

Herd-wide diagnostic testing tools reviewed

Vet Michael Sexton reviews some herd diagnostic tools – bulk tank milk sampling and primi-parous check testing of first lactation.

Bulk Tank Milk (BTM) sampling is one of the most popular sampling techniques. Bulk milks are readily accessible, easy to take and quite representative of the adult herd, especially where all cows are contributing milk to the tank. For some disease screening, bulk milks are very useful, such as for *Mycoplasma bovis* mastitis. By applying a PCR test, a BTM sample could help identify a single BVD PI cow in herds of up to 200 cows and more.

Bulk milks as a once-off can give a general overview of the overall exposure of the herd to many different disease conditions such as BVD, IBR and Lepto, to mention just a few.

There are limitations to BTMs. Repeated sampling may not demonstrate much difference in test results, thereby giving little indication of whether exposure to different diseases is reducing or not.

Some conditions are not suitable for BTM sampling, such as Johne's. One of the major limitations of BTM sampling is the fact that antibodies detectable in bulk milk may be more indicative of historical infection and, therefore, are

less of an indication of what may be happening on farm at present.

Primi-parous (first lactation) check testing (PPCT) of younger cows has the advantage that as these cows would only be about two to three years of age, compared with a herd average of perhaps five years, evidence of exposure in first lactation cows may indicate more recent exposure, compared with a positive BTM result.

Alternatively, where the BTM result for a certain disease was positive and the samples from the first lactation cows negative, this may be more consistent where a disease was

no longer active in such herds.

Individual milk or blood samples could be collected from five to 10 primiparous cows and exposure might be suspected where a minimum of one or two individual samples are positive.

Should both the BTM and PPCT be positive, then it may be worthwhile doing a young stock check test (YSCT) on calves between nine and 12 months of age to see if they are exposed. A positive result here might indicate exposure within the lifetime of these calves, indicative of active infection on the farm.

However, care is needed, as a negative YSCT result may

not imply absence of disease from the herd, especially where calves are removed from their dams soon after birth and subsequently reared at a distance from the main herd. Lack of exposure in these circumstances may make them less useful as sentinels for the main herd.

PPCT and YSCT are becoming more popular and can be used to better indicate the true dynamics of different diseases on your farm.

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