



**2008/2009**

**UNIVERSITY OF SWAZILAND**

**SUPPLEMENTARY EXAMINATION PAPER**

**PROGRAMME:** B.Sc. ANIMAL SCIENCE IV AND B.Sc.  
AGRICULTURAL EDUCATION IV

**COURSE CODE:** APH 404

**TITLE OF PAPER:** DAIRY TECHNOLOGY

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

**INSTRUCTIONS:** ANSWER ANY 4 QUESTIONS.

**THIS PAPER MAY NOT BE OPENED UNTIL THE CHIEF  
INVIGILATOR HAS GRANTED PERMISSION.**

**QUESTION 1**

Discuss the technology of ice cream making. (25 Marks)

**QUESTION 2**

You have been producing yoghurt and upon examination of your product during the fermentation process you observed that yeast was proliferating. Explain the possible causes for this and the control measures that could be taken. (25 Marks)

**QUESTION 3**

Describe the following dairy products and explain their fermentation technologies:

- a) Koumis (9 Marks)
- b) Emasi (6 Marks)
- c) Acidophilus milk (5 Marks)
- d) Butter milk (5 Marks)

**QUESTION 4**

Compare and contrast the following:

- a) Hydrogen peroxide system and lactoperoxidase system (7 Marks)
- b) Coliform and lactic acid bacteria (6 Marks)
- c) Acid cheese and soft Cheese (7 Marks)
- d) Ice milk and Ice cream (5 Marks)

**QUESTION 5**

During the production of cheese, whey is produced as a by – product. Describe strategies that can be done to improve the utilization of this dairy waste. (25 Marks)