CRS 3202 **PESTICIDE APPLICATION TECHNOLOGY**

2. COURSE CODE:

3. COURSE INSTRUCTOR:

Prof. Samuel Kyamanywa (B. Sc. Agric., MUK; PhD MUK)

Dr. Jeninah Karungi (B. Sc. Agric., MSc Crop Science, PhD MUK)

4. COURSE DESCRIPTION:

This course covers the use of pesticides in horticultural crop production. Emphasis is on efficient and safe use of pesticides; pesticide properties and formulations; methods of application and equipment for application. It also covers personal protection, calibration of equipment, transportation, storage and store management; impact of pesticide on human health and the environment. Code of Practice The main aim of the course is to inculcate the values of safe use and handling of pesticides in horticulture to ensure food safety.

5. COURSE OBJECTIVES

* To introduce the students the science of pesticides
* To help the student understand the criteria for selecting pesticides for use in horticultural crops,
* To train the students how to apply pesticides safely and to learn the factors that influence safe pesticide use and handling.
* To introduce the students to how pesticides affect human and environmental health.

6. COURSE OUTLINE

Week 1 History of pesticides, Uganda pesticide laws, and Agricultural Chemicals act, Laws on registration, International Conventions related to pesticide use 3hrs

Week 2 Definition and classification of pesticides, pesticide mode of action 3hrs

Week 3 Insecticide chemistry: Pesticide Classes 3hrs

Week 4 Pesticide formulations, Compatibility of pesticides and fumigants 3hrs

Week 5 Concept of hazard, exposure and toxicity 3hrs

Week 6 Pesticides and the environment 3hrs

Week 7 Pesticide application equipments. Their operation and maintenance 3hrs

Week 8 Pesticide Application Techniques 3hrs

Week 9 Pesticide selection procedures 3hrs

Week 10 Pesticide Calibration & dosages 3hrs

Week 11 Principles and Practices of Fumigation 3hrs

Week 12 Pesticide Handling and Safety Measures 3hrs

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# Week 14 Disposal of pesticide and containers 3hrs

Week 15 Cleaning up pesticide spills, Decontamination of spills 3hrs

Week 16-17 Revision and Final Examination

7. COURSE STRUCTURE & LOCATION

3 Credit units: 30 lecture hours (2 contact hour per week for 15 study weeks) and 30 practical hours (equivalent to 15 hours contact hours in 15 weeks)

Lectures will be conducted from the Lower lecture theatre, Faculty of Agriculture.

Practicals will be conducted from the East Laboratory and the Biotech Lab

8. COURSE ASSESSMENT:

Continuous assessment-Quiz/Assignment: 20%

Continuous assessment-practicals: 20%

University Examination: 60%

9. READING LIST

* Larry P. Pedigo (2002). Conventional Insecticide Management, PP 381 – 439 in Entomology and Pest Management 4th Edition. Prentice Hall
* Mathews G. A. (1982) Pesticide Application Methods. Longman London and New York
* The Manual of Safe Pesticide usage and Handling- Crop Science Department Book Bank