Wheat Entomology Newsletter May 30th, 2023

Adam Osterholzer: adam.osterholzer@colostate.edu,

970-222-9568

Dr. Punya Nachappa: Punya.Nachappa@colostate.edu,

785-383-4873





Wheat Stem Sawfly

We have continued our sweeps twice per week at Orchard and New Raymer, CO. This month's average catch has deviated significantly from what we observed throughout the month of May in previous years. For example, on May 17th, 2022, our average catch was 72.6 sawflies per sample site. In contrast to this, on May 26th of the current year we averaged only 29.4 sawflies per sample site.

The 2023 sawflies in these areas are emerging later than those of previous years. As explained in our May 1st newsletter, we're hypothesizing that an increase in precipitation has delayed the sawfly emergence cycle. We're expecting to observe sawfly activity well into June. This may not be the case for regions that have received less moisture.

Sally Jones Diamond (CSU Crops Testing) has visually confirmed sawfly adults at the variety trials in Akron and Yuma, CO. The activity appears to be particularly heavy at Akron. Our sawfly emergence graphs from 2011-2022 can be viewed at Research (csuwheatentomology.com)



Figure 1: Flood conditions at Orchard, 5-12-23. Photo by Adam Osterholzer.

We'll be conducting many exciting projects in the coming weeks! These include:

- -Continuing our sawfly flight monitoring throughout the month of June.
- -Exposing experimental wheat lines to sawfly infestation, to screen for novel sources of resistance (see Figure 2).
- -Partnering with the CSU Wheat Breeding and Genetics Program to evaluate stem solidness expression in their breeding lines.
- -Screening for sawfly non-preference in Clearfield® variety wheat lines.
- -Conducting various trials to evaluate the success of parasitoid wasps in causing sawfly mortality.
- -Evaluating the potential of stem trichomes in helping to reduce wheat infestation by sawflies.

Updates on these projects will be made available in future newsletters!



Figure 2: Exposing our 2022 experimental wheat lines to sawfly infestation, in search of novel sources of resistance (I.e., not solid stem-based resistance). Photo by Henrique Vieira.

Misc. Pest Updates

Ron Meyer (CSU Extension) has reported a general absence of aphid infestations thus far in wheat. He has also observed a lack of cutworm populations so far. We frequently contact our CSU Extension agents and will continue to provide their insights from the field!

Wheat Diseases

For wheat disease updates by Dr. Robyn Roberts, please see: https://coloradowheat.org/category/news-events/wheat-pest-and-disease-update/

Acknowledgements

We would like to acknowledge the tireless work of CSU researchers and extension agents for reporting pest problems throughout the state. Special thanks to Kevin Larson, Brett Pettinger, Ron Meyer, Todd Ballard, Sally Jones-Diamond, Dennis Kaan, Kat Caswell, and Michaela Mattes.