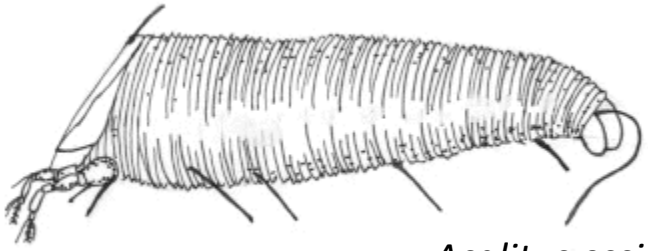
Are Primocane Fruiting Blackberries More Resistant to Redberry Mites than Floricane Types?

Maria E. Murrietta
UC Cooperative Extension
San Luis Obispo County

University of California
Agriculture and Natural Resources

Redberry Mite

- Family of very small mites
- Feeds between drupelets
- Interferes with ripening = uneven coloration



Acalitus essigi

Illustration by Karin Ling

Initial Sampling – Sept/Oct 2014

- Ouachita and Prime Ark 45
- Collected 5 canes from 5 rows
- Removed and examined subsamples of fruit and vegetative buds
- Recorded presence/absence

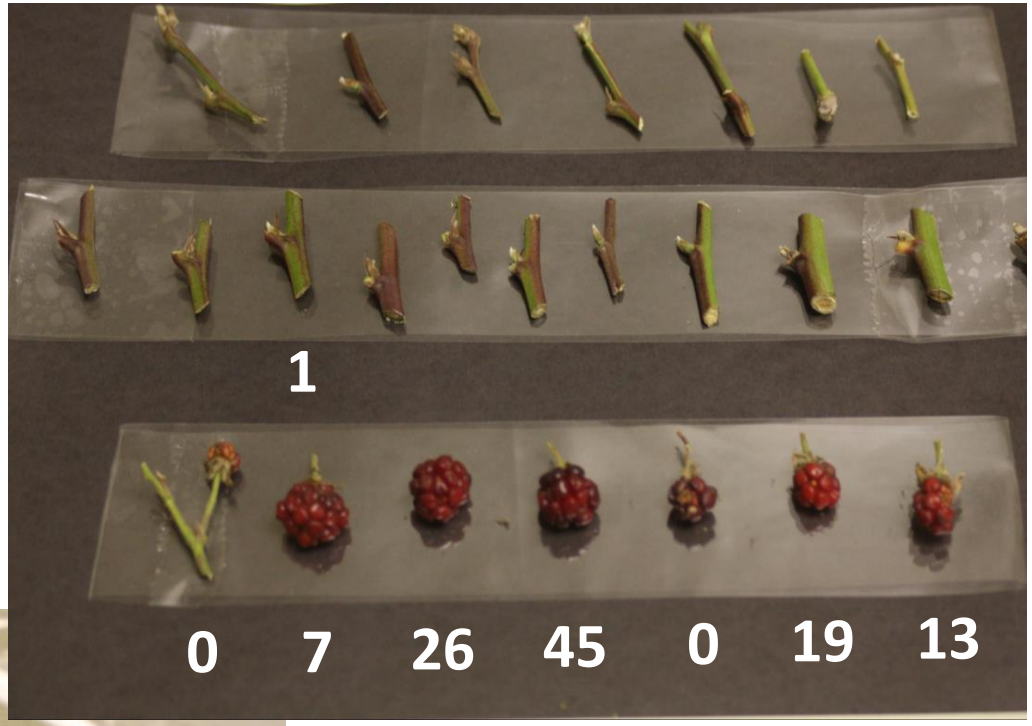
Results – Sept/Oct 2014

- Ouachita
  - Present in 100% of samples
- Prime Ark 45
  - Absent in 100% samples

Sampling – Nov 2014

- 5 canes from 5 rows
- Tape capture method
- One sheet per subsample
- Emergence
  - 2 weeks for fruit
  - 2 months for buds

Housed in bug tent



Emergence

Results – Nov 2014

Ouachita

- 32 vegetative buds
  - 3% presence
  - Avg 1 mite
- 19 fruit/flowers
  - 53% presence
  - Avg 12 mites

Prime Ark 45

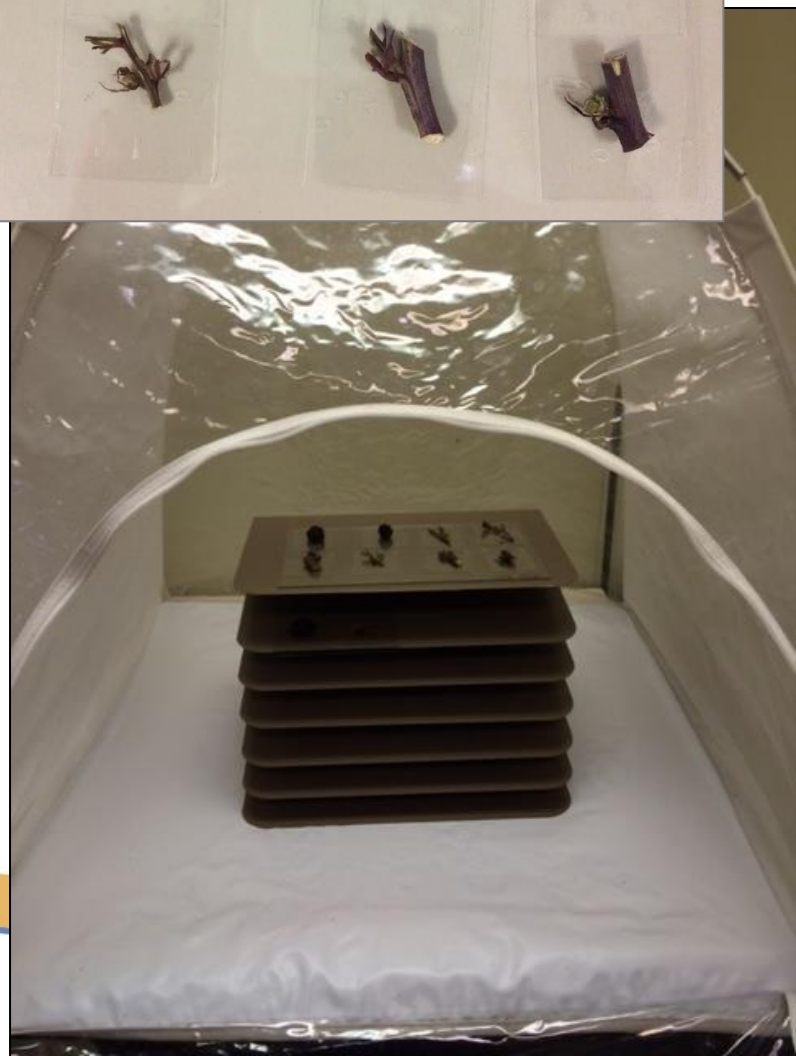
- 24 vegetative buds
  - 16% presence
  - Avg 6 mites
- 33 fruit/flowers
  - 6% presence
  - Avg 7.5 mites

Current Sampling

- 2 fields
- Sample monthly
- Tape capture method - revised
- Follow population through the year

Tape Capture Method

- Material taped to glass panel
- Metal shelf
- Housed in bug tents
- Dry for a week or more
- Examine for RBM



Tape Capture Method

Benefits

- Population density
- Determine distribution among canes
- Photos

Limitations

- Vegetative material is slow to dry
- Mites reluctant to exit vegetative material

Management Practices

Primocane Fruiting

- Cutting back canes interrupts the lifecycle of RBM
- Present but minimal
- Minimal damage

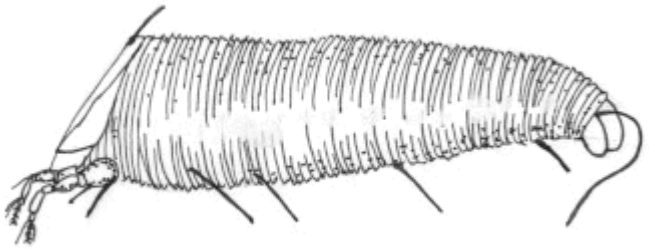
Floricane Fruiting

- Canes not cut back = a continuous source of food and shelter
- Populations build up
- Significant damage

Questions Remain

- When is RBM most susceptible to control measures?
  - Better understanding of biology and behavior

- Would predatory mites be a viable tool?
  - Two surveys confirm the presence of predatory mites



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