



TOXICOLOGY SECTION

Services rendered by the section

The purpose of the toxicology section is to analyse samples for the presence of various toxins and poisons which may cause serious illness or even death in animals and humans.

Various analyses, analytes and sample quality for submission

Test/s Required	Sample Type & Size	Assay	Suitable Sample	Unsuitable Sample	Delivery Time	Transport Requirements
Pesticides	Stomach content 100g, Bait 20g, Water 2L, Feed 50g,	Gas chromatography/ Mass spectroscopy	Stomach on ice Freeze organs in separate sterile containers. Keep cool.	Decomposed samples. Small sample sizes.	Within 24 hrs.	Frozen or 4°C-8°C
Mycotoxins viz. aflatoxin, Ochratoxin, Zearalenone, Fumonisin, T2, Citrinin, Deoxynivalenol (DON)	Feed 100g	ELISA Affinity Chromatography	Sample in dry sterile container / paper bag.	Wet, badly packed.	Within 48 hrs.	Below 22°C
Ionophores viz. Monensin, Salinomycin, Lasalocid, Narasin	Feed 100g	Thin Layer Chromatography (TLC)	Sample in dry sterile container / paper bag.	Wet, badly packed.	Within 48 hrs.	Below 22°C
Arsenic	Rumen content 100g, Abomasal content 100g, Feed 100g	Wet chemistry	Samples in separate sterile containers.	Decomposed samples.	Within 24 hrs.	Frozen or 4°C-8°C



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Nitrate/Nitrite	Fresh rumen content 100g, Intra ocular fluid, Fresh plant material 100g, Water 100ml, Blood 10ml	Dipstick method	Samples in separate sterile containers.	Decomposed samples. Clotted blood samples.	Within 8 hrs.	4°C-8°C
Prussic Acid	Fresh rumen content 100g, Muscle 100g, Forage 100g,	Wet Chemistry	Organs & forage frozen or in 1% HgCl ₂ (mercuric chloride).	Samples that are NOT deep frozen or in HgCl ₂ preservative.	Within 24 hrs.	Frozen or 4°C-8°C
Strychnine	Stomach content 100g, Crop content 100g, Bait: 20-30g	Thin Layer Chromatography	Samples in separate sterile containers.	Decomposed samples. Small sample sizes.	Within 24 hrs.	Frozen or 4°C-8°C
Urea	Feed, licks, rations 100g	Distillation method	Sterile dry containers or plastic bags.	Wet, badly packed.	Within 48 hrs.	Below 22°C
Lead	Kidney 100g	Atomic Absorption Spectroscopy	Fresh organs on ice. Organs in 10% Formalin.	Decomposed samples.	Within 24 hrs.	4°C-8°C

Collection and sending of samples

- **All** samples submitted **must** be clearly marked with an identification number or Farm name.
- The laboratory's current submission form **must** be comprehensively completed and submitted with samples.



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Important notes when submitting samples

- Feed should be a representative sample i.e. must be well mixed and taken from varying portions of the batch and placed in a clean & dry plastic container or bag.
- When testing for pesticides in deceased animals, samples must be fresh as most pesticides are volatile and may not be detected if the time elapsed since sampling is too long. Stomach/ rumen contents are the best source for isolating pesticides.

Test Fees

Please refer to the current test and fees list or contact the laboratory for fees on tests requested.

Section Contact Details

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