



# Livestock disease veterinary sampling guide

Current as of 13 August 2025. Check [dpiird.wa.gov.au](http://dpiird.wa.gov.au) for updates

## DPIRD Diagnostic Laboratory Services base sample set

Sample type	Sample to take	Storage/transport
<b>Ante-mortem samples</b>	Lithium heparin 10mL EDTA 10mL Clotted 10mL Faeces	<b>Blood samples:</b> Mix with anticoagulant and chill; <b>do not freeze</b> . Draw off serum if prolonged transport.
<b>Fresh tissue</b> (individual containers)	Brain (swab/small section) Liver Lung Kidney Rumen contents Ileal content (10mL) Vitreous humour (1mL) Faeces/rectal content	<b>Fresh samples:</b> Chill/refrigerate; <b>do not freeze</b> .
<b>Fixed samples</b> (pooled in formalin – 10:1 formalin:tissue)	Brain Kidney Liver Lung Rumen Abomasum Small intestine Large intestine Skeletal muscle Heart	<b>Fixed tissues:</b> Keep at room temperature.

## Specific disease samples

Disease	Samples
Acidosis/rumenitis	Test rumen pH on site, fixed forestomach
Annual ryegrass toxicity (ARGT)	Rumen content for quantitative test (exposure) Pasture/hay for qualitative test (risk analysis)
Anthrax	Smears of bloody exudate, blood-contaminated soil. Do not necropsy
Blue-green algae	Water and bloom (downwind side of water body)
Clostridial myositis	Fresh and fixed muscle lesion, muscle smears
Enterotoxaemia	Fresh ileal content (10mL)
Metabolic disease	Pre-treatment lithium heparin blood or vitreous humour
Nitrate toxicosis	Vitreous humour, plant
Johne's disease	Fresh and fixed jejunum, terminal ileum, ileocaecal valve, caecum and ileocaecal lymph node plus faeces/rectal content
Phalaris toxicosis	Vitreous humour
Polioencephalomalacia	EDTA blood (thiamine)
Transmissible spongiform encephalopathies (TSEs – BSE, scrapie)	Fixed brain, 2cm fresh spinal cord (plus section of fresh dorsal cerebellum in sheep)
Urea/ammonia toxicosis	Vitreous humour

## Additional samples by syndrome

Please add these samples in investigation of the specific syndromes listed below.

Syndrome	Additional samples
Abortion / stillbirths	Placenta, foetus – lung, liver, kidney, adrenal, stomach content, skin/eyelid; dam – uterus or uterine swabs
Acute febrile disease	Alimentary sections and local lymph nodes (fixed and fresh), feed (ergot)
Anaemia	EDTA blood, air-dried blood smears, fixed spleen, bone marrow
Congenital defects	Consider whole neonate or grossly affected tissues
Diarrhoea	Alimentary sections and local lymph nodes (fixed and fresh)
Found dead	As for neurological; possible water sample (blue-green algae), plants, vitreous humour
Genital lesions	Fixed/fresh biopsy material, viral media, swabs in transport media
Ill-thrift / weight loss	Alimentary sections and local lymph nodes (fixed and fresh)
Female infertility	<i>Campylobacter</i> swabs, <i>Trichomonas</i> swabs, uterine swab/biopsy, fixed reproductive tract
Male infertility	Semen, swabs, fixed and fresh testicle/reproductive tract
Jaundice	Fixed spleen and liver, plants (spores/min, other hepatotoxins)
Lameness	Arthritis – swabs or fresh joint fluid/synovium, fixed joint capsule/synovium, fixed muscle, fixed bone/joint for deformity/joint lesions. Hoof lesions – interdigital and hoof scrapings in Stuart media
Lymphadenopathy	Fixed and fresh lymph node, swabs
Mastitis	20mL milk in sterile jar, chilled
Muscle lesions	Fixed muscle and heart, fixed nerve and spinal cord
Myiasis (flystrike)	Maggots chilled, in alcohol or formalin. Photo in situ
Neurological signs	Fixed and fresh spinal cord segments, EDTA (thiamine), vitreous humour, fat (samples for TSE exclusion)
Pruritis	Skin, ectoparasites (sheep TSE samples for scrapie exclusion)
Production drop	Alimentary sections and local lymph nodes (fixed and fresh), feed Cows – udder (fixed/fresh), milk Avian – blood and cloacal swabs in viral transport media (consider whole bird)
Respiratory signs	Bronchial lymph node, trachea/larynx, feed (ergotism)
Salivation	Oral mucosa/vesicles/erosion (fixed) vesicle fluid (fresh in viral transport media – VTM), feed
Skin lesions	Skin/mucous membrane (fixed) swabs if mass, vesicle fluid in VTM, feed/plants (ergot etc.)
Sudden death	Plants/feed, water, vitreous humour
Weakness / paresis	Fixed and fresh spinal cord segments, fat, vitreous humour

## DPIRD contacts for sampling advice

See the DPIRD webpage 'Livestock Biosecurity contacts' at [dpiird.wa.gov.au](http://dpiird.wa.gov.au) for DPIRD veterinary contact details.

**After hours emergency animal disease hotline:** 1800 675 888

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