The Elitest CLA ELISA

This was developed in collaboration with the Moredun Research Institute (MRI) and the Scottish Agricultural College (SAC). It's based on recombinant phospholipase D, a secreted protein from the Corynebacterium pseudotuberculosis organism. A single recombinant protein is coated onto the well in the appropriate buffer. The validation of this test isn't yet as complete as with the MVV/CAEV test and has only really been carried out in the UK. The sensitivity, specificity data that we have, suggests that the test is around about 85% specific and 95% sensitive.

We have used the test in flock situations to reduce the level of infection dramatically. In Scotland the Scottish Agricultural College (SAC) carried out a trial in the North of Scotland with a heavily infected flock. The flock was of 1100 breeding ewes in which 10 % were seropositive for CLA and were showing clinical signs with abscesses and other pathological problems. SAC instituted a series of serial blood samplings at three month intervals, removing the positives and then re-bleeding three months later. After three tests the seroprevalence was less than 2% and no further clinical cases were seen in seronegative animals. It is likely that this 2% were false positives. Further work in Scotland and Northern Ireland showed the value of the test in eradicating CLA infection (Baird and Malone, Veterinary Record (2010) 166, 358-362).

In Norway Elitest CLA ELISA has been used to eradicate infection from a large number of flocks (approximately 180), in association with other measures such as snatching kids at birth and rearing them artificially, or separating flocks into different groups. It would seem that the sensitivity and specificity of the test is adequate to be used operationally to reduce the level of infection in flocks to the point where there are no clinical problems, and in some circumstances to eradicate infection from the flock.