

A proprietary 3<sup>rd</sup> party research company conducted the research.

## BioWorks Products Included in Trial

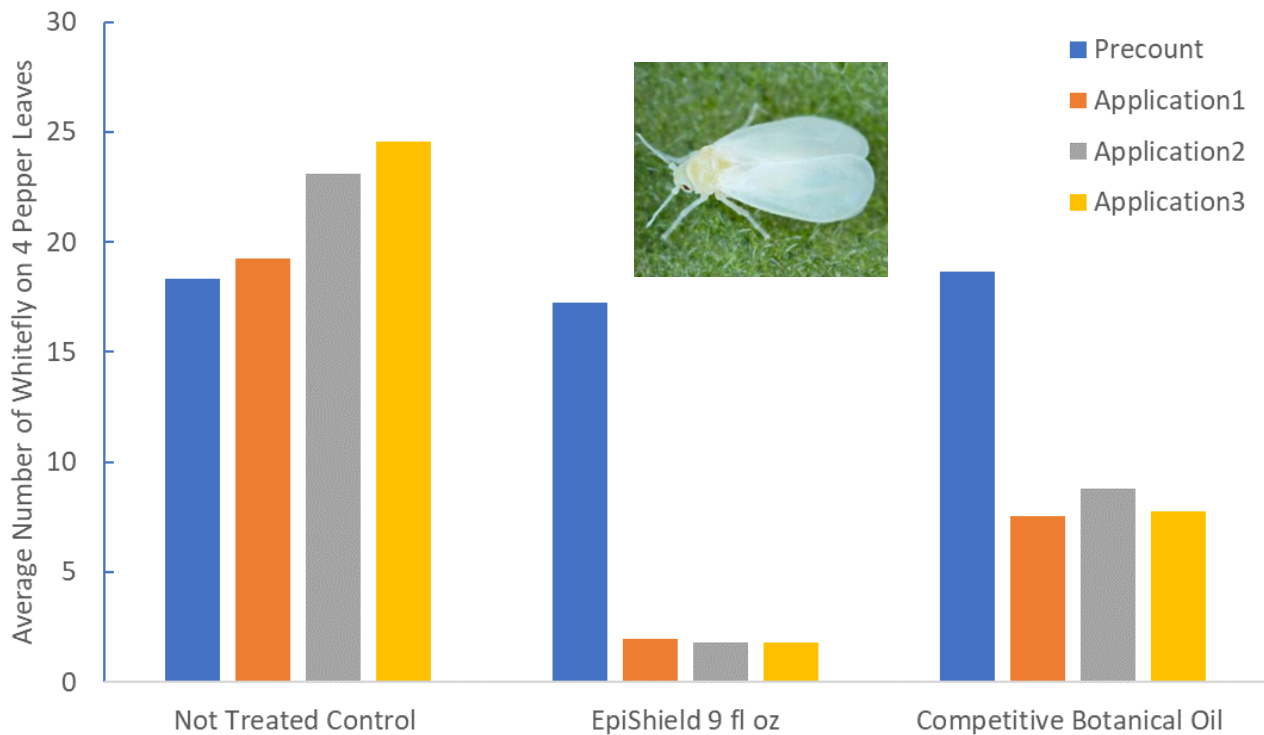
EpiShield™

### Summary:

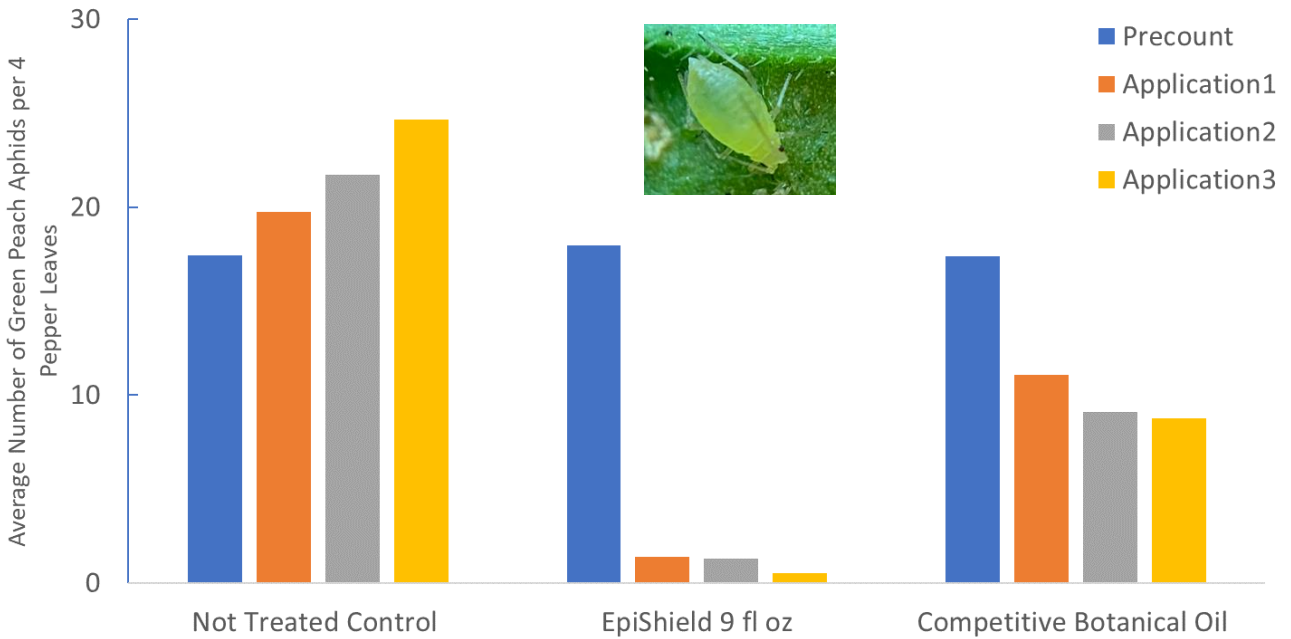
EpiShield controlled whiteflies, aphids, mites, and thrips on greenhouse grown bell peppers.

Treatment	Rate/100 Gallons
Untreated Check	-
Competitive Oil	64 fl oz
EpiShield	9 fl oz

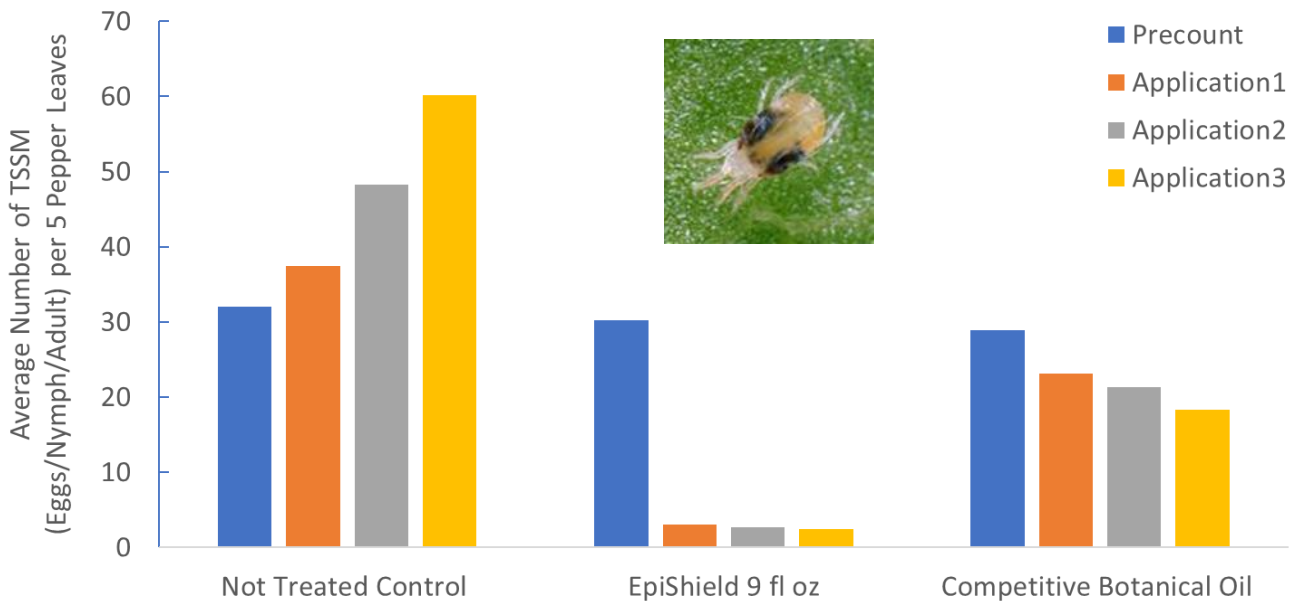
Method Summary	
Crop	Bell pepper (Bloodshot)
Location	Greenhouse
Pest	Greenhouse whitefly ( <i>Trialeurodes vaporariorum</i> ) Green peach aphids ( <i>Myzus persicae</i> ) Twospotted spider mites ( <i>Tetranychus urticae</i> ) Western flower thrips ( <i>Frankliniella occidentalis</i> )
Trial Design	Randomized complete block
Application Method	Foliar Spray



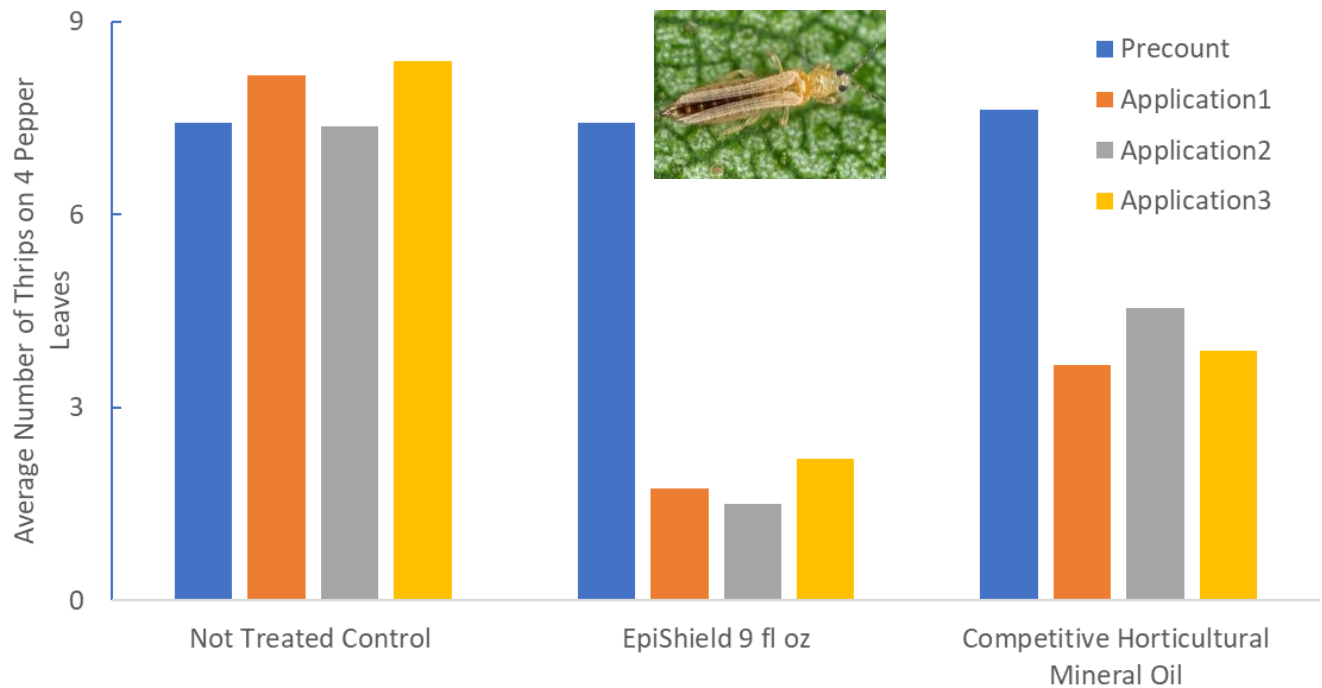
Average number of greenhouse whitefly per 4 leaves. Three applications were made three days apart, data recorded one day after treatment (December 11, 13, & 16 2021). EpiShield at 9 fl oz caused an 89.4% reduction and a competitive oil product caused a 48% reduction of greenhouse whiteflies after 3 applications.



Average number of green peach aphids per 4 leaves. Three applications were made three days apart, data recorded one day after treatment (October 14, 17, & 20 2021). EpiShield at 9 fl oz caused a 96.9% reduction and a competitive oil product caused a 49.7% reduction of green peach aphids after 3 applications.



Average number of twospotted spider mites. Three applications were made three days apart, data recorded one day after treatment (October 22, 25, & 28 2021). EpiShield at 9 fl oz caused an 89.2% reduction and a competitive oil product caused a 16.3% reduction of twospotted spider mites after 3 applications.



Average number of western flower thrips per 4 leaves. Three applications were made three days apart, data recorded one day after treatment (December 6, 11, & 16 2021). EpiShield at 9 fl oz caused a 69% reduction and a competitive oil product caused a 49.3% reduction of western flower thrips after 3 applications.

## Result Summary

- EpiShield (15% peppermint oil, 10% clove oil & 3% sodium lauryl sulfate) significantly reduced whitefly, aphids, mites and thrips after three applications.
- EpiShield did not cause plant phytotoxicity during the study.

## Recommendations from Data

- Apply EpiShield at 0.07% (9 fl oz/100 gallons) for control of arthropods.
- Apply EpiShield as a fine spray to full coverage but not the point of run off.
- EpiShield is ideal for integrated pest programs against damaging arthropod pests.