

97



UNIVERSITY OF SWAZILAND

SUPPLEMENTARY EXAMINATION PAPER

PROGRAMME: B.Sc. AGRICULTURAL & BIOSYSTEMS ENGINEERING
YEAR 4
B.Sc. AGRIC. ECON. & AgBMgt YEAR 4
B.Sc. AGRICULTURAL EDUCATION YEAR 4

COURSE CODE: CP 409

TITLE OF PAPER: FIELD CROPS

TIME ALLOWED: TWO (2) HOURS

INSTRUCTIONS: ANSWER ANY FOUR QUESTIONS

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THE CHIEF INVIGILATOR**

QUESTION 1

- a) Are the primary goals for crop production the same in developed and developing countries? If not, how are they different and why? [15 marks]
- b) List the effects crops have on succeeding crops. Explain the positive and negative effects of each. [10 marks]
- [25 Marks]

QUESTION 2

Discuss the agronomic aspects of soya bean (*Glycine max*) production in Swaziland, under the following headings:

- a) Tillage (5 marks)
- b) Time of planting (5 marks)
- c) Plant population on yield (5 marks)
- d) Fertilizer response, water requirement and management (5 marks)
- e) Crop sanitation – weed, pest and disease control (5 marks)
- [25 Marks]

QUESTION 3

- a) List any four varieties of sugarcane grown in the Swaziland. (5 marks)
- b) What are the key requirements that must be met by a grower wishing to establish a sugarcane growing operation in Swaziland? (10 marks)
- c) Why is the distance to the mill an important consideration when a decision to grow sugarcane is made? (10 marks)
- [25 Marks]

QUESTION 4

Discus five (5) climatic requirements for sugarcane production and explain why the sugar-belt is located on the eastern part of Swaziland.

[25 Marks]

QUESTION 5

Conservation agriculture is a sustainable farming concept that increase yields and returns to farm investments while improving food security and protecting the environment through the application of three fundamental principles in conjunction with other good agronomic practices. Name or list and discuss these principles.

[25 Marks]