Redberry Mites
Detection and Collection

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Detection

• Where are they before they get to the fruit?
• How do we trap and collect them?
On the Canes

Primocane

• Found in lower 20% of cane length within leaf axils and buds

Fructocane

• Found in upper 20% of cane in bracts
• Lower 20% within leaf axils and buds

Davies et al., 2001
Trapping Techniques

• Sticky tape method – secure adhesive along the cane to trap mites

• Water Trap – a shallow metal pan with water and dish soap, 6” off the ground
### Sticky Tape Method

<table>
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<tr>
<th>Pros</th>
<th>Cons</th>
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<tr>
<td>• Detects movement along the canes</td>
<td>• Moisture can reduce stickiness</td>
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<tr>
<td>• Determine distribution</td>
<td>• Adhesive can collect debris</td>
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<tr>
<td>• Population density</td>
<td>• Not suitable for photos</td>
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# Water Trap

**Pros**

- Detects aerial movement
- Suitable when live specimen are needed

**Cons**

- Does not detect movement towards buds/fruit
- Special care to extract from H₂O
Filtering Equipment

- Filter through a fine mesh sieve
- Rinse residue collected into a dish
- Sort and collect
A – Shaped micropins
B – An eyelash secured with nail polish (left) and short minute pin secured with epoxy (right)
C - eyebrow hair (left), micropin (center) and bent pin (right) inserted into the narrow end of a micropipette and secured by a toothpick inserted from the other end

(de Lillo et al., 2010)
Difficult to Document

*Aceria anthocoptes*

Illustration by Karin Ling

*Acalitus essigi*

Ochoa et al., 2001
More work to do

- Time consuming
- Difficult to see and handle
- Special equipment to see ID characters

However...

- Collection tools are simple and inexpensive
- Experiment with digital photos
Resources:

- Eriophyoid Mites: Progress and Prognosis
- Ohio State University Acarology Summer Program