



# University of Minnesota Bee and Pollinator Research Lab



# Why start the Bee Squad? increasing public concern for bees + popularity of beekeeping on the rise = Opportunity to educate the public and help beekeepers

































### Powdered Sugar Roll Test Kits for backyard beekeepers

















# The Parasitic Mite, Varroa destructor and Virus complex

### Varroa:

- reduces the lifespan of adult bees
- compromises bees immune systems
- can lead to colony collapse in late fall, early winter

### Viruses:

- compromises bees immune systems
- Increases bees susceptibility to other diseases and pesticides
- can lead to colony collapse at any time of year



UNIVERSITY OF MINNESOTA Driven to Discover<sup>544</sup>



How you manage your varroa populations can impact the honey bee colonies in your area.

Honey bee colonies collapsing from mite infestation can be a source of mites transferring to healthy colonies.

# **Horizontal Transmission**

If beekeepers allow colonies to have lots of mites....



Sick bees with mites and viruses abandon colony and enter other colonies



In areas densely populated with bees and beekeepers, your *Varroa*–virus problem can become everyone's problem within 1+ mile of you





























# Bee Squad Support



UMN Bee Squad work was supported initially by Dr. Marla Spivak's MacArthur Fellowship and now receives funding from UMN Extension, customer generated revenue and private donors as well as grants from: Wells Fargo, the Healthy Foods Healthy Lives Institute, UMN Institute for Advanced Study, the Metropolitan Regional Arts Council, the Minnehaha Creek Watershed District, UMN Consortium on Law and Values in Health, Environment and the Life Sciences, UMN GPS Alliance, the Mortenson Family Foundation and the Eva Crane Trust



