# OBAFEMI A WOLOWO UNIVERSITY, ILE-IFE, NIGERIA **CURRICULUM VITAE**

#### A. **Personal Data**

1. Name: **ADEKUNLE** Ojo Kolawole (Formerly **FATOKI**)

3. **Contact Details** 

**Physical Details** Department of Crop Production and Protection a.

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Ile-Ife, Nigeria.

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Nationality: Nigerian. 4. 15. **Present Status: Professor** 

#### В. **Educational Background**

## 1. Higher Educational Institutions Attended with Dates

(a) University of Ilorin, Ilorin.	1985-1989
(b) University of Ilorin, Ilorin.	1991-1994
(c) University of Ibadan, Ibadan	1995-2001

# 2. Academic and Professional Qualifications and Distinctions Obtained with Dates

(a) B. Agric. (Hons.), Second class (Upper division)	1989
(b) M. Sc. (Crop Production- Plant Nematology)	1994
(c) Ph. D. (Plant Nematology)	2001

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

- (a) Scholarships:
- (b) Fellowships: Third World Academy of Sciences (TWAS) Fellowship for Postdoctoral Research and Advanced Training. 2002

#### (c) Research Grants:

(i.) N 480,000 Obafemi Awolowo University Research Council Grant (11812AWE); **Project Title:** Effects of Leucaena leucocephala and Gliricidia sepium as natural nematicides on Meloidogyne incognita infecting okra and plant-parasitic nematode population. 2004-2008

(Principal Investigator)

(ii.) \$10,300 International Foundation for Science (IFS), Sweden Research Grant (C/ 4290) **Project Title**: Incorporating sunn hemp and african marigold in selected leguminous crops for root knot nematode management. 2007-2009 (Principal Investigator)

- (iii) N-2 million Obafemi Awolowo University Research Council Grant (11801 BPP); **Project Title:** Control of Plant-parasitic nematodes infecting tomato in Farmers' fields' at Wasimi, Ayedaade Local Government Area of Osun state. **2010-2012** (**Principal Investigator**)
- (iv) \$ 2.9 million International Development Research Centre (I.D.R.C), Canada Research Grant (No. 106511) to four Universities: O.A.U., Ile-Ife; UNIOSUN, Osogbo; Cape Breton University, Canada; University of Manitoba, Canada.

  Project Title: Better vegetable-growing opportunities for Nigerian women.

  (Co-Investigator)

  2011-2014
- (v) \$ 13,000 World Academy of Sciences (TWAS) Research Grant for Equipment (12-099 RG/BIO/AF/AC\_I-UNESCO FR:3240271339) **Project Title**: Management of the root-lesion nematode, *Pratylenchus brachyurus* infecting selected cereals with siam weed and sunn hemp applied as organic amendments. **2013-2015**

# (Principal Investigator)

(vi) \$ 4.7 million International Development Research Centre (I. D. R. C.), Canada Research Grant to five Universities: O.A.U., Ile-Ife, Nigeria; Osun State University, Osogbo, Nigeria; Universitie de Parakou, Benin Republic; University of Manitoba, Canada; University of Saskerchewan, Canada.

Project Title: Microdosing indigenous vegetable production for poverty alleviation in West Africa (Co-Investigator) 2015-2018

#### (d) National Awards:

Niger River Basin Development Authority Prize for the Best Graduating Student in the Department of Crop Production, University of Ilorin. 1989

#### (e) International Awards

# C. Work Experience with Dates

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

- (i). N.Y.S.C.- Farm Manager, Koma Hill Mission Farms, Adamawa State 1989-1990
- (ii). Biology and Physics Teacher, Community High School, Ayekale, Saki, Oyo State. 1994
- (iii). Postdoctoral Fellow, Division of Floriculture, Institute of Himalayan
  Bioresource Technology, Palampur, India. 2003-2004

#### 2. Previous Work Experience in Other Universities

(i) Visiting Professor, Department of Biological Sciences, College of Science and Technology, Covenant University, Ota, Ogun State, Nigeria- 5<sup>th</sup> January 2017 to 4<sup>th</sup> January, 2019.

# 3. Work Experience in Obafemi Awolowo University

(i) Graduate Assistant	1994 - 1996
(ii) Assistant Lecturer	1996 - 2001
(iii) Lecturer 1	2001 - 2005
(iv) Senior Lecturer	2005 - 2007
(v.) Reader	2007 -2010
(vi.) Professor	2010 to date

## 4. Courses Taught Within the Current Academic Session

(i) CPP 202: Principles of Plant Science	Co-taught
(ii). CPP 304: Plant Pathology	Co-taught
(iii).CPP 405: Greenhouse Operations	Co-taught

- (iv) CPP 406: Vegetable Production and Nursery Practices
- (v) CPP 641: Host-Parasite Interaction
- (vi) CPP 643: Nematology
- (vii) CPP 645: Principles of Plant Disease Control
- (viii) CPP 647: Research Techniques in Plant Pathology Co-taught

#### 5. Graduate Student Supervision within Current Session

- (a) By Research
- 1. Badejo, A. P. (AGP11/12/H/0629) Amendment of soil with siam weed (*Chromolaena odorata*) and sunn hemp (*Crotalaria juncea*) for the control of the root-lesion nematode, *Pratylenchus brachyurus* in selected cereals. **M. Sc**. She has successfully defended her thesis.
- 2. Adesuyi, A. A. Influence of *Cowpea mild mottle virus* on root-knot nematode infection in cowpea. **M. Phil**. He has successfully defended his thesis
- 3. Ogundele, R. A. Management of *Meloidogyne incognita* and other phytonematodes infecting two leafy vegetables with African marigold and siam weed. **M. Phil.** She has successfully defended her thesis.
- **4.** Thomas, O. O. Effects of interaction of *Meloidogyne incognita* and *Cucumber mosaic virus* on tomato. **M. Sc**. He has successfully defended his thesis.
- 5. Amulu, L.U. Ph.D. project (Completed)
- 6. Olaifa, G. O. Ph. D. project (Completed)

#### **5.** Current Undergraduate Supervision:

# D. Membership of Professional Bodies

(i). Nigerian Soybean Association	1999-date
(ii). Nigerian Society for Plant Protection	2001-date
(iii). Indian Society for Plant Protection Sciences	2003-date
(iv). Indian Horticultural Society	2003-date
(v) American Phytopathological Society	2014
(vi) Crop Science Society of America	2014

#### E. Publications

#### 1. Thesis/Dissertation

- (i) M.Sc. Thesis: **Fatoki, O.K** 1994. Efficacy of some plant leaves in controlling the root-knot nematode, *Meloidogyne incognita*, infecting tomato (*Lycopersicon esculentum* Mill. cv.Roma). 49 pp.
- (ii) Ph.D. Thesis: **Fatoki, O.K**. 2001 Comparative Effects of carbofuran and Some Selected Plant Extracts on the Biology and Pathogenicity of *Meloidogyne incognita* on cowpea and tomato. 135 pp.

#### 2. Books and Monographs

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

#### 3. Contribution to Books

(i) **O. K. Adekunle** (2020). Diseases of Arable and Plantation Crops and their Management pp.147-168. In Agricultural Extension Practices A Subject Matter Approach. Dixon O. Torimiro, Oluyemi A. Akinyemiju and Olalekan J. Soyelu (Eds.) 308 pp. LAMBERT Academic Publishing.

#### 4. Published Journal Articles

- (ii). **Fatoki, O.K.** and Oyedunmade, E.E.A.1996. Controlling effects of some plant leaves on the root-knot nematode, *Meloidogyne incognita* attacking tomato, *Lycopersicon esculentum* Mill. *Nigerian Journal of Plant Protection* 16:59-65. (**Nigeria**)
- (iii). **Fatoki, O.K.** and Fawole, B.1999. *In vitro* toxicity of some selected plant extracts on eggs and second-stage juveniles of *Meloidogyne incognita*. *African Journal of Plant Protection* 9:83-92. (**Uganda**)
- (iv). **Fatoki, O.K**. and Fawole, B. 2000. Identification of nematicidal ingredients from neem leaves, siam weed leaves and roots. *African Journal Plant Protection* 10:33-38. (**Uganda**)
- (v). Oyedunmade, E.E A. and **Fatoki, O.K.** 2001. Efficacy of *Chromolaena odorata* leaf treatment in the control of root-knot nematodes, *Meloidogyne* species

- in soil sown to soybeans. *Bioscience Research Communications* 13(3): 307-310. (**Nigeria**)
- (vi). **Adekunle, O.K.** 2002. Penetration and infection of *Meloidogyne incognita* in some selected cowpea cultivars. *Moor Journal of Agricultural Research*.3 (2): 276-280. (**Nigeria**)
- (vii). **Adekunle, O.K.** and Fawole, B. 2003. Comparison of effects of extracts of siam weed, neem and carbofuran on generation time and reproduction of *Meloidogyne incognita* race 2 on tomato. *Environment and Ecology*. 21 (3): 720-726. (**India**)
- (viii). Akinsanmi, O.A. and **Adekunle, O.K**. 2003. Effect of *Fusarium oxysporium* f.sp *glycines* and *Sclerotium rolfsii* on the pathogenicity of *Meloidogyne incognita* race 2 on soybean. *Plant and Soil* 253:429-435. (**The Netherlands**). **Indexed in Thomson Reuters, Q1 Journal**
- (ix). **Adekunle, O.K** and Fawole, B. 2003. Chemical and non-chemical control of *Meloidogyne incognita* infecting cowpea under field conditions. *Moor Journal of Agricultural Research* 4(1): 94-99. (**Nigeria**)
- (x). Adekunle, O.K and Akinsanmi, O.A. 2005. Bioactivity of *Fusarium oxysporum* f.sp. *glycines* and *Sclerotium rolfsii* filterates on egg-hatching ,survival and infectivity of juveniles of *Meloidogyne incognita* race 2. *Australian Journal of Experimental Agriculture* 45:99-102 Renamed *Animal Production Science* (Australia). Indexed in Thomson Reuters, Q2 Journal
- (xi). Kulshrestha, S, V.Hallan, G.Raikhy, **O.K. Adekunle**, N.Verma, Q.M.R. Haq, and A.A.Zaidi. 2005. Reverse Transcription Polymerase Chain Reaction (RT-PCR) based detection of *Arabis mosaic virus* and *Strawberry latent ringspot virus* in vector nematodes. *Current Science* 89 (10): 1759- 1761 (**India**). **Indexed in Thomson Reuters, Q2 Journal**
- (xii). **Adekunle,O. K.**, S., Kulshrestha ,R., Prasad, V., Hallan, G.,Raikhy, N.,Verma, R.,Ram, S., Kumar. A.A. Zaidi. 2006. Plant parasitic and Vector nematodes associated with Asiatic and Oriental hybrid lilies. *Bioresource Technology* 97:364-371 (**United Kingdom**). **Indexed in Thomson Reuters, Q1 Journal**
- (xiii). **Adekunle, O.K.**, M.K. Singh, R. Prasad and A.A. Zaidi. 2006. Preliminary Investigation into Nematode Problem in *Alstroemeria*. *Environment and Ecology* 24(4): 777-780 (**India**).
- (xiv). **Adekunle, O. K.**, N. Singh, N. Kumar and B. Singh. 2007. Nematicidal action of some plant extracts against *Meloidogyne incognita* and isolation of nematicidal fraction from *Plantago lanceolata*. *Pakistan Journal of Nematology* 25 (1): 189-197 (**Pakistan**).

- (xv). Adekunle, O. K., R. Acharya and B. Singh. 2007. Toxicity of pure compounds isolated from *Tagetes minuta* oil to *Meloidogyne incognita*. *Australasian Plant Disease Notes* 2007(2): 101-104 (Australia).
- (xvi) **Adekunle, O. K**. 2007. Incidence of plant parasitic nematodes in plots grown to chrysanthemum and carnation. *Ife Journal of Agriculture*. 22(1): 41-48 (**Nigeria**)
- (xvii). **Adekunle,O. K**. and A. Akinlua. 2007. Nematicidal effects of *Leucaena leucocephala* and *Gliricidia sepium* extracts on *Meloidogyne incognita* infecting okra. *Journal of Agricultural Science* 52(1): 53-63 (**Serbia**)
- (xviii). **Adekunle, O. K.**, R. Prasad M.Singh, and A.A. Zaidi. 2007. Plant Parasitic Nematodes Associated with Selected Lilies in Palampur, India. *Nigerian Journal of Plant Protection*. 24: 1-13 (**Nigeria**)
- (xix). **Adekunle, O. K**. and M.A. Aderogba 2008. Characterisation of an antinematicidal compound from *Leucaena leucocephala*. *Australasian Plant Disease Notes* 2008 (3): 168-170. (**Australia**)
- (xx). **Adekunle, O. K.** and T.E. Owa 2008. Effect of cowpea aphid-borne mosaic virus on penetration and reproduction of *Meloidogyne incognita* in cowpea. *Journal of Agricultural Science* 53(3): 193-201 (**Serbia**)
- (xxi). **Adekunle, O. K.** 2008. Amendment with weathered poultry manure, cow dung and sawdust for the management of *Meloidogyne incognita* in okra. *Ife Journal of Agriculture* 23(1): 19-31 (**Nigeria**)
- (xxii) **Adekunle, O. K.** 2009. Population dynamics of *Meloidogyne incognita* and three other phytonematodes on okra varieties planted in alleys of *Leucaena leucocephala* and *Gliricidia sepium*. *Australasian Plant Pathology* 38: 211-215 (**Australia**). **Indexed in Thomson Reuters, Q3 Journal**
- (xxiii) **Adekunle, O. K.** 2011. Amendment of soil with African marigold and sunn hemp for management of *Meloidogyne incognita* in selected legumes. *Crop Protection* 30:1392-1395 (**United Kingdom**). **Indexed in Thomson Reuters, Q1 Journal**
- (xxiv) Idowu, M.K., Oyedele, D.J., **Adekunle, O.K**., Akinremi, O.O. and Eilers, B. 2014. Effects of Planting Methods and Seed density on Vegetable Yield and Nutrient Composition of *Solanum macrocarpon* and *Solanum scabrum* in Ile-Ife, southwest Nigeria. *Food and Nutrition Sciences* 5: 1185-1195. **Indexed in Scopus**

- (xxv) Sangoyomi, T. E., Amulu, L. U. and **Adekunle, O. K.** 2014. Survey of Plant Parasitic Nematodes Associated with Cassava in Osun State, Nigeria. *Ife Journal of Agriculture* 27: 69-79 (**Nigeria**).
  - (xxvi) Okoya A. A., Sonaike T. O. and **Adekunle O. K.** 2014. Effect of Application Rate of Selected Natural Pesticides on Soil Biochemical Parameters and Litter Decomposition. *African Journal of Agricultural Research* 9 (50):3655-3662 (**Kenya**).
- (xxvii) **Ojo K. Adekunle** 2014. Indigenous Plant Nematicides and Agroecological Systems. *Nigerian Journal of Nematology* 2: 19-32 (**Nigeria**).
- (xxviii) **Adekunle, O. K**., Amujoyegbe, B. J., Idowu, M. K. and Oyedele, D. J. 2015. Incidence and management of plant parasitic nematodes under continuous vegetable production in a rainforest agroecology in Nigeria. *Journal of Horticultural Science and Biotechnology* 90: 20-24 (**United Kingdom**). **Indexed in Scopus**
- (xxix) Amulu, L. U. and **Adekunle, O. K.** 2015. Comparative Effects of Poultry manure, Cow dung and Carbofuran on the Yield of *Meloidogyne incognita*-infected okra. *Journal of Agricultural Science and Technology* 17 (2): 495-504 (**Iran**). **Indexed in Thomson Reuters, Q2 Journal**
- (xxx) Ogundele, R. A., Oyedele, D. J. and **Adekunle, O. K**. 2016. Management of *Meloidogyne incognita* and other phytonematodes infecting *Amaranthus cruentus* and *Telfairia occidentalis* with African marigold (*Tagetes erecta*) and Siam weed (*Chromolaena odorata*). *Australasian Plant Pathology* 45: 537-545. (**Australia**). **Indexed in Thomson Reuters, Q3 Journal**
- (xxxi) Olaifa, G.O. and **Adekunle, O.K.** 2016. Pathogenicity of the root-knot nematode *Meloidogyne incognita* in soybean-maize intercrop. *Ife Journal of Agriculture* 28: 1-17(**Nigeria**)
- (xxxii) Amulu, L. U. and **Adekunle, O. K**. 2016. Effects of Cured Poultry Manure, Cow Dung and Carbofuran on *Meloidogyne incognita* Race 2 at Different Stages of Development in Okra (*Abelmoschus esculentus* (L.) Moench. *Nigerian Journal of Nematology* 3: 21-30 (**Nigeria**).
- (xxxiii) Kayode, A. P., Adegbite, A. A. and **Adekunle, O. K**. 2016. Amendment of Soil with Siam weed (*Chromolaena odorata* King and Robinson) and Sunn hemp (*Crotalaria juncea* L.) for Control of the Root-lesion Nematode, *Pratylenchus brachyurus* in Selected Cereals. *Nigerian Journal of Nematology* 3: 51-61. (**Nigeria**)
- (xxxiv) Thomas O. O., Odu, B. O., Adekunle, O. K. 2019. Interaction of Root knot Nematode and *Cucumber mosaic virus* infection on Growth and Yield of Tomato. *Ife Journal of Science and Technology* 3 (1): 107-120 (Nigeria)

- (xxxv) M. K. Idowu, D. J. Oyedele and **O. K. Adekunle** 2020. The Influence of Nitrogen Fertilizer Application on Yields and Nitrogen Use Efficiencies of *Solanum macrocarpon* and *Solanum scabrum* in southwest Nigeria. *Food and Nutrition Sciences* 11 (6): 562-570. **Indexed in Scopus**
- (xxxvi) Leonard U. Amulu, Durodoluwa J. Oyedele and **Ojo K. Adekunle** 2021. Distribution of plant-parasitic nematodes and comparative effects of fadama (hydromorphic) fields and upland fields on plant-parasitic nematodes and free-living nematodes on three indigenous vegetables commonly grown in Osun State Nigeria. *Archives of Phytopathology and Plant Protection*. DOI: 10.1080/03235408.2021.1890912. **Indexed in Thomson Reuters**
- (xxxvii) Leonard U. Amulu, Durodoluwa J. Oyedele and **Ojo K. Adekunle** 2021. Effect of Sunn hemp (*Crotalaria juncea*) and Mexican sunflower (*Tithonia diversifolia*) leaf extracts on the development of *Meloidogyne incognita* on African indigenous vegetables. *Archives of Phytopathology and Plant Protection*. DOI: 10.1080/03235408.2021.1899371 **Indexed in Thomson Reuters**
- (xxxviii) L. U. Amulu, D. J. Oyedele and **O. K. Adekunle**.2021 Effects of Sunn hemp (*Crotalaria juncea*) and Mexican sunflower (*Tithonia diversifolia*) soil amendments on yields and quality of two indigenous vegetables grown in a nematode-infested field. *Indian Phytopathology*. DOI: 10.1007/s42360-021-00341-3 **Indexed in Thomson Reuters**
- (xxxix) O. O. Oladele and **O. K. Adekunle** 2021. Management of root-knot and other phytonematodes infecting okra with soil amendments. *Scientia Agriculturae Bohemica* 52 (4): 67-75. **Indexed in Scopus**
- (xl) G. O. Olaifa and O. K. Adekunle 2022. Effect of organic amendments on generation time of *Meloidogyne incognita* infecting yam tuber (*Dioscorea* spp.) under screen house conditions. Indian Phytopathology <a href="https://doi.org/10.1007/s423.60-022-00507-7">https://doi.org/10.1007/s423.60-022-00507-7</a>. **Indexed in Scopus**.
- (xli) Amulu, L.U., Oyedele, D.J. and **Adekunle, O.K.** 2022. Plant parasitic Nematodes Associated with Indigenous Vegetables in southwest Nigeria. Archives of Phytopathology and Plant Protection. DOI: 10.1080/03235408.2022.2086374 **Indexed in Scopus**

(xlii) Adeoye, A. O., B. O. Odu and **O. K. Adekunle** 2022. Effects of interaction between *Meloidogyne incognita* and *Cowpea mild mottle virus* on soybean. Archives of Phytopathology and Plant Protection. DOI: 10.1080/03235408.2022.2139750. **Indexed in Scopus** 

# 5. Refereed Conference Proceedings:

- (xliii). Oyedunmade, E.E.A. and **Fatoki, O. K.** 1995. The efficacy of NITTA, *Hyptis suaveolens* POIT in the control of the root-knot nematode, *Meloidogyne incognita* on three cultivars of okra, *Abelmoschus esculentus. Proc. 13<sup>th</sup> Annual Conference of the Horticultural Society of Nigeria* HORTSON, University of llorin, Nigeria. March 12-15.Pp.137-140. (**Nigeria**)
- (xliv). **Fatoki, O. K.** and Sosan, M.B.1999. The relevance of Farm Children in implementing nonchemical control measures in the management of agricultural pests in Nigeria. In: S. Williams, A.J.Farinde, J.Ogbimi (Eds.). *Farm Children and Agricultural Productivity in the 21<sup>st</sup> Century*. Book of Reading, 2<sup>nd</sup> Annual Conference of Children in Agriculture. Pp.108-112. (**Nigeria**).
- (xlv) **Adekunle, O.K.**, Owa, T.E., Olaifa, G.O. and Lawal, A.A. 2008. Role of selected pathogens in declining food production in Nigeria. Pages 94-99 In: Food, Health and Environmental Issues in Developing Countries: The Nigerian Situation. O.C. Adebooye, K.A. Taiwo, A.A. Fatufe (Eds.) 491pp. Alexander von Humboldt Stiftung / Foundation Bonn, Germany. Cuvillier Verlag Gottingen. (**Germany**).

#### 6. Articles Accepted for Publication

(xlvi) Adesuyi, A. A., Odu, B. O. and **Adekunle, O. K.** Interaction of *Cowpea mild mottle virus* (CPMMV) and root-knot nematode infection on growth and yield of cowpea. *Ife Journal of Science* 

# 7. Manuscripts Submitted for Publication

- (i) Olaifa, G. O. and **Adekunle, O. K.** Effects of selected manures on plant parasitic nematodes associated with White yam (*Dioscorea rotundata*) and Water yam (*D. alata*). *Australasian Plant Pathology*.
- (ii) L. U. Amulu, D. J. Oyedele and **O. K. Adekunle**. Histopathology of root knot nematode (*Meloidogyne incognita*) infection on two African indigenous vegetables. *European Journal of Plant Pathology*.

- (iii) L. U. Amulu, D. J. Oyedele and **O. K. Adekunle**. Survey of plant parasitic nematodes associated with three African indigenous vegetables in southwest Nigeria. *Australasian Plant Pathology*.
- (iv) L. U. Amulu, D. J. Oyedele and **O. K. Adekunle**. Management of *Meloidogyne incognita* and *Rotylenchulus* spp. infecting Telfairia occidentalis with *Crotalaria juncea* and *Tithonia diversifolia*. *Scientia Agriculturae Bohemica*.

#### 8. Creative Work:

# 9. Technical Reports

# 10. Papers and works in Progress:

Management of root-knot and root-lesion nematodes in maize and indigenous vegetables using African marigold, sunn hemp and siam weed as organic amendments.

#### F. Professional Accomplishment

Development of a new protocol for isolation of viruses from vector nematodes and identification of nematodes associated with some economic crops.

Along with other scientists, I developed a new protocol, based on application of Biotechnology principles to plant nematology, for specific detection of two different nematode-transmitted viruses from vector nematodes infecting two different crops. This method can be applied for the detection of other nematode-transmitted viruses. This was accomplished during my tenure in India as a postdoctoral fellow of the Academy of Sciences for the Developing World (TWAS).

I have conducted extensive survey to identify plant parasitic nematodes associated with Asiatic and Oriental hybrid lilies, *Alstroemeria*, Chrysantemum and Carnation, Bulb and Orchids. The nematodes identified were: *Ditylenchus* spp. *Belonolaimus* spp. *Meloiclogyne incognita Rotylenchulus reniformis Xiphinema* diversicaudatum, *Tylenchulus* spp., *Longidorus* spp., *Pratylenchus* spp., *Trichodorus* spp., *Aphelenchus avenae*, *Tylenchorhynchus* spp., *Criconemoides* spp., *Hoplolaimus* spp., *Longidorus macrosoma* and *Helicotylenchus* spp.

# G. Conferences, Seminars and Workshops Attended With Dates

- (i). National Workshop on Public Expenditure and Poverty Reduction. Development Policy Centre, Ibadan. 3-5 August 1998.
- (ii). National Soybean Association 11<sup>th</sup> Annual Conference. I.A.R.&T., Ibadan. 25-28 October 1999.
- (iii). The Nigerian Society for Plant Protection 29<sup>th</sup> Annual Conference. 2<sup>nd</sup>-6<sup>th</sup> September 2001, Kwara State ADP, Ilorin.
- (iv). Short-term training programme in Bioinformatics, Sponsored by Government of India at Institute of Himalayan Bioresource Technology, Palampur, India. 24-26 June, 2003.
- (v). 11<sup>th</sup> Annual Lecture and Symposium of the International Association of Research Scholars and Fellows (IARSAF). International Institute of Tropical Agriculture (IITA), Ibadan. 26<sup>th</sup> January, 2006.
- (vi). 33<sup>rd</sup> Annual Conference of the Nigerian Society for Plant Protection. 7<sup>th</sup>-11<sup>th</sup> May 2006 at Ahmadu Bello University, Zaria, Kaduna State.

**Paper presented**: Evaluation of weathered poultry manure, cow dung and sawdust in the management of *Meloidogyne incognita* race 2 in okra. (vii). Training Workshop on Fourier-transform infrared and Ultraviolet-visible Spectroscopic techniques. A program of the OAU CSL- Carnegie Corporation of New York partnership, 2006-2009. Central Science Laboratory, Obafemi Awolowo University, lle-Ife 30th- 31<sup>st</sup> May 2007.

- (viii). 34<sup>th</sup> Annual Conference of the Nigerian Society for Plant Protection. 17<sup>th</sup>-21<sup>st</sup> Sept. 2007 at Nasarawa State University, Keffi.
- (ix). Humboldt International Conference. 3<sup>rd</sup>- 7<sup>th</sup> August, 2008 at Obafemi Awolowo University,Ile-Ife.
- (x). Humboldt International Conference 6<sup>th</sup>-10<sup>th</sup> September, 2009 at Obafemi Awolowo University, Ile-Ife.
- (xi) 36<sup>th</sup> Annual Conference of the Nigerian Society for Plant Protection. 4-8<sup>th</sup> Sept., 2011 at Federal University of Technology, Akure.
- (xii) First Biotechnology World Congress, 12<sup>th</sup>-15<sup>th</sup> Feb., 2012 held at Dubai Men's College, Dubai, United Arab Emirates.
- (xiii) International Conference on Integrated Soil Fertility Management: From Microbes to Markets, 22<sup>nd</sup>-26<sup>th</sup> October, 2012 held at Safari Park Hotel, Nairobi, Kenya.

**Paper presented**: Adekunle, O.K. and Amujoyegbe, B.J. 2012. Incidence and management of Plant-Parasitic Nematodes under Continuous Vegetable Production in a Rainforest Agro ecology in Nigeria.

(xiv) 39<sup>th</sup> Annual Conference of the Nigerian Society for Plant Protection. March, 2014 at Ladoke Akintola University of Technology, Ogbomoso.

(xv) International Symposium on 'Research to Feed Africa', 23<sup>rd</sup>- 27<sup>th</sup> June, 2014 held at Great Rift Valley Lodge, Naivasha, Kenya.

**Paper presented**: Pest and disease Control under Continuous Indigenous Vegetable Production in Southwestern Nigeria.

(xvi) Joint American Phytopathological Society-Canadian Phytopathological Society Annual Conference, 9<sup>th</sup> -13<sup>th</sup> August, 2014, held at Minneapolis Convention Centre, Minneapolis, Minnesota, United States of America.

**Paper presented**: Root-knot Nematode Suppression in Tomato with Selected Organic Amendments in Comparison to Carbofuran.

(xvii) 2<sup>nd</sup> Biennial Conference of the Nigerian Society of Nematologists 14<sup>th</sup>-16<sup>th</sup> Sept., 2014 held at Federal University of Agriculture, Abeokuta.

**Lead Paper presented**: Indigenous Plant Nematicides and Agro ecological Systems.

(xviii) Joint American Society of Agronomy, Crop Science Society of America and Soil Science Society of America Annual Conference, 15<sup>th</sup>- 18<sup>th</sup> November, 2015, held at Minneapolis Convention Centre, Minneapolis, Minnesota, United States of America.

**Paper presented**: Amendment of Soil with Siam weed and Sunn hemp for the Control of the root lesion nematode, *Pratylenchus brachyurus* in selected Cereals.

(xix) Workshop organized by Forum for Agricultural Research in Africa (FARA) for preparation of proposal on Self-sufficiency in FOOD and LIVESTOCK production in Africa, held at Swiss Spirit Hotel, Alisa, ACCRA, GHANA, 10<sup>th</sup> - 11<sup>th</sup>, October, 2016.

(xx) 3<sup>rd</sup> Biennial Conference of the Nigerian Society of Nematologists 7<sup>th</sup>-9<sup>th</sup> Nov., 2016 held at Augustine University, Ilara-Epe, Lagos State.

(xxi) 4<sup>th</sup> Biennial conference of the Nigerian Society of nematologists September, 2018 held at Ladoke Akintola University of Technology, Ogbomoso, Oyo State.

#### **H** Current Research Activities

Management of root-knot and other plant-parasitic nematodes associated with underutilized indigenous vegetables in Southwestern Nigeria using naturally-occurring nematicides.

# I. Other Relevant Information

# 1. Services within the Department

	(i). Member, Examination Coordination Committee	1994 - 2003	
	(ii). Chairman, Social Committee	2006 - 2008	
	(iii). Member, Departmental Postgraduate Committee	2006 - 2008	
	(iv). Staff in charge, Postgraduate students' results	2001 - 2007	
	(v). Acting Head of Department	2008- 2010	
2.	Services within the Faculty		
	(i). Member, Examination Coordination Committee	1994 - 2003	
	(ii). Member, Faculty Postgraduate Committee	2006 - 2010	
	(iii). Member, Faculty Review Panel	1998 - 2010	
	(iv). Representative of Dean in Faculty Board of Clinical Sciences	2006-2007	
	(v) Representative of Dean in Faculty of Science Review Panel	2012-2016	
	(vi) Representative of Dean in Faculty of Science Selection Panel	2012-2016	
	(vii) Faculty Representative, Postgraduate College Board	2012-2014	
	(viii) Chairman, Faculty of Agriculture Postgraduate Committee	2014-2016	
	(ix) Dean, Faculty of Agriculture	2019-2021	
3.	Services within the University		
	Coordinator, Post-UME and Post-UTME screening exercise	2009-2010	
4.	Services outside the University		
т.	(i). Reviewer for Moor Journal of Agricultural Research	2007 to date	
	(ii) Reviewer for Crop Protection (Thomson Reuters-indexed		
	2011 to date	Q1 Journar)	
	(iii)Reviewer for Scientia Horticulturae (Thomson Reuters-indexed Journal) 2017 to		
	date (iv) Reviewer for Archives of Phytopathology and Plant Protection (Thomson Reuters-		
	indexed Journal)	2017 to date	
	$\epsilon$	2016 to date	
	(vi) Reviewer for Nigerian Journal of Nematology 2015 to date		
	(vii) Reviewer for Scientia Agriculturae Bohemica (Scopus-Indexed Journal) 2017 to		
	date		
	(viii). Pastor, Christ Dominion Team International Christian Centre, Ile-Ife 2009 to date		
	(ix). Adviser, The Redeemed Christian Postgraduate		
		4 to date	
	•	to date	

# J. Contribution to Knowledge

The main thrust of my research is the management of plant parasitic nematodes infecting agricultural crops with emphasis on root knot nematodes, being the most economically important plant nematode on a worldwide basis. Plant parasitic nematodes have to be correctly identified to be able to develop effective management methods, invariably part of my research also border on identification of plant parasitic nematodes associated with economically important crops.

# 1. Application of organic amendments, plant extracts and agricultural wastes in the management of root knot nematodes:

I have conducted extensive research into the use of plant materials and wastes applied as plant extracts or organic amendments for the control of plant-parasitic nematodes against the backdrop of growing global demand for a safe environment. While this study is not entirely new, earlier workers reported the control of plant nematodes with large quantities of organic amendments (in the order of tones), but I was able to establish that plant extracts and organic amendments applied at the rates of 40,000 mg/ kg and 30 kg/ ha respectively could effectively control nematode parasites of plants. This will make the use of organic amendment for nematode control an innovation that can be practically implemented. Additionally, I have been able to characterize active nematicidal ingredients in neem leaves, siam weed leaves and roots such as tannins, amines including methylamine; alkaloids, flavonoids,amides including benzamide and ketones including benzylethanone and o-hydroxylbenzanone. Recently, I reported toxicity of pure compounds including ocimene and dihydrotagetone isolated from *Tagetes minuta* oil to *Meloidogyne incognita*. Also I identified antinematicidal fractions from *Plantango lanceolata*.

#### 2. Interactions between nematodes and fungi for the management of plant nematodes:

I have demonstrated through greenhouse and laboratory trials that *Fusarium oxysporum* f. sp. *glycines* and *Sclerotium rolfsii* filterates could be used as sources of biological nematicides for control of root-knot nematodes and that the pathogenicity of root-knot nematodes on legumes could be extensively reduced when these fungi interact with the nematodes. This was the first report of these fungi having this kind of influence reported on the nematode.

#### 3. Identification of plant nematodes Associated with economically important crops:

I have conducted extensive survey to identify plant parasitic nematodes associated with Asiatic and Oriental hybrid lilies, *Alstroemeria*, Chrysantemum and Carnation, Bulb and Orchids. This was done with a view to developing effective management methods and strategies for plant-parasitic nematodes.

#### 4. Development of a new protocol for isolation of viruses from vector nematodes

I was part of the team of scientists who developed a new protocol, based on application of Biotechnology principles to plant nematology, for specific detection of two different nematode-transmitted viruses from vector nematodes infecting two different crops. This method can be applied for the detection of other nematode-transmitted viruses. This was done during my tenure

in India as a postdoctoral fellow of the Third World Academy of Sciences (TWAS). The protocol was published as follows:

Reverse Transcription Polymerase Chain Reaction (RT-PCR) based detection of *Arabis mosaic virus* and *Strawberry latent ringspot virus* in vector nematodes. *Current Science* 89(10): 1759-1761.

Signature... Date: 22/11/2022