

# Preventive and alternative treatments of helminth parasites in organic dairy goats

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**Introduction** Organic dairy goat farmers in The Netherlands do not wish to use chemical anthelmintics as preventative and curative therapeutics against helminth parasites. Regarding helminth parasites steps are taken in the direction of prevention and monitoring, and only when necessary curative treatment.



Figure 1: Helminth parasite management tool

**Grasslandmanagement** An evasive grazing system was developed in combination with a close monitoring to prevent helminth parasites in organic dairy goats (figure 1). This system worked very well in keeping the incidence of helminth infections in dairy goats at a low level.

However, recent data showed that some farms have problems with helminths in the early spring, especially with *Haemonchus contortus*, even though animals were treated when dried off and/or grazed on clean pastures (figure 2). These farms are characterised by a diverse and rich flora in their grasslands and the presence of wild deer.

It was investigated whether this infection was caused by infected litter in the stable or by means of fertilization with infected manure. Samples were taken from the litter in the stable and from the manure heap. None of the samples contained infectious larvae. Infection through wild deer is still under investigation.

**Paramaxin** Additional to prevention by means of an evasive grazing system the use of Paramaxin, a mixture of several herbs (Richterpharma ag, Germany) in the prevention of helminth infection was investigated on-farm (table 1). The incidence of helminths in the Paramaxin treated animals, compared to the other groups, was lower after six weeks of treatment. However, infections could not be overcome completely with Paramaxin treatment.

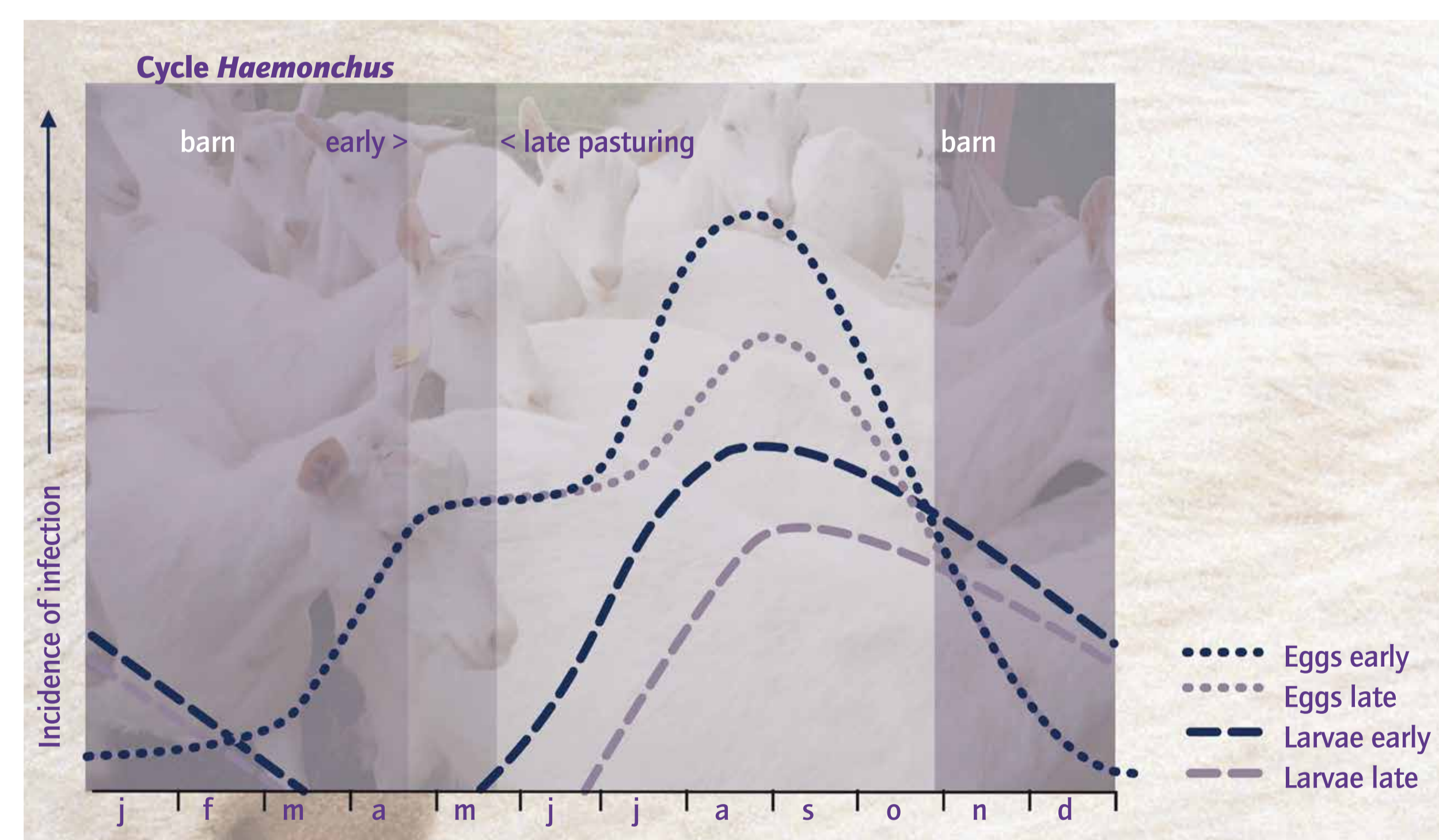


Figure 2: Life cycle of *Haemonchus* through the year

Table 1: On-farm experiment: a herd of 120 goats was divided over three treatment groups; chemical anthelmintics (N = 80), Paramaxin (N = 20) and a control group (N = 20)

Date	18-05-2011	08-06-2011	11-06-2011	18-06-2011	25-06-2011	07-07-2011	22-07-2011	01-09-2011
Sample	control 1	control 2	control 3	1 week after treatment	2 weeks after treatment	4 weeks after treatment*	6 weeks after treatment*	control 4
Pooled sample herd (N = 15)		2050						650
Group 1: chemical anthelmintic (N = 15)	<50		1350	150	<50	<50 – 350 (mean 80)	100 – 950 (mean 340)	
Group 2: chemical anthelmintic (N = 15)	<50		2100		<50			
Group 3: Paramaxin (N = 15)	<50		250		150	<50 – 1250 (mean 290)	150 – 600 (mean 300)	
Group 4: Control (N = 15)	200		900		250	<50 – 250 (mean 115)	<50 – 1050 (mean 375)	

\*Individual samples N = 10

The table gives an overview of *Strongylus* egg counts at different sample times and sample method.