**LIVESTOCK PRODUCTION II (NUTRITION)**

 This topic entails the following:

* Identification and classification of livestock feeds.
* Digestion and digestive systems of cattle, pigs and poultry
* Definition of terms used to express field values
* Preparation of balanced ration for various livestock
* Functions and deficiency symptoms of various nutritional elements.

 The following relevant questions and their answers in this topic will greatly motivate and help the user to comprehend and understand the required concepts and practices;

1. Give **two** ways by which production ration may be utilized by dairy goats

2. Given that the livestock reared require a ration of 18% DCP and the farmer has maize bran of

 10% DCP and sunflower meal of 30% DCP. Use Pearson’s square method to calculate how

 much of the feedstuffs a 150kg rations

3. State the importance of the following in livestock nutrition: i) Water ii) Vitamin A

4. Name the compartment of the ruminant stomach where microbial digestion takes place.

5. i) A ration containing 18% protein is to be made from maize and sunflower cake. Given

 that maize contains 7% protein, and sunflower seed cake 34% protein. Use Pearson square

 method to calculate the value of feedstuffs to be used to prepare 100kgs of the feed

 ii) A part from Pearson square method, name **two** other methods that can be used to formulate

 feed ration

6. (a) Define the term ration as used in livestock nutrition

 (b) A farmer wanted to prepare a 200kg of pig’s ration containing 16% D.C.P. Using the persons

 square method, calculate the amount of maize containing 10% D.C.P and cotton seed

 containing 28% D.C.P the farmer would need to prepare the ration (***show your work***)

7. Give **two** livestock feed additives

8. State **three** factors that would determine the amount of concentrate fed to dairy cattle

9. State **three** factors that would determine the amount of concentrate fed to dairy cattle

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1. Production ration may be utilized by dairy goats in:

* Milk formation
* Growth

- Foetal/embryo development

2. Use Pearson’s square method to calculate how much of the feedstuffs a 150kg rations (5mks)

Maize bran = 12 x 150 = 90kg maize bran

 20

Sunflower 8 x 150 = 60kg sunflower

 20

3. i) Water (1mrk)

* Transport medium
* For metabolic processes
* Regulates body temperature
* Maintains shell shape
* Component of livestock product
* Lubricant of body joints (2x ½ = 1mk)

 ii) Vitamin A (1mrk)

* Bone formation
* Prevents diseases / Increases disease resistance
* Improves vision

Improves vigour/ for proper growth

4. Rumen.

5. i) A ration containing 18% protein is to be made from maize and sunflower cake. Given

 that maize contains 7% protein, and sunflower seed cake 34% protein. Use Pearson square

 methods to calculate the value of feedstuffs to be used to prepare 100kgs of the feed (3mks)

ii) two other methods that can be used to formulate

 feed ration

* Linear programming
* Trial and error

Graphical method.

6. (a) The daily amount of food given to an animal/ the amount of food given to an animal

per day

(b) Quantity of maize = 12 x 200Kg

 18 = 133.33kg

Quantity of cotton seed = 6 x 200

 18 = 66.67kg

7. Hormones

Antibiotics

Medicants

8.

* Qualities of roughages
* Availability of the concentrates
* Level of production
* Physiological states of the animals
* Quality of concentrates
* Economic factors

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