

Svanova Biotech AB was established in the beginning of 2001. The company has been founded upon the activities, which have been ongoing since 1988 within SVA, the National Veterinary Institute, in Uppsala, Sweden.

Svanova Biotech AB develops, manufactures, markets and sells a wide range of diagnostic products for large-scale laboratories as well as for the veterinarians in the clinic or on the field, mainly for diagnosing infectious diseases in livestock and companion animals.

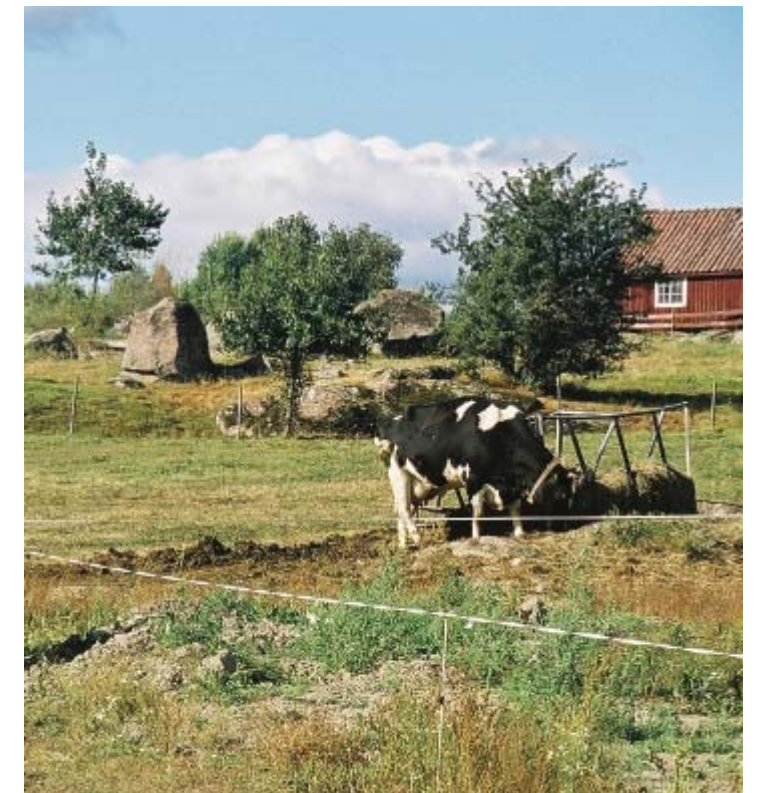
The majority of the products are based on the ELISA technique, marketed under the trade name SVANOVIR[®], detecting antibodies against different microorganisms, such as viruses, bacteria, parasites or mycoplasma in various animal species.

SVANOVIR[®] products are manufactured by Svanova Biotech AB in an ISO 9001:2000 certified facility. The products are developed, evaluated and adapted to the needs of the veterinary diagnostic laboratories.

One of the strengths of Svanova Biotech AB is the in-depth cooperation with specialists and researchers throughout the world. One of them is SVA, where, due to the long and close relationship, all the know-how and expertise is available to Svanova Biotech AB.

Legal disclaimer
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2007-01



Ostertagia ostertagi

- one of the most important
gastrointestinal nematodes
in cattle

Nematodes in ruminants - *Ostertagia ostertagi*

Infestation of livestock with gastrointestinal (GI) nematodes is a major constraint on production worldwide. All grazing cattle are exposed to infestation with these parasites, resulting in economic losses. Traditionally, infestation with GI nematodes were considered to be mainly important in first-season grazing (FSG) calves. The effects of clinical disease in this age group have been clearly demonstrated and are well known to both farmers and practitioners. In contrast, infestation with GI nematodes in older cattle were for a long time considered to be of limited importance because of the absence of clinical symptoms. However, several studies have demonstrated that subclinical GI-nematode infestation can impair milk yield.

The most important species in temperate climate areas are *Ostertagia ostertagi* and *Cooperia oncophora*. A strong host resistance develops within 1 year to most species, but *O. ostertagi* engenders immunity more slowly and is therefore the most important species in older cattle. Abattoir studies in the United States and Western Europe have shown that its prevalence in adult cows is between 80-100 %.

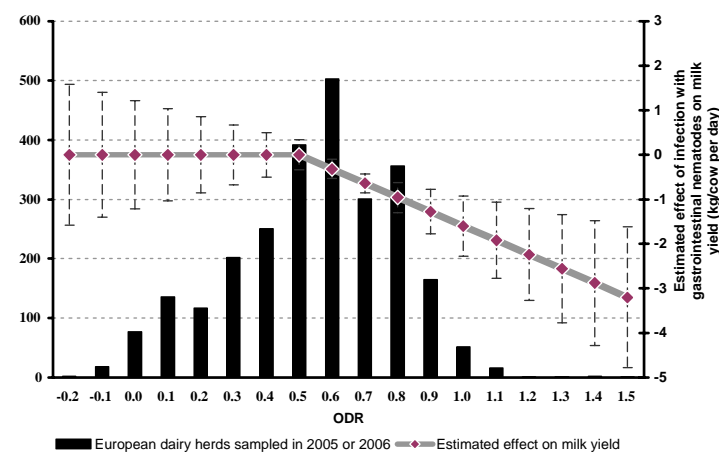
It has been shown that GI nematodes in adult cows can have a negative effect on milk yield. Recent studies have found an average increase after anthelmintic treatment of milk yield of ca. 1 kg/cow per day in the following months. However, the effect on milk yield shows a large variation between different herds, depending on the level of infestation. Monitoring GI-nematode infestation in dairy herds becomes therefore an essential part of herd-health management.

Diagnostic parameters such as faecal egg counts and serum-pepsinogen concentration are considered to have limited value to monitor GI-nematode infestation in adult cattle because they are not correlated with the level of infestation or effect on milk yield. In contrast, *O. ostertagi*-specific antibody levels reflect the level of exposure to GI-nematodes and are negatively correlated with milk production.

Therefore, the *Ostertagi* ELISA can be used to evaluate the level of exposure and the applied anthelmintic control measures during the finished grazing period. The ELISA results indicate whether GI-nematode induced milk-yield losses have likely occurred or not and are an aid in decision-making whether anthelmintic treatment is expected to result in an economic benefit.

The SVANOVIR® *O.ostertagi*-Ab ELISA Kit is designed to detect bovine *O.ostertagi*-specific antibodies in milk. The kit procedure is based on a solid-phase indirect Enzyme Linked Immunosorbent Assay (ELISA).

The vertical bars present the *O. ostertagi* distribution of 2593 dairy farms in different European countries that were sampled in autumn 2005 or 2006. To assess the importance of the infestation in a specific herd, the herd's ODR should be plotted on the grey line. The probable effect of this level of infestation pressure on the herd average milk yield can be read on the right Y-axis.



Note : The estimated effect on milk yield is an average effect with a confidence interval based on data from > 800 herds. Because of herd-specific factors this effect can vary considerably at the individual farm and a positive milk-yield response after anthelmintic control cannot be guaranteed.

The test has been developed in co-operation with the Department of Virology, Parasitology and Immunology-Faculty of Veterinary Medicine, Ghent University, Belgium.

The SVANOVIR® *O. ostertagi*-Ab

for the detection of *Ostertagia ostertagi* antibodies in bovine milk samples

- Enables a new strategy for nematode control in cattle
- Cost efficient tool in health management - monitoring the GI-nematode infestation
- Important aid in decision-making - to use anthelmintic or not
- Simple and user-friendly, with a fast result
- Easy result calculation and interpretation
- Quantitative and objective result

New strategies for nematode control have been initiated by the PARASOL Project, a Sixth Framework Program within the EU. The programme aims to create novel solutions for the sustainable control of nematodes in ruminants. One new strategy is the Targeted Selective Treatments (TST), which focuses on selective and rational use of anthelmintics in ruminants.

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