

UNIVERSITY OF NAIROBI
College of Agriculture and Veterinary Sciences
DEPARTMENT OF PLANT SCIENCE AND CROP PROTECTION

1) Introduction

The Department of Plant Science and Crop Protection started as two departments, Department of Crop Production and Department of Applied Science in the Faculty of Agriculture in 1970/71 within the College of Agriculture and Veterinary Sciences (CAVS) in the Upper Kabete Campus. The two departments were later re-organized and merged and renamed the Department of Crop Science. In 1997, the Department of Crop Science was split into two departments namely, Department of Crop Science and Department of Crop Protection. In 2005, the two departments were merged to form the Department of Plant Science and Crop Protection. After the merger, the department was re-organized into two sections; namely Crop Science and Crop Protection. The Crop Science Section is made up of the following units: Agronomy, Horticulture, Plant Breeding and Biometry. While the Crop Protection Section is made up of Plant Pathology and Entomology Units. The Department teaches most of the courses for the BSc Agriculture Programme offered by the Faculty of Agriculture. It offers a BSc course in Horticulture, Diploma in Crop Protection, Postgraduate Diploma in Phytosanitary Measures, certificate courses in Floriculture and Phytosanitary Measures and services 51 courses for different departments in the College of Agriculture and Veterinary Sciences (CAVS). The Department offers masters and PhD programmes in Agronomy, Plant Breeding, Plant Pathology, Plant Protection, Horticulture and Agricultural Resource Management.

The Department undertakes rigorous training for both Undergraduate and Postgraduate levels and conducts research geared towards solving national and international problems. The Department also undertakes consultancies, advisory services and encourages both national and international collaboration. The Department has strong linkages with national, regional and international research institutions and universities.

The department has qualified staff and thus able to deliver quality training and research in all areas of its mandate.

2. Programmes Offered in the Department

a) Certificate Courses

1. Certificate in Phytosanitary Measures
2. Certificate in Seed Business Management
3. Certificate in Seed Drying, Processing and Storage

4. Certificate in Seed Legislation and Accreditation
5. Certificate in Seed marketing
6. Certificate in Seed Production
7. Certificate in Seed Quality Assurance

b) Diploma

Diploma in Crop Protection (2 years)
 Postgraduate Diploma in Phytosanitary Measures

c) Degree

BSc Horticulture

c) Postgraduate Programs

The department trains students for Masters of Science and Doctor of Philosophy degrees in various fields of specialization

1. Agricultural Resource Management (Full time and ODL)
2. Crop Protection (Full time and ODL)
3. Plant Pathology
4. Plant Breeding & Biotechnology
5. Agronomy (Full time and ODL)
6. Horticulture (Full time and ODL)
7. Seed Technology and Business Management

3. Enrolled students in undergraduate and postgraduate programmes

1. Diploma in Crop Protection -17
2. BSc Horticulture- 44
3. MSc. Crop Protection - 23
4. MSc. Plant Breeding and Biotechnology - 8
5. MSc. Agronomy - 14
6. MSc. ARM - 6
7. MSc. Horticulture - 3
8. PhD Plant Breeding and Biotechnology - 2
9. PhD Agronomy- 3
10. PhD Crop Protection-1
11. PhD ARM - 3

4. International student component

1. Mou pasquina Atak Garang (Diploma in Crop Protection)
2. Seraphine Uzamushaka (MSc. Agronomy) from Rwanda
3. Lou Jimmy Morris Lado (MSc. Plant Breeding) from South Sudan
4. Sitta Barnaas Justo (MSc. Plant Breeding) from Tanzania
5. Taban Nelson Michael (MSc. Seed Technology & Business Mgt) from Tanzania
6. Langa Fabiola Peter (MSc. Seed Technology & Business Mgt) from Tanzania
7. Bernabas Mdenye(MSc. Seed Technology & Business Mgt) from Tanzania
8. Stephen Attah (MSc. Crop Protection) from Ghana

9. Felicien Ndaruhutse (MSc. Plant Breeding) from Rwanda
10. Maliha H. Saggaf (MSc. Crop Protection) from Tanzania
11. Mpunda Rabson Mulenga (MSc. Crop Protection) from Zimbabwe
12. Lwabalala Dickson Maximilian (MSc. Crop Protection) from Tanzania
13. Irika Almasi Mwahija (MSc. Agronomy) from Tanzania
14. Bean Emily (MSc. Agronomy) from USA
15. Yohannes Tadesse (PhD Plant Breeding) from Eritrea
16. Mekonnen Tachale Birhan (PhD Plant Breeding) from Ethiopia
17. Tefera Zeleke Wondimu (PhD Agronomy) from Ethiopia
18. Caleb Mahoya (PhD Crop Protection) from Zambia
19. Mudde Barnabas (PhD Crop Protection) from Uganda
20. Sserumaga Julius Pyton (PhD Plant Breeding) from Uganda
21. Gerald Kyalo (PhD Plant Breeding) from Uganda.

5. Research Activities;

1. Seed Enterprise management Institute (SEMI) Project
The Seed Enterprise Management Institute (SEMI) project is a collaborative initiative funded by Association for a Green Revolution in Africa (AGRA). The Project is led by University of Nairobi. Collaborators include Iowa State University (ISU), International Maize and Wheat Improvement Center (CIMMYT), Kenya Seed Company (KSCo), Kenya Plant Health Inspectorate Services (KEPHIS) and other private and public institutions in the seed delivery systems. The role of SEMI is mainly geared to providing capacity to the seed industry in sub-Saharan Africa mainly through training on seed systems management for seed practitioners. Funded by AGRA, Investigators: Prof. A. Mwang'ombe, Prof. F. Olubayo and Dr. K. Njoroge. Collaborators: International Maize and Wheat Improvement Center (CIMMYT), Iowa State University (ISU), Kenya Plant Health Inspectorate Services (KEPHIS)

6. International Links and Collaborations

1. University of Nairobi (SEMI), CIMMYT, Alliance for Green Revolution Africa (AGRA) and Iowa State University, USA. Prof. Agnes Mwang'ombe, Dr. Njoroge Kiarie and Dr. Florence Olubayo.
2. Center for Sustainable livelihoods, University of Cork, Ireland and the University of Nairobi. Investigators: Prof. Mwang'ombe, Dr. Olubayo and Dr. Wakhungu.
3. ASARECA, Department of Plant Science and Crop Protection
4. University of Nairobi, Department of Plant Science and Crop Protection and University of Stellenbosch (South Africa) and Kwame Nkrumah University of Science and Technology (Ghana)
5. University of Nairobi, Department of Plant Science and Makerere University (Uganda), Ahfad University for Women (Sudan) and University of Kiel (Germany)
6. University of Nairobi and), Kenya Plant Health Inspectorate Services (KEPHIS)
7. University of Nairobi and Kenya Agricultural Research Institutions (KARI)
8. University of Nairobi, RUFORUM, IFS, Bioversity International, African Network for Agriculture, IRDCAM-(Benin), PGRRI (Ghana), University of Malawi
9. University of Nairobi, KARI, Egerton University, Cornell University, Food Supply Organization (REFSO)
10. University of Nairobi, KARI, Kenyatta University, Kamurugu/RIDA, KEFRI, Kamumo Products, JKUAT, KENFAP

7. Publications

8. Consultancies

- Efficacy Trials
- Diagnostics of Crop Diseases and Pests

9. No. of staff and their designation

Professor	-	6
Associate Professor	-	11
Senior Lecturer	-	3
Lecturer	-	8
Tutorial Fellow	-	4
Chief Technologist	-	1
Senior Technologist	-	8
Technologist	-	6
Secretary	-	2
Assistant Technologist	-	4
Driver	-	1
Cleaner	-	<u>3</u>
Total		57

10. Number of Graduands

1.	Diploma in Crop Protection	-	14
2.	MSc. Crop Protection	-	14
3.	MSc. Plant Breeding	-	7
4.	MSc. Agronomy	-	2
5.	MSc. Agricultural Resource Management	-	6
6.	MSc. Horticulture	-	1
7.	PhD in Crop Protection	-	1
8.	PhD in Agronomy	-	1
9.	PhD in Plant Breeding and Genetics	-	1

11. Papers presented at conferences.

14. Any other activities

Outreach and community services

1. Muthomi, J. W. External examination at Masinde Muliro University of Science and Technology, 2011 to date
2. Muthomi, J. W. . External examination of postgraduate theses at University of Eldoret, 2013
3. Training SEUCO 2nd year undergraduate students, on Familiarization with soil and crop science equipment and green house production practices, which included: Equipment to measure transpiration and quantity of light in crops, 24th May 2013. Maobe A. M. - Crop Science Section.
4. Training of students from Midas Golden Academy on familiarization of different crop pests. 13th June 2013. Wagura J. K. – Entomology Unit.
5. Training of farmers on harvesting and postharvest handling of African leafy vegetables (ALVs) held on 12th to 14th June 2013, in Kakamega, Western Province. Dr. C. Onyango.
6. Training of farmers of postharvest handling and processing of mangoes and bananas in Nkubu, Meru Country held from 16th to 22nd June 2013 . Dr. C. Onyango.

7. *On-farm trials of integrated. Crop Management technologies for snap bean production at Mwea. June 2013. Dr. G. N. Cheminingwa.*
8. *Documentation of women knowledge, experiences attitudes, perceptions and practices in relation to food security and providing relevant professional advice to women groups in Baringo County. Food security project coordinated by the Women Study Centre. – 15th to 20th April 2013. Prof. F. Olubayo and Dr. M. Hutchinson.*
9. *Meeting with farmer groups to discuss on their agriculture and innovation histories and mapping out their agriculture communication pathways. It also involved assessment of the impact of their innovation activities on their incomes and livelihoods, and on the local economy.*
10. *Dr D. W. Miano. Training of Virus resistance cassava for Africa (VIRCA) Project staff on Regulatory compliance on Biosafety. Held on 18th December 2013 at KARI Alupe*