

Examining the Efficacy of PMP Residential Mosquito Treatments - Thuy-Vi Nguyen

- A. Preliminary data
- B. Mosquito control efficacy
 - 1. Non-residential barrier spray
 - a) Methods
 - (1) 2 treatment areas
 - (2) One control
 - (3) Pyrethroid
 - b) Two pretreatment sampling times
 - c) Weekly post-treatment sampling with a vacuuming device
 - (1) Aug -Nov 2014
 - (2) Second study ongoing to look at vacuuming device vs CDC traps
 - (3) Used sampling protocol
 - (a) 1 minute for a small bush
 - (b) All vegetation gets sampled
 - d) Results
 - (1) First two weeks - no mosquitoes caught after treatment
 - (2) Numbers remained lower in treatment vs control sites
 - (3) All mosquitoes were *Ae albopictus*
 - 2. Bioassay cage study
 - a) Cut foliage - treated with pyrethroids
 - b) Control cage
 - c) Still being analyzed
 - d) High mortality seen in the first few weeks in treated cages
 - 3. Residential control study
 - a) 9 houses - 3 per treatment
 - b) Similar time period
 - c) 4 pretreatment collections
 - d) Some homes never had any mosquitoes
 - e) Species
 - (1) *Ae albopictus*
 - (2) *Cx restuans*
 - (3) *Cx quinquefasciatus*
- C. Shadowing PMPs - preliminary data
 - 1. 2 different Georgia cities
 - 2. 2 different companies
 - 3. Treated once a month
 - 4. Controls were found by asking permission of homeowners
 - a) Wanted service
 - b) Thought they had mosquitoes
 - c) In same neighborhood
 - 5. Company A
 - a) Treated houses had no catches
 - b) 6 of nine control houses had mosquitoes
 - 6. Company B
 - a) 2 techs doing service
 - b) Efficacy varied between the two techs
- D. Summary
 - 1. Don't know impact of residual in the field
 - 2. Did see good reduction initially and continued low numbers for several weeks
 - 3. Not all control homes had a mosquito problem

- a) Where mosquitoes are found they are consistently found
- b) Where no mosquitoes are found they are not consistently found