

Managing apple maggot fly with GF-120 and baited red sphere traps

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The Problem

For a variety of reasons, some growers prefer not or are not allowed to use Imidan/phosmet for summer apple maggot fly control.

Alternative materials have been less than satisfactory under the high population pressure in some of these orchards, and/or are expensive and require frequent re-treatment

Two grower/consultant conversations showing the consultant in a less-than favorable light...

Grower 1) “Why don’t you people use GF120 for apple maggot fly the way they use it for cherry fruit fly in Washington?”

Consultant: “I don’t know... what is GF120 anyway?”

Grower 2) “What if I add sugar to the Assail the way people do with SWD, will that help?”

Consultant: “uh... dunno... worth a try, I guess...”

GF-120

Developed for mediterranean fruit fly control by USDA-ARS in California

Combines feeding stimulants (molasses, ammonium carbonate, etc.) & spinosad insecticide

Found to provide good control of cherry fruit fly in western orchards

OMRI approved, sold by Dow

East Coast experience using GF-120
for apple maggot control has been
less favorable

Different response of apple maggot to
ammonium carbonate feeding stimulant?

Longer period where control is needed

Rain – material is NOT rain fast

So... what if we used the material in conjunction with baited red sphere traps, would that overcome the problem?

A molasses-covered red ball trap...

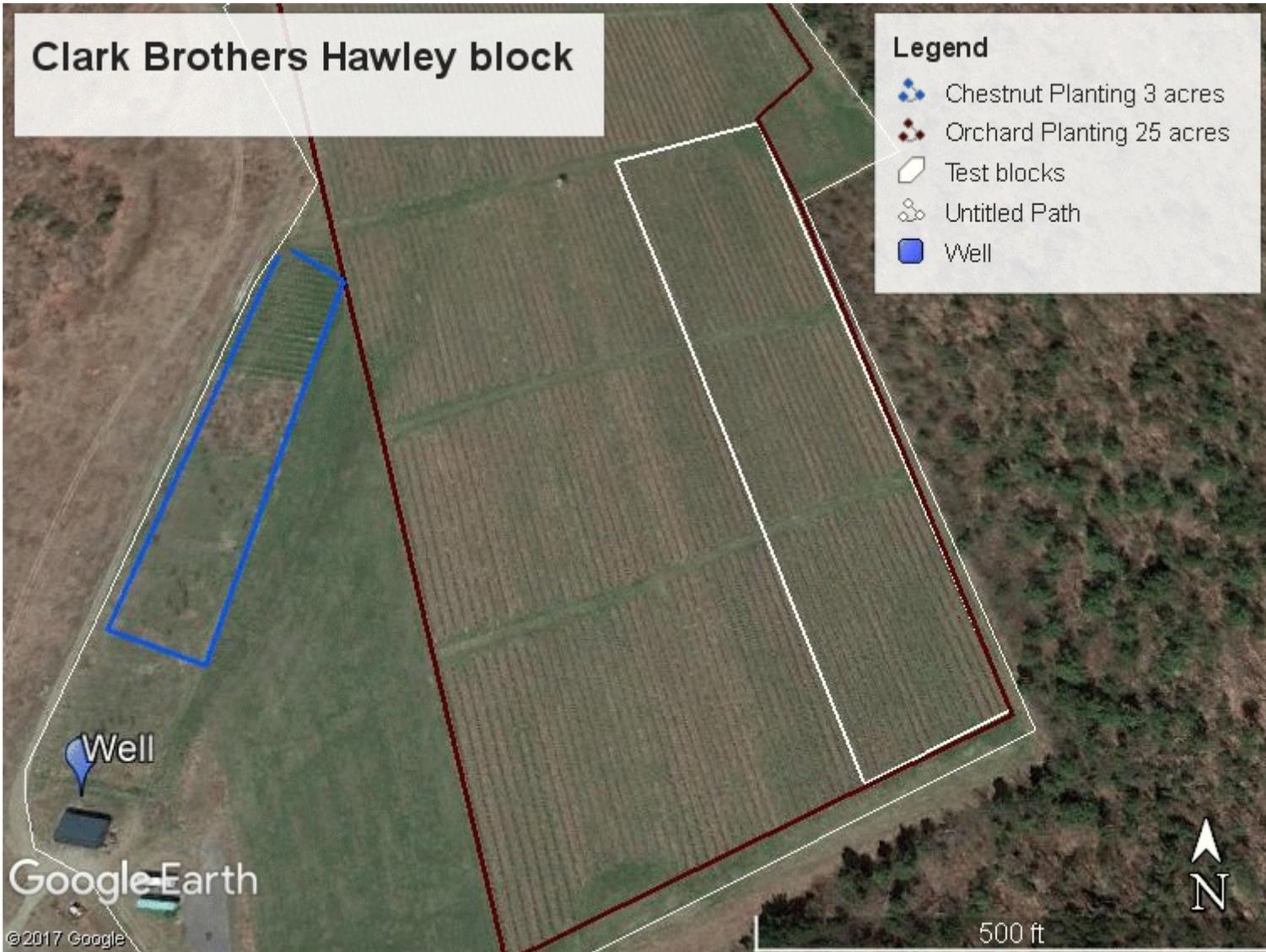
Kind of a Viscous Circle



Clark Brothers Hawley block

Legend

-  Chestnut Planting 3 acres
-  Orchard Planting 25 acres
-  Test blocks
-  Untitled Path
-  Well



Google Earth

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500 ft

RESULTS

Frequent rains necessitated frequent re-application of material(!)

Overall apple maggot population was very low in the study blocks this year

No apply maggot injury in 100 fruit sampled per week in any block.

Interior trap captures averaged $\ll 1$ per trap all season

Exterior baited sticky traps also had low numbers of flies

Conclusion: ... Well, it didn't NOT work...

Future considerations:

Back up and do basic behavioral work – how do AMF respond to the GF-120 treated traps?

Crucial to increase the longevity of the material on both traps and foliage – dome over trap? Sticker adjuvant? Pray for dry weather?

Potential for using in conjunction with other management tactics, such as insecticides directed against other summer insects.

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