

UNIVERSITY OF FORT HARE

AGA 607

SUPPLEMENTARY EXAMINATIONS

NOVEMBER 2018

Time: 3 HOURS

Module title: Feeding practices in livestock production

Marks: 100

This paper consists of 2 pages including cover page

Internal Examiner: Mr. C.S. Gajana

Examiner: Prof. J.W. Ng'ambi

Instructions

- 1. Answer any FOUR questions**
- 2. It is in your best interest to write clearly and legibly.**

Question 1: [25 marks]

1. Discuss different feeding practices for sheep and goats. [25 marks]

Question 2: [25 marks]

1. Discuss the different feeding practices used between beef and dairy cattle. [25 marks]

Question 3: [25 marks]

1. Discuss the use of amino acids in livestock production? [25 marks]
- a) What are the FIVE possible limiting amino acids in farm animals, and for which species? Explain briefly. [5 marks]
 - b) Write short notes on amino acid nutrition key for dairy cows? [10 marks]
 - c) Write in detail, why a balance in amino acids in pig and poultry nutrition is essential. [10 marks]

Question 4: [25 marks]

A cow is consuming 3 kg of barley – cottonseed meal mixed in the bails and is grazing ryegrass pastures. You have used a pasture meter to determine that the average intake of ryegrass pasture per cow is 15 kg dry matter. The bail mix consists of three 50 kg bags of cottonseed meal to each tonne of barley. Feed analysis for the barley and cottonseed meal as follows:

	Barley	Cottonseed meal	Ryegrass
Dry matter	90%	90%	20%
CP	11%	44%	3.52%
ADF	7%	19%	22%
Energy	13 MJ	11 MJ	11 MJ

Assuming that the bail feed is mixed properly, distributing the cottonseed meal throughout the barley grain, and that the feed droppers have delivered 3 kg of this mix to the cow.

1. Explain the benefits of feed analysis in dairy production. [4 marks]
2. Estimate how much total crude protein and energy the cow is consuming. [21 marks]

Question 5: [25 marks]

1. Discuss the steps or procedures followed in feed formulation under the following:
 - a. What are the steps in balancing a ration? [10 marks]
 - b. Why is feed analysis important? [5 marks]
 - c. How is nutritional information used in formulating rations? [5 marks]
 - d. How rations are balanced using the Pearson square method? [5 marks]