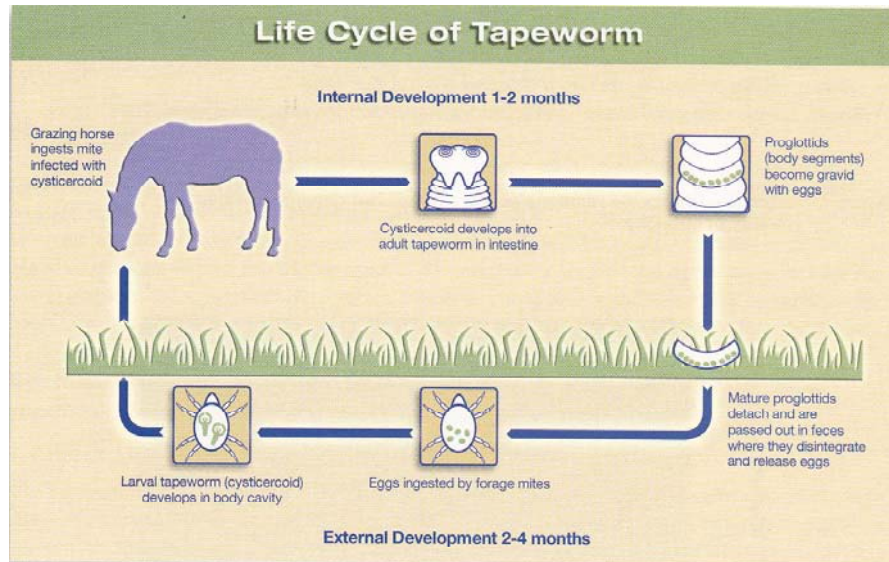




assessment of *A. perfoliata*'s prevalence in the horse population (see map of prevalence above). Furthermore, the level of antibody detected correlates with the intensity of infestation. Unfortunately, the test is not commercially available in this country but has led to helpful research confirming the intensity of infection to various disease processes.



**Life Cycle –** The biggest difference between tapeworms and other intestinal parasites is that its life cycle involves an intermediate host – the forage mite. This mite ingests tapeworm eggs that are passed

in the horse's manure. The eggs mature inside the mite to the infective form (cysticeroids). Because the mites are frequently present in hay, straw, and grass, the mites become accidentally ingested by the horse and act as a "Trojan Horse" releasing its contents and infecting the horse. The cysticeroids develop into adult tapeworms and attach to the intestinal wall. Eggs are passed when the tapeworm's body segments, filled with eggs, detach and are passed in the manure. (See life cycle diagram.) There appears to be an age-related susceptibility. Young horses (6 months to 2 years) and old horses (> 15 years) are most affected; horses 3 – 15 years seem to carry lower tapeworm burdens.

**Pathology –** Due to *A. Perfoliata*'s affinity for the ileocecal junction of the horse, the following abnormalities have been reported with infection: thickening of the ileum (last part of the small intestine), mucosal ulceration, thickening or dysfunction of the valve between the ileum and cecum. The following consequences have been due to tapeworm infestations: small intestinal rupture, intussusceptions, small intestinal twists, ileal impactions, and spasmodic colic. In the United Kingdom, 81% of ileal impactions were found to be associated with tapeworm infections. However, the most common disease caused by tapeworms has been "spasmodic colic", a poorly defined syndrome of gas colic. **This means that the many of the previously unexplained mild colic episodes (or even recurrent colic in some horses) may be due to an unknown tapeworm infection.**

**Treatment** – Until 2003, there were no approved treatments for tapeworms in horses. Neither ivermectin (Eqvalan® and Zimectrin® are examples) or moxidectin (Quest®) affects tapeworm populations. **Therefore, many horses were not being treated for tapeworm infections with their regular deworming protocols.** However, Pyrantel pamoate (Strongid Paste® is an example) was shown to be effective at double the label dose. For example, 2 tubes given together were required to treat an adult horse. **Praziquantel has been approved for use against equine tapeworms in Europe for years and now has approval in the United States.** Several pharmaceutical companies have released dewormers combining praziquantel with either ivermectin (Equimax by Pfizer, Ivermectin Gold by Merial) or moxidectin (Quest Plus by Fort Dodge). These products offer easy and extremely effective tapeworm control combined with a broad spectrum dewormer. These products have been used safely in foals (see label for recommended ages), breeding stallions and pregnant mares. **It is recommended that horses be treated for tapeworms at least twice yearly.**

#### References

- Equimax Technical Reference Manual, Pfizer Animal Health, 2003