ENIKUOMEHIN, O. A

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Dept: Crop Protection

Academic Rank: Professor

Current Position:

Research Interest: Plant/Seed Pathology

DETAILED RESUME

ACADEMIC DEGREE WITH DATE

- B.Sc (Hons) Botany (Second Class Upper Division) - 1987
- M.Sc (Agric. Biology/Plant Pathology) - 1990
- Ph.D (Plant Pathology) - 1995

INSTITUTIONS ATTENDED WITH DATE

- Bendel State University, Ekpoma - 1984 – 1987
- University of Ibadan, Ibadan - 1989 – 1995

MEMBERSHIP OF PROFESSIONAL BODIES

- Member, Nigerian Society for Plant Protection (NSPP)
- Agricultural Society of Nigeria

PRIZES, HONOURS, NATIONAL AND INTERNATIONAL RECOGNITION

- Best Graduating M.Sc Student (1990), Faculty of Agriculture and Forestry,
- University of Ibadan, (Cumulative average 70.4%)

COURSES TAUGHT

- PCP 201 – Principles of Crop Production and Crop Protection (3 units)
- PCP 202 – Anatomy, Taxonomy & Physiology of Agricultural Plants (3 units)
- PBS 503 – Crop Evolution and Taxonomy (3 units)
- PDB 702 – Seed Biology (3 units)
- CPT 505 – Principles of Plant Pathology (3 units)
- CPT 506 – Mycopathology and Plant Disease Management (2 units)
- CPT 723 – Principles of Plant Disease Control (3 units)

RESEARCH CONDUCTED

- **PATHOLOGY OF WHEAT (*Triticum aestivum* L.) IN SOUTH WESTERN NIGERIA**

    - Wheat cultivation is not traditional to South Western Nigeria. However, the prospect of its cultivation as a rain-fed crop was the focus of my research into the pathology of the seed and whole plant. My research identified the specific fungal pathogens of the different diseases of rain-fed wheat as well as the pathogenic potentials of the seed-borne mycoflora. Interfungal interactions among some of these pathogens were revealed while two control options; plant ash and synthetic fungicides were elicited for the management of rain-fed wheat disease in South Western Nigeria. Ref: (Articles 2, 3, 4, 8, 9, 13 & 22).

- **PATHOLOGY OF SESAME (*Sesamum indicum* L.) IN SOUTH WESTERN NIGERIA**

    Sesame is a crop that has just been introduced to South Western Nigeria. Current research efforts in this regard served to give basic information. My research efforts have served to identify major field diseases of sesame (and the impact of climatic factors on disease development). Appropriate planting dates were determined with reference to incidence and severity of this disease. A new easily adoptable incidence

and severity index was developed for this disease while the management of the disease through the use of plant extracts, synthetic fungicides and intercropping were achieved in my studies (Ref. Articles: 5, 6, 7, 16, 21, 26, 27 & 28).

My research into the seed pathology of the crop also revealed a major impediment to seed health studies – ambiguous record of seed colour. Interfungal interactions on the sesame seed has been revealed by my studies, as a bad tool for further insight into the seed pathology of sesame seed disease management through salt density and plant extracts treatments were also achieved by my research (Ref: Articles 15 & 25).

- **SEED HEALTH AND MYCOTOXINS**

My research into the health of pigeon pea (*Cajanus cajan* L.) and maize (*Zea mays* L.) and other crops have served to establish the presence of mycotoxins (Aflatoxin B_1 and Fumonisin B_1) and mycotoxigenic fungal species in seed as well as their rapid detection through a simplified medium. Early harvesting (between 30-35 Days after Tasselling) of maize was discovered to prevent infection of seeds by *Fusarium monilliforme, F. graminearum, Botrydiplodia theobromae* and *Dreschlera maydis*. Studies also showed that pigeon pea stored in jute bags or iron bins for 3-5 months are free from aflatoxin just as oven or smoke drying of 'egusi' melon (*Colocynthis citrullus* L.) seeds reduced Aspergillus flavus contamination. (Ref: Articles 1, 11, 14, 17, 18).

- **MYCOLOGY, BIOCONTROL AND OTHER STUDIES ON TOMATO, (*Lycopersicon esculentum* L.) COCOA (*Theobroma cacao* L.) AND COWPEA (*Vigna unguiculata* L. Walp)**

My research efforts also established the synergistic value of mycorrhizal fungi *Glomus* Spp to tomato seedlings as well as the potential of microbial antagonists (*Bacillus spp* and *Aspergillus spp*) isolated from tomato fruit and leaf surfaces to reduce tomato fruit rots. The efficacy of some plants extracts in the management of tomato fruit was established by my studies. The susceptibility of local cocoa germplasm to black pod disease was evaluated in a study while the potential of bee-propolis and some plants extracts in the management of anthracriose disease of cowpea was established by my research efforts. (Ref. Articles: 10, 12, 19, 20, 23, 24 & 29).

PUBLICATIONS

(a) Thesis and Dissertation

i. Ph.D Thesis (May 1995)

Field diseases and seed-borne mycoflora of rain-fed wheat (*Triticum aestivum L.*) in Ibadan, South-Western, Nigeria

ii) M.Sc Thesis (November 1990)

Pathogenicity and seed-borne fungi of tomato (*Lycopersicon esculentum L.*) in storage

iii) B.Sc Dissertation (July 1987). Fungi associated with Cola species in storage

(b) BOOKS, MONOGRAPHS AND CHAPTER IN BOOKS

i) **Enikuomehin, O. A.** and Oluwalana, E. O. A. (2007). Post-harvest handling of Tomato fruits for commercialization of Tomato-based products. In: Omotayo, A. M., Sokoya, G. O., Jaiyeola, M. A. and Oluwalana, E. O. A. (eds.) AMREC-UNAAB Training manual for the workshop on Tomato production, Processing, Preservation and Storage. Pp 25-30.

ii) Oluwalana, E. O. A. and **Enikuomehin, O. A.** (2007). Packaging and marketing of value-added tomato products. In: Omotayo, A. M., Sokoya, G. O., Jaiyeola, M. A. and Oluwalana, E. O. A. (eds.) AMREC-UNAAB Training manual for the workshop on Tomato production, Processing, Preservation and Storage. Pp 25-30.

(c) JOURNAL ARTICLES

1) Bankole, S. A., Eseigbe, D. A. and **Enikuomehin, O. A.** (1996). Mycoflora and aflatoxin production in pigeon pea stored in jute sacks and iron bins. ***Mycopathologia* 132**: 155-160.

2) **Enikuomehin, O. A**., T. Ikotun and E. J. A. Ekpo (1998). Evaluation of ash from some tropical plants of Nigeria for the control of *Sclerotium rolfsii* Sacc on wheat (Triticum aestivum L.) ***Mycopathologia* 142:** 81-87.

3) **Enikuomehin, O. A.** and Bankole, S. A. (1998). Incidence and pathogenicity of fungi associated with seedling disease of rain-fed wheat (*Triticum aestivum* L.) in Nigeria. ***Tropical Agricultural Research and Extension* 1(2)**: 121-124.

4) **Enikuomehin, O. A**., Kehinde, I. A. and O. Shokalu (1998). Pathogenicity of fungi associated with rain-fed wheat (*Triticum aestivum* L) in South Western Nigeria. ***Nigerian Journal of Plant Protection***. **18:** 67-74.

5) **Enikuomehin, O. A**., Olowe, V. I. O., Alao, O. S., Atayese, M. O. (2002). Assessment and Cercospora leaf spot disease of sesame in different planting dates in South-Western Nigeria. ***Moor Journal of Agricultural Research***, **3(1)**: 76-82.

6) Shokalu, O., **Enikuomehin, O. A**., Idowu, A. A. and Uwala, A. C. (2002). Effects of seed treatments on the control of leaf blight disease of sesame. ***Tropical Oilseeds Journal* 7**: 93-100.

7) **Enikuomehin, O. A**. and Peters, O. T. (2002). Evaluation of crude extracts from some Nigerian plants for the control of field diseases of sesame. ***Tropical Oilseeds Journal* 7:** 84-92.

8) **Enikuomehin, O. A.**, T. Ikotun and Ekpo, E. J. A. (2002). Interactions between *Sclerotium rolfsii Sacc* and soil-borne fungi associated with pre-emergence seed rot of wheat (*Triticum aestivum* L.). ***Moor Journal of Agricultural Research* 3(2)**: 257-264.

9) **Enikuomehin, O. A**., T. Ikotun and Ekpo, E. J. A. (2002). Effect of some seed dressing fungicides on seed borne pathogens of rain-fed wheat. ***Moor Journal of Agricultural Research* 3(2)**: 271-275.

10) Shokalu, O., Idowu, A. A. and **Enikuomehin, O. A.** (2002). Biological control of tomato fruit rot pathogens. ***Journal of Agriculture and Agricultural Technology* 1(1)**: 103-114.

11) Bankole, S. A., Mabekoje, O. O. and **Enikuomehin, O. A.** (2003). *Fusarium spp* and Fumonisin B_1 in stored maize from Ogun State, Nigeria. ***Tropical Science* 43**: 76-79.

12) Atayese, M. O., Omigbire, J. O. and **Enikuomehin, O. A.** (2004). Growth response of Tomato seedlings to Glomus inoculation in sterile and nonsterile soil conditions. ***Ogun Journal of Agricultural Sciences***: **3(1)**: 73-79

13) **Enikuomehin, O. A.** (2005). Seed abnormalities and associated mycoflora of rain-fed wheat (*Triticum aestivum L.*) in South-Western Nigeria. ***African Journal of Biotechnology* 4(7)**: 672-675.

14) Bankole, S. A., Osho, A., Joda, A. O. and **Enikuomehin, O. A.** (2005). Effect of drying method on the quality and storability of 'egusi' melon seeds (*Colocynthis citrullus L.*). ***African Journal of Biotechnology* 4(8)**: 799-803.

15) **Enikuomehin, O. A.** and Shokalu, O. (2005). Seed mycoflora and coloration of sesame genotypes in South-Western Nigeria. ***Nigerian Journal of Plant Protection***. **22**: 23-33.

16) **Enikuomehin, O. A.** (2005). Cercospora leaf spot disease management in sesame (*Sesamum indicum* L.) with plant extracts. ***Journal of Tropical Agriculture* 43(1-2)**: 21-25.

17) Owolade, O. F., Alabi, B. S., **Enikuomehin, O. A.** and Atungwu, J. J. (2005). Effect of harvest stage and drying methods on germination and seed-borne fungi of maize (*Zea mays* L.) in South West Nigeria. ***African Journal of Biotechnology* 4(12)**: 1384-1389.

18) Atanda, O. O., Akpan, I. and **Enikuomehin, O. A.** (2006). Palm kernel agar: An alternative culture medium for rapid detection of aflatoxin in agricultural commodities. ***African Journal of Biotechnology* 5(10)**: 1029-1033.

19) Obasa, K. C., A. Y. A. Adeoti, **O. A. Enikuomehin** and Bodunde, G. J. (2007). Efficacy of bee-propolis in the control of *Colletotrichum lindemuthianum* (Sacc and Magn.) Briosi and Cav. *In Vitro*. ***Research Journal of Microbiology* 2(2)**: 175-1979.

20) **Enikuomehin, O. A.** (2007). Effect of seasonal variations on Cercospora leaf spot disease and seed health of sesame (*Sesamum indicum* L.) in South Western, Nigeria. ***Nigerian Journal of Plant Protection***. Vol. 24 : 1-15.

21) Kehinde, I. A., Akinyemi, O. F. and **Enikuomehin, O. A.** (2007). Effect of heat treatment on fruit quality, surface structure and control of botrydoplodia theobromae on African

Star Apple (chrysophyllum albidum G. Don). ***Nigerian Journal of Plant Protection***. Vol. 24 (In Press).

22) **Enikuomehin, O. A.** and I. A. Kehinde (2007). In vitro screening of tropical ash samples against seed borne pathogens of wheat (*Triticum aestivum* L.) ***Australasian Plant Pathology* 36**: 587-590.

23) Otunoye, A. H., A. Y. A. Adeoti, S. O. Agbeniyi, P. O. Aikpokpodion, **O. Enikuomehin** and Popoola, T. O. (2007). Evaluation of the susceptibility of local cocoa germplasms in Nigeria to Phytophthora pod rot disease using the leaf discs technique. ***Journal of Food, Agriculture and Environment* 5(3 & 4)**: 327-329.

24) **Enikuomehin, O. A.** and E. O. Oyedeji (2008). Fungitoxic effect of some plant extracts against tomato fruit rot pathogens. ***Archives of Phytopathology and Plant Protection***. DOI: 10.1080/03235400701722202

25) **Enikuomehin, O. A**. (2008). Seed sorting of sesame (*Sesamum indicum* L.) by salt density and seed borne fungi control with plant extracts. **Archives of Phytopathology and Plant Protection**. DOI: 10.1080/03235400801940175 .

26) **Enikuomehin, O. A.** and Kehinde, J. A. (2008). Field response of Sesame (*Sesamum indicum* L.) cultivars to Alternaria leaf blight in South-Western Nigeria. Nigerian Journal of Plant Protection. Vol. 30: In press.

27) **Enikuomehin, O. A.**, A. M. Aduwo, V. I. O. Olowe, A. R. Popoola and O. A. Oduwaye (2008). Incidence and severity of foliar diseases of Sesame (*Sesanum indicum* L.) intercropped with maize (*Zea mays* L.). ***Archives of Phytopathology and Plant Protection. DOI*** 10.1080/03235400802214810.

28) **Enikuomehin, O. A.**, Jimoh, M., Olowe, V. I. O., Ayo-John, E. I., Akintokun, P. O. (2008). Incidence and severity of foliar diseases of sesame (*Sesamum indicum* L.) intercropped with maize (*Zea mays* L.) at different population densities. ***Archives of Phytopathology and Plant Protection*** **DOI** 10.1080/03235400902952244

29) **Enikuomehin, O. A.** (2008). Seed mycoflora of Sesame (*Sesamum indicum* L.) relative to fungal interactions and seed germination in south western Nigeria. **Nigeria Mycological Journal**. 1: 15- 20