



UNIVERSITY OF ESWATINI

1st SEM. 2018/2019

RE-SIT EXAMINATION PAPER

**PROGRAMME: B.Sc. ANIMAL SCIENCE YEAR 3 AND B.Sc. ANIMAL SCIENCE
(DAIRY OPTION) YEAR 3**

COURSE CODE: ASC301

TITLE OF PAPER: PASTURE AND FODDER MANAGEMENT

TIME ALLOWED: TWO (2) HOURS

INSTRUCTIONS: ANSWER ANY FOUR QUESTIONS

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CHIEF INVIGILATOR**

QUESTION 1

Starting from initial ploughing until seedling emergence, describe fully the steps involved in pasture establishment of large commercial farming areas.

(25 Marks)

QUESTION 2

During times of feed scarcity especially in winter, hay is fed to livestock. Assume you are in charge of a dairy farm at Luyengo. The farm has 95 cows which require supplementary feeding for 180 days in winter.

Given that the cows are fed at a rate of 10 kg hay on dry matter basis per cow per day, calculate:

(a) Total feed needs (hay) during the winter period. **(5 Marks)**

(b) Barn capacity in bales required to store the hay assuming each bale weighs 25 kg. **(5 Marks)**

(c) Total area to be reserved for hay assuming a pasture yield of 12 tonnes per/ha of Rhodes grass. **(5 Marks)**

(d) Give a method you would employ to improve the quality and utilisation of this hay. **(5 Marks)**

(e) Calculate the adjusted values for (i) hay needs, (ii) barn capacity and (iii) area to be reserved for hay assuming 15% loss in hay making. **(5 Marks)**

QUESTION 3

One of the most serious constraints to livestock production in Eswatini is inadequate and low quality of forage in winter. Briefly explain how this problem can be addressed through the use of crop residues and agro-industrial by-products. **(25 Marks)**

QUESTION 4

Based on grazing of Italian rye grass at the UNESWA Farm, discuss fully the concept of strip rotational grazing. **(25 Marks)**

QUESTION 5

(a) Discuss the role of sown pastures in providing quality feed.

(25 Marks)