LIVESTOCK

"Empowering the Zambian Farmer to become a Sustainable Producer"

VOLUME 2, ISSUE 3

LSCS SIGNS MOU WITH MOFL TO OPERATE LIQUID NITROGEN PLANT.

Livestock Services has signed a Memorandum of Understanding (MoU) with the Ministry of Fisheries and Livestock (MoFL) to oversee the operation of the Liquid Nitrogen Plant in Mazabuka.

This facility plays a crucial role in supporting Zambia's national Artificial Insemination (AI) Programme by ensuring a steady supply of liquid nitrogen to farmers through established AI satellite centres.

Liquid nitrogen is essential in livestock management, primarily for semen storage, artificial insemination, and freeze branding. By bringing this plant into operation, the MoU enables the preservation and storage of high-quality genetic material, which is vital for sustainable breeding practices.

The facility will **support long-term storage and efficient transfer of genetic material, contributing to enhanced livestock productivity and the preservation of desirable traits.** The joint management of this plant marks a significant milestone for Zambia's livestock industry, strengthening efforts to improve breeding programs and overall animal husbandry.

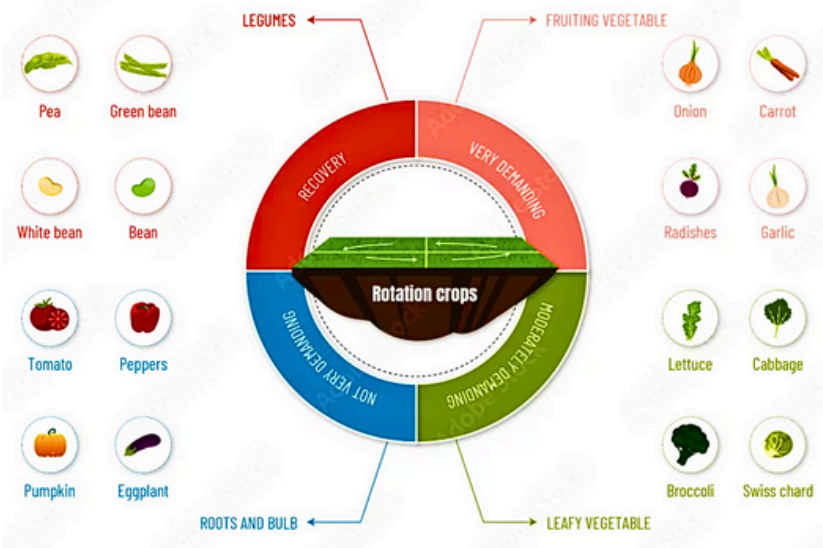
ALSO IN THIS ISSUE:

COMPILED AND EDITED BY DR. YENESHA NAMENDA

BENEFITS OF CROP ROTATION IN FARMING

MWAPE KANGWA

Crop rotation is a time-tested agricultural practice where different crops are grown in a planned sequence on the same land. This method is crucial for sustainable farming and offers multiple benefits.



1. **Enhances Soil Fertility**
Different crops have varying nutrient demands and contributions to the soil. Legumes, for example, fix nitrogen, enriching the soil for subsequent crops. This reduces the need for synthetic fertilisers and maintains soil productivity.

2. **Reduces Pest and Disease Pressure**
Continuous monocropping creates a habitat for specific pests and diseases. Rotating crops disrupts pest life cycles, reducing infestations naturally and minimising pesticide use.

3. **Improves Soil Structure and Reduces Erosion**
Deep-rooted crops improve soil structure by enhancing aeration and water infiltration. Additionally, crop rotation helps prevent soil erosion by maintaining continuous plant cover throughout the seasons.

4. **Manages Weeds Effectively**
Different crops suppress different weed species. For example, planting dense cover crops (such as cowpeas or kale) can smother weeds, reducing reliance on herbicides and manual weeding.

5. **Boosts Yields and Farm Profitability**
Healthier soil, reduced pest pressure, and improved nutrient availability lead to higher crop productivity. This enhances farm profitability while promoting long-term sustainability.

»» UPCOMING SEMINARS ««

- ONION PRODUCTION
26th APRIL, 2025
COSMAS MICHELO HALL
(Showgrounds)

- INTRODUCTION TO APICULTURE
3rd MAY, 2025
COSMAS MICHELO HALL
(Showgrounds)

- TOMATO PRODUCTION
17th MAY, 2025
COSMAS MICHELO HALL
(Showgrounds)

CONTAGIOUS ECTHYMA (ORF)

DR. MWAKA-MUBOTU CHILANGA

Orf is a **highly contagious viral disease** affecting sheep and goats, **causing sores, scabs, and lesions** on the mouth, lips, nose, vulva, and udders. The disease has multiple strains, allowing animals to be reinfected repeatedly.

Transmission & Symptoms

The virus spreads through **direct contact**, contaminated feed, and bedding, persisting in the environment for months. **Symptoms appear within 2–3 days and last up to 4 weeks**, with possible secondary infections. Common signs include:

- **Thick scabby sores** on the lips and gums, resembling chickenpox.
- Weight loss and reduced appetite (infected goats may refuse to eat).
- Lesions on the udders, leading to mastitis or reluctance to nurse.
- Less common lesions on the face, ears, scrotum, vulva, chest, and flanks.
- Blisters that develop into scabs.

Risk Factors

- Boer goats are more susceptible than other breeds.
- Goats generally experience more severe cases than sheep.
- Kids and lambs are at higher risk of complications due to reduced feeding.

Management & Treatment

Since Orf is a viral disease, **antibiotics do not cure it** but can help prevent secondary infections. Proper management includes:

- **Veterinary consultation for appropriate care.**
- **Isolating affected animals** to prevent further spread.
- Providing soft food to infected goats to maintain weight and nutrition.
- Administering antimicrobial treatments (topical and systemic) to control secondary infections.

Vaccination

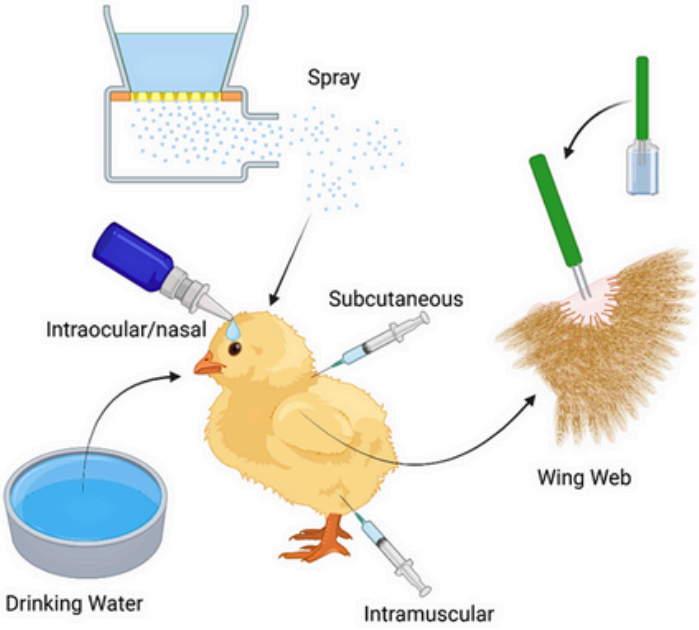
A live vaccine is available for sheep and goats. However, i**t should only be used in herds where Orf is already present**, as unexposed animals risk developing severe infections from the vaccine. While vaccination does not provide complete immunity, it reduces disease severity. **Immunity lasts about a year**, after which reinfection is possible, though usually milder.

Precautionary Measures

- **Change needles** when administering injectable drugs to prevent disease transmission.
- Dairy goats with Orf should be milked last, with equipment sterilised between goats.
- Recovered animals develop temporary immunity lasting about a year.
- Maintaining strict biosecurity measures on the farm can help control the spread of Orf.

YOUR GUIDE TO POULTRY VACCINATION

DR. NAMOONGA SIAKWALE



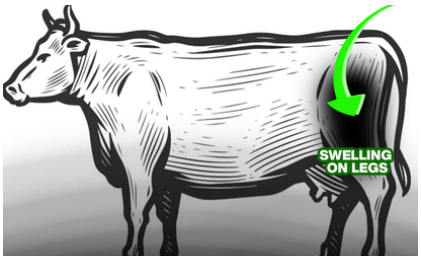
- **Vaccination helps protect poultry from diseases by stimulating their immune system to produce antibodies.** It prevents infections, enhances bird health, and reduces economic losses from disease outbreaks.
- Vaccination is a vital component of poultry flock health management and, **if done correctly, could be a cost-effective way to maintain the overall well-being of the birds.**
- Preventing diseases in poultry also protects public health by minimising the risk of zoonotic diseases.
- There are different types of vaccines that are administered differently according to the type of the vaccine; **therefore, it is important to know the type of vaccine you are getting for your birds so you can know the best method to administer it.**

Key Considerations:

- **Timing**: Follow proper vaccination schedules based on disease risks and bird age.
- **Handling**: Store and handle vaccines correctly to maintain potency.
- **Biosecurity**: Essential even with vaccination to prevent disease outbreaks.
- **Monitoring**: Regularly check vaccinated flocks for effectiveness and health.
- **Comprehensive Management**: A combination of vaccination, proper nutrition, and biosecurity improves flock performance and health.

Administration Methods

- **Spray Vaccination**: Fine mist inhaled by birds; ideal for large flocks (e.g., Newcastle, Infectious Bronchitis).
- **Drinking Water Vaccination**: Mixed into drinking water; easy and cost-effective (e.g., Newcastle, Gumboro disease).
- **Eye Drop Vaccination**: Applied to the eye; effective for young chicks (e.g., infectious laryngotracheitis).
- **Injection Vaccination**: given intramuscularly or subcutaneously; strong immune response (e.g., Newcastle, Coryza).
- **Wing Web Vaccination:** Applied to the wing skin using a bifurcated needle; effective for fowl pox.



BLACKQUARTER (BQ)

DR. EDNA MALAWO

- Black Quarter (BQ), also known as **Blackleg**, is one of the most devastating diseases that can affect cattle. It is an **acute, febrile, highly fatal disease** of ruminants.
- Caused by the spore-forming bacteria *Clostridium chauvoei*. Most cases are seen in cattle 6–24 months old. Very few animals survive. **Death occurs within 48 hours of symptoms being noted**.
- Understanding its causes, symptoms, prevention, and treatment is essential for cattle farmers to protect their herds.

Risk factors?

- **Heavy rainfall**: most cases occur during or after periods of heavy rainfall.
  - Flooding may spread spores, and water-saturated soil is thought to have less oxygen, which may induce germination and multiplication of the spores.
- **Movement of soil or excavation**

How Is Black Quarter Transmitted?

The disease spreads through:

- **Ingestion**: Cattle consume the spores from contaminated soil, water, or feed.
- **Wounds**: Spores enter through cuts or bruises in the skin, often from handling or rough terrain.
- **Environmental Triggers**: Events like flooding or excavation can disturb spore-laden soil, increasing the risk of exposure.

How does disease occur?

- When oxygen levels drop in muscle cells due to injury or bruising, spores germinate and bacteria grow, causing acute inflammation. **The affected muscles, often in the leg, turn blackish-red, giving the disease its name, "Blackleg."** Bacterial growth leads to toxaemia and rapid death.

Clinical Signs

- The disease often resulting in death within 24 hours. Common signs include:
- **High fever**: A sudden rise in body temperature.
- **Swelling**: Affected muscles (usually in the legs, shoulders, or back) become swollen, hot, and painful.
- **Crepitus**: A crackling sound or sensation when the swollen area is pressed, due to gas buildup.
- **Lameness**: difficulty moving or reluctance to stand.
- **Rapid deterioration**: Animals may appear healthy one moment and succumb to the disease the next.

Prevention

- Unfortunately, due to the rapid progression of the disease, **treatment is often unsuccessful**, and the **focus should remain on prevention.**
- Administer a **vaccine that protects cattle against *Clostridium chauvoei* and related bacteria**. Vaccinate calves at 3-6 months of age and provide annual boosters.
- Treat any cuts or injuries promptly to **minimise the risk of bacterial entry.**

MEET OUR RELATIONSHIP OFFICER

SCHOLASTICA MWABA

Introducing Our Customer Relationship Role

- In today's competitive market, strong customer relationships are essential for business success. To enhance our service and provide a seamless experience, we are proud to introduce our **new Customer Relationship Officer.**
- This position serves as a **direct link between Livestock Services and our clients**, ensuring their needs are met with efficiency and care. It plays a key role in improving customer satisfaction, fostering loyalty, and strengthening long-term partnerships.
- Leading this initiative is **Ms. Scholastica Mwaba, our dedicated Relationship Officer (RO)**. She will be the primary point of contact, ensuring that every customer interaction is smooth, personalised, and aligned with our commitment to service excellence.
- We are excited about the opportunities this role will bring and look forward to the positive impact it will have on both our customers and the business.

SUPPLIERS CORNER

THE BRANDS BEHIND OUR PRODUCTS

INTERCHEMIE

- **Interchemie**, established in the Netherlands, is a **globally recognised supplier of animal health products**, including veterinary medicines, nutritional supplements, feed additives, and disinfectants.
- **At Livestock Services, we proudly stock a diverse selection of Interchemie's offerings**:
- **Nutritional Supplements**: Designed to maintain animal health and promote growth, these include water-soluble powders and oral liquids rich in vitamins, minerals, and amino acids.
- **Veterinary Medicines**: Formulated for the treatment and prevention of various infections, available in injectables, oral liquids, and water-soluble powders.
- By purchasing some of these and all the other quality products we offer at Livestock Services, you are ensuring your animals receive top-quality care backed by global expertise.

COMPILED AND EDITED BY DR. YENESHA NAMENDA