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Tackling Worms

BBC ‘Countryfile’ programme carried a feature about how the emergence of drug-resistant worms is posing a severe threat to sheep farming in the UK and quoted the figure of £84m as the cost to the UK farming industry of chemical anthelmintics or drenches (wormers).

Cotswold Seeds recently participated in an EU funded research project, LegumePlus, which set out to explore the benefits of tannin-rich legumes, and results published last year proved how these plants, which can be included in seed mixtures and diverse leys, act as a natural wormer.

Parasitic worms in sheep and cattle cause disease and lead to production and economical losses (e.g. poor growth rates, drop in milk yield) if not controlled. However by adding tannin-containing legumes with antiparasitic properties, such as sainfoin or birdsfoot trefoil to a seed mixture, a ley will have natural anthelmintic properties when used as forage, representing a promising option for a more natural way to control worms. Delivering anthelmintics through forage also means that a continuous and balanced ‘treatment’ is provided, avoiding the ‘boom and bust’ of artificial wormers and and helping to maintain the healthy level of worms that the animals require to have natural immunity.

The results of a wide range of (in vitro and in vivo) studies demonstrated how the consumption of sainfoin can affect the main species of parasitic worms present in either the abomasum or in the small intestine of sheep and cattle. This is because the consumption of sainfoin disturbs the biology of three main key stages the eggs, the infective larvae and the adult worms of the parasite life cycle. The effects are a reduction of the faecal egg count (due either to a lower fertility of female worms or less worm numbers), a lower development of the eggs to larvae, or a lower establishment of the infective larvae in the animals.

These anthelmintic species can help with cattle too. In the late part of the grazing season, pastured calves may get heavy infections with the stomach worm, Ostertagia, characterised by diarrhoea, lack of appetite and retarded growth. In these animals, weight gains can be reduced by up to 315 g/day on average. Adult cattle are more resistant to the worms; however, the production can also be impaired without showing clinical signs e.g. a reduced milk production by 0.5–1.0 kg/day per cow. Dried sainfoin pellets were fed to young calves for 6 weeks following infection, which reduced the number of stomach worms Ostertagia by more than 50%.

There’s more information on the benefits of diverse leys in the knowledghe hub. Cotswold Seeds have also produced a grower’s guide to Sainfoin which contains an in-depth analysis of it’s benefits for farmers and is available as a download.

Date Posted: 23rd November 2016