

DIAGNOSIS AND CONTROL OF DISEASES

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A new product now available in Australia may help simplify Bovine Pestivirus control programs and have wider applications for assisting in the diagnosis and control of a range of diseases and genetics testing.

The TEGO Animal Blood Collection Kit was developed in Australia and is currently being marketed both here and overseas as an alternative for genetic testing due to the inherent risks associated with ensuring and maintaining sample integrity associated with traditional hair testing.

The TEGO is comprised of a simple disposable device consisting of a plastic housing enshrouding a set of retractable blades providing a safe way to collect blood from an animal's ear onto a specially designed absorbent card. The device is applied with a pair of Allflex tagging pliers. The shrouded sharps make a small cut, as the blood wells to the surface it is absorbed by the card. Once enough blood has collected on the card, taking from a few seconds to half a minute, the device is pulled free from the ear, the card removed from the device, and the card is placed in a small included specialized envelope. The small individually labeled cards can then be mailed without any special handling for analysis.

Our lab was very excited about the TEGO devices and after performing validation work have found them suitable for BVDV antibody testing. We have since begun offering them to our veterinary clients for their use with their clients to perform BVDV serology. The Swans Veterinary Services BVDV Laboratory pioneered ear notch testing for the diagnosis of PI animals and the TEGO

is a natural fit to the philosophy of our service which has gone beyond simply PI testing to providing advice to veterinarians and producers pursuing systematic BVDV control ranging from simple testing to full scale herd level eradication programs.

BVDV SEROLOGY OR ANTIBODY TESTING IS THE CORNERSTONE OF PESTIVIRUS INVESTIGATIONS.

BVDV serology or antibody testing is the cornerstone of Pestivirus investigations. Quite simply, if an unvaccinated animal has antibodies to BVDV then it has been exposed to the virus. If an animal has been exposed to the virus, then that animal has likely been exposed to a BVDV carrier animal (PI). In most instances that PI has been home reared. Where PIs exist, there are likely more, and there have been and are likely to be ongoing production losses representing an opportunity for veterinary intervention. Once a producer wishes to manage BVDV one of the earliest steps is to assess the herd structure's BVDV risk profile. This entails testing a handful of animals from each management group on the farm for antibodies to BVDV. The goal is to assess which management groups have low levels of immunity to BVDV, and conversely, which groups have evidence that a PI may exist within them. Simply put, groups with low levels of immunity would benefit from vaccination with Pestigard, groups with high levels of immunity have been exposed to a PI, and may even still contain a PI. The management strategy from that point varies from farm to farm, but we usually don't advocate chasing PIs in older management groups, however screening and acting appropriately with each new group of replacement heifers is an exceptionally cost effective strategy.

Once a producer and their veterinarian have committed themselves to a systematic BVDV control program and have identified the at risk management groups and begun a vaccination program where appropriate, the program can be both monitored and maintained by annual replacement heifer screening. Quite simply, annually, after having been commingled for at least a couple of months and at least 8 months of age a representative number of previously unvaccinated heifers are screened for antibodies to BVDV. If they are all antibody negative they are enrolled in a Pestigard vaccination program before mating. If they are predominately antibody positive then they need individually ear notched, for one of them may be a PI. A highly seropositive group of heifers would not receive any tangible benefit from vaccination. Sometimes only a proportion of the heifers will have antibodies, indicating perhaps past exposure of some animals prior to weaning and may require further investigation. With time, this systematic approach, with reasonable biosecurity, should result in a BVDV free completely vaccinated herd.

Six years ago our veterinary practice spent well over a year searching for a lab willing to test ear notch tissue to screen for PI animals, however we were repeatedly told that only blood tube based testing was available in Australia. Out of frustration we established Australia's first commercial laboratory for the diagnosis of PI animals from ear notch tissue freeing veterinarians like myself from having to come on farm to find PIs. We now test over 50,000 animals a year, helping over 150 veterinary clinics to help their clients. By allowing producers to collect blood samples for their veterinarians, I believe the TEGO devices are the next logical step to our lab helping vets and their producers to manage BVDV more cost effectively. ■