Awanui Veterinary

Pathology in focus

December 2025

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We say goodbye to John Gill

Our long-standing resident pathologist, John Gill, will be retiring after more than 40 years as a veterinary pathologist. John began his career with the MAF Animal Health Lab in Mosgiel in the early 1980s.

"I have had the privilege of working alongside John since 1993, and I will especially miss his sense of humour and the many great stories he has shared", says Denise Carian-Smith, Laboratory Manager in Dunedin.

Over the years, John has built wonderful relationships with our veterinary clients, and his presence will be deeply missed.

John's last day will be Tuesday, 16 December, and we wish him a retirement filled with exciting travels and new adventures. Please join us in celebrating John's remarkable career and in wishing him all the very best for the future.

Photo left: John receiving the Alan Baldry Award in 2018.

Histology sample issues

We have recently experienced issues with histology samples leaking during transport, even when containers have been sealed with Parafilm or tape. In most cases, the cause is container lids not securely fastened before sealing. Please ensure that lids are tightened properly — no amount of tape or external sealing can prevent leakage if the lid itself is not secure.

To ensure the safe transport and processing of diagnostic samples, please take extra care to secure all sample container lids before submission. This is especially important for containers containing formalin, as leakage poses a safety risk.

Please Do:

- Choose an adequately sized container — remember that tissue will swell during fixation.
- Ensure the lid is securely fastened before sealing the container with Parafilm.
- Place the closed, sealed sample container inside a sealed sample bag for transport.

Please Do Not:

- Cram an unfixed sample into a container — it cannot be safely removed or properly fixed.
- Put Parafilm under the lid — it will not seal correctly and can prove difficult/dangerous removing a cross-threaded lid.
- Use Sellotape to seal sample containers — it is not leak-proof.

We have some great resources on our website that will assist with sample packaging:

> Sample packaging instructions

> Fixing and submitting large organs

> Biopsy / mass submission

Thank you for your cooperation in helping us maintain safety and sample integrity. If you have any questions or

Festive season opening hours

Thank you for choosing Awanui Veterinary as your preferred supplier of diagnostic laboratory services this past year. Your business and support mean a lot to us, and we look forward to working with you again in 2026.

Please find our opening hours over the Christmas and New Year period below.

Christmas week

- 22 - 24 December: **Open**
- 25 - 28 December: **Closed**

New Year week

- 29 - 31 December: **Open**
- 1 - 4 January: **Closed**

All laboratories will resume normal working hours from Monday 5 January.

Fond Farewells in both Auckland and Christchurch will be collecting bodies between Christmas and New Year, but no cremation / aquamation will be carried during this period. Normal service will resume on 5 January.

Please be aware that online orders for consumable items placed in the lead-up to Christmas may take longer to arrive due to increased shipping volumes across the country. Additionally, orders placed during the Christmas and New Year period may face processing delays due to public holidays and limited staffing.

Herd of facial eczema?

Summer is upon us and it is never too early to ensure plans are in place to protect the herd. To be effective, preventative measures need to be in place before *Pseudopithomyces chartarum* and / or *Pseudopithomyces toxicarius* (formerly *Pithomyces* spp.) spores are detected.

For every clinical case of facial eczema you see, there will be at least 10 sub-clinically affected animals. Affected stock will fail to thrive, have reduced milk production, poor fertility, lose weight and possibly die.

We offer diagnostic testing to assist with monitoring facial eczema (FE) risk, to help minimise the incidence of disease, to check your management programme is working and to assess the damage caused by sporidesmin toxin from ingested spores.

> ***"Facial eczema,** the hidden danger. It's what you don't see that should worry you."*

Testing options:

- Spore counts (pasture and faeces)
- GGT concentration on individual serum samples
- Zinc concentration on serum, faecal or water samples.

Dairy NZ recommends testing serum zinc and GGT on 10 cattle from the herd, 3-6 weeks after the treatment starts.

Monitoring local spore counts

With our online Lab-portal, you can submit your local spore counts to the national database. FE data is displayed in real-time in the Lab-portal, so you will be kept up-to-date with the latest local and national trends.

All veterinary clinics are able to register for a user account for this free service and we encourage you to do so. The more data that is received in the portal, the better the indication of risk in your region. Anyone can view results, and no user account or login is required.

See full details of how you can keep on top of facial eczema in the article located on our website here and have you seen the invitation to our upcoming **facial eczema webinar**? Register here.

Why is monitoring drench resistance important?

Sarah Riddy

Below is a summary of Awanui Veterinary's 2024-2025 annual anthelmintic resistance report.

Each season, Awanui Veterinary collates data from FECRT samples sent in by veterinarians across the country, and analyses the trends in drench resistance.

Key points to note from this season's report:

- A high percentage of samples demonstrated *Teladorsagia* resistance to Triple combination actives
- A high proportion of samples demonstrated *Trichostrongylus* resistance to Triple combination actives
- *Teladorsagia* and *Trichostrongylus* resistance was seen in both North and South Islands
- All key points are consistent with last season's report.

See the **full report** on our website here.

Every season this report builds on the emerging picture of drench resistance in sheep in New Zealand. It has shown consistent levels of resistance across the motu for four consecutive seasons, and significant increases since the 2018 update.

Regular monitoring of drench effectiveness is critical in the fight against drench resistance. Monitoring farms as part of a parasite management plan, ensures that effective drenches are used at the right time of year, targeting the right parasites.

Awanui will continue to provide this analysis. Accurate trend reporting is dependent on accurate data, veterinarians can help build the picture by providing all relevant data on the submission forms when samples are sent to our laboratories for testing.

Further information on parasite management can be found in our ovine parasitology tool box. It covers testing options and detailed recommendations for best practice:

* Targeted drenching – is drenching required?
* Drench review – is the current drench working?
* Investigation – is anthelmintic resistance present?

Make sure you're operating at peak efficiency and aren't wasting good money on drenches that aren't required or don't work.

Opportunistic sepsis

Sandy McLachlan

Clinical history

Query enterotoxigenic E.coli, torsion, sepsis? Metronidazole had been administered by the owner in the morning. Late afternoon the dog presented to the attending veterinarian with fever 40.9°C, and was treated with cefazolin, enrofloxacin, IV fluids, meloxicam and maropitant. In house CBC showed haemoconcentration (HCT 69.5% (37.3 – 61.7)) and profound leukopenia (neutrophils 0.04 x 10^9/L (2.95 – 11.64), lymphocytes 0.24 x 10^9/L (1.05 – 5.10)). An in-house faecal snap test was negative for coronavirus, parvovirus and Giardia. The dog was euthanised the following morning.

Gross postmortem examination

The body was in rigor (4 ½ hours after euthanasia). The tongue was deep purple (cyanotic). The subcutis lacked elasticity. A skin tent could be made with difficulty and then remained for >30 seconds (dehydration). There was no subcutaneous, abdominal, perirenal, pericardial or bone marrow fat (emaciated). There were petechial haemorrhages throughout the subcutis. There was generalised vascular congestion of all tissues.

The thymus was severely congested. The thorax was $^1/_3$ full of clear serosanguinous fluid. The pericardial sac was distended by clear straw-coloured fluid with a strand of fibrin at the heart base [swab taken]. The heart was large (athletic hypertrophy). There were many subepicardial ecchymotic haemorrhages around the heart base and on the atria. There were a few subendocardial ecchymotic haemorrhages in the ventricles at the origin of the chordae tendinae.

The lungs were not collapsed, and the lung parenchyma was dark red and had a jelly-like consistency. Bloody fluid oozed from the cut surface of the lung parenchyma. The trachea was full of foam to the level of the larynx. The abdomen was half full of turbid serosanguinous fluid. There were petechial haemorrhages scattered throughout the serosa.

The stomach was half full of watery fluid [approximately 300 mL]. At the junction of the pylorus of the stomach and proximal duodenum were six ulcers in the mucosa that were 3 to 5 mm diameter and did not perforate through the pyloric wall. The intestines were empty except for mucus and bile.

Bacteriology

Heart (epicardium) swab: heavy growth of *Acinetobacter baumannii.* Lung: heavy growth of *A. baumannii*.

The gross post-mortem examination findings together with culture of a heavy pure growth of *A. baumannii* from lung and the epicardium are consistent with pneumonia and systemic disseminated intravascular coagulation and fibrinolysis.

Histopathology

The most striking histologic findings were in the lung, oesophagus, and gastro-duodenal junction.

In the lung the lumen of bronchioles and the surrounding alveoli were filled with degenerate neutrophils and sero-fibrinous exudate. Many of the degenerate neutrophils had phagocytosed coco-bacilli in the cytoplasm. The coco-bacilli stained Gram-negative.

The stratified squamous epithelium of the oesophagus was lost leaving only a few scattered remnants. The surface of the exposed lamina propria comprised a grey coagulum.

At the stomach pylorus – duodenum junction there were ulcers in the mucosa 2 – 4 mm wide that extended through the muscularis mucosa to the submucosa. In the ulcer bed the exposed surface of the submucosa

Microscopic morphologic diagnoses

- Lung: acute fulminant suppurative bronchopneumonia with intra-lesional coco-bacilli (inhalation pneumonia).
- Oesophagus: mucosal ulceration.
- Stomach pylorus / duodenum junction: multifocal mucosal ulcers.

Summary

The histologic findings corroborated the gross findings. There was acute fulminant bronchopneumonia associated with an overwhelming infection with *A. baumanii* followed by septic (endotoxic) shock.

Ulceration of the oesophagus is an unusual finding. A possible cause of oesophageal ulceration is repeated regurgitation or vomiting of stomach acid. Regurgitation or vomiting may be associated with stomach ulcers and are factors for inhalation bronchopneumonia.

A. baumannii is an emerging opportunistic bacterium associated with Gram-negative sepsis, most frequently acquired as a nosocomial infection. It was nicknamed *Iraqibacter* because it first rose to prominence in military hospitals during the Iraq war.

A. baumanii is frequently resistant to antimicrobials. In this case the bacterium was sensitive to enrofloxacin, tetracycline, sulpha/trimethoprim, and gentamicin, but resistant to cephalothin, amoxicillin/clavulanic acid, ampicillin and cefazolin.

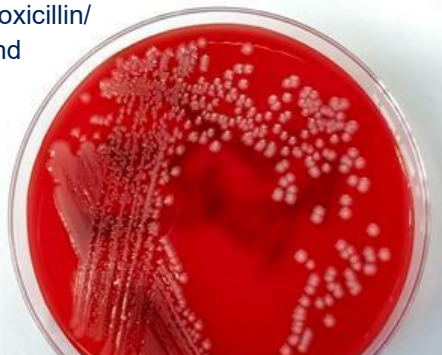


Photo right: A. baumanii on sheep blood agar.

(Photo credit: University of Southampton)

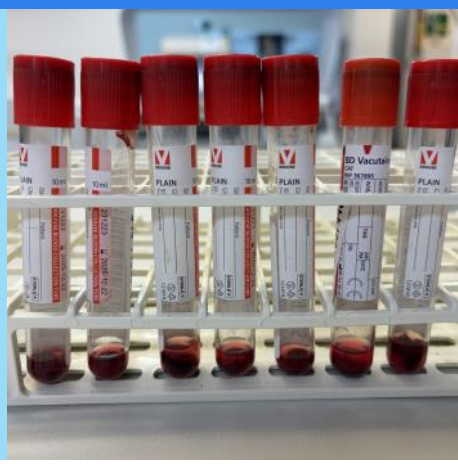
In brief

- **Attention ezyVet clients** - please ONLY select the CYF cytology fluid option if you are actually submitting a fluid. If you are just submitting a smear, choose CYS.
- **Listen to the RNZ story on facial eczema testing** - which includes the role of Awanui Veterinary in supporting Beef & Lamb NZ's study on the causes and impacts of facial eczema found in sheep across New Zealand. You can read the story on the RNZ website and also find the link to the podcast.
- **ANA testing** is now being sent offshore to Michigan State University. The test fee has increased to $473.40 (ex. GST) and expected turn-around time is 1-3 weeks.
- Cryptococcus antigen testing is now being done in our laboratories instead of by a subcontractor. The price has dropped to $77.00 ex. GST.
- When sending samples using the **InPouch® TF-Tritrichomonas fetus culture** system for export testing, PLEASE ensure the air is squeezed out of the pouch before sealing. The organisms require an anaerobic environment, so if air remains, the culture is overrun by aerobic bacteria. A sample collection guide is available on our website here.
- **Pooling sera for iodine testing** - we've recently received several requests to "pool all" on submissions of up to 10 blood samples for organic iodine testing. Due to the sensitivity of this assay, we recommend pooling samples in groups of five. For example, 10 blood samples should be divided into two pools. Read more here.
- **Removing a brain for TSE Surveillance instructions** have been updated to make things as clear as possible. The only change is a note to include the brainstem as well as the obex, as it is a critical area to examine histologically. You can find this updated how-to guide on our website here.

Please be generous!

When submitted blood samples for serology testing, please ensure you add at least 2mL of blood to the tubes. Receiving less than 1mL of blood makes it very challenging to separate off the serum for testing.

Thank you in advance for your consideration.



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- contacting Awanui Veterinary couldn't be easier.

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