A SURVEY OF PEST MANAGEMENT PRACTICES ON WASHINGTON STATE DAIRY FARMS

PNASH Project 2011-2016
Michael Yost, UW, Principal Investigator
Kit Galvin, UW, PNASH
kgalvin@uw.edu, (206) 616-5850
Holly Ferguson, WSU
hferguson@wsu.edu, (509) 786-9364

In 2014-2016, UW researchers in partnership with WSU Extension Integrated Pest Management (IPM) experts used results from this survey to engage dairies in using alternative IPM strategies. This team of dedicated scientists is working to determine the effectiveness of various IPM strategies in managing flies and reducing exposure to pyrethroid insecticides.

SURVEY RESULTS

The presence of flies/parasites on cows was the number one reason respondents treat for pests.

- 92% of conventional dairy respondents reported using chemical treatment, such as pyrethroid and organophosphate insecticides, for flies on animals and/or premises.
- 2% of conventional dairy respondents said they treat for all flies daily to weekly. An additional 40% said they treat at least biweekly or monthly.
- 46% of respondents spent $1-$5 per cow on pest/parasite treatment in 2012, while 24% spent up to $10 per cow.
- 46% of respondents spent $100-$500 in 2012 on premises treatments; 36% reported spending over $500.

The top four pest management information sources cited by respondents were: personal experience, veterinarians, other producers, and chemical companies.
REDUCING PYRETHROID USE AND EXPOSURE WITH ALTERNATIVE IPM STRATEGIES

What is Integrated Pest Management (IPM)? "IPM is an effective and environmentally sensitive approach to pest management...used to control pest damage by the most economical means, and with the least possible hazard to people, property, and the environment." – US EPA

WHY REDUCE PYRETHROID INSECTICIDE USE?

- Potential for health hazards for humans and animals. Human exposure can result in abnormal facial sensations, dizziness, nausea, and loss of appetite. Residue on work clothing may also cause family exposure.
- Potential for flies and other insects to develop resistance to pyrethroid insecticides, resulting in increased use and/or use of higher-risk insecticides.
- Increased use of insecticides means higher costs for dairy managers.
- Potential harm to the environment including decreased groundwater quality and disruption of non-target beneficial insects and spiders.

HOW CAN IPM BENEFIT MY DAIRY?

- Improved management of pests and reduced pyrethroid insecticide use.
- Reduced potential for
  - pest resistance to insecticides
  - exposure and health risks to workers and animals
- Increased economic gain due to potential reduction in pest control costs.

HOW ARE WA DAIRY FARMERS USING IPM?

In our survey, conventional dairy respondents reported using various IPM strategies to manage flies, including:

- Cultural control with proper manure management (78%), general sanitation (64%), and cleaning feed alleys daily (58%)
- Biological control with wasp parasites (19%)
- Physical controls such as fans, ventilation and screening


Photo Credit: Holly Ferguson, WSU

PLEASE CONTACT US WITH YOUR FEEDBACK & QUESTIONS AT ANY TIME.

PACIFIC NORTHWEST AGRICULTURAL SAFETY AND HEALTH CENTER
University of Washington Box 357234 Seattle, WA 98195-3055 (800) 330-0827, pnash@uw.edu

deohs.washington.edu/pnash, pnash@uw.edu

Fundied by CDC/NIOSH Cooperative Agreement # U54 OH007544

Rev.11/15