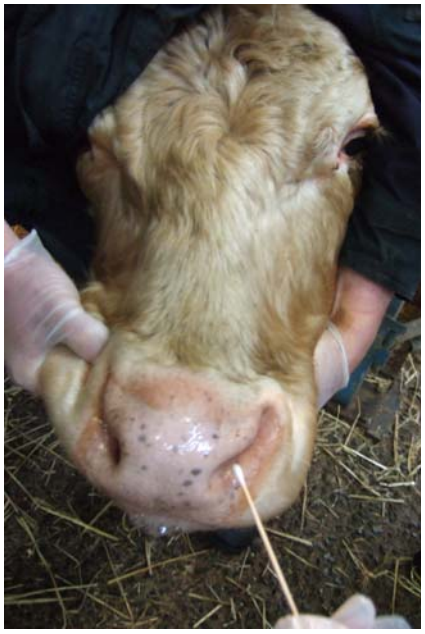
Nasal swabs

Swabs are used to test for virus – these detect the active infections currently circulating in a herd.

Timing is critical when swabbing for bovine respiratory disease as the animals shed virus early on in an infection and typically for only 3 and 5 days. Swab animals which have clear or milky nasal discharge OR those which appear clinically normal but have a temperature (>103ºF or 39.5ºC). Often this can mean swabbing a comrade of but not the most severely affected animal in a group. Animals with green or brown nasal discharges or animals clinically affected for more than 5 days are unlikely to yield virus/bacteria in swabs even though infected.



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 clean bottled water or bagged saline and shake off any excess.

Gently insert the swab up the animals nose.
Environmental contaminants are concentrated around the nasal nares so try to avoid contacting these immediate surfaces at the entrance to the nose.
Once inserted, angle the swab to contact the lining of the nose as most virus is located there.

Rotate the swab when inserted to use the whole surface area to collect virus. Remove and replace the swab quickly into its sheath.

Detectable levels of virus start to decrease as soon as samples are removed from the animal. Post or submit to the laboratory as soon as possible. Refrigerate (don't freeze) if there is likely to be any delay.

Swabs taken from the conjunctival sac can be useful especially when IBR is suspected. Treat as above.

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

Virology Division, Backweston Campus,
Youngs Cross, Celbridge
Co Kildare

Nasal swabs (contd)

PCR is now the test of choice for respiratory viruses at the CVRL. It is a molecular technique which is robust, rapid and both highly sensitive and highly specific. Currently we use the PCR test to detect BVD, IBR, BRSV and PI3 viruses.

At the CVRL, we can now pool up to six respiratory swabs and test by PCR for the same price as testing one swab.

It makes sense to include at least six swabs from each outbreak – it will greatly increase your chances of making a positive diagnosis.

Unless otherwise stated, it will be assumed that all multiple respiratory swabs submitted should be pooled and tested as such.