

TOXICOLOGY

SUBMITTING SAMPLES FOR EXAMINATION

Please discuss with the lab BEFORE sending in any samples. The receiving pathologist will be expecting it so that the chain of custody can be maintained and the pathologist has some background information. If the sample may be used in litigation, please inform the lab in advance. Try to deliver the samples in person, otherwise send by courier, or recorded delivery. Be sure to be clear as to the analytical requirements, what your instructions are and that you have sent the correct samples.

IT IS ALWAYS BEST TO LIAISE WITH THE LAB FIRST.

DO NOT send

- 1) autolysed tissue.
- 2) frozen tissues for histology.
- 3) bacterial or dry swabs for virology.
- 4) dry swabs at all!
- 5) unlabelled tissues.
- 6) aged or unpreserved tissues.
- 7) any fish tissue by post/courier unless preserved on ice.

Then only fresh tissue. Fish that have been dead for hours lying in a pond are generally unsuitable.

DO NOT request "LOOK FOR POISONS", especially if you have sent one of the above. Analysis for non specific, "potential", poisoning is a waste of time, money and effort and likely to yield negative results.

SAMPLING

In cases where the agent is unknown, the following is a guide, but in all cases, ring the lab first to check on current requirements.

1) live large animals

20 ml heparin blood. Vomit (*if any*) stomach or ruminal contents.
Urine.
Retain 20 g epidermal tissue i.e. feathers hair etc.

2) dead large animals

100 g liver.
500 g stomach or ruminal contents.
Kidney.
100 g supra renal fat.
Blood clot (*intra cardiac*).
Urine.
Brain.
Epidermal tissue as above.

3) small animals alive

as per large animal but proportionally less.

4) small animal dead

whole carcase if possible.
Generally, stomach contents may be useful in cases of acute poisoning. Stomach and intestinal contents, rarely yield useful information in chronic cases, or those that survive 3-4 days. Liver, kidney and fat tissues, are usually the tissues of choice, but, thymus, lymph node, spleen, lung, may be useful, for viral isolation, in some cases.

HORSE DOPING

3 x 10 ml, heparinised blood, with a further two, if independent analysis is likely to be requested. In addition, 50 ml urine is desirable, if available. At examinations for purchase, if all parties agree, 3 x 10 ml, heparin samples, should be taken. One to be analysed, one separated and stored and the third one to the vendor. Samples can be screened by ELISA, but in legal cases, positive findings have to be confirmed by chromatography.

PLANT POISONING

A complete specimen of the whole plant, with leaves, flowers and fruit if possible. When the specimens are in bales, samples should be removed, if possible, from several different sites within the bale(s).

WATER POLLUTION

Besides samples from adjacent to the site of the incident and from the suspected source, distant samples of water

should also be taken. In still water, these should be from a distant part of the water. In running water, 50 meters, above and below, the site of the incident For further details it is advisable to read LORGUE et al, Clinical Veterinary Toxicology, Oxford Blackwell Science. Contact the laboratory, to discuss particular requirements, or one of the following two:-

VETERINARY POISONS INFORMATION CENTRES
(London)

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