



BIOCHEMISTRY SECTION

The purpose of the biochemistry section is to analyse biological samples in order to detect deficiencies or excesses of certain components which themselves may result in the disease or are used as an indication of a disease condition. Minerals in blood and tissue samples as well as other blood components are tested and compared with “normal” range values to determine the status of the animal or herd in question. The results are used in conjunction with other clinical tests and symptoms to diagnose a condition.

The section offers the following services. If the section is unable to test, the samples will be forwarded to another laboratory at the owner’s expense.

SAMPLE TYPE	TESTS DONE & POSSIBLE REASON FOR SUBMISSION
1. BLOOD	
1.1 Whole Blood	Selenium (Se)
1.2 Plasma	Minerals: Ca, Mg, PO ₄ , K, Na, Cl, Cu, Zn, Fe Protein – Total Protein, Albumin, Globulin, Gamma – Globulin (IgG) [only on serum]
1.3 Serum	
2. ORGANS	
2.1 Liver Biopsies	Cu, Zn, Mn, Fe
2.2 Kidney	Cu, Zn, Mn, Fe, Mo, Se
2.3 Bone	% Ca, Mg, or P in the bone ash
3. FEED	
3.1 Plant material (grazing)	Minerals: Ca, Mg, P, K, Na, Cu, Zn, Fe, Mn, Mo, Se Moisture, Ash, fat, fibre, true /crude, NPN and starch.
3.2 Animal feed	Full feed analyses including or excluding minerals
4. WATER	
4.1 Water	Mineral analysis – Full mineral analysis, pH, and total hardness.



Sample Collection

All samples must be correctly labelled to avoid confusion and must always be submitted with the laboratory's current submission form comprehensively completed.

Please note that wet, dirty, decomposed or badly packed samples will not be accepted!

Feed – A representative sample (500g) should be taken in a clean secure plastic or paper bag or container.

Bone – Sample should be kept frozen in a clean plastic bag / container.

Water – A representative sample should be taken in a clean plastic/ glass container and should be kept below 4°C.

Liver / Kidney – Samples can be fresh, frozen or be fixed in a 5-10% formalin solution.

Liver biopsies – Samples can be fresh or must be frozen immediately in blood tubes.

Blood and Serum – **Please note that haemolysed and clotted samples will not be accepted!**

When a sample is taken it is recommended that a 7ml / 10ml tube is used and that the tube is filled. There should be enough sample (serum, plasma or whole blood) to run a test at least 3 times. The blood samples must be kept between 4 - 8°C. It is important to use the correct tube for the analysis that is required:

- **Serum** – Serum tube (**red** top) or SST gel tube (**yellow** top) for mineral analysis.
- **Blood** – Lithium heparin (**green top**) or EDTA (**purple/lavender** top) for Selenium test.

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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