

FASCIOLA HEPATICA (LIVER FLUKE) ANTIBODY ELISA TEST

Outline

Fasciolosis, or Liver Fluke, is a helminthiasis caused by a trematode, *Fasciola hepatica* (or *F. gigantica*, depending on the geographical area), a parasite that settles in the biliary ducts of many different species (ruminants, horses, humans). In New Zealand we are mainly concerned with *Fasciola hepatica*. This test uses the “f2” antigen purified from *Fasciola* extracts. This antigen is very immunogenic and highly specific for *Fasciola hepatica*.

TEST: Liver Fluke Antibody ELISA

IDEXX performs an ELISA test to detect antibodies to a Liver Fluke infestation. This test determines the presence and/or level of *Fasciola hepatica* antibodies in the sample. It is validated for bovine and ovine sera, either individual or pools of up to 10 samples.

Liver fluke antibodies are detectable for 12 weeks post-infection. To determine if the infection is current, a parasitology test needs to be done on a faecal sample to look for fluke eggs. A bulk tank milk test is available at a referral lab for testing VAT samples.

Sample type: Min. 1 ml Serum from bovine, or ovine species.

Turnaround Time: 2-3 days after the samples are received.

Results: For individual sera samples, results are reported as either Positive or Negative (i.e. Either Presence or No presence of Liver Fluke antibodies).

For pooled sera samples the results are reported as; Negative or Low, Moderate or High Pool. The indicative* interpretations are as follows:

FASCIOLA HEPATICA ELISA – NEGATIVE POOL RESULT

There is currently no indication of liver fluke infection in the animals tested.

This is strong evidence of no, or negligible, liver fluke infection within the flock, mob or herd of origin. Liver Fluke antibodies are detectable for up to 12 weeks post-infection.

FASCIOLA HEPATICA ELISA - LOW POOL RESULT:

This is an indication of liver fluke infection in an occasional animal of those tested. This is strong evidence of only a low level (<20%) of liver fluke infection within the flock, mob or herd of origin. Liver Fluke antibodies are detectable for up to 12 weeks post-infection.

FASCIOLA HEPATICA – MODERATE POOL RESULT

This is an indication of liver fluke infection in 20%-50% of animals of those tested. This is strong evidence of a low to moderate level of liver fluke infection within the flock, mob or herd of origin. Liver Fluke antibodies are detectable for up to 12 weeks post-infection.

FASCIOLA HEPATICA - HIGH POOL RESULT:

This is an indication of liver fluke infection in at least 50% of animals of those tested. This is strong evidence of a high level of liver fluke infection within the flock, mob or herd of origin. Liver Fluke antibodies are detectable for up to 12 weeks post-infection.

*Final interpretation depends on the result obtained with corresponding individual samples