



Collecting odours from the farm

Who we are

The **Disease Vector Group** is based in the Department of Plant Protection Biology at SLU, Alnarp. We are an international team conducting fundamental and applied research worldwide.

Our **goal** is to develop innovative solutions to protect people and animals from blood feeding insects. This includes biting midges in Sweden, and mosquitoes which transmit malaria in Africa.

Through our connections with **Partnership Alnarp**, we are working to ensure that our research has maximum benefits for Swedish farmers.

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Photo credits: Elin Isberg and Daniel Bray, SLU. Front page: “CSIRO Science Image 1791 SEM of a biting midge *Culicoides brevitarsis*” Electron Microscopy Unit, AAHL, CSIRO.



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Sveriges lantbruksuniversitet
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Disease Vector Group



MIDGE-TRAP

protecting farmers and their livestock from biting midges



We conduct field experiments to develop new ways to catch midges on farms

Why are biting midges a problem?

Biting midges need protein from animal or human blood to produce eggs.

By blood feeding, midges transmit diseases to livestock. These include **Bluetongue** and **Schmallenburg disease**, which make animals sick and cause economic losses on farms.

Midge biting also causes pain and distress in both animals and people. It can also lead to serious allergic reactions ('**sweet itch**' in horses).

Our research

We research new ways to protect against midges. Available **insect traps** are expensive and do not catch all midges. Current **insect repellents** designed for people do not work well on animals.

“We study how natural farm yard odours can be used to attract and repel biting midges”

A new generation of midge trap

We identify animal odours which attract midges. We then use these chemicals to lure midges to traps, and away from livestock.

Repellants designed for livestock

We are also looking for natural odours which repel biting midges. We can use these chemicals to prevent midges blood feeding on animals.



We aim to improve the health of livestock by protecting animals from biting midges

We need your help

The farm yard is the best place to find odours to protect against midges

Biting midges use odours from livestock to find animals on which to feed, and places nearby to lay their eggs.

We need your permission to allow us to collect these odours

This includes smells released naturally from farm animals. The odour collection process is completely safe and painless.

We also need a place to test new methods for midge control

Farms are ideal testing sites, as this is where this new technology will have the greatest benefit.