

## Post-mortem samples

Not all outbreaks of bovine respiratory disease result in deaths, but for those that do submission of the whole carcass to your local RVL gives the best possible chance of identifying the cause.

If delivery to a RVL is not possible, and it is possible to open into the animal's chest, some very useful samples can be collected.

For virology, use plain cotton swabs.

For bacteriology, use transport media (charcoal) swabs. Transport media swabs are not suitable for virology.

Any viruses present will survive transportation better if the swabs are moistened before use. Dip the swab into boiled water, commercially bottled water or bagged saline and shake off any excess.

Open the trachea along its length and swab it. Better results are achieved if markedly necrotic areas are avoided.

If IBR is suspected, remove a cross-section of the trachea, and send it in a vessel without any additive for IBR PCR.

Cut across and swab "boundary" lung tissue. This is the junction of healthy and diseased lung and is where the greatest likelihood exists of finding virus.

This can be repeated at several different sites and the swabs pooled just as with the nasal swabs.

Cut into and swab any lung abscesses. Send these swabs for bacteriology only.

A number of distinct pathologies such as Oat cells (*Mannheimia* spp.), syncytial cells (BRSV), and microabscesses (*Mycoplasma* spp.) can help to make a definitive diagnosis - especially in more chronic cases or when antibiotic treatment has been extensive.

A thumbnail of boundary tissue should be fixed in 10% formalin-saline and submitted for histopathological examination to your local RVL. Use approximately ten times the volume of fixing solution to the volume of tissue to be fixed.

Levels of detectable virus start to decrease as soon as an animal dies. Post or submit all swabs to the laboratory as soon as possible. Refrigerate (don't freeze) if there is likely to be any delay.

Send all samples to the your local RVL, clearly marking which tests are required on the submission form.

