**Common Diseases in Dairy Cows**

Disease can be divided into categories

* Infectious
* Parasitic
* Metabolic
* Nutrient deficiency

**Infectious Diseases**

* **Mastitis**
A common and costly infection of the udder, often caused by bacteria. It leads to inflammation and can decrease milk quality and production.
* **Bovine Viral Diarrheal (BVD)**
A viral infection that can cause diarrhoea, fever, and reproductive issues in cattle. It can lead to calf deaths and birth defects if cows are infected during pregnancy.
* **Johne’s Disease**
A chronic bacterial infection that affects the intestines of cattle, leading to weight loss, diarrhoea, and eventually death. It’s slow-progressing and difficult to diagnose early.
* **Mycoplasma Bovis**
A bacterial infection that causes mastitis, pneumonia, arthritis, and reproductive issues. It’s highly contagious, and outbreaks can severely impact herd health and productivity.
* **Facial Eczema:**
Facial eczema is a seasonal disease caused by cows eating spores from a fungus that grows on pasture during warm, humid conditions. The spores produce a toxin, which damages the liver of affected cattle. Symptoms of facial eczema include reddened, swollen, and crusty skin, particularly around the eyes and ears, and in severe cases, the liver damage can lead to jaundice and even death.
* **Lameness**
A range of conditions that cause discomfort and mobility issues in cattle, often due to hoof problems or infections. Lameness can lead to decreased milk production and overall welfare concerns.

**Parasitic**

* **Parasite Infections**
* External parasites like lice, ticks,
* Internal parasites such as roundworms and liver flukes

Parasites can cause health problems in cattle, including weight loss, anaemia, and reduced milk production.

**Metabolic diseases**

* **Milk Fever (Hypocalcaemia)**
Occurs when a cow’s calcium levels drop dramatically around calving. Symptoms include weakness, muscle tremors, and inability to stand, often requiring immediate treatment.
* **Bloat**
A condition caused by excessive gas accumulation in the rumen, often due to a diet high in clover. It can lead to severe discomfort, distension, and even death if not managed properly.
* **Grass Staggers (Hypomagnesemia):**
Grass staggers, also known as hypomagnesemia, is a metabolic disorder caused by a deficiency of magnesium in the blood, typically affecting dairy cattle during early lactation or when grazing lush, rapidly growing pasture. Symptoms of grass staggers include muscle tremors, incoordination, staggering, and, in severe cases, convulsions or death.

**Nutrient /Mineral Deficiencies**

* **Cobalt Deficiency**
Cobalt is essential for the production of vitamin B12, and a deficiency can lead to poor growth, reduced milk production, and anaemia. It is a problem in areas with low cobalt levels in the soil.
* **Copper Deficiency:**
Copper is an essential trace mineral that plays a key role in iron metabolism, immune function, and connective tissue formation. In cattle, a copper deficiency can lead to issues such as anaemia, poor growth, reduced fertility, and weakened immune response. Copper deficiency is common in areas with low copper levels in the soil.
* **Selenium Deficiency:**
Selenium is crucial in the body, helping to protect cells from damage and supporting proper immune function. A selenium deficiency in cattle can result in poor growth, muscle weakness (known as white muscle disease), and reproductive problems. Selenium deficiency is common in areas where soil selenium levels are low.

***Exercise***

1. Match these common diseases of dairy cattle with the cause of the disease

**Mastitis Bloat Grass staggers Milk fever**

|  |  |
| --- | --- |
| Name of disease | Cause of disease |
|  | Bacterial infection of the udder |
|  | Build up of gas in the rumen trapped in pasture foam. This is caused by the animal eating lots of young fresh pasture with lots of clover in it. |
|  | Caused by low blood magnesium. It is common in spring when fast growing pasture is low in magnesium and the cow requirements in early lactation are high. |
|  | Caused by low blood calcium. Common in high producing dairy cattle in late pregnancy and early lactation. |

1. Complete the Facial Eczema worksheet.
2. Research Animal Disease

Each student pair to select a disease to research

Produce a power point to-

* 1. Describe what causes the disease
	2. Describe the symptoms
	3. Describe what a farmer can use to prevent the disease.
	4. Describe how a farmer would treat an animal with the disease.