



**2<sup>ND</sup> SEM 2010/2011**

**PAGE 1 OF 3**

**UNIVERSITY OF SWAZILAND**

**FINAL EXAMINATION PAPER**

**PROGRAMME: BACHELOR OF SCIENCE IN AGRONOMY YEAR FOUR (4)**

**COURSE CODE: CP 409**

**TITLE OF PAPER: SUGARCANE PRODUCTION**

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

**INSTRUCTIONS: ANSWER ANY FOUR (4) QUESTIONS.**

**DO NOT OPEN THIS PAPER UNTIL PERMISSION HAS BEEN GRANTED BY THE CHIEF INVIGILATOR**

**ANSWER ANY FOUR (4) QUESTIONS**

**QUESTION 1**

- (a) What are the advantages and disadvantages of not burning the trash in a sugarcane field?  
(15marks)
- (b) When is it advisable to trash? (10 marks)

**[25 Marks]**

**QUESTION 2**

Overhead irrigation is the method whereby water under pressure in pipes is distributed through sprinklers or jets, in droplet form, over a given area of crop or land. Describe the four (4) portable overhead irrigation systems used in sugarcane production. **[25 Marks]**

**QUESTION 3**

Give brief explanation of the following terms, each answer carries five (5) marks.

- (a) Filter cake
- (b) Shoot roots
- (c) The actual composition of sugarcane
- (d) Irrigation
- (e) Seedcane

**[25 Marks]**

**QUESTION 4**

- (a) Sugarcane can be planted using two types of row spacing, i.e. single row spacing and tramline spacing. Single row spacing is best suited where manual harvesting is practice. What other factors are considered in single row spacing. (10 marks)
- (b) Seed cane quality is very important in sugarcane production, young seed of 7 – 9 months of age should be used at planting. What are the seed preparations required to ensure quick and uniform germination? (10 marks)
- (c) What are the advantages of hand planting sugarcane? (5 marks)

**[25 Marks]**

**QUESTION 5**

- (a) Sugarcane plants need to be conditioned for harvesting by withholding irrigation and ripening. Name the two groups of chemical ripeners and give a brief explanation of what they are and how they work. (12 marks)
- (b) Give a brief outline on the methods of ripener application. (10 marks)
- (c) Why is flowering prohibited in sugarcane production? (3 marks)

**[25 Marks]**