

Behaviorally-Based Attract and Kill Systems for Spotted Wing Drosophila



Leskey Laboratory

USDA ARS

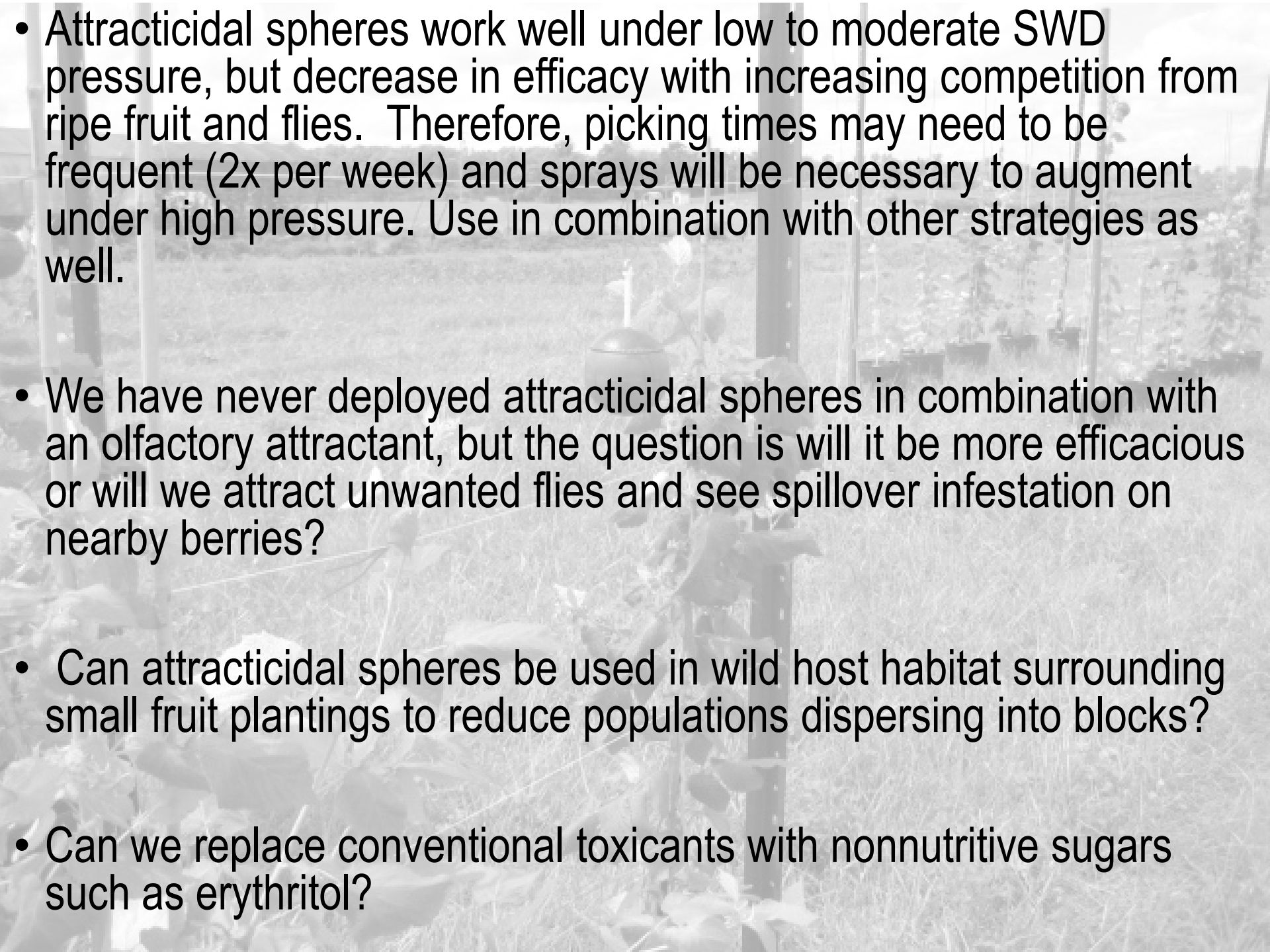
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What We Have Learned So Far



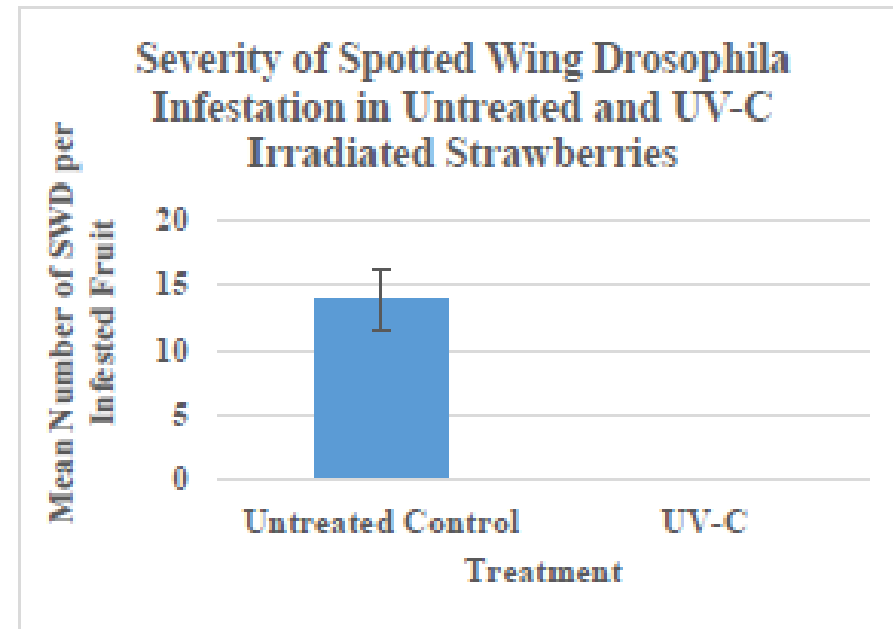
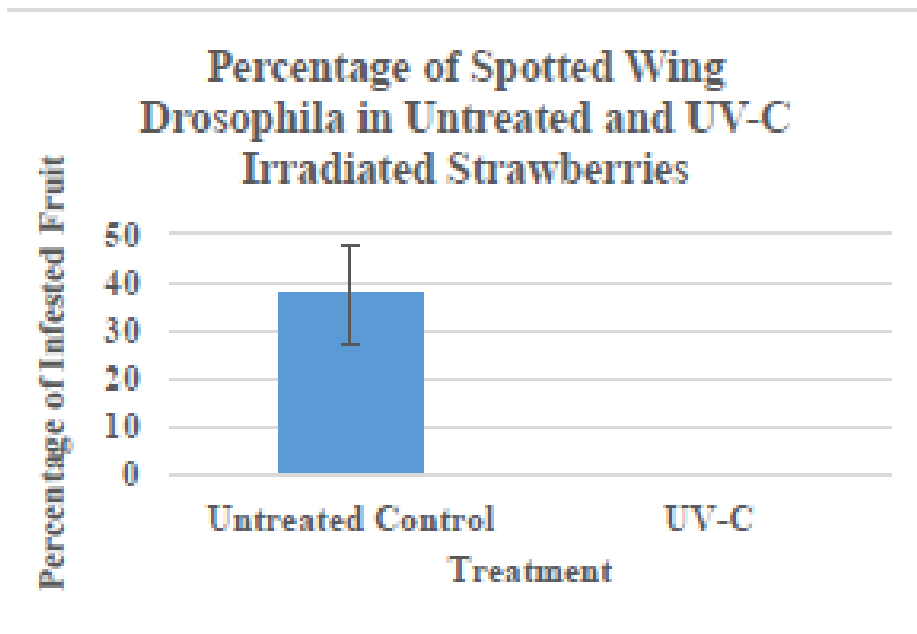
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- Attracticidal spheres work well under low to moderate SWD pressure, but decrease in efficacy with increasing competition from ripe fruit and flies. Therefore, picking times may need to be frequent (2x per week) and sprays will be necessary to augment under high pressure. Use in combination with other strategies as well.
 - We have never deployed attracticidal spheres in combination with an olfactory attractant, but the question is will it be more efficacious or will we attract unwanted flies and see spillover infestation on nearby berries?
 - Can attracticidal spheres be used in wild host habitat surrounding small fruit plantings to reduce populations dispersing into blocks?
 - Can we replace conventional toxicants with nonnutritive sugars such as erythritol?

Using UV-C Light To Manage SWD and other Pests in Greenhouses and High Tunnels



Mobile
UV-C
Platform

Preliminary results with UV-C Against SWD on Strawberry in Phytotron Greenhouses



- Based on releasing 40 gravid females/plant with treatment plants irradiated with UV-C for 15 seconds 2x per minute or with untreated plants over a 24h period.