



"Empowering the Zambian Farmer to become a Sustainable Producer"

CONTROLLING APHIDS IN THE COLD SEASON

BY MWAPE KANGWA

Aphids are small sap-sucking insects that weaken plants by draining their nutrients.

Aphids multiply fast and cause curling, **yellowing**, and **stunted growth** of leaves. Plants are more susceptible to aphids in winter..



Plants that are prone to aphid attack in winter include fruit trees, vegetables, roses and herbs.

Tips to Control Aphids:

1. Use Organic Sprays – Spray a mixture of neem oil, soap solution, or chilli-**garlic** extract to repel aphids.
2. Introduce Natural Predators – Ladybugs and lacewings feed on aphids and help in natural control.
3. **Companion Planting** – Grow onions, garlic, or marigolds near kales to deter aphids.
4. Use Chemical Control – If the infestation is severe, apply insecticides like **Imidacloprid** or Azidarachtin but follow guidelines to avoid residue.



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PHOSPHORUS SUPPLEMENTATION IN THE RAINY SEASON

BY MATAA SITWALA



VACCINE-PREVENTABLE BACTERIAL DISEASES

BY DR. EDNA MALAWO & DR. CHARITY NKAKA



THE IMPORTANCE OF THE LAB IN ANIMAL HEALTH

BY DR. JOY INONGE KALUWE

UPCOMING SEMINARS

TOMATO PRODUCTION

17th MAY, 2025
COSMAS MICHELO HALL

BROILER PRODUCTION

24th MAY, 2025
COSMAS MICHELO HALL

VILLAGE CHICKEN PRODUCTION

31st MAY, 2025
COSMAS MICHELO HALL

GILT & SOW / FARROW HOUSE MANAGEMENT

7th JUNE, 2025
COSMAS MICHELO HALL

OPERATING HOURS:

MON - FRI
08:00 - 16:45

SAT
08:00 - 14:45

SUN & PUBLIC DAYS
CLOSED

COMPILED & EDITED BY
DR. YENESHA NAMENDA

PHOSPHOROUS SUPPLEMENTATION

IN THE RAINY SEASON

BY **MATAA SITWALA**



- Phosphorus supplementation in ruminants, particularly during the rainy season, is crucial for several reasons related to their **growth, productivity, and overall health**.
- During the rainy season, pastures often experience rapid growth, but this lush grass may be low in essential nutrients, including phosphorus.
- Without adequate phosphorus, ruminants may suffer from **poor growth, reduced milk production, lower fertility, and weakened bones**.

Here's why phosphorus becomes particularly important for ruminants during this time:

1. **High Phosphorus Demand for Growth and Reproduction** – The rainy season is typically a time for increased growth and reproduction in ruminants. **Young animals, pregnant, and lactating females have a higher demand for phosphorus.** Phosphorus is a key mineral for the development of bone and tissue, and adequate levels are critical for the healthy development of calves and lambs. Lactating animals also need extra phosphorus to support milk production, and a deficiency could lead to a reduction in milk yield and quality.
2. **Milk Production and Fertility** – It plays an essential role in energy metabolism and hormone regulation. In lactating cows, it is essential for optimal milk yield. A deficiency during the rainy season, when energy intake is often lower or not fully utilised, can result in lower milk production.
3. **Preventing "Pica" and Bone Weakness** – this deficiency can lead to poor health in ruminants, including behaviours like **pica (eating soil or non-food items)**, which is a compensatory mechanism for low phosphorus intake. Phosphorus is also crucial for maintaining strong bones. Deficiency can cause bone weakness, leading to lameness or fractures.
4. **Environmental and Forage Quality Variability** - The quality of pasture can fluctuate with changes in rainfall, as not all grasses are equally nutrient dense. While the rainy season can encourage growth, **some types of grass may not be phosphorus-rich.** Supplementing ensures ruminants receive a balanced diet even if the pasture is not nutritionally complete.
5. **Balancing Other Nutrients** - In addition to phosphorus, ruminants require other essential minerals such as calcium, magnesium, and sodium for proper metabolic function. **A phosphorus imbalance can disrupt calcium absorption**, which can lead to conditions like milk fever in lactating cows or tetany in grazing animals. By supplementing phosphorus, the balance of these minerals is maintained, improving overall health and productivity.

How to Supplement Phosphorus

- **Dicalcium Phosphate (DCP):** Especially for lactating cows and growing animals.
- **Mineral Blocks or Licks:** provided in grazing systems to ensure that ruminants have continuous access to essential minerals, e.g. Phossure 12, Kimtrapo 20, etc.
- **Phosphorus-Rich Forages:** Some feeds, like alfalfa, naturally contain higher levels of phosphorus.

Phosphorus supplementation is important to **counteract the potential nutrient deficiencies** in **rapidly growing pastures**. It supports healthy growth, reproduction, milk production, and bone health. Ensuring adequate phosphorus intake is crucial for maximising the productivity and overall well-being of livestock during this period of increased nutritional demand.



VACCINE-PREVENTABLE BACTERIAL DISEASES

BY DR. EDNA MALAWO & DR. CHARITY NKAKA

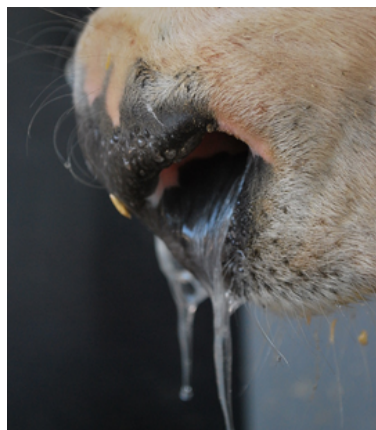
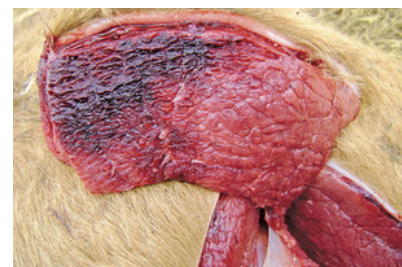


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Bacterial infections are a **common concern in livestock**, especially during this time of year when environmental conditions can promote bacterial growth and spread. Many of these bacteria are **naturally present in the environment, including soil, water, and animal waste**, and some may even live harmlessly in the gastrointestinal tracts of healthy animals. However, when animals are **stressed, injured, or exposed to contaminated feed or water**, these bacteria can cause disease by **multiplying or releasing harmful toxins**. Prevention is key—and timely vaccination can significantly reduce the risk of bacterial infections and protect herd health.

What are the main diseases you can vaccinate for?

- **Tetanus** – Infection occurs through **penetrating wounds** such as marking wounds, failed ring castration, dehorning, and dog bites. Common symptoms include a stiff-legged gait, bloat, a locked jaw, the third eyelid coming across the eye, recumbency, muscle spasms and death.
- **Pulpy kidney** - the bacteria are usually present in the gut of livestock, and in low numbers. However, if there is a **sudden change in diet**, such as grazing lush, fast-growing pasture, or heavy grain feeding, the bacteria rapidly multiply and produce **toxins that are fatal**. Signs of pulpy kidney include convulsions and sudden death.
- **Blackleg** – The spores enter the bloodstream and lodge in the muscle. The spores lie dormant in the muscle without causing illness until the bacteria start to produce toxins following an injury to the area or excessive exercise. Signs of blackleg may include **lameness with swelling of a muscle**, loss of appetite, fever, and death within 48 hours.



- **Haemorrhagic septicemia** – Affected animals exhibit fever, lethargy, reduced milk production, serous nasal discharge, and excessive salivation. Advanced stages can include septic pneumonia, hemorrhages, and edema, especially in the head and neck
- **Anthrax** – Cattle typically contract anthrax by grazing on pastures where the spores are present in the soil. Symptoms include fever, lethargy, difficulty breathing, and often **sudden death** and **bloating of the carcass**.

How do you vaccinate against clostridial diseases?

- Stock that have never been vaccinated before (including calves) need **two doses of vaccine 4-6 weeks apart**.
- Vaccinating your pregnant ewes and cows will provide newborn lambs/kids and calves **passive immunity** against clostridial disease through antibodies found in colostrum. This immunity will diminish over time and **does not count as the first dose**.
- Always follow the recommendations on the vaccine label, particularly regarding use and storage (find out **how many diseases are covered** in the vaccine chosen).



Note: The information contained in these pages is intended as a general guide only. Always obtain professional advice about your specific situation. For more information regarding vaccination of your stock, you can contact your District Vet.

THE IMPORTANCE OF THE LAB IN ANIMAL HEALTH

BY DR. JOY INONGE KALUWE

Veterinary laboratory services are fundamental to efficient animal care. These labs provide diagnostic data veterinarians need to make informed, life-saving decisions. Their role goes beyond routine testing—they're at **the heart of disease control, food safety, and public health.**

Why Veterinary Labs Matter

1. Accurate Diagnosis for Targeted Treatment

Labs allow for the **precise identification of diseases** through different processes like blood work, faecal sample analysis, and microscopic examination. These tests are essential for detecting conditions that might not be evident through physical examination alone, such as early-stage infections, organ failure, or even cancer.

2. Supporting Breeding & Genetics in Cattle:

Vet labs **assess semen quality in bulls**, guiding artificial insemination (AI) programs and improving fertility success in cattle herds. They also test for genetic diseases, promoting healthier, more productive animals.

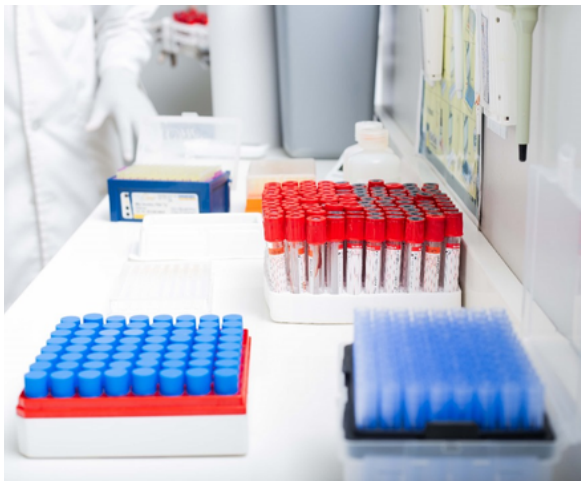


3. Safeguarding Food Animals and Public Health

In food-producing animals, laboratory services help ensure herd health and food safety. The lab tests for **drug residues**, bacterial contamination, and zoonotic diseases. This protects the consumer and ensures food products are **compliant with set regulatory standards.**

4. Outbreak Response:

Veterinary labs play a key role in **tracking and controlling disease outbreaks** through surveillance and diagnosis. They are essential in **detecting and responding to outbreaks** like rabies, anthrax, or African swine fever. Surveillance data from labs **guides public health strategies**, guides vaccination campaigns, and prevents the spread of zoonotic diseases.



Veterinary labs are not just support services; they are **active, indispensable partners in the health of animals** and the safety of human populations. Veterinary labs do more than analyse samples; they enhance diagnosis, guide treatment, and **protect both animal and human health.**

Investing in lab services is investing in better care for animals and a stronger productive future.

Livestock Services operates a **state-of-the-art laboratory facility** that offers a wide range of laboratory services to the farming community.

Please enquire with our Technical Staff on which services you can access.

SUPPLIERS CORNER

THE BRANDS BEHIND OUR PRODUCTS

ELANCO

Elanco

- **Elanco Animal Health**, headquartered in Greenfield, Indiana, is a **globally recognised leader in animal health products** and services. Elanco offers a diverse portfolio of approximately 200 brands, including **vaccines, parasiticides** and **therapeutics** for both companion and farm animals.
- **Their portfolio includes:**

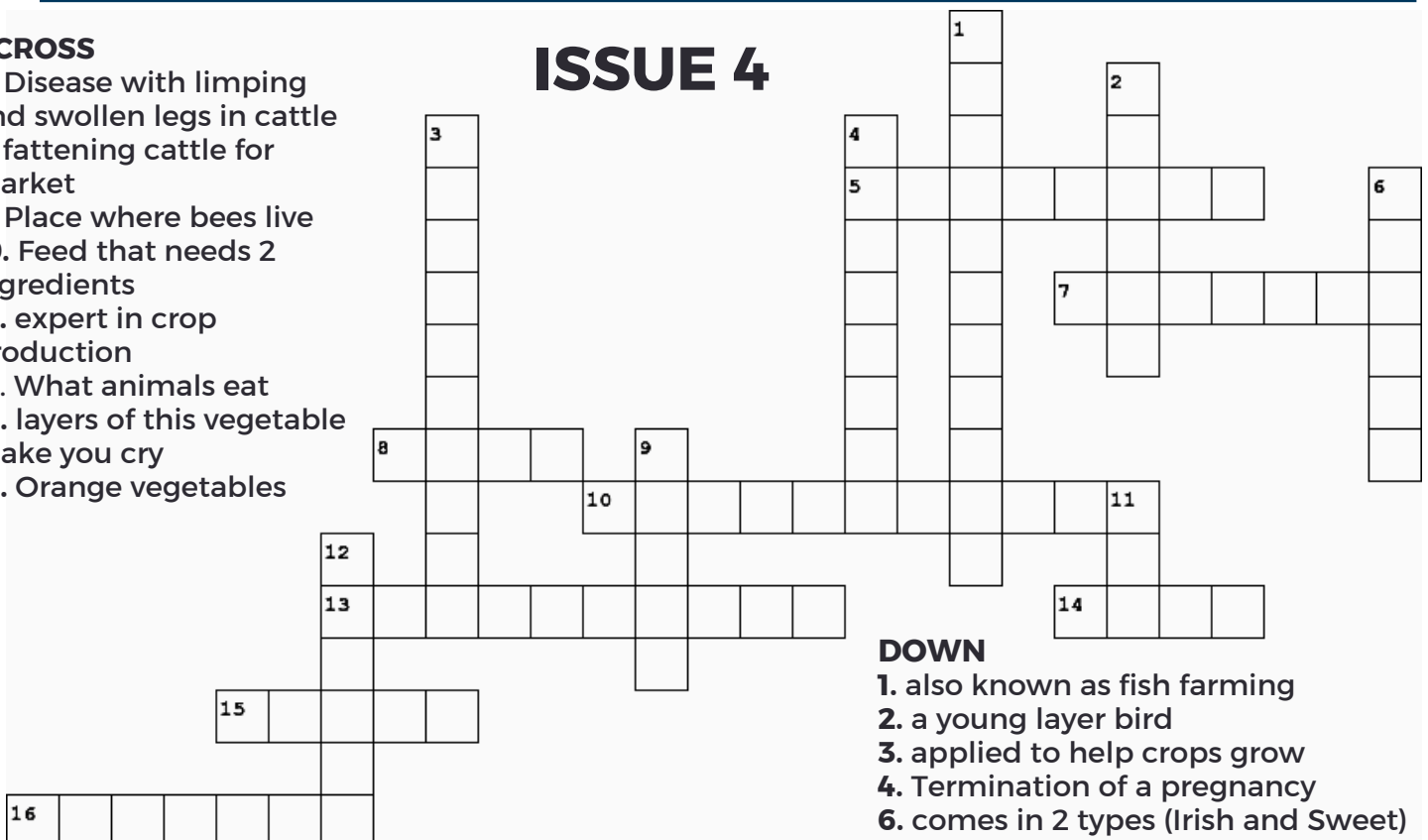
- **Antiprotozoals** (*Baycox Oral™*): Used to prevent and control diseases like coccidiosis, which can impact the health and growth of livestock
- **Acaricides** (*Deadline™*): Products specifically formulated to control ticks and mites, addressing infestations that can lead to significant health issues and economic losses in livestock.
- **Insecticides** (*Agita Fly Bait™*): Solutions to manage nuisance insects, including flies and beetles, which can affect animal welfare and farm hygiene.
- **Antibacterials** (*Sulfazine™* and coming soon *Curamycin-123™*): Medications to treat bacterial infections, supporting the overall health and performance of livestock.
- **Ear Tags and Applicators** (*Aussie™*): These are a popular choice for cattle identification. They are available in a variety of colours and are made from durable plastic.

As **Livestock Services**, we are proud to offer Elanco's farm animal health products, supporting farmers in achieving optimal animal health and operational efficiency.

ACROSS

5. Disease with limping and swollen legs in cattle
7. fattening cattle for market
8. Place where bees live
10. Feed that needs 2 ingredients
13. expert in crop production
14. What animals eat
15. layers of this vegetable make you cry
16. Orange vegetables

ISSUE 4



DOWN

1. also known as fish farming
2. a young layer bird
3. applied to help crops grow
4. Termination of a pregnancy
6. comes in 2 types (Irish and Sweet)
9. parasites that live in the body
11. a female sheep
12. disease spread by dog bites