

DEWORMING PRACTICES IN SHEEP AND GOATS pt. 1

BY DR. FAIDESS PHIRI



Gastrointestinal parasites, specifically **worms**, are a common problem most sheep and goat farmers face.

These parasites can affect animals in both **subtle and severe ways**, which can lead to economic losses for the farmer; therefore, it is essential to deworm sheep and goats routinely for the maintenance of their health.

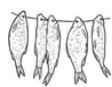
Signs of worm infestation include:

- Weight loss or poor condition
- Diarrhoea
- Pale mucous membranes (anaemia)
- Anorexia (reduced appetite)
- Lethargy

Deworming Considerations

- **Choose the right dewormer according** to which worms you are targeting.
- **Rotate dewormers:** We advise that you rotate between different dewormers targeting different worm species. This is to prevent resistance.
- **Dosing:** Apply the correct dosage of the dewormer to each animal based on body weight

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BY **TRUST KAMANGA**



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BY **DR. NAMOONGA SIAKWALE**



"Farming is a
profession of
hope."

– Brian Brett

UPCOMING SEMINARS:

PIGLET
MANAGEMENT
(7 DECEMBER, 2024)
FREE

BROILER
PRODUCTION
(14 DECEMBER, 2024)
FREE

MEAT
PROCESSING
(21 DECEMBER, 2024)
K300/PERSON

OPERATING HOURS:

MON - FRI
08:00 - 16:45

SAT
08:00 - 14:45

SUN & PUBLIC DAYS
CLOSED

COMPILED & EDITED BY
DR. YENESHA NAMENDA



FISH PRESERVATION

BY TRUST KAMANGA

Fish are cold-blooded (ectothermic) aquatic vertebrate animals with gills, fins, and scales.

Did you know that Zambia currently faces a fish supply deficit of about 55,000 to 85,000 metric tonnes?

Culturing fish can help bridge this gap, supporting both local food security and economic growth!

Fish Preservation Methods

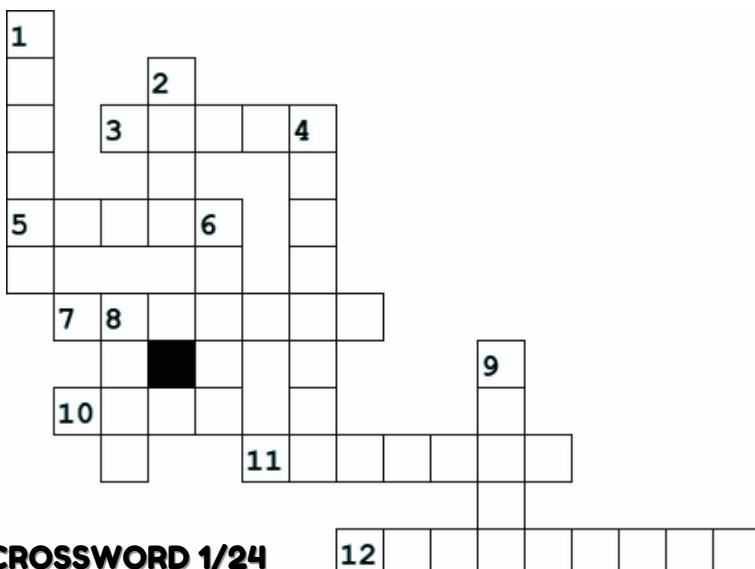
Despite challenges like load shedding, you can still have a thriving fish farming business by exploring alternative preservation techniques that don't rely on freezing. Here are some effective methods:

- **Smoking:** This popular technique gives fish a rich, smoky flavor. Fish can be hot- or cold-smoked, preserving its freshness and enhancing its taste without the need for refrigeration.
- **Drying:** Sun-drying or fire-drying fish is a traditional preservation method that reduces moisture content, extending the fish's shelf life while maintaining its nutritional value.
- **Salting:** By adding salt and letting the fish dry, salting preserves the fish, helping to retain flavor while ensuring it stays safe for consumption over time.



Whether you're an aspiring farmer or simply interested in sustainable practices, adding value to fish products is a fantastic way to contribute to Zambia's food industry while promoting resourceful methods for marketing your products.

Feel free to ask our aquaculture consultants for any technical advice



CROSSWORD 1/24

Across

- Place that you prepare for growing crops
- Blood sucking parasites on animals
- Collective term for birds like chickens and ducks
- Insects known for pollination and honey production
- Important nutrient in livestock feed
- Collective term for a group of animals

Down

- Red fruits that grown in a garden
- Nutrient-rich liquid produced by dairy animals
- Medicine used to control worms in animals
- Structures for storing harvested crops
- Animal used for plowing and pulling carts
- Common crop used as livestock feed

ODOUR AND WASTE MANAGEMENT ON POULTRY FARMS IN THE RAINY SEASON

BY ENV INSP. RITA KALASA

The rainy season poses unique challenges for poultry farmers, particularly in managing waste and controlling odours.

Litter Management

Excessive moisture in the poultry house can lead to:

- Ammonia emissions
- Manure accumulation
- Vector attraction
- Disease spread

These are some of the things you could do in the poultry to prepare for the season:

- Ensure the litter is dry (by aerating it regularly or using drying powders)
- Repair leaks in roofs, walls, and floors
- Ensure proper ventilation
- Implement regular manure removal from the storage areas around the poultry or ensure proper coverage of the areas
- Divert contaminated water from clean areas
- Monitor water quality

Waste Management Strategies

- Dry Litter System: Use absorbent materials like sawdust or straw.
- Liquid Manure Management: Collect and store manure in covered containers
- Composting: Convert manure into nutrient-rich fertilizer

Odour Control Measures

For an odour to be detected in an area, odorous compounds must be:

1. Formed,
2. Released to the atmosphere, and then
3. Transported to the receptor site.

These three steps provide the basis for most odour control. If any one of the steps is stopped or cut off, the odour will reduce significantly.



Many of the same compounds that cause odour on a poultry farm also affect the indoor air quality in the buildings. As a result, many practices that help control odor also improve air quality, these include:

- Maintaining proper ventilation
- Use of odor-reducing additives
- Implementing manure aeration
- Monitoring pH levels

Technological Innovations

- Biogas generation/anaerobic digestion
- Manure treatment systems, e.g., composting
- Odour-scavenging technologies e.g. products containing Zeolites or Alumino-Silicates: (they absorb and neutralize odor-causing compounds)





FOWL POX

BY DR. EDNA MALAWO

Fowl pox is a viral disease that affects chickens and turkeys and other poultry species. It is caused by the Avian Poxvirus, and it primarily affects the skin, respiratory tract, and upper GI tract.

The disease is characterised by the appearance of **lesions (wart-like) or pustules on the skin**, particularly on the comb, wattles, and feet, and can also affect the mucous membranes of the mouth, throat, and trachea.

Fowl pox spreads through:

- **Mosquitoes** or biting midges
- Direct contact through skin abrasions.
- Scabs shed from recovering birds in poultry houses become a source of aerosol exposure for susceptible birds.

FORMS OF FOWL POX

1. **Dry (cutaneous) form**

- Lesions appear as a raised, blanched, nodular area that enlarges, becomes yellowish, and progresses to a thick, dark scab.
- This form is more common and less severe

2. **Wet (Diphtheritic) form**

- Lesions develop in the mucous membranes, especially in the mouth, throat and respiratory tract
- It can cause difficulty in eating, drinking and breathing and is more likely to be fatal



SYMPTOMS

- Nodular lesions on unfeathered skin of chickens (combs, wattles, feet, and legs) and upper neck of turkeys. In some cases, lesions are limited to the feet and legs
- **Swollen eyes or eyelids**, Loss of appetite, Respiratory distress in severe cases

TREATMENT, PREVENTION AND MANAGEMENT

- **There is no specific treatment for fowl pox.**
- Supportive care such as providing clean water, good nutrition, and minimising stress can help.
- Quarantine: isolating infected birds to prevent the spread of the disease.
- Vector control: use of insecticides to control mosquitoes and other vectors. Transmission within a susceptible flock is **RAPID when MOSQUITOES are plentiful.**
- Vaccination: Regular vaccination is the most effective procedure.



GOOD AGRONOMIC PRACTICES pt.1

BY NACHILIMA MANDANDI



Good agronomic practices (GAP) are essential for sustainable and productive agriculture. These practices aim to enhance crop yields, ensure environmental sustainability, maintain soil health, and improve farmers' livelihoods. Here's a breakdown of key GAP principles and practices:

1. Land Preparation

- **Soil Testing:** Conduct soil tests to determine fertility and pH levels for appropriate amendments.
- **Clearing and Tillage:** Use appropriate tillage methods to prepare the land for planting while minimising soil disturbance.
- **Contour Ploughing:** On slopes, plough along contour lines to reduce soil erosion.

2. Seed Selection and Planting

- **Use Certified Seeds:** Go for high-quality, disease-resistant, and high-yielding seed varieties suitable for your agro-ecological zone.
- **Planting Time:** Follow recommended planting windows to align with rainfall patterns.
- **Spacing:** Maintain proper plant spacing to optimise growth, reduce competition for resources, and improve air circulation.

3. Soil Fertility Management

- **Crop rotation:** rotate crops to break pest and disease cycles and improve soil fertility.
- **Organic matter addition:** incorporate compost, green manure, or farmyard manure to enrich the soil.
- **Fertiliser Use:** Apply the right type and quantity of fertilisers based on soil tests.

4. Water Management

- **Irrigation:** Use efficient irrigation systems (e.g., drip or sprinkler) to conserve water.
- **Rainwater Harvesting:** Collect and store rainwater for dry spells.
- **Mulching:** Apply mulch to retain soil moisture, regulate temperature, and suppress weeds.

5. Pest, Disease, and Weed Management

- **Integrated Pest Management (IPM):** Combine cultural, biological, and chemical methods for pest control.
- **Resistant Varieties:** Plant crop varieties that are resistant to local pests and diseases.
- **Timely Weeding:** Regularly weed to reduce competition for nutrients and prevent pest harbourage.



Look out for 5 more practices in our next issue!

EAST COAST FEVER

BY DR. NAMOONGA SIAKWALE



What is East Coast Fever?

East Coast Fever (ECF) is a serious, acute cattle disease caused by the *Theileria parva* parasite, which is transmitted by the *Rhipicephalus appendiculatus* tick. The disease, common in East and Southern Africa, is marked by **high fever, lymph node swelling, breathing difficulties**, and often results in high mortality rates.

Cause and Transmission

ECF is caused by *Theileria parva*, a protozoan parasite spread by infected ticks (*Rhipicephalus appendiculatus*) during feeding. **Ticks contract the infection by feeding on infected cattle** or African buffalo, which carry the parasite without showing symptoms. Both cattle- and buffalo-derived *T. parva* are highly harmful to cattle.

Clinical Signs

Symptoms range from mild to severe and can be fatal, including:

- **Fever up to 42°C**
- Swollen lymph nodes
- Appetite and weight loss
- Eye and nasal discharge
- **Severe respiratory distress** before death
- A sudden drop in body temperature before death, with fluid discharge from the nostrils
- **Postmortem findings often include enlarged lymph nodes, pulmonary edema, and haemorrhages on organ surfaces.**

Diagnosis

Diagnosis relies on observing clinical symptoms, post-mortem and detecting the parasite in lymph node samples. Consult a veterinarian for an accurate diagnosis.

Prevention and Treatment

- Regularly spraying or dipping cattle with **acaricides** (tick control chemicals) is the primary preventive measure, but it must be done consistently. Purchase acaricides from reliable sources and follow the manufacturer's instructions carefully.
- Treatment of ECF is through use of drugs like parvaquone and buparvaquone, and these can be accompanied by anti-inflammatory drugs and antidiuretics if there is evidence of pulmonary edema (respiratory distress). Treatment is mostly effective when administered in the early stages of clinical disease.

Consult a veterinarian for information on accurate treatment. Avoid self-prescribing treatments to prevent drug resistance, which could render standard medications ineffective.