International Dairy Topics

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Roundworms

Introduction

Intestinal roundworms or nematodes are often an important issue in calves or heifers put out to grass, but their importance in confined heifers should not be overlooked. An understanding of the individual types of worm and their lifecycles and geographical distribution is useful.

Roundworms of the abomasum

The major roundworms of the abomasum are Ostertagia ostertagia, Trichostrongylus axei and Haemonchus placei. O. ostertagia is also known as the brown stomach worm and is important because it can undergo arrested development of its fourth larva stage (or L4) in the abomasums of young cattle.

These arrested L4s reside in the lumens of gastric glands in the abomasal wall during the seasons of the year that would be detrimental to this worm's development outside its host, such as harsh northern winters.

When these arrested larvae emerge from the abomasal walls they tend to initiate a severe illness and abomasal pathology known as ostertagiasis type II, the signs of which are anorexia, weight loss hypoproteinaemia and severe diarrhoea. Mortality is usually high, although the prevalence can be quite low.

Ostertagiasis type I is the more classical disease picture that is seen when heifers acquire the infection at grass. This form of the disease typically appears in peak pasture season and is characterised by weight loss, diarrhoea and hypoproteinaemia.

H. placei is less common but is also capable of causing arrested larval development. This worm is pathogenic as a result of the blood loss it causes which, in severe infestations, can cause quite severe anaemia.

T. axei also damages the mucosal lining of the abomasum and this often causes hypoproteinaemia, digestive upset and diarrhoea.

Gangylonema Spp. also live in the abomasum and forestomach, but this worm is of no pathological significance.