

PARASITOLOGY

The following information provides information for veterinary surgeons submitting faecal samples for analysis in order to monitor parasitic control programmes and for investigation of cases of diarrhoea and septic enterocolitis in horses.

FAECAL SAMPLES

Freshly produced or rectal faecal samples should be collected into an inverted clean rectal sleeve so that environmental contamination and alteration is minimised and there is no doubt about the identity of the horse that produced the sample. Fluid diarrhoea samples should be submitted in sterile universal containers and on sterile swabs immersed in Amies' charcoal transport medium. It is often difficult to collect diarrhoea samples from foals but digital stimulation of the rectum sometimes precipitates production of a sample.

WORM EGG COUNTS

Our worm egg counts are performed using the 'Ovatec Plus' method, a floatation method particularly suitable for equine samples as it is sensitive at detecting low numbers of Strongyle (large redworm), Ascarid (roundworm) and *Strongyloides spp* (threadworm). eggs. Other methods (Stoll and McMaster) are more suitable for counting worm eggs in samples where high counts are expected (e.g. farm animals) as these methods involve dilution rather than concentration of eggs into the counting area.

Our experience is that well-managed horses under good endoparasite control regimes consistently have zero strongyle eggs using the Ovatec Plus technique. It should be remembered that the presence of egg laying adult strongyles in the intestinal lumen represents the final stage of the protracted migration of the developing larvae through the horse's tissues. Using this method, a positive worm egg count of any magnitude in the faeces is a significant finding, indicating that the horse needs appropriate anthelmintic (worming) treatment and that the parasite control programme should be reviewed.

Where indicated, faeces samples are examined for the presence of *Anoplocephala perfoliata* (tapeworm) eggs by the method of Owen (1977). A serological (ELISA) test is available for detecting tapeworm infestation/exposure. Titres of <0.2, 0.2-0.6 and >0.6 are considered negative or low-intensity, moderate and high intensity infestations respectively.

Where indicated, faeces samples are examined for *Dictyocaulus arnfieldi* (lungworm) larvae using the modified Baermann funnel gravitation method. Fresh samples are required and failure to detect larvae does not rule out infection. Tracheal wash cytology (eosinophilia) may be a more accurate screening test for lungworm in at-risk horses.