



## Primary 6 Integrated Science

### Term 2

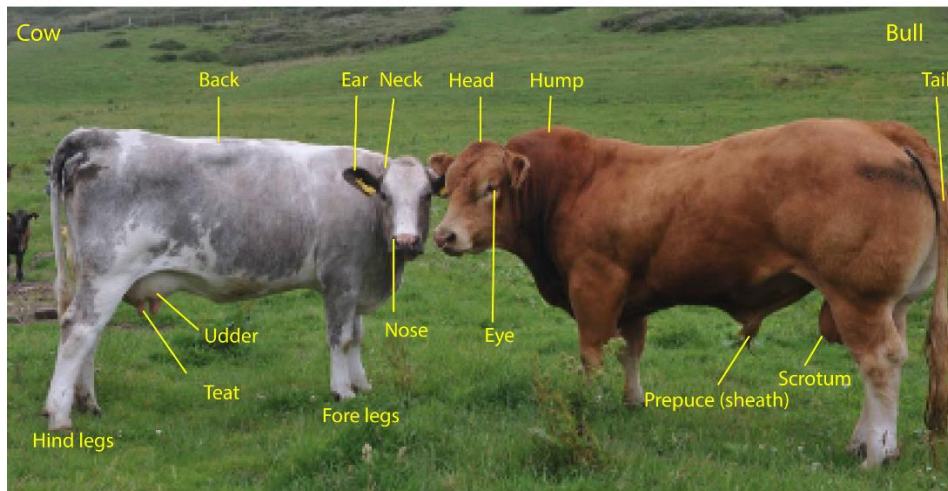
### Theme: Science in Human Activities and Occupations

#### Topic 2/4 – Keeping Cattle

**Learning Outcomes** The learner;

- appreciates the importance of cattle to people.
- acquires basic scientific knowledge and skills of managing cattle.

#### Parts



## Exercise 1

- (a) Give **one** use each for any four parts on the head of a cow
- (b) State **one** structure of cattle between the hind legs of a cow and of a bull.

## Importance of cattle in Uganda

- (i) milk,
- (ii) meat,
- (iii) dowry,
- (iv) hides,
- (v) fertilizers.
- (vi) and cultural ceremonies

## Types of Cattle

Cattle are kept by people for different purposes. They can be grouped into four main types:

### 1. Dairy Cattle

- These are cattle kept mainly for **milk production**.
- They produce large amounts of milk every day.

#### Examples:



Friesian



Jersey



Ayrshire

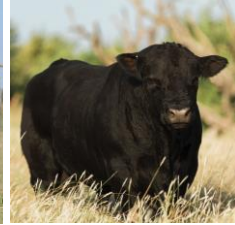
## 2. Beef Cattle

- These are cattle kept mainly for **meat production**.
- They grow big and have a lot of flesh.

### Examples:



Hereford



Aberdeen



Angus



Boran.

## 3. Dual-Purpose Cattle

- These cattle provide both **milk and meat**.
- Farmers benefit from them in two ways.

### Examples:



Red Poll



Simmental

#### 4. Work-Type Cattle/ Draught cattle



- These are cattle used for **draught power** (pulling ploughs, carts, or carrying loads).
- They are strong and hardworking.
- **Examples:** Ankole cattle, Zebu.

#### Activity for Pupils

1. **Class Discussion:** Ask pupils to name cattle breeds they see in their community and classify them.
2. **Group Work:** Pupils draw pictures of dairy, beef, dual-purpose, and work-type cattle.
3. **Quiz Question:** Which type of cattle is kept mainly for milk? (Answer: Dairy cattle)

#### Exercise 2

Giving **one** example each list any four types of cattle.

#### Breeds of Cattle

Cattle are grouped into two main types based on where they come from: **indigenous** (local) and **exotic** (foreign).

##### 1. Indigenous Breeds

- These are cattle that are **native to our country or region**.

- They are well adapted to local conditions such as hot climate, diseases, and poor pastures.
- They usually produce **less milk and meat** compared to exotic breeds, but they are hardy and survive easily.

**Examples:**



Ankole cattle (Uganda)



Zebu cattle



Nguni cattle  
(Southern Africa)

**Advantages of Local Breed Cattle**

- (i) They survive well in hot or harsh conditions.
- (ii) Resistant to local diseases
- (iii) Need less care compared to exotic breeds.
- (iv) Provide manure

Disadvantages of Local Breed Cattle

- (i) Low milk and meat production
- (ii) Take longer to mature.
- (iii) Lower income

**2. Exotic Breeds**

- These are cattle that come from **outside the country** (imported).
- They produce **more milk or meat** than indigenous breeds.
- They need **better care**, good feeding, and protection from diseases.

### Examples of exotic breed cattle

- Friesian (high milk yield)
- Jersey (milk with high butterfat)
- Hereford (beef breed)
- Ayrshire (milk breed)

### Advantages of Exotic Breed Cattle

- (i) **High milk production** – they give more milk than local breeds.
- (ii) **Fast growth** – they grow quickly and reach market size faster.
- (iii) **Large body size** – they produce more meat.
- (iv) **Higher income** – farmers earn more from their products.

### Disadvantages of Exotic Breed Cattle

- (i) They may suffer in hot or harsh conditions.
- (ii) Easily attacked by local diseases
- (iii) Farmers spend more on medicine and care.

### Key Takeaway:

- (i) Indigenous breeds are local, hardy, and survive easily but produce less milk and meat.
- (ii) Exotic breeds are foreign, produce more milk or meat, but need better care.

### Activity for Pupils

- (i) **Class Discussion:** Ask pupils to mention cattle they see in their community and classify them as indigenous or exotic.
- (ii) **Group Work:** Pupils draw two columns in their books: one for indigenous breeds and one for exotic breeds, then list examples.
- (iii) **Quiz Question:** Which breed of cattle is common in Uganda and has long horns? (Answer: Ankole cattle – indigenous breed)

## Exercise 4

Giving **one** example each, state any **two** breeds of cattle.

### Caring for cattle

#### 1. Feeding

- Give cattle enough **grass, hay, or silage**.
- Add **salt and minerals** to keep them strong.
- Provide **supplementary feeds** like maize bran when grass is scarce.

#### Grazing Methods

- (a) **Free-range grazing** – cattle move freely in open fields to eat grass.



#### Advantages of Free-Range Grazing

- (i) **Cheap** – cattle feed themselves on natural grass, so farmers spend less on buying food.
- (ii) **Healthy** – cattle get exercise and fresh air, which keeps them strong.
- (iii) **Natural feeding** – cattle eat a variety of grasses and plants.

(iv) **Large herds** – it is easy to keep many cattle together in open fields.

#### Disadvantages of Free-Range Grazing

- (i) **Overgrazing** – cattle may eat all the grass, leaving land bare.
- (ii) **Diseases** – cattle can easily catch diseases from other animals in the field.
- (iii) **Difficult to control** – cattle may wander far and get lost or stolen.
- (iv) **Weather problems** – during drought, grass may dry up and cattle lack food.

#### Quick Table

Free-Range Grazing	Advantages	Disadvantages
Definition: cattle move freely in open fields	Cheap, healthy, natural feeding, supports large herds	Overgrazing, diseases, theft/loss, drought problems

☞ In Uganda, many farmers still use free-range grazing because land is available, but they must **rotate grazing areas** and **watch for diseases** to reduce the disadvantages.

#### Exercise 5

- (i) What a free range grazing system?
  - (ii) Give **one** advantages and **one** disadvantage of free range system
- (b) **Rotational grazing/paddock system** – cattle are moved from one pasture to another to allow grass to regrow.



### Advantages of Rotational Grazing

- (i) **Grass regrows well** – cattle are moved from one area to another, giving grass time to recover.
- (ii) **Better feeding** – cattle always find fresh grass in the next paddock.
- (iii) **Prevents overgrazing** – land is not left bare.
- (iv) **Controls parasites** – moving cattle reduces tick and worm infestations.
- (v) **Improves soil fertility** – manure is spread evenly across paddocks.

### Disadvantages of Rotational Grazing

- (i) **Expensive** – requires fencing and paddocks, which cost money.
- (ii) **Labor intensive** – farmers must move cattle regularly.
- (iii) **Needs planning** – poor rotation can still lead to overgrazing.
- (iv) **Water supply** – each paddock must have water, which can be difficult to provide.

### Quick Table

Rotational Grazing	Advantages	Disadvantages
Definition: moving cattle from one paddock to another	Grass regrows, better feeding, prevents overgrazing, controls parasites, improves soil	Expensive fencing, more labor, needs planning, water challenges

☞ In Uganda, rotational grazing is especially useful for **dairy cattle** because it ensures constant fresh pasture, but smallholder farmers may struggle with the cost of fencing and water distribution.

### Exercise 6

- (a) What a paddock system of grazing?
- (b) Give **one** advantage and **one** disadvantage of the paddock system

(c) **Zero grazing** – cattle are kept in a house and grass is cut and brought to them.



#### **Advantages of Zero Grazing**

- (i) **Better feeding** – cattle are given cut grass and concentrates, so they eat enough every day.
- (ii) **High milk yield** – dairy cows produce more milk because they get balanced food.
- (iii) **Disease control** – cattle are kept in one place, making it easier to spray and deworm them.
- (iv) **Land saving** – useful for farmers with small pieces of land.
- (v) **Manure collection** – dung is collected easily and used in gardens.

#### **Disadvantages of Zero Grazing**

- (i) **Expensive** – building houses and buying feeds costs a lot of money.
- (ii) **Labor intensive** – farmers must cut and carry grass daily.
- (iii) **Less exercise** – cattle may become weak because they do not walk around.
- (iv) **Feed shortage risk** – if grass is not cut in time, cattle may go hungry.

### Quick Table

Zero Grazing	Advantages	Disadvantages
Definition: cattle are kept in a house and grass is brought to them	Better feeding, more milk, disease control, saves land, easy manure use	Expensive, more labor, less exercise, risk of feed shortage

☞ In Uganda, **zero grazing is common for dairy cattle** like Friesians because it improves milk production, but it requires **good planning and resources**.

### Exercise 7

- (i) What is zero grazing
- (ii) Give any **two** advantage and **one** disadvantage of zero grazing.

### (d) Tethering Grazing System



Cattle are tied to a rope or chain and fixed to one spot in the field. The animal eats grass around it, and the farmer later moves it to another spot.

### Advantages of Tethering Grazing

- (i) **Cheap** – no need for fencing or kraals.
- (ii) **Easy control** – cattle cannot wander far or get lost.
- (iii) **Protects crops** – animals are tied away from gardens.
- (iv) **Manure collection** – dung is dropped in one place, making it easy to collect.
- (v) **Good for small farms** – useful where land is limited.

## Disadvantages of Tethering Grazing

- (i) **Limited feeding** – cattle can only eat grass within reach of the rope.
- (ii) **Risk of injury** – ropes can cause wounds on the neck or legs.
- (iii) **Labor intensive** – farmers must keep moving cattle to new spots.
- (iv) **No exercise** – cattle get little movement, which may weaken them.
- (v) **Weather exposure** – tied cattle have no shelter from sun or rain.

### Quick Table

Tethering Grazing	Advantages	Disadvantages
Definition: tying cattle to a rope in the field	Cheap, easy control, protects crops, manure collection, good for small farms	Limited feeding, risk of injury, more labor, less exercise, weather exposure

☞ In Uganda, tethering is common among **smallholder farmers** who have little land and want to protect crops, but it requires **careful supervision** to avoid injuries and hunger.

### Exercise 8

- (i) What is a tethering system of cattle grazing
- (ii) State any **one** advantage and any **two** disadvantages of tethering system of grazing

## 2. Water

- Cattle need **clean water every day**.
- A big cow can drink many buckets of water, especially in hot weather.

### Watering Methods

- (i) **Water troughs** – containers filled with clean water for cattle to drink.



(ii) **Natural sources** – rivers, streams, ponds, or lakes.



(iii) **Boreholes/wells** – water pumped from underground for cattle.

### Exercise 9

Name any **three** watering method for cattle.

### 3. Housing

- Keep cattle in a **clean kraal (pen)**.
- Provide **shade** to protect them from the sun.
- The floor should be **dry** to prevent hoof diseases.

## Housing Methods

- (i) **Kraal (cattle pen)** – fenced area where cattle are kept, usually at night.
- (ii) **Sheds** – roofed structures that protect cattle from sun and rain.
- (iii) **Zero-grazing units** – permanent houses with feeding and watering points inside.

### Exercise 10

State any **three** qualities of a good cattle house.

## 4. Health

- **Vaccinate** cattle against diseases like foot-and-mouth.
- **Spray or dip** cattle to kill ticks.
- **Deworm** them regularly.
- Call a **veterinary doctor** when they are sick.

### Exercise 12

Name any **two** activities for maintaining a cow in good health.

## 5. Handling

- Treat cattle **kindly and calmly**.
- Do not beat or chase them roughly.
- Use proper ropes or sticks when guiding them.

## 6. Record Keeping

- Farmers should keep records of:
  - Births of calves
  - Vaccinations
  - Milk production
  - Sales and purchases

### Quick Table

Activity	Why It Is Important
Feeding	Helps cattle grow and produce milk/beef
Watering	Prevents dehydration
Housing	Protects from sun, rain, and disease
Health care	Keeps herd strong and productive
Handling	Prevents injuries and stress
Record keeping	Helps farmers plan and improve

### Exercise 14

- (i) Name four records kept on cattle form.
- (ii) Give **one** importance of each record in (i).

### Mating in Cattle



- (i) Mating is when a **bull (male)** and a **cow (female)** come together for reproduction.
- (ii) The bull mounts the cow and releases semen, which fertilizes the cow's egg.
- (iii) This process leads to pregnancy if fertilization is successful.

### Gestation Period

- (i) The **gestation period** is the time a cow carries the calf in her womb.
- (ii) In cattle, the gestation period is about **9 months (around 280 days)**.
- (iii) During this time, the cow needs good feeding and care to keep the calf healthy.

## Calving



- **Calving** is the process of a cow giving birth to a calf.
- Signs of calving include restlessness, swelling of the udder, and discharge from the birth canal.
- Farmers should provide a **clean, quiet place** for the cow to deliver.
- After calving, the calf should suckle colostrum (the first milk) to gain strength and immunity.

### Quick Table

Stage	What Happens	Importance
Mating	Bull mates with cow	Leads to pregnancy
Gestation Period	Cow carries calf for ~9 months	Calf develops in womb
Calving	Cow gives birth to calf	New calf joins herd

☞ In Uganda, farmers often watch for cows in **heat (ready for mating)** and may use either natural mating with a bull or **artificial insemination** to improve breeds.

### Exercise 15

- Give any one role of mating in a cattle farm
- What do you understand by the term “calving”.
- How long is the gestation period of a cow?
- State one care that can be given to a pregnant cow.

## Milking Process in a Farm

### 1. Preparation

- The cow is brought to a **clean, quiet place**.

- The farmer **washes the udder and teats** with clean warm water to remove dirt and germs. Warm water may induce milk let down.
- Hands should also be clean before milking.

## 2. Stimulating the Cow

- The calf may be allowed to suckle a little, or the farmer gently massages the udder.
- This helps the cow release milk easily.

## 3. Milking

- The farmer **sits or stands beside the cow**.
- He or she **holds the teat firmly** and squeezes milk into a clean bucket.
- Milking is done gently to avoid hurting the cow.

## 4. After Milking

- The teats are dipped in a disinfectant to prevent infection.
- The milk is **filtered and stored** in clean containers.
- It should be kept cool or boiled to stay fresh.

### Quick Table

Step	What Happens	Importance
Preparation	Wash udder, clean hands	Prevents dirt and germs
Stimulation	Massage udder or calf suckles	Helps milk flow
Milking	Squeeze teats into bucket	Collects milk
After milking	Disinfect teats, store milk	Protects cow, keeps milk safe

☞ In Uganda, many farmers still milk cows **by hand**, but some larger farms use **milking machines** to save time and improve hygiene.

### Exercise 16

Mention any two activities carried out to ensure safe milk before milking.

## Milk Products

Milk can be processed into many useful foods and drinks. Common milk products include:

- (i) **Fresh milk** – boiled or pasteurized for drinking.
- (ii) **Butter** – made by churning cream from milk.
- (iii) **Cheese** – produced by curdling milk.
- (iv) **Yoghurt** – made by fermenting milk with bacteria.
- (v) **Ghee** – clarified butter, often used in cooking.
- (vi) **Cream** – the fatty part of milk, used in desserts.
- (vii) **Ice cream** – sweet frozen product made from milk, sugar, and flavorings.
- (viii) **Powdered milk** – milk dried into powder for storage.

### Quick Table

Milk Product	How It Is Made	Use
Fresh milk	Boiled/pasteurized	Drinking
Butter	Churning cream	Cooking, spreading
Cheese	Curdling milk	Food, snacks
Yoghurt	Fermenting milk	Drink, dessert
Ghee	Clarified butter	Cooking
Cream	Skimmed from milk	Baking, desserts
Ice cream	Milk + sugar + flavors	Sweet treat
Powdered milk	Dried milk	Long storage

☞ In Uganda, milk is very important for both **home use and business**. Farmers sell fresh milk, yoghurt, and ghee, while powdered milk is often exported.

### Exercise 17

- (i) State any two importance of milk to a farmer.
- (ii) Name any **four** milk products

## Cattle Pests

**Examples:** ticks, flies, lice, worms.

**Causes:** poor hygiene, dirty kraals, overgrazing, and contact with infected animals.

**Spread:** pests move from one animal to another in the kraal or grazing field.

**Signs/Symptoms:** itching, wounds, loss of hair, weakness, poor growth.

**Prevention:** keep kraals clean, spray or dip cattle regularly, rotate grazing areas.

**Control/Treatment:** use acaricides (for ticks), deworming medicines, and veterinary advice.

### Exercise 18

- (a) Name any two cattle pest.
- (b) State any two ways of eliminating cattle pests from a farm

## Cattle Diseases

**Examples:** Foot-and-mouth disease, East Coast fever, anthrax, contagious bovine pleuropneumonia (CBPP).

**Causes:** germs (viruses, bacteria, parasites) entering the animal's body.

**Spread:** through contact with sick animals, contaminated water, pasture, or tools.

**Signs/Symptoms:**

- Foot-and-mouth: blisters in mouth and hooves, drooling.
- East Coast fever: high fever, swollen lymph nodes, weakness.
- Anthrax: sudden death, bleeding from body openings.
- CBPP: coughing, difficulty breathing.

**Prevention:** vaccinate cattle, spray against ticks, keep kraals clean, avoid mixing with sick animals.

**Control/Treatment:** isolate sick animals, call a veterinary doctor, give proper medicines, and follow vaccination programs.

### Quick Table

Aspect	Pests (e.g., ticks)	Diseases (e.g., FMD, ECF)
Causes	Dirty kraals, poor hygiene	Germs (viruses, bacteria, parasites)
Spread	From one animal to another	Contact, contaminated pasture/water
Signs	Itching, wounds, weakness	Fever, blisters, coughing, sudden death
Prevention	Spraying, clean kraals, deworming	Vaccination, spraying, hygiene
Control/Treatment	Acaricides, dewormers	Veterinary medicines, isolation

☞ In Uganda, **tick-borne diseases like East Coast fever** are among the most dangerous for cattle, so farmers must spray regularly and vaccinate to protect their herds.

### Exercise 19

- List any two signs of a sick cow
- State any four ways of fighting cattle diseases.

### Practices that harm cattle and other domestic animals

#### At Home

- Poor feeding** – giving little or dirty food.
- Dirty water** – causes diseases.
- Beating animals** – injures them and makes them fearful.
- Dirty kraals** – attract pests like ticks and flies.

#### In the Field

- Overgrazing** – leaves land bare and animals hungry.
- Tethering too tightly** – causes wounds on the neck or legs.
- Leaving animals in hot sun or rain** – leads to stress and sickness.

(iv) **Mixing with sick animals** – spreads diseases.

### **In Transit (transport)**

- (i) **Overcrowding in trucks** – causes suffocation and injuries.
- (ii) **Long journeys without food or water** – weakens animals.
- (iii) **Rough handling when loading/unloading** – breaks bones or wounds animals.

### **In the Abattoir (slaughterhouse)**

- (i) **Beating animals before slaughter** – causes pain and stress.
- (ii) **Using dirty tools** – spreads germs.
- (iii) **Poor stunning methods** – animals suffer before death.
- (iv) **Overcrowding in holding pens** – causes injuries.

### **Quick Table**

<b>Place</b>	<b>Harmful Practices</b>	<b>Effects</b>
Home	Poor feeding, dirty kraals, beating	Weakness, disease, fear
Field	Overgrazing, tight tethering, exposure	Hunger, wounds, sickness
Transit	Overcrowding, no food/water, rough handling	Injuries, stress, death
Abattoir	Beating, dirty tools, poor stunning	Pain, disease spread

☞ In Uganda, farmers are encouraged to use **humane handling practices**, provide **clean water and food**, and ensure **safe transport and slaughter** to protect animal welfare and improve productivity.

### **Exercise 21**

State any **four** bad treatment of cattle.

### **Steps in Starting a Livestock Farm**

#### **1. Choosing the Animals**

- (i) Decide which animals to keep: cattle, goats, sheep, pigs, or poultry.
- (ii) Select healthy breeds that suit your area (e.g., Ankole cattle in Uganda).

## 2. Land and Housing

- (i) Get enough land for grazing or building animal houses.
- (ii) Build **kraals, sheds, or pens** that are clean, dry, and safe.

## 3. Feeding and Water

- (i) Plan for **pasture, fodder crops, and supplementary feeds**.
- (ii) Provide **clean water every day**.

## 4. Health Care

- (i) Vaccinate animals against common diseases.
- (ii) Spray or dip cattle to control ticks.
- (iii) Deworm regularly and call a veterinary doctor when animals are sick.

## 5. Management

- (i) Keep records of births, sales, vaccinations, and milk/meat production.
- (ii) Employ trained workers to handle animals kindly.
- (iii) Practice good hygiene to prevent pests and diseases.

## 6. Marketing

- (i) Plan where to sell milk, meat, eggs, or hides.
- (ii) Connect with cooperatives or local markets for better prices.

### Quick Table

Step	What to Do	Why It Matters
Choose animals	Select healthy breeds	Better productivity
Land & housing	Build kraals/sheds	Protects animals
Feeding & water	Provide grass, fodder, clean water	Growth and health
Health care	Vaccinate, spray, deworm	Prevents disease
Management	Keep records, train workers	Improves planning
Marketing	Sell products in markets	Earn income

☞ In Uganda, many farmers start small with **a few cattle or goats**, then expand as they gain experience and resources. Proper planning ensures the farm grows successfully.

### **Exercise 22**

Suggest any four requirements for starting a livestock farm.

## Revision questions

1. State any one way through the giving of feeds to a cow during milking helps to stimulate milk let down.

(i) Reduces cow stress

(ii) Stimulates the release of oxytocin, the hormone responsible for milk let-down.

1. Name one exotic cattle kept for milk and one exotic cattle kept for beef.

Milk: Friesian, Jersey, Ayrshire

Beef: Hereford, Aberdeen, Angus, Boran.

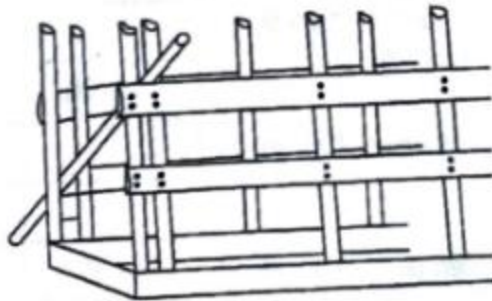
2. State one way in which paddocking method of grazing cattle helps to break the life cycle of pests on a farm.

(i) Parasites are starved when cattle move to another paddock.

**(ii)** Eggs and larvae are killed when dung dries

**(iii)** Rotation grazing stops pests from multiplying in **previous paddock**.

3. The diagram below shows a structure in a cattle farm. Study and use it to answer questions that follow



(a) Mention any one activity carried out in the above structure.

Dipping

Identification of cattle

- (b) How is the above structure used when carrying out the farm activity you have mentioned in (a) above

Guides cattle movements, one at a time

- (ii) Give one disadvantage of people that live in the same house with domestic animal.
- (a) Spread of diseases
  - (b) Bad odor
  - (c) Untidy environment

4. The table below shows an example of a farm record. Study and use it to answer the questions that follow.

Date	Health problem	Animal(s) affected	Treatment/control method	Cost of treatment
01/8/2023	Mastitis	Goats No. 4 and No. 8	Antibiotics	17,000/=
12/10/2023	Worm infestation	Kids(06)	Dewormers	25,000/=
03/11/2023	anthrax	All goats	Vaccination	50,000/=

- (a) Name the farm record above

Health record

- (b) Apart from Anthrax, mention any one other disease which is controlled by the method used on 03/11/2023.

- (i) **Foot-and-Mouth Disease (FMD)**
- Highly contagious viral disease.
  - Causes blisters in the mouth and feet, leading to reduced milk and meat production.
  - Controlled by regular vaccination programs.
- (ii) **Blackleg (Clostridial disease)**
- Caused by *Clostridium chauvoei* bacteria.

- Leads to sudden death in young cattle.
- Vaccination is very effective and widely used.
- (iii) **Anthrax**
  - Caused by *Bacillus anthracis*.
  - Can kill cattle quickly and is dangerous to humans too.
  - Vaccination prevents outbreaks in endemic areas.
- (iv) **Brucellosis**
  - Bacterial disease that causes abortions and infertility.
  - Vaccination helps reduce spread and protects herd fertility.
- (v) **Lumpy Skin Disease (LSD)**
  - Viral disease spread by biting insects.
  - Causes skin nodules, fever, and reduced milk yield.
  - Vaccination is the main control method in Africa.
- (vi) **Bovine Viral Diarrhea (BVD)**
  - Viral disease that weakens immunity and reduces productivity.
  - Controlled through vaccination in many regions.

### Why Vaccination Matters

- (i) **Prevents deaths and losses** in cattle herds.
- (ii) **Improves productivity** (milk, meat, fertility).
- (iii) **Reduces treatment costs** compared to managing outbreaks.
- (iv) **Protects human health** (for zoonotic diseases like anthrax and brucellosis).

(c) Give any two reason why keeping of such a record is important to farmer

- (i) Monitor animal disease
- (ii) Monitor cost of disease control and treatment
- (iii) Helps to select resistant breeds
- (iv) For planning purpose

5. Which part of cow is affected by mastitis disease?

Udder

6. One advantage of proper housing of cattle

- (i) **Protection from rain, sun, and wind** – keeps cattle comfortable.
- (ii) **Prevents diseases** – clean houses reduce sickness.
- (iii) **Easy feeding and watering** – farmers can give food and water in one place.
- (iv) **Safety from thieves and wild animals** – cattle are kept secure.
- (v) **Better growth and production** – healthy cattle give more milk and meat.

7. State the type of cattle kept to provide labour on a farm.

**Work-Type Cattle/ Draught cattle e.g. zebu**

8. (a) What germ causes mastitis in cattle

Bacteria

(b) Give any two signs of mastitis in cattle.

- (i) **Swollen udder** – the udder looks bigger than normal.
- (ii) **Redness and heat** – the udder feels hot and may look red.
- (iii) **Pain** – the cow feels pain when the udder is touched.
- (iv) **Changes in milk** – milk may look watery, thick, or have clots.
- (v) **Less milk** – the cow produces less milk than usual.
- (vi) **Cow looks sick**

(c) State any one way of controlling mastitis in cattle.

- (i) **Keep the cow shed clean** – dirt and germs cause mastitis.
- (ii) **Wash and dry the udder before milking** – removes germs from the teats.
- (iii) **Use clean hands and equipment** – prevents germs from entering the milk.
- (iv) **Milk the cow gently** – rough handling can injure the udder.
- (v) **Treat sick cows quickly** – stops the disease from spreading.
- (vi) **Give cows proper housing and feeding** – keeps them strong and healthy.

9. (a) State one way in which cattle farm contributes to development of leather industry.

Provides skin and hide

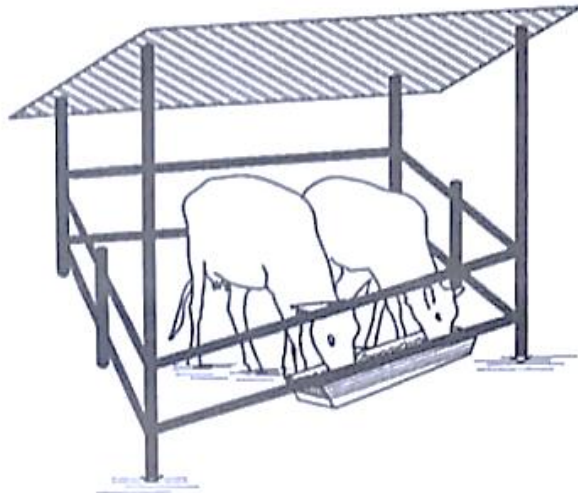
(b) Apart from leather industry, give any one other example of industry that uses cattle products

- (i) **Meat Industry** – beef from cattle is processed for food.
- (ii) **Dairy Industry** – milk is used to make butter, cheese, yogurt, and other dairy products.
- (iii) **Pharmaceutical Industry** – some medicines and vaccines are made using cattle by-products.
- (iv) **Cosmetic Industry** – fats and oils from cattle are used in soaps, creams, and lotions.
- (v) **Fertilizer Industry** – cattle dung is processed into manure for farming.
- (vi) **Energy Industry** – biogas is produced from cattle dung to provide fuel.

(b) State any two ways in which farmers can improve on the quality of cattle products.

- (i) **Good feeding** – giving cattle enough balanced food makes better milk, meat, and hides.
- (ii) **Proper housing** – clean, safe shelters keep cattle healthy.
- (iii) **Regular vaccination and treatment** – prevents diseases that spoil products.
- (iv) **Clean milking practices** – washing hands and udder gives clean milk.
- (v) **Breeding healthy animals** – choosing strong cattle improves future products.
- (vi) **Proper handling of hides and skins** – careful treatment prevents damage before leather making.

10. The diagram below shows a cattle grazing system. Study and use it to answer the questions that follow.



(a) Name the cattle grazing system shown above.

Zero grazing

(b) What type of natural manure can be got from the above system

Composite manure (animal excreta + plant remains)

(c) Apart from easy collection of manure, state any **two** advantages of the above cattle grazing system.

- (i) Provides cattle with enough feeds
- (ii) Monitors cattle feeding
- (iii) Minimizes spread of pests and disease.

11. (a) Which breed of cattle is obtained by mating a pure local breed and an exotic breed?

Crossbreed

(b) Give any two reasons why some farmers prefer keeping local breeds of cattle to exotic breed

- (i) Need less care
- (ii) Less likely to suffer from diseases
- (iii) Are resistant to drought.

(c) State any characteristic of dairy cattle.

- (i) **Large udders** – for producing and storing milk.
- (ii) **Well-developed teats** – for easy milking.
- (iii) **Slim body** – not very heavy, because they are bred mainly for milk, not meat.
- (iv) **Long legs** – help them stand comfortably while being milked.
- (v) **Docile (gentle) nature** – easy to handle during milking.
- (vi) **High milk yield** – they produce more milk than local beef cattle.

12. How is foot and mouth disease controlled in cattle.

- (i) **Vaccination** – cattle are vaccinated regularly to prevent the disease.
- (ii) **Quarantine** – sick animals are separated from healthy ones.
- (iii) **Movement control** – avoid moving cattle from infected areas to clean areas.
- (iv) **Proper disposal** – destroy carcasses of dead animals to stop spread.
- (v) **Cleanliness** – disinfect cattle houses, equipment, and surroundings.
- (vi) **Report outbreaks quickly** – inform veterinary officers for fast action.

13. Why is it possible to control the spread of cattle diseases in a paddock system?

**The cattle locked are not exposed to infected ones**

**Infected cattle can be separated**

14. Give any one reason why farmers prefer keeping cross-breed cattle other than the exotic ones.

**To increase resistance to disease**

15. The two lists A and A below, show the diagram and the animals they affect .match the items in list a with those in list B correctly by completing the table below.

<u>List A</u>	<u>List B</u>
New castle	cattle
African swine fever	Dogs
Rabies	pigs
Rinderpest	fowls

(a)New castle	<b>fowls</b>
(b)African swine fever	<b>pigs</b>
(c )Rabies	<b>dogs</b>
(d)Rinderpest	<b>cow</b>

16. (a) What do you understand by 'dual purpose' cattle?

**Dual-purpose cattle are cattle kept for milk and beef**

b) Give any two common local breeds of cattle kept in Uganda

(i) Zebu cattle

(ii) long horned cattle/Ankole cattle

(c) Suggest any one reason why cattle keepers practice cross-breeding.

**To improve on milk production**

**To improve on beef production**

17. Give any one sign you would see on cattle suffering from the following diseases:

(a) Anthrax:

**Blood sports in milk**

**Running nose**

**Discharge a dark bloody stool**

(b) (b) East coast fever

**Loss of weight**

**Laziness**

**Diarrhea**

**High body fever**

(c) Nagana

**Drossiness**

**Loss of weight**

(d) (Foot and mouth

**Sore foot**

**Drooling from the mouth**

18. Give the meaning of the following words as used in cattle –rearing

(a) Insemination: **inserting the semen of male cow into the vagina of a female cow for fertilization.**

(b) Crossbreeding: **where a local and exotic breed mate to produce an intermediate offspring**

(c) Castration: **Activity carried out on a bull to make it unable to have sex and reproduce.**

(d) On heat: **this is a period of time when a cow is restless in desire to mate with a bull.**

19. Give one way in which energy from animals can be used.

- **Ploughing, transport, pulling carts**

20. (a) Name the type of cattle kept for milk production.

**Diary cattle**

(b) Give one example of exotic breeds of cattle which are the best for milk production.

**Jersey, freesia, Sahiwal**

(c) Write down two activities a farmer should do in order to get clean milk from a cow.

- (i) washing hands, udder, utensils
- (ii) filtering milk
- (iii) covering milk containers
- (iv) test for mastitis

21. Give any one advantage of castrating farm animals.

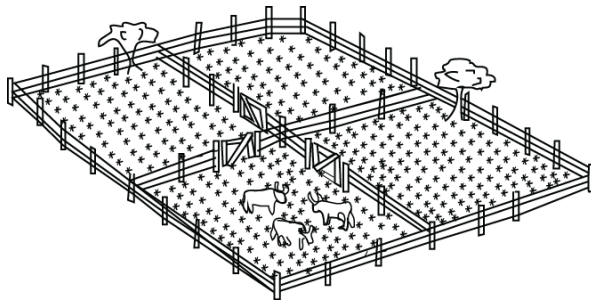
- **prevent poor bread**
- **prevent venereal diseases**
- **make male easy to handle**

22. Name the cattle disease whose sign is a swollen and painful udder.

**Mastitis**

23. The diagram below shows a system of grazing cattle.

Study and use it to answer the questions that follow.



(a) Name the system of grazing cattle shown in the diagram above.

**Paddock system**

(b) Besides restricting the animals, give two other advantages of this system of grazing cattle.

- (i) **Gives pasture time to grow**
- (ii) **Control breeding of pest**
- (iii) **Control soil erosion**
- (iv) **Give animal enough exercise**
- (v) **Prevent overgrazing**

(vi) **Isolate sick animals**

(c) State any one disadvantage of the system of grazing cattle shown in the diagram

- **It is expensive**
- **Requires a big piece of land**

24. Give the use of a drenching gun to cattle farmer.

***A drenching gun is used to administer drugs to animals***



25. How can foot and mouth disease be controlled?

**By quarantine**

26. (a) Which breed of cattle is obtained by mating a pure local breed and an exotic breed?

**Hybrid/crossbreed**

(b) Give any two reasons why some farmers prefer keeping local breed of cattle to exotic breeds.

**(i) they are resistant to disease**

**(ii) less affect by parasites**

(c) State any **one** characteristic of dairy cattle.

**Big udder**

27. (a) What germ causes mastitis in cattle?

**Bacteria**

(b) Give any two signs of mastitis.

**(i) swelling**

**(ii) increase in temperature**

(c) State any one of way of controlling mastitis in cattle.

Hygiene

antibiotics

28. Give any one way in which farmers can improve on the quality of local breeds of chicken

**By cross breeding**

**Thank You**

**Dr. Bbosa Science**