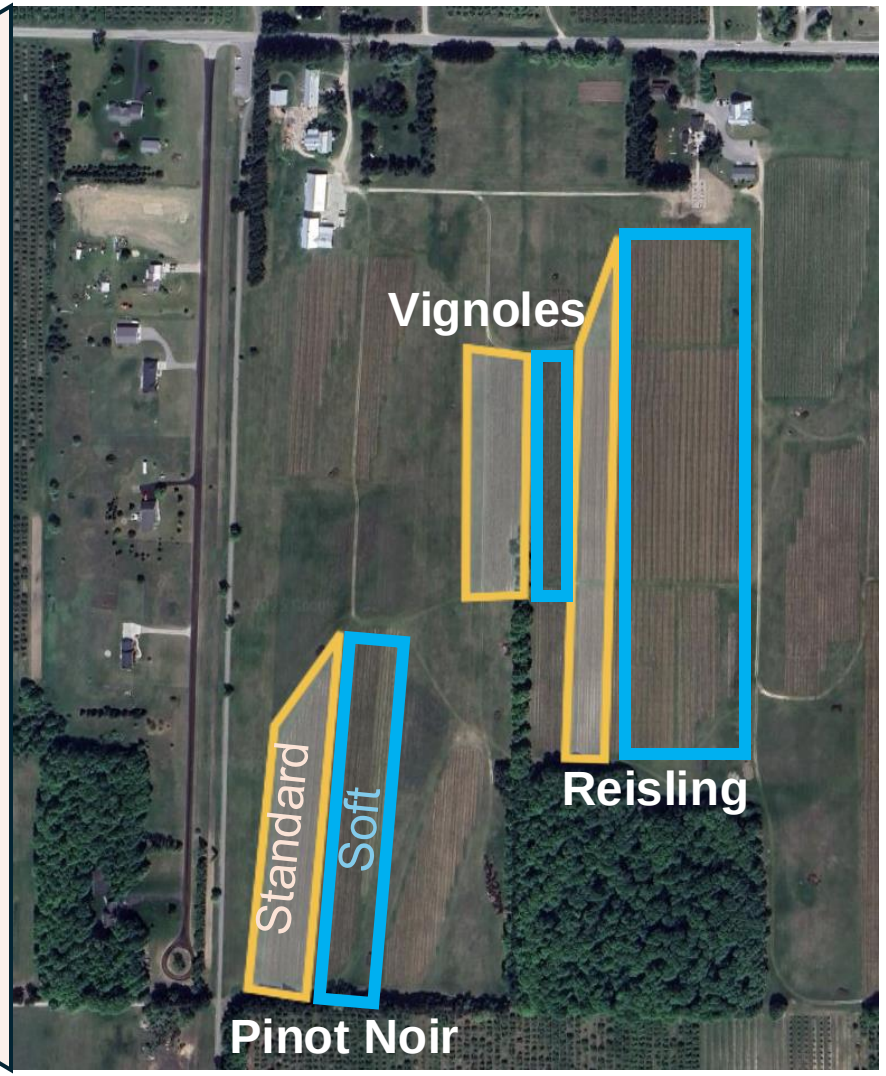
Sour rot control trial

Shady Lane Cellars

Traverse City, MI 2024

Research location

Research site



Research plots

Research treatments compared in three cultivars

EARLY SEASON APPLICATIONS

Standard treatment	**Soft** treatment
5/9- Sulforix 1 gal/A Bond 16 oz/100 gal 5/20- Badge 1 qt/A Bond 1 pt/100 gal (half-cover) 5/30- Badge 1 qt/A Bond 1 pt/100 gal (half-cover) 6/11- Badge 1qt/A Assail 3 oz/A Satori 12.8 oz/A Li700 1.3 pt/100 6/17- Endura 8 oz/A Microblaster 1 qt/A Borosol 10% 1 qt/A Li700 1.3 pt/100 (half-cover) 6/26- Endura 8 oz/A Microblaster 1 qt/A Borosol 10% 1 qt/A Li700 1.3 pt/100 (half-cover)	5/9- Sulforix 1 gal/A Bond 16 oz/100 gal 5/21- Badge 1 qt/A Bond 1 pt/100 (half-cover) 5/31- Badge 1 qt/A Bond 1 pt/100 gal (half-cover) 6/14- Serenade Opti 1.3 lbs/A Biocover, crop oil- 2 qt/ 100 gal Neemiz 16 oz/100 Nu Film P 1 qt/100 6/18- ProBlad1 qt/A Microblaster 1 qt/A Borosol 10% 1 qt/A NuFilm P 1.3 pt/100 6/27- ProBlad1 qt/A Microblaster 1 qt/A Borosol 10% 1 qt/A NuFilm P 1.3 pt/100

LATE-SEASON APPLICATIONS

Standard treatment	**Soft** treatment
7/4- ProBlad 1 qt/A Badge 1 qt/A Microblaster 1 qt/A Li700 1.3 pt/100 7/15- Assail 3 oz/A Inspire Super 20 oz/A Ranman 2.75 oz/A Micromix DL 1.25 pt/A Li700 1.3 pt/100 7/31- Quintec 3.75 oz/A Zampro 14 oz/A Activator 90 1.3 pt/100 8/21- Serenade Opti 1.25 lbs/A Revus Top 7 oz/A Nachurs Fe 1 qt/A Microblaster 1 qt/A Max N-pact 1.25 qt/A Li700 1.3 pt/100 9/11- ProBlad 1 qt/A Zampro 14 oz/A Nachurs Fe 1 pt/A Delegate 4 oz/A Microblaster 1 pt/A Li700 1.3 pt/100	7/6- ThymeGuard 2 qt/100 Neemix 16 oz/100 NuFilm P 1.3 pt/100 7/16- JMS Stylet oil 1 qt/A Orange oil (100%) 1 qt/A Neemix 16 oz/100 NuFilm P 1.3 pt/100 8/5 - Serenade Opti 1.25 lbs/A Phostrol 2.5 pt/A NuFilm P 1.3 pt/100 8/20 - Serenade Opti 1.25 lbs/A Phostrol 2.5 pt/A Nachurs Fe 1 qt/A Microblaster 1 qt/A Max Npact 1.3 qt/A NuFilm P 1.3 pt/100 9/9- ProBlad 1 qt/A JMS Stylet oil 1 qt/A Orange oil (100%) 1 qt/A Entrust 2 oz/A Nachurs Fe 1 pt/A NuFilm P 1.3 pt/100

Application methods

- Application using a Rears Pul-Blast airblast sprayer.
- Driving speed - 3.4 mph
- Gallons of water per acre – 50gal/A

Cluster rot field survey

Assessed sour rot and botrytis bunch rot.

Visual and odor symptoms used on 25 randomly-selected grape clusters in each plot.

Standard and Soft plots sampled across the three cultivars.

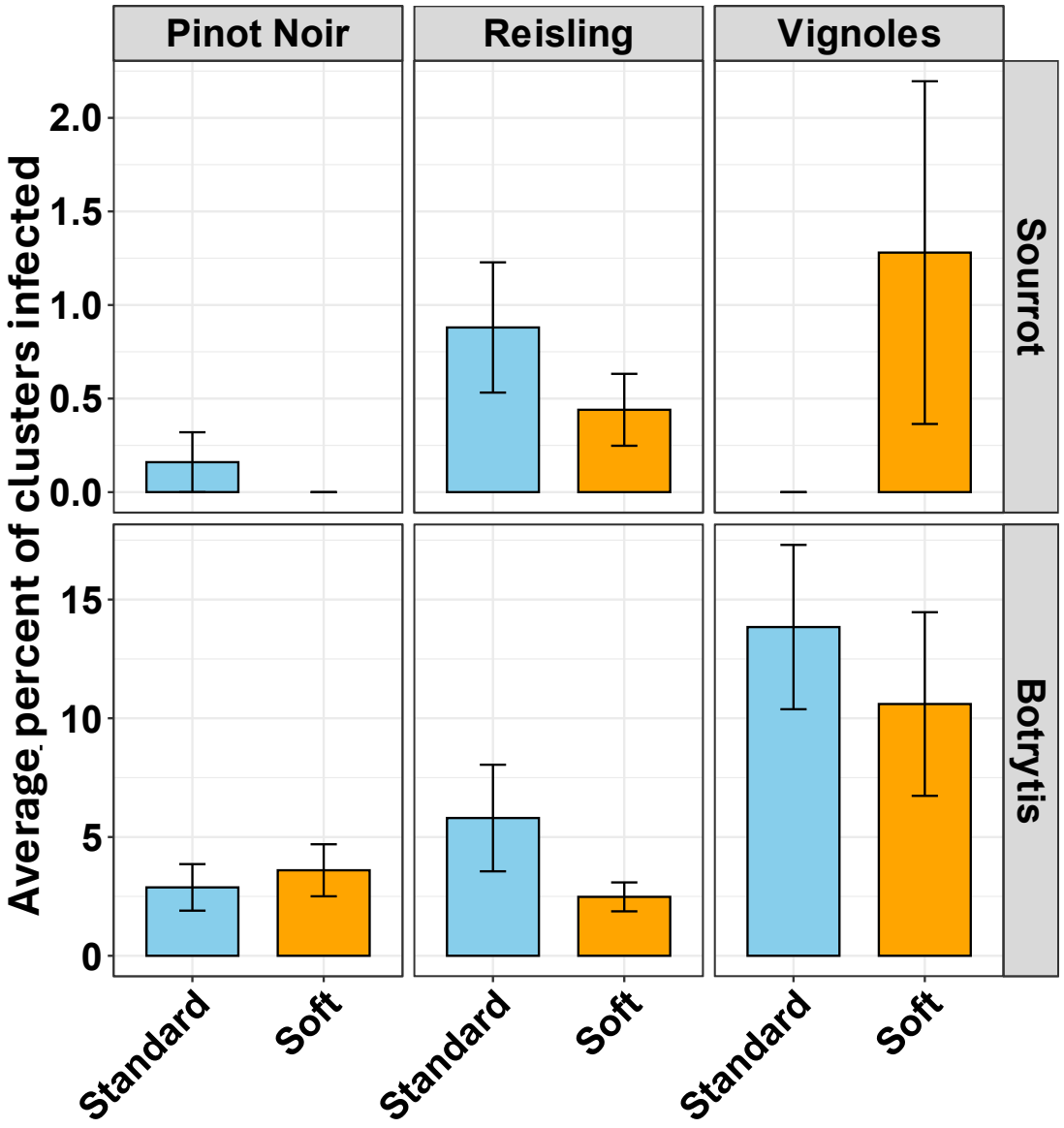
Sour rot

Botrytis bunch rot

Results

Cluster rot field survey

No consistent or significant difference in sour rot or botrytis infections between the two programs in Pinot Noir, Reisling or Vignoles.



Rearing of vinegar flies

Visual and odor symtoms

Eight clusters from each plot

Transported to the lab in a cooler

Assessed percent Botrytis bunch rot and sour rot for each cluster

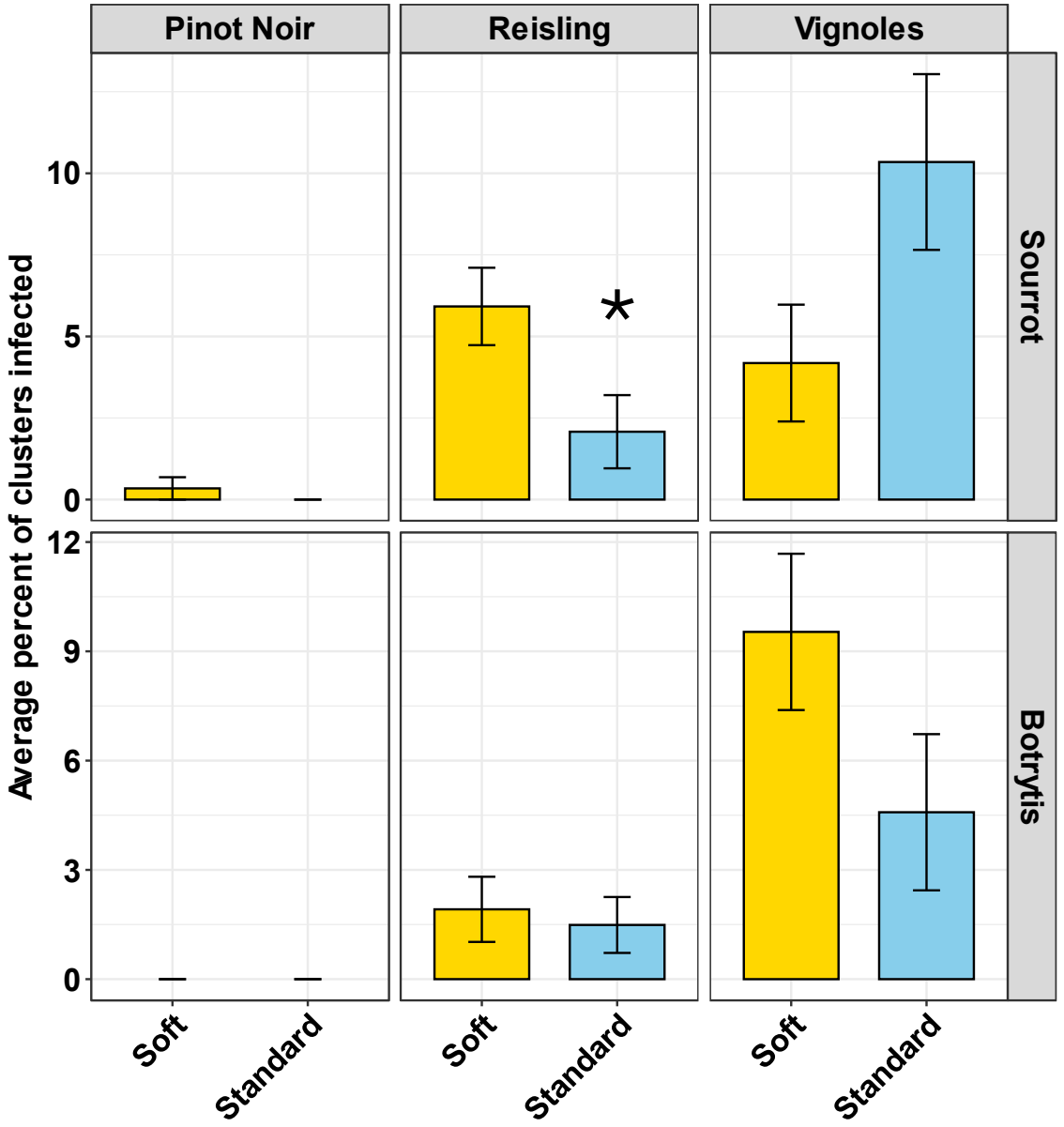
Each cluster placed in deli cup with a mesh lid for 10 days to rear vinegar flies.

48 clusters from all three cultivars were used for rearing.

Rearing of vinegar flies

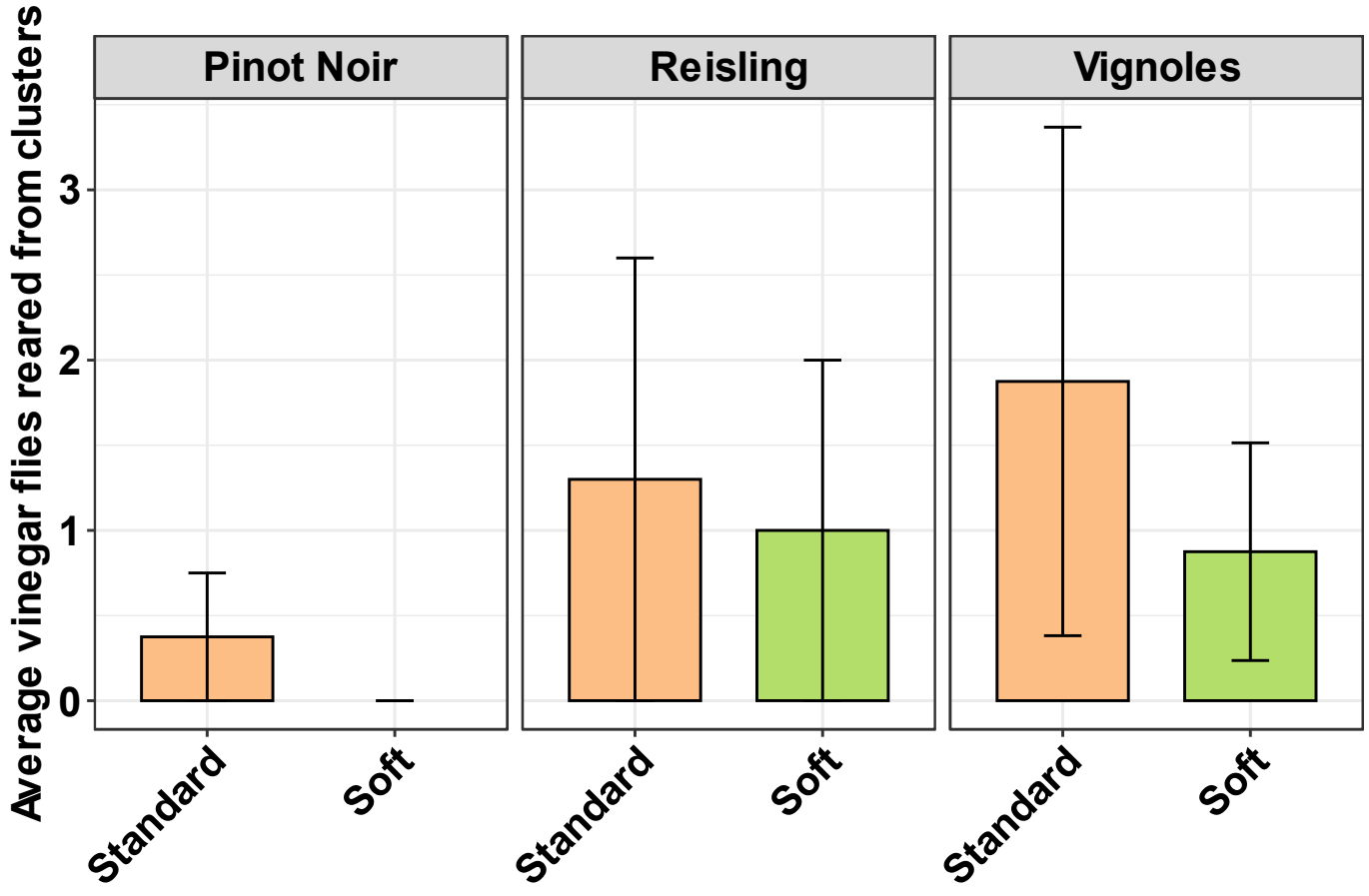
Cluster disease on collected clusters

- No significant difference in sour rot infections between the two programs in Pinot Noir (p = 0.38) or Vignoles (p = 0.24).
- Sour rot was higher in the soft program in Reisling (p = 0.02).
- No difference in Botrytis infections between the two programs in any cultivar.



Vinegar flies reared from clusters

No significant difference in vinegar flies reared from clusters between the two programs for any cultivar.



Summary

- Vinegar fly and rot infections varied between cultivars.
- Limited differences between management programs, indicating soft program performed similar to the standard program.
- Disease pressure in 2024 was relatively low due to weather conditions.
- We are planning pesticide residue analysis on clusters from this trial.