

College of Natural Resources and the Environment

University of Massachusetts Amherst

Competitive Agricultural Systems in a Global Economy

Regulation of Feeding and Mating Behavior in the Blowfly, *Phormia regina*, and the House Fly, *Musca Domestica*

Issue

It has been projected that the poultry industry spends \$20 million dollars/year on fly control while the dairy industry has losses of \$100 million annually due to house fly control. One of the major problems concerning fly control in either industry is the development of resistance by house flies to conventional pesticides. Thus, to achieve control, farmers must not only use more pesticides but, many of these may not be effective control chemicals. The house fly is resistant to most pesticides and alternate strategies of control are essential.

What has been done?

Non-pesticidal control is not only appealing but essential. Many agricultural pests, which are flies, are not

attracted to baits like the house fly is. This permits the addition of non-pesticidal materials into its food. Using non-peptidal mimics, like benzethonium chloride, our goal is to interfere with both feeding and crop emptying

Impact

Distruption of these two events will lead to death of the fly. Benzethonium chloride is an inexpensive material compared to a conventional pesticide. Thus, if effective, it will be more than cost effective for farmers.

Primary impact area(s)

- Research
- Education
- Extension

Funding sources

- Hatch Act

Topics

- Integrated Pest Management

Contacts

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