

ROLE OF MINERALS, PROTEINS, CARBOHYDRATES AND WATER IN THE DIET OF LIVESTOCK

Prepared by Oswald Byebazo

A) MINERALS:

- They speed up chemical reactions in the body e.g. magnesium activates enzymes.
- potassium maintains osmotic pressure of blood and lymph fluid
- calcium is important in the clotting of blood
- magnesium increases libido in animals, which is important in reproduction
- calcium and phosphorus strengthen the skeleton of animals
- minerals are important constituents of tissues such as blood and teeth
- calcium helps in formation of strong shells in eggs
- potassium maintains suitable Ph of body fluids

B) PROTEINS:

- Proteins repaired worn out tissues and damaged cells
- proteins can be broken down to provide energy whenever there is shortage of carbohydrates
- They are constituents of hormones and enzymes.
- Proteins are essential for growth in all living tissues.
- Proteins are components of animal products like milk eggs and meat.





C) CARBOHYDRATES:

- They give energy and heat required by animals for metabolic processes.
- They can be converted into fats and stored as energy sources for the future.
- Carbohydrates prevent bloat (production of excess gas) in ruminants.

D) WATER:

- Water regulates body temperature.
- Water is part of body fluids like blood, semen, vaginal fluids etc.
- It acts as a solvent for many solutes in animal bodies.
- Water lubricates body joints.
- It is a medium for transportation of body nutrients.
- Water helps to keep the body cells turgid, hence maintains body shape.

Activity

Name and explain factors that influence/determine the level of water intake by livestock?

(E.g. Type of feeds; animals feeding on dry feeds take in more water than animals feeding on succulent feeds.)

THANK YOU VERY MUCH AND GOOD LUCK!

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