



Integrated Pest Management Farm Demonstration Project – SWD Exclusion Netting

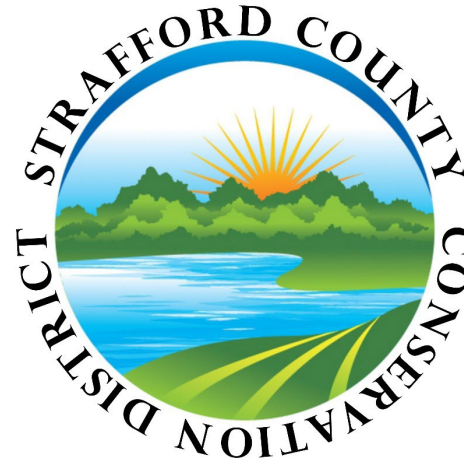


Keith Brodeur – Bascom Road Blueberry Farm
Andre Cantelmo – Heron Pond Farm
Jeremy DeLisle – UNH Extension
Chip Donnelly – Stark Farm

This project was a collaborative effort between ag service providers in New Hampshire.



CHESHIRE COUNTY
CONSERVATION DISTRICT



Extension



United States Department of Agriculture

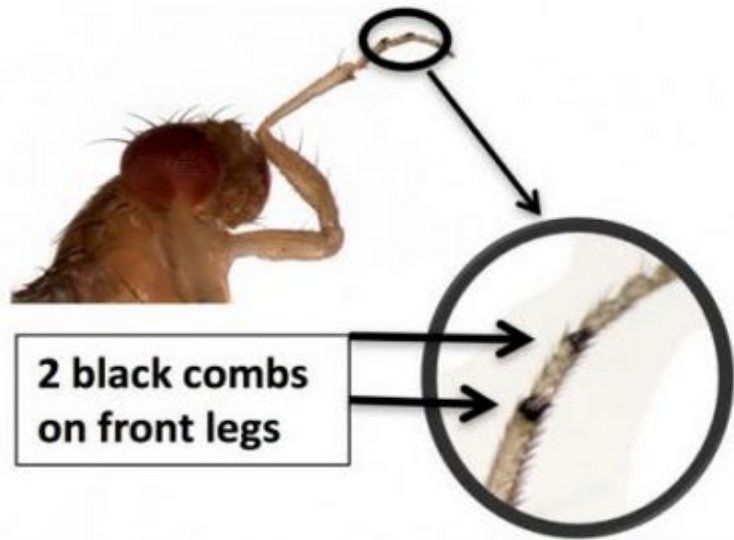
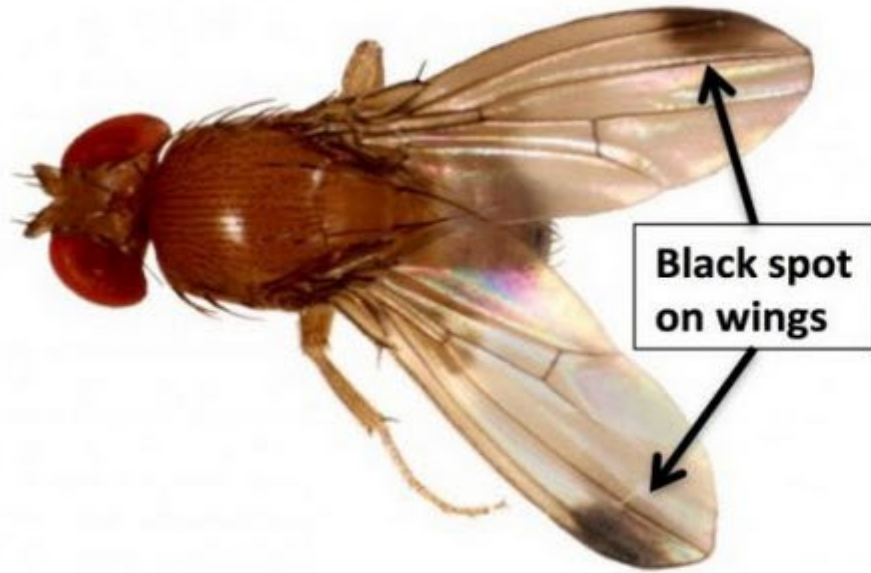
Natural Resources Conservation Service



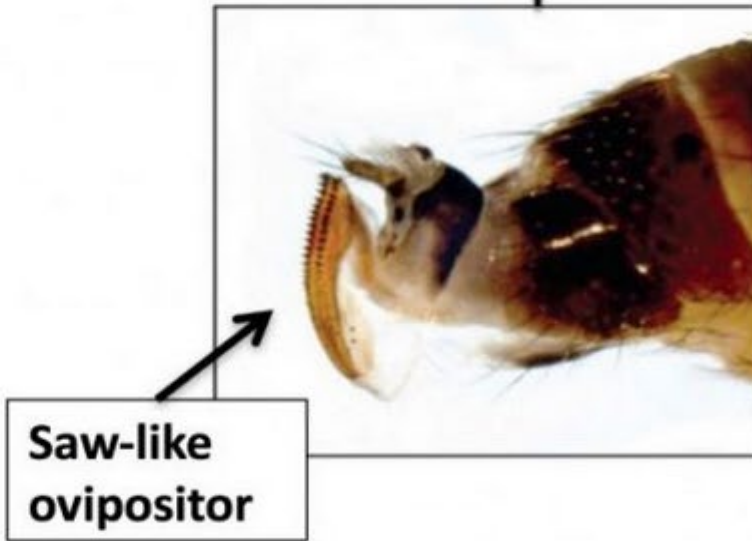
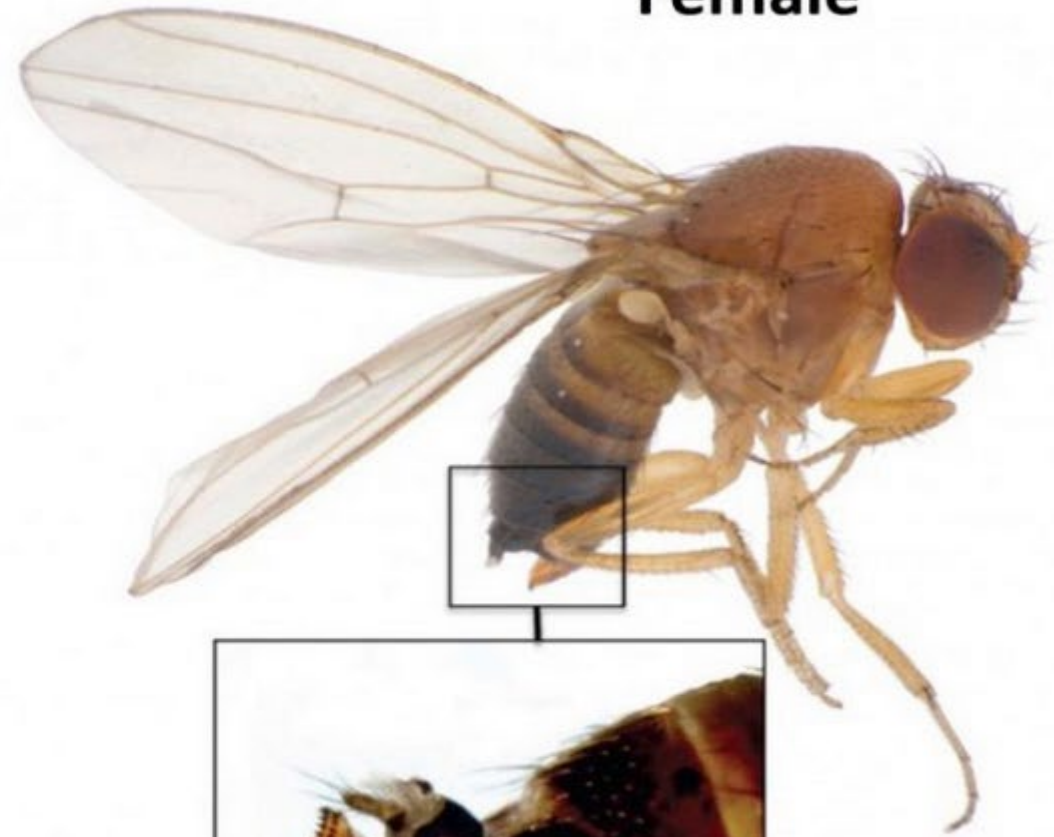
SWD Exclusion Netting Project Goals

- Explore the practicality of new installations versus retrofitting existing structures
- Better understand economics of installations
- Monitor efficacy of SWD exclusion netting, along with suitability within whole farm systems, on partnering farms in New Hampshire.

Male



Female



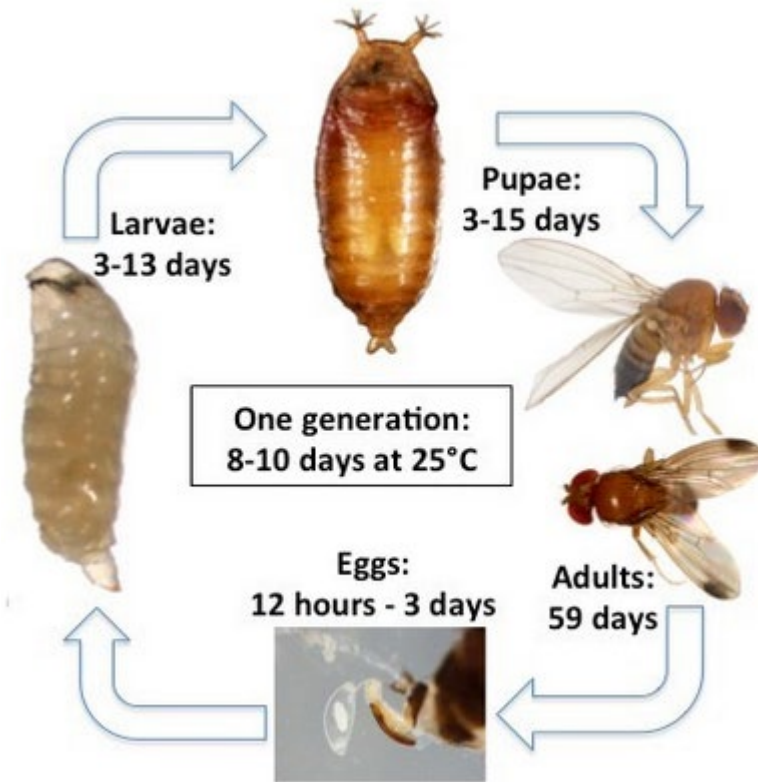


Photo Source: Souther Region Small Fruits Consortium



Bascom Road Blueberry Farm Experience

Background: Installed 2021, retrofitted bird netting structure

- Increased temperature and humidity under netting:
 - Has led to increased anthracnose pressure
 - Some customer complaint during the hottest part of the day
 - Pushed ripening of our varieties 7-10 days earlier
- Positive marketing experience with customers but also increase in education on zippered vestibule entrance to preserve integrity of the netting
- Zero trapped SWD in 4 seasons





Grommets

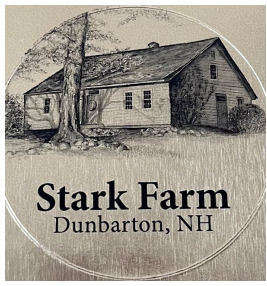
Sewn in to reinforced fabric strips and clipped, hooked and hog-ringed to wire to prevent lifting of netting in high winds.





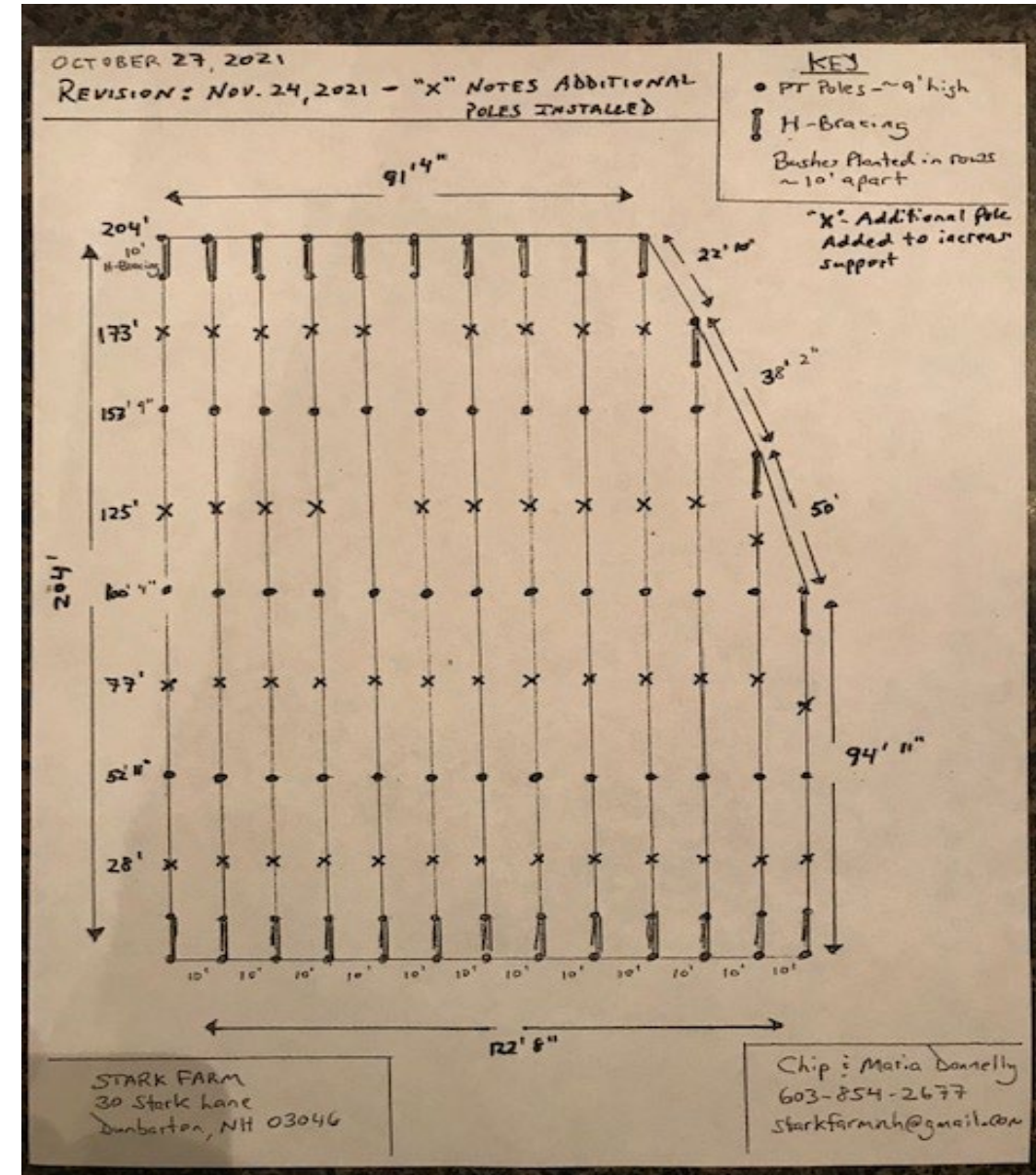






Stark Farm SWD Netting Retrofit

Retrofitted existing Smart Net Bird Netting system in 2022





Lessons Learned



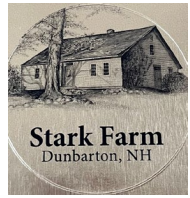
Constructed 10' x 10' Double Entrance



**Perimeter board entire field
with channel lock and wiggle
wire to secure side netting**

**Allows easy maintenance to
maintain short grass to
reduce rodents**

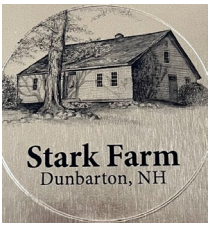




Lessons Learned



Wrap netting with UV Black Plastic Pallet Wrap end of season



Economics and Efficacy

Exclusion Netting	\$9,425
Additional Structural Materials	\$2,125
Installation & Labor	\$6,825
Perimeter Border & Materials	\$1,635
Misc. hardware, lumber, etc.	\$1,245
Total Cost	\$21,255

(~ 30,000 sq. ft. field)

Pros

- Continue farming 100% organically while never spraying our crop
- Completed 3rd season - 100% effective with no SWD
- Eradicating pests via field scouting
- Improved fruit quality

Cons

- Diligent inspection and maintenance of netting
- No repair kits available – fish line hand sewing
- Holds heat (+5-8 degrees) without breeze
- Increased labor rolling net out and rolling in and wrapping at year's end



Considerations

Positives from a grower's perspective

- Exclusion netting is also bird netting and hail protection.
- Easy to install over existing beefed up bird netting structure.
- Ver few SWD captured inside netting.
- No sprays applied if netting is applied prior to SWD activity.
- Berries protected in heavy rain events with minimal loss.



Considerations

Negatives from a grower's perspective:

- Need to minimize abrasion. Voles and other factors causing holes allow potential SWD entry points.
- Consider mower access for mowing grass strips.
- Wire is not run through like bird netting, so winter storage is not as simple as pushing netting to end of field and rolling up. This creates a lot of extra work.
- Expensive - without a grant providing cost share some growers feels the math doesn't work.
- On humid days with no wind, it can be uncomfortable under the netting.













