## Press Release for immediate use

5<sup>th</sup> August 2019

# Small redworm blood test (including encysted larvae) to be launched as a diagnostic service in September 2019

A new blood test for diagnosing small redworm (cyathostomin) infections in horses is to be launched by Austin Davis Biologics (ADB), the providers of EquiSal Tapeworm saliva testing service, this autumn!

Excitingly, the new test, developed at Moredun Research Institute, enables detection of all stages of the small redworm life cycle, including the all-important encysted larval phase. Until now it has not been possible to test for encysted small redworm as faecal egg counts (FEC) only detect the presence of egg laying adult worms. This has meant that a routine winter treatment to target this life cycle phase has become the recommended practice.

Small redworms are the most common gastrointestinal parasites to infect horses. When horses harbour a large burden of encysted larvae that emerge on mass from the intestinal wall, clinical symptoms develop, such as diarrhoea and colic, which can be fatal (larval cyathostominosis). Moxidectin is the only dewormer capable of eliminating these encysted stages for which worm resistance is not known to be widespread. To protect the effectiveness of this dewormer, targeted treatment programmes are required to ensure that the drug is only administered when it is really needed. The commercial availability of a diagnostic test to detect all intra-host stages of small redworm will be of great value to equine veterinarians enabling them to make a differential diagnosis as well as informed treatment decisions.

The blood test has been developed by Prof Jacqui Matthews' group at the Moredun Research Institute (MRI), the main funder being The Horse Trust. In recent years, ADB has worked with the Matthews group to develop the blood test for commercialisation and the new service provision represents the first phase. Dr Corrine Austin, of ADB said "We are thrilled to be making this test available to horse owners after extensive research has been conducted to achieve high accuracy. ADB are now developing laboratory ELISA kits to enable independent veterinary laboratories to conduct blood testing; these kits are expected to reach market during 2020. Research into the saliva-based test is ongoing and is expected to be commercialised several years from now."

Professor Matthews commented, "It is great to see the commercialisation of this much-needed test to support sustainable worm control in horses. The test fills an important gap in our diagnostic toolbox and will enable horse owners to work with their veterinarians in targeting anthelmintic treatments against cyathostomin infections and hence help protect these important medicines for the future"

Rhona Macdonald, business development manager at MRI said: "We are delighted that the research has led to the development of a new blood test to help diagnose small red worms in horses and that the test is now available through Austin Davis Biologics".

Veterinary practices can contact ADB at <a href="mailto:info@austindavis.co.uk">info@austindavis.co.uk</a> to register interest in the diagnostic test service. Once an account is set up, unique barcoded submission sheets will be supplied enabling efficient result reporting.

#### **Notes to editors**

- Austin Davis Biologics Ltd is a science and technology company focused on biosciences. The company successfully developed and commercialised the EquiSal Tapeworm test, a saliva test for tapeworm diagnosis in horses. For further details visit www.austindavis.co.uk
- 2. Moredun Research Institute conducts internationally recognised research on the infectious diseases of livestock, caused by important viruses, bacteria and parasites. Moredun's research focuses on understanding the interaction of the disease pathogen with the host species, in identifying new targets for improved diagnostic tests and in development of novel vaccines for many diseases. For further details visit
- 3. **Development of the diagnostic blood test** has involved funding from the Horse Trust <a href="http://www.horsetrust.org.uk/">http://www.horsetrust.org.uk/</a> and previous funding from the Horserace Betting Levy Board <a href="http://www.hblb.org.uk">http://www.hblb.org.uk</a>.
- Equine cyathostomins. Further information about the control of equine cyathostomin infection can be found on the following website:
  Moredun Research Institute:
  <a href="https://www.moredun.org.uk/research/diseases/parasitic-roundworms-equine">https://www.moredun.org.uk/research/diseases/parasitic-roundworms-equine</a>

#### **Attachments:**

### Images:

- (i) Encysted small redworm larvae in the gut wall of an infected horse
- (ii) Small redworm life cycle
- (iii) Seasonal diagnostic-led worm control programme

For further information please contact

info@austindavis.co.uk