



American Crystal Sugar Company

AgNotes



April 19, 2023
Issue 629

Joe Hastings
General Agronomist,
Editor

www.crystalsugar.com



<https://www.crystalsugar.com/agronomy/ag-gold-standards/>

- Fertility
- Variety Selection
- Stand Establishment
- Weed Control
- Disease & Insect Control
- Harvest

Your Way
TO GROW

Sugarbeet Root Maggot Control 2023

Sugarbeet Root Maggot (SBRM) continues to increase its footprint in American Crystal's growing area. 2022 saw the highest fly stake counts to-date, but timely control helped to reduce feeding damage.

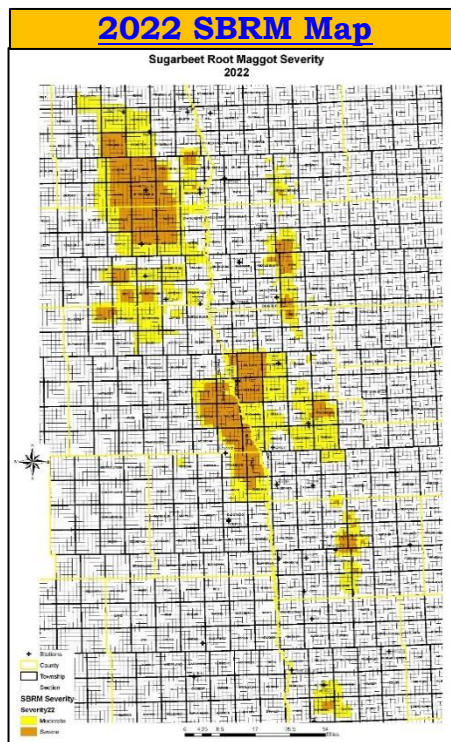
Remember, maggots that live not only cause damage to this year's crop but are also next year's flies.

- In 2022 **187,925 acres (40%)** were grown in areas that have moderate to severe SBRM pressure
- **373 (58%) farms** have sugarbeet acres grown in these areas. Up from 348.
- **New SBRM area in 2022 by Sabin**

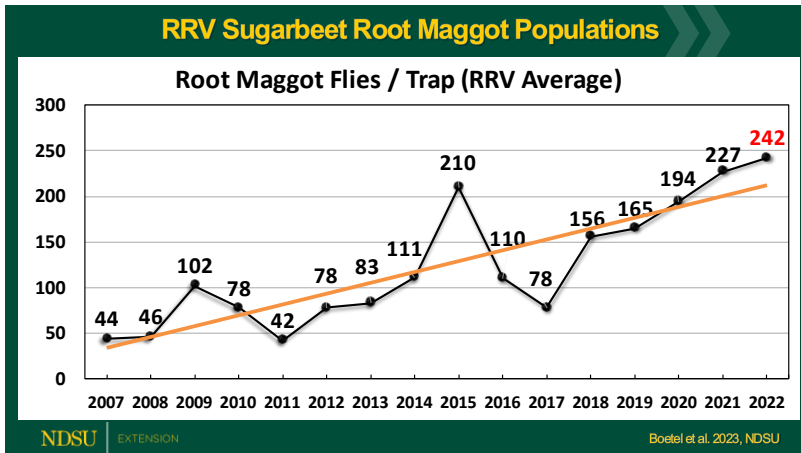
Aggressive control measures are required to control, stop, and hopefully shrink the expanding SBRM footprint.

Unfortunately, this task has become more difficult as **chlorpyrifos cannot be used in sugarbeets anymore since the EPA has revoked chlorpyrifos residue tolerances** taking this control option away.

Chlorpyrifos applications are not allowed on the sugarbeet crop. Any application will be subject to ACSC's Misapplied Chemical Policy.



2022 SBRM Fly Stake Counts were the highest to-date (Boetel NDSU)



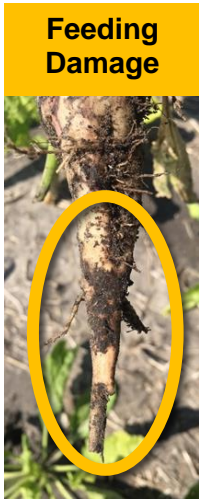
Controlling SBRM populations is a two-fold process

1. Apply an effective At-Plant insecticide to control feeding SBRM larvae that hatch from the eggs the flies will lay.

- Counter At-Plant is the base to use for SBRM control
 - Counter can only be applied once/season, has a 90-day PHI
- Neonicotinoids are: insecticide seed treatments (Poncho Beta, Nipsit, Cruiser) and Midac used in-furrow.
 - These only provide suppression of SBRM larvae when used alone
 - Dr. Boetel's research shows there is increased control when seed treatments or Midac are combined with Counter or with each other At-Plant

2. Use well-timed, effective POST insecticides to knock down the SBRM fly population. This reduces the number of eggs that are laid and the resulting maggot population that the At-Plant insecticide must control.

- Thimet @ 7 lbs./acre applied 5-15 days before expected peak activity is a standard for control in severe SBRM areas
 - Even when Thimet is used, a POST liquid insecticide treatment may be required to knock down the SBRM fly population if it is surging or if the Thimet was not activated with moisture.
- As fly populations surge, POST liquid insecticides (Mustang Maxx or Asana XL) should be applied **prior to predicted "Peak Fly" at increments of 70-100 flies/stake.**
 - For fields without an At-Plant insecticide, POST insecticide treatment should be at increments of 40-45 flies/stake.
- Additional Post liquid insecticide treatments could be required if SBRM populations rebound.



Link to SBRM Quick Card

ROOT MAGGOT MANAGEMENT OPTIONS

Severity	HIGH	MODERATE	LOW
Recommendations	<ul style="list-style-type: none"> High rate of Counter 200 (1.5 lbs/acre) Thimet 7.0 (1.5 lbs/acre) 14 days Pre Peak Secondary insecticide: Mustang Maxx 4.0 (0.5 lbs/acre) Asana XL 0.5 (0.5 lbs/acre) 	<ul style="list-style-type: none"> Moderate rate of Counter 200 (1.5 lbs/acre) Thimet 7.0 (1.5 lbs/acre) Secondary insecticide: Mustang Maxx 4.0 (0.5 lbs/acre) Asana XL 0.5 (0.5 lbs/acre) 	<ul style="list-style-type: none"> Moderate rate of Counter 200 (1.5 lbs/acre) Thimet 7.0 (1.5 lbs/acre) Secondary insecticide: Mustang Maxx 4.0 (0.5 lbs/acre) Asana XL 0.5 (0.5 lbs/acre)

Crowlers are encouraged to monitor SBRM fly activity on their farms with sticky stake traps.

***Sugarbeet Root Maggot Fly Thresholds**

Post emergence insecticide applications should occur ahead of peak fly activity when:

- *Unprotected fields have cumulative fly counts of 80-15 flies/stake
- *Fields protected with an at-plant insecticide exceed cumulative fly counts of 70 flies/stake

Insecticide Application Timing:

- *Post Granular Applications: 6-14 days before expected SBRM fly activity peak
- *Post Liquid Applications: > 3 days before expected SBRM fly activity peak



NDAWN mobile-friendly site

The site will have maps for:

- Sugarbeet GDD's
- Sugarbeet Root Maggot DD's
- Cercospora Daily Infection Values

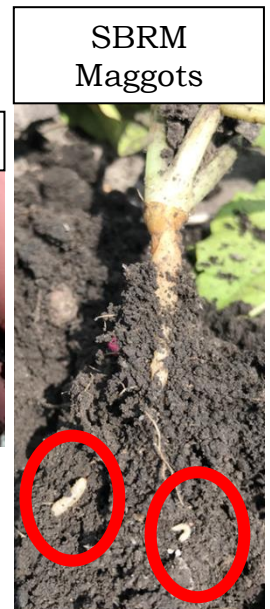
Sugarbeet Root Maggot Resources

- [2023 ACSC SBRM Control quick card](#)
Recommendations for insecticides, rates, and timing
- [Fly Stake Counts](#)

NDSU and American Crystal Ag Staff take SBRM fly stake counts to monitor fly activity. Monitor your area's numbers by following the below link. Counts are made every Monday, Wednesday, and Friday during SBRM season.

- [SBRM Degree Days \(DD\)](#)

SBRM flies start to show up typically in the last week of May to first week of June. Peak Fly typically occurs at 651 DD.



Ask Tom

For prompt answers to your questions and comments, call and leave a message and Tom Astrup or one of his staff will respond as soon as possible.

Shareholders:
1-800-633-8941

As always, please contact your Agriculturist with any questions and further refinement.

Important Notice: Please read and follow label directions on all pesticides, this document is not a substitute.