

Unit 8: Camel Production and Management

8.1 Camel Breeds and Selection

Camel Breeds

Camels are divided into two main types: **one-humped** (Dromedary) and **two-humped** (Bactrian).

- **Dromedary Camels (*Camelus dromedarius*):**
 - Found in hot desert regions like Arabia, India, and Mali in West Africa.
 - They are larger than Bactrian camels, with lean tissue, longer limbs, and a fine, evenly distributed coat.
 - Adapted to hot climates, they have unique features like trapdoor nostrils to protect against sandstorms.
 - These camels are crucial in regions like Ethiopia for their milk, meat, and as pack animals.
- **Bactrian Camels (*Camelus bactrianus*):**
 - Found in cold deserts of Central Asia.
 - They have two humps and are well-adapted to cold environments.
 - Recognizable by their shorter and wider skull, long hair on the head, neck, humps, and legs, and reddish-brown coat.
 - Bactrian camels are less economically significant compared to Dromedary camels.

Camel Selection Methods

Selecting the best camels is vital for improving productivity. Key traits include:

- **For Male Camels:**
 - Large body size, rapid growth rate, and strong work performance are preferred.
 - These traits are crucial for breeding and work purposes.
- **For Female Camels:**
 - Early age at first calving and good milking abilities are highly valued.
 - Selection focuses on the posture, size of the udder, mammary gland size, and milk production lineage.

Why is selection important? Selecting camels with desirable traits ensures better productivity and supports the livelihoods of pastoralists, making it essential for sustainable camel production.

8.2 Camel Feeds and Feeding Methods

Camels are adaptable feeders, consuming a wide variety of plants that other animals often avoid.

- **Main Feeds:**
 - Camels primarily browse on trees and bushes like acacia and salt bushes.
 - They also graze on grasses and consume herbs and cereals during the wet season, although these are less preferred.
- **Feeding Methods:**
 - During dry seasons, pastoralists move camels to areas with better feed and water availability.
 - Protein and energy supplements, such as groundnut cake and maize, are recommended to boost productivity, especially for lactating camels.
 - Camels have a high salt requirement, so it's important to supplement their diet with mineral salts or allow them to graze on salty soils.

Water Requirements: Camels are highly resistant to water deprivation, able to lose up to 20% of their body weight without harmful effects. When water is available, they can drink up to 200 liters in 20 minutes. Their water needs depend on diet, environmental factors, and physiological conditions like lactation.

8.3 Camel Housing

Camel housing is generally categorized into **open** and **closed** systems, depending on the camel's age and other factors such as:

- **Environmental Conditions**
- **Availability of Construction Materials**
- **Exposure to Predators**

Traditional Kraal: In Ethiopia, most camels are kept in traditional enclosures made of thorny bushes, known as kraals, which provide protection from predators. Mature camels are typically herded during the day and housed at night.

Key Term:

- **Kraal:** An enclosure made of thorn bushes used to house livestock in pastoral communities, offering protection from predators.
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Major Diseases of Camels and Their Control

Camels are generally resilient animals with a strong ability to resist diseases compared to other livestock. However, they are still susceptible to a variety of diseases caused by viruses, bacteria, and parasites. These diseases can significantly affect their health, productivity, and even lead to mortality if not properly managed.

Common Diseases in Camels

1. **Viral Diseases:**
 - **Camel Pox:** A contagious disease that causes skin lesions and can spread rapidly among camels.
 - **Foot and Mouth Disease (FMD):** A severe, highly contagious viral disease affecting cloven-hoofed animals, including camels.
2. **Bacterial Diseases:**
 - **Anthrax:** A serious infectious disease caused by *Bacillus anthracis*, leading to sudden death in camels.
 - **Brucellosis:** A bacterial infection that can cause reproductive issues in camels, including abortion in pregnant females.
3. **Parasitic Diseases:**
 - **Helminthiasis:** Infestation with parasitic worms that can lead to malnutrition and poor health.
 - **Mange:** Caused by mites, leading to severe itching, hair loss, and skin damage.

Disease Control Methods

1. **Isolation:** Separate sick camels from healthy ones to prevent the spread of contagious diseases. Establishing an isolation area for this purpose is crucial.
2. **Disinfection:** Regularly disinfecting equipment, housing, and other areas where camels are kept can help control the spread of infectious agents.
3. **Vaccination:** Implementing vaccination programs against common viral and bacterial diseases can significantly reduce the risk of outbreaks.
4. **Proper Nutrition:** Ensuring camels receive adequate nutrition can strengthen their immune systems, making them less susceptible to diseases.

5. **Regular Veterinary Check-ups:** Regular health monitoring and prompt treatment of any signs of illness are vital in maintaining the overall health of the herd..

Understanding and effectively managing camel diseases is essential for improving camel health, productivity, and overall management in pastoral communities.

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