

# Horse owners can manage flies with wasps instead of pesticides

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A female parasitoid wasp, *Muscidifurax raptorellus*, inserting an egg into a fly puparium. When the egg hatches, the wasp larva will eat the fly pupa. Credit: Lyle Buss, University of Florida.

Horses need help when it comes to insect pests like flies. But,

unfortunately, horse owners are in the dark about how best to manage flies because research just hasn't been done, according to a new overview of equine fly management in the latest issue of the *Journal of Integrated Pest Management*, an open-access journal that is written for farmers, ranchers, and extension professionals.

One fly-management method that is gaining ground is the use of [wasps](#) that are parasitoids of fly pupae. The female wasp inserts an eggs into the fly puparium, and when the egg hatches, the wasp larva eats the fly pupa.

The authors conducted research on two [wasp species](#) that are sold commercially to see what type of [manure](#) they preferred.

"In the lab, we found that the *Muscidifurax* [species](#) we tested preferred bovine manure, and the *Spalangia* species preferred equine manure, so there seems to be some sort of differentiation there, which could impact control on a farm," said Erika Machtinger, one of the authors.

Because of this preference, according to the authors, the ability to identify fly species is important so the correct wasp parasitoid can be used. The authors also provide other advice regarding when the wasps should be released, how often they should be released, and how many should be released.

"This is a really good article, and very useful in pointing out some directions, and things that need to be addressed," said University of Kentucky extension entomologist Lee Townsend, who was not involved with the study. "The importance is high because people are looking for effective fly control. But they're also looking for sustainable ways to do that, particularly those that avoid excessive insecticide use."



House fly pupae with exit holes made by emerging wasp larvae. Credit: Entomological Society of America

**More information:** "Use of Pupal Parasitoids as Biological Control Agents of Filth Flies on Equine Facilities,"

[jipm.oxfordjournals.org/content/6/1/16](http://jipm.oxfordjournals.org/content/6/1/16)

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