dossier on commercialization of Bt cowpea at Abuja 16th – 17th January, 2019.
- (xiv) Participant and Presenter at the 34th Annual Conference of Biotechnology Society of Nigeria held at IITA, Ibadan between 11th - 14th August, 2019.

*Paper presented*

Segregation of genes controlling seed coat colour in cowpea (*Vigna unguiculata*).

- (xv) Participant and Presenter of Maiden Conference of Biotechnology Society of Nigeria Southwest Chapter held at Forestry Research Institute of Nigeria, Ibadan between 12th -14th December, 2019.
- (xvi) Participant, Micronutrient Forum 5th Global Conference (Virtual) held between 9th - 13th November, 2020.
- (xvii) Participant and Presenter, 2nd International Conference of Biotechnology Society of Nigeria Southwest Chapter held at Institute of Agricultural Research and Training, Moore Plantation, Ibadan between 12th -14th December, 2021.  
*Paper presented*  
  
Genetics of seed size in cowpea (*Vigna unguiculata*).
- (xviii) Participants/organizer of the workshop on Intellectual Property Right and Sawamati electronic research notebook at Obafemi Awolowo University, Ile –Ife, Nigeria, 12th October, 2021.

## **H. CURRENT RESEARCH ACTIVITIES**

- (i) Studies of apomixis on cowpea for perpetuating heterosis in yield and quality traits.
- (ii) Genetic analysis of cowpea lines for yields and promiscuous nodulation.

## **I. CURRENT RELEVANT INFORMATION**

### **1. Services within the Department**

- (i) Part Adviser to Part II students 2016 – till date
- (ii) Chairman, Junior Staff Affairs Committee 2022 – till date
- (iii) Member, Examination Result coordination Committee 2016 – till date
- (iv) Member of Internship Committee 2017 – till date

### **2. Services within the Faculty**

- (i) Member, Greenhouse Management Committee 2017 – till date
- (ii) Member, Examination Result coordination Committee 2016 – till date

### **3. Services within the University**

- (i) Lead Facilitator, Memorandum of Cooperation between Obafemi Awolowo University and Utah State University, Logan UT. United States of America, 2022.
- (ii) Lead Facilitator and Contact of OAU, Ile -Ife on OAU, Ile – Ife and Africa Agricultural Technology Foundation (AATF) Agreement on Intellectual Property Right and the use of Sawamati Electronic Research Note Book App., 2021.
- (iii) Member, University Proposal Writing Group (Bioeconomy and Development). 2019.

### **4. Services Outside the University**

- (i) Enumerator, National Population Commission for National Census 2006.
- (ii) General Secretary, International Association of Research Scholar And Fellows (IARSAF), IITA 2013 - 2015
- (iii) Collation Officer, Independent National Electoral Commission National General Election 2015 & 2019



- (iv) Sunday School Teacher Redeemed Christian Church of God (RCCG) 2009 – 2014
- (v) Minister in Charge, RCCG Joy Overflow, Ile – Ife 2014 till date
- (vi) Assistant Provincial House Fellowship Coordinator, RCCG, Osun 2, 2016 till date

## J. CONTRIBUTIONS TO KNOWLEDGE

The main thrust of my research as a **Plant Breeder** is to boost yield in crop plants with special interest in cowpea via the application of plant breeding and genetics' principles in a bid to tackle the problem of food and nutrition insecurity in Nigeria. In this light, breeding and genetics pave ways for genes recombination as the basis of the cultivars development.

Cowpea production is limited by various biotic and abiotic stresses, of which flower bud thrips causes more than seventy-percent yield loss. I have screened hundreds of different cowpea lines and able to identify four outstanding lines that are resistant to flower bud thrips (*Megalurothrips sjostedti*) viz: TVnu 72, TVnu 1249, NGT 65B and TVu 2723. These lines except TVnu 1249 have been used in crosses with elite varieties to obtain enhanced resistant lines of cowpea. In the same vein, *Unguiculata* and *Vexillata* are known to be cross - incompatible with each other; I have successfully crossed TVnu72 (*vexillata*) x TVu113 (*unguiculata*) around midnight periods to obtain an interspecific hybrid. This hybrid has distinct characteristics; they looked luxuriant with broader and darker green leaves and the stems were bigger than the both parents. In a way, heterosis was exhibited in this hybrid, and it could be a springboard to major breakthrough in the host plant resistance mean controlling insect pests in the near future.

My research addressed a major biotic stress (flower bud thrips – *Megalurothrips sjostedti*) of cowpea and while North Carolina Design mating II was employed to generate crosses to determine best breeding methods to develop enhanced resistant cowpea varieties. The results my research indicated the preponderance of additive gene action confers resistance to the insect pest; which indicated the use of single seed descent, pedigree and pure-line as best breeding methods; and pinpointed early generation selection in cowpea improvement against the insect pest.

In cowpea improvement research, many data points are required from many variables. In one of my studies using data reductional multivariate tool, principal component analysis has been able to identify concise variables. My research outputs identified 50% day to flowering, 50% day to seed fill and physiological maturity as major determinants of yield in cowpea. This has been helping researchers to optimize their limited resources in the conduct of the research activities needed for reliable results without sacrificing the integrity of their findings.

Signature:



Date: 28/10/2022