

The Vetting Team's 2017 Phorid Fly Data Collection and Findings

The Vetting Team was chartered by the Harrogate Executive Board to develop factual data to help us understand how to best deal with our Phorid fly problem. The Vetting Team consists of Bill Ferguson, Susan Herr, Hank Lloyd, Joe Miscione, Pete Mrozinski and Dennis Shiley. During the 2017 Phorid fly season, the Vetting team invested hundreds of hours and developed a much improved understanding of our problem.

What was done:

1. Over 200 mulch, soil and turf samples were collected within the community and tested in emergence vessels.
2. Daily indoor fly counts were tracked within a dozen homes using FlyWeb Fly Lights.
3. Six day fly counts were made monthly in twenty locations throughout the community using large sticky cards.
4. Continuous outdoor fly counts were taken at three locations to supplement the six day outdoor fly counts. Two were within the community and one was near the intersection of Limestone and Southwood Roads.
5. Thirteen homes were treated with Bifenthrin and twelve homes served as controls.
6. Residents of low and high infestation houses were interviewed.

Key findings from the research:

1. No Phorid fly eggs or larva were found in any of the 200 mulch, soil and turf samples.
2. Fly counts within the homes roughly doubled each month from May through October, and then fell off with the advent of colder weather. Fly counts varied widely from day to day.
3. Total fly counts at the twenty outdoor locations increased dramatically over the four months, closely tracking the increases observed indoors. Outdoor fly counts decrease with distance from the mushroom houses to our East, indicating that the mushroom houses to our East are the most likely source of our fly problem.
4. Low outdoor counts near the intersection of Limestone and Southwood Roads indicate that the mushroom houses at that location are not a significant source of our flies.
5. Test results showed that Biphenthrin does not provide good Phorid fly control, but may be of some limited benefit in especially high count homes. The same result was found for several Phorid fly repellants (Cedercide PCO and Essentria IC3). These may provide some reduction in fly counts.
6. Homeowner interviews showed no obvious differences between high and low count homes.

Team Observations:

1. There is a wide variation in what residents perceive as an "infestation."
2. Open doors and windows in our homes contribute to high fly counts.
3. A vacant home (when residents are away) generally means low fly counts.
4. The flies probably infiltrate our homes more than realized.

Conclusions:

The Vetting Team's methodical work has produced indisputable conclusions. Phorid flies are not breeding within Harrogate. They are coming from the mushroom houses to the East. There are higher outdoor and indoor counts at homes closer to the mushroom farms. There is also a direct correlation between the mushroom house operation stages and winds coming from the direction of the mushroom houses. On multiple days the fly counts spiked when the growing doors at the mushroom houses were open and the wind direction within Harrogate was coming from the East, Northeast or Southeast.

The Board has drafted the following policy for residents to follow in trying to mitigate the fly infestation within their homes.

- FlyWeb Fly lights or zappers are the best available technology for eliminating the flies in the house
- Homeowners can spray or have a contractor spray the outside of their homes. Nothing at this point has been found to completely eliminate the flies, but it may diminish the number.
- Spraying can only be done to the house. No spraying will be allowed on the grassy area surrounding the home.
- Nothing can be sprayed in the bio-basins on any of the plants materials or mulched areas. We must be good stewards of our environment and take into account the potential health and environmental consequences of spraying insecticides and repellants within the storm water management system.

A copy of the Vetting Team's presentation is on the Harrogate web site under *Document Library* for those who were not able to attend the November 15th meeting at the Clubhouse. Click on *Town Hall Meeting Information*. The presentation is listed as *Community Presentation from Vetting Team – Nov 16, 2017*.