

Mite Sampling Methods

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Lucas Hietala, Alan Windham and Frank Hale

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Detection, extraction, and collection of eriophyoid mites

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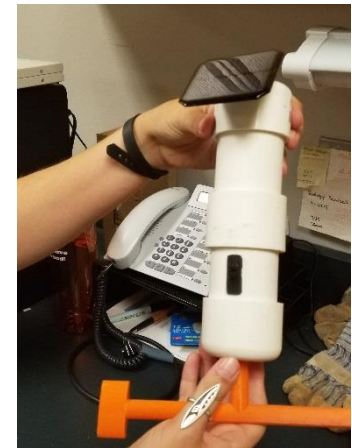
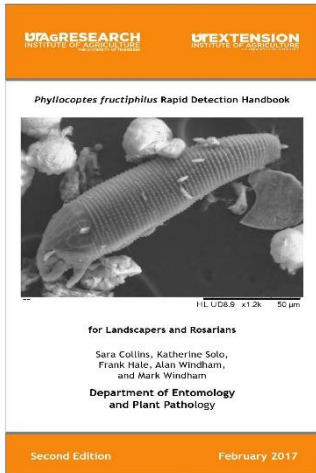
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Abstract

Methods for routine detection, collection and extraction of eriophyoid mites and their eggs are described. They allow for the collection of numerous mites from complex plant structures and from low-density populations spread on large plant surfaces. Washing parts of infested plants with a solution containing bleach and detergent easily removes live and dead eriophyoids. These mites can be concentrated by sieving through fine mesh screens or centrifugation and subsequently managed for many purposes (*i.e.* rearing, host-specificity bioassays or field release, slide preparation, mite surveys, estimation of mite population size, etc.).

Key words: Acari; live specimens; monitoring; host-specificity bioassays; mite release; taxonomy; Eriophyoidea

Taking the guess work out of when to spray



\$90 Mite Detection Kit

Mite Collector

Mite Kit

- Seems easy to use (to us); not been as easy for homeowners.
- Finding mites with scope appears harder than we anticipated.
- Would small dissecting scope be better than cheaper compound scope – would raise the price.

Mite Collector

The Good:

- Mite collectors work! Allows you to know when mites are ballooning.

The Bad:

- Collects small flies and thrips – can be hard to find mites
- Mites may be oriented to make ID difficult
- Mite counting takes a lot of time per slide

Future work:

- Need image analyzer to count mites on slides
- Working on screening for slides to prevent larger insects from impacting slides