



2ND SEM. 2006/2007

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UNIVERSITY OF SWAZILAND

FINAL EXAMINATION PAPER

PROGRAMME: **DIPLOMA IN AGRICULTURAL EDUCATION
YEAR 2 AND DIPLOMA AGRICULTURE YEAR
2**

COURSE CODE: **CP 204**

TITLE OF PAPER: **CROP PESTS**

TIME ALLOWED: **TWO (2) HOURS**

INSTRUCTIONS: **ANSWER QUESTION 1, WHICH IS
COMPULSORY AND ANY OTHER THREE (3)
QUESTIONS**

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**INSTRUCTIONS: ANSWER QUESTION 1, WHICH IS COMPULSORY AND
ANY OTHER THREE (3) QUESTIONS**

Question 1
(This question is compulsory)

(a) What are the:

- (i) Injurious stage(s) of crop pests, and
- (ii) The specific plant part(s) attacked by the following pests:

- 1. False wireworm on maize
- 2. Bean stem maggot on beans
- 3. Natal fruit flies on citrus
- 4. Sugar cane beetle on sugarcane
- 5. Red spider mite on tomatoes

(15 marks)

(b) Give the common name, scientific name and at least one distinguishing feature that differentiates it from other storage insect pests:

- 1. A lepidopterous primary storage pest of cereals (maize)
- 2. A coleopteran primary storage pest of beans
- 3. A lepidopterous secondary storage pest of cereals (maize)
- 4. A coleopteran primary storage pest of cereals (maize)
- 5. A storage pest that affects books and pictures

(10 marks)

[25 marks]

Question 2

(a) Define each of the following and give an example of each:

- i. Phytosanitary pest
- ii. Biocide
- iii. Active ingredient
- iv. Natural pest control
- v. Microbial insecticide

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- vi. Diluants
- vii. Emulsifiable concentrates
- viii. Prophylactic pest control
- ix. LD50
- x. Synergist

(20 marks)

(b) Briefly Describe **FIVE** (5) cultural practices that a grower can apply to minimise insect pest populations in his/her field. (5 marks)

[25 marks]**Question 3**

- (a) Explain bio-magnification of a pesticide in a food chain. (10marks)
- (b) Which are safer as foliage sprays, wettable powders or emulsifiable concentrates? Support your argument. (10 marks)
- (c) Would a spreader – wetter be most valuable in a stomach poison or contact poison? (5 marks)

[25 marks]**Question 4**

- (a) Explain the mechanism of pesticide resistance build-up in insect populations. (10 marks)
- (b) What advantages do systemic pesticides have over other types of insecticides? (15 marks)

[25 marks]**Question 5**

- (a) Explain why quarantine regulations are necessary to control movement of plant materials:
 - (i) Into Swaziland
 - (ii) From region to region? Explain. (15 marks)
- (b) Who is responsible for enforcing plant quarantine regulations in Swaziland? How are the quarantine regulations enforced in the country? (10 marks)

[25 marks]