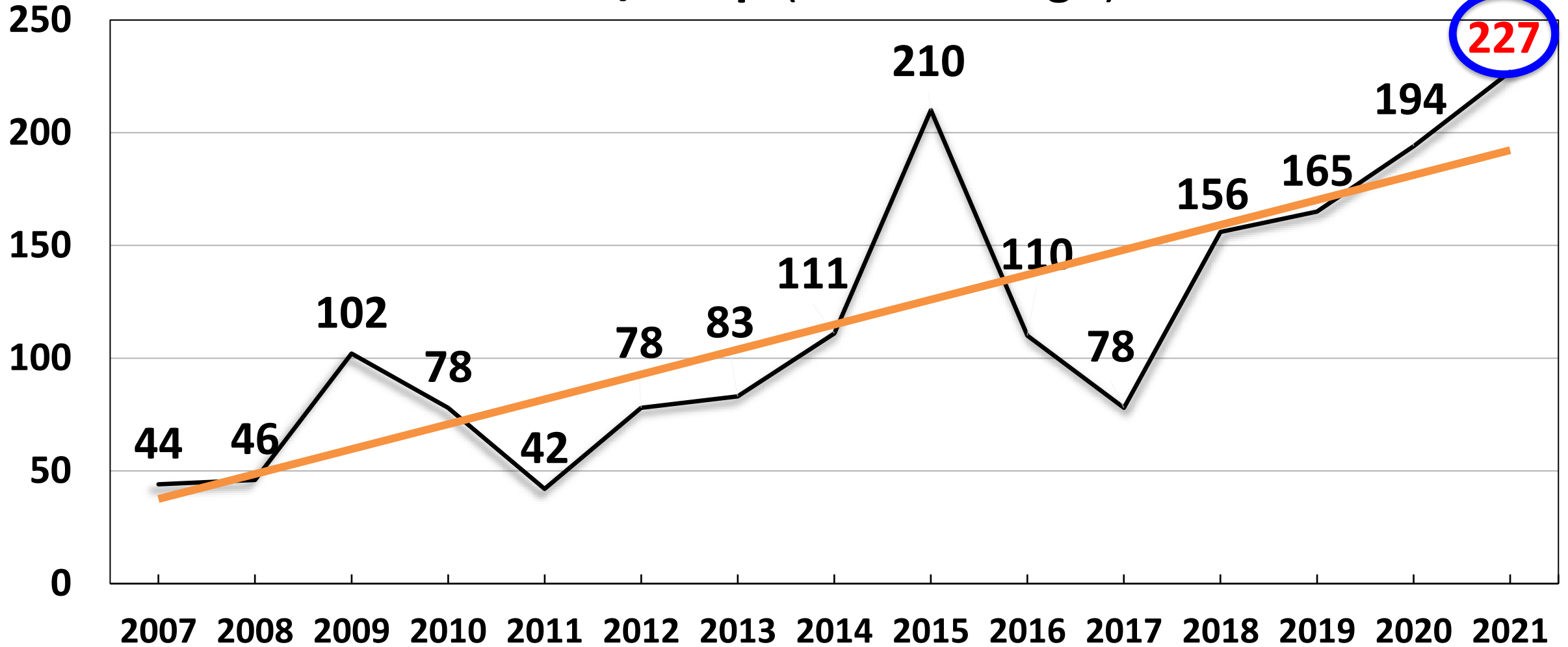


# Sugarbeet Root Maggots

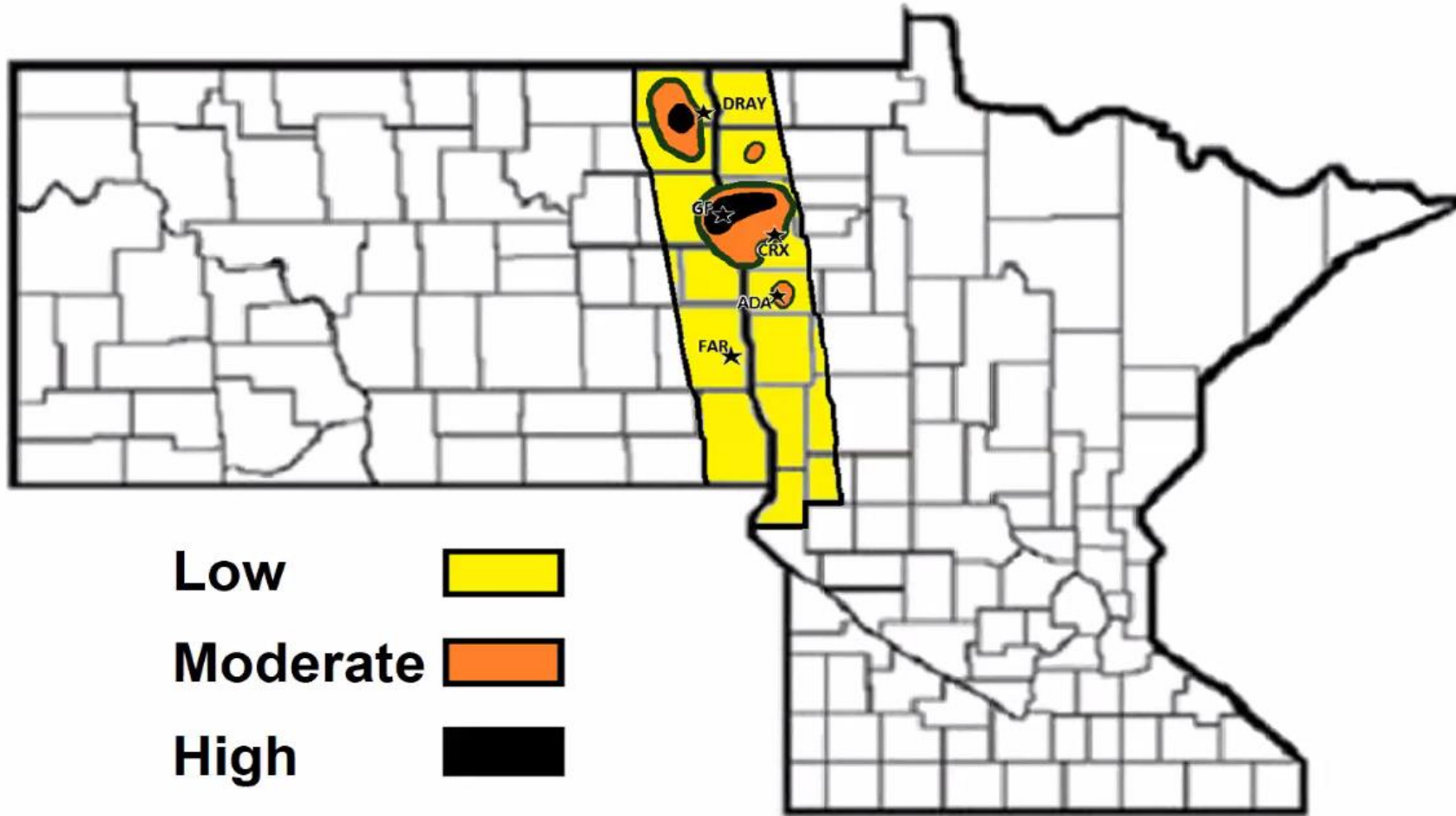


# Sugarbeet Root Maggot Fly Activity – Highest in 15 yrs

## Flies / Trap (RRV Average)



2018



Low



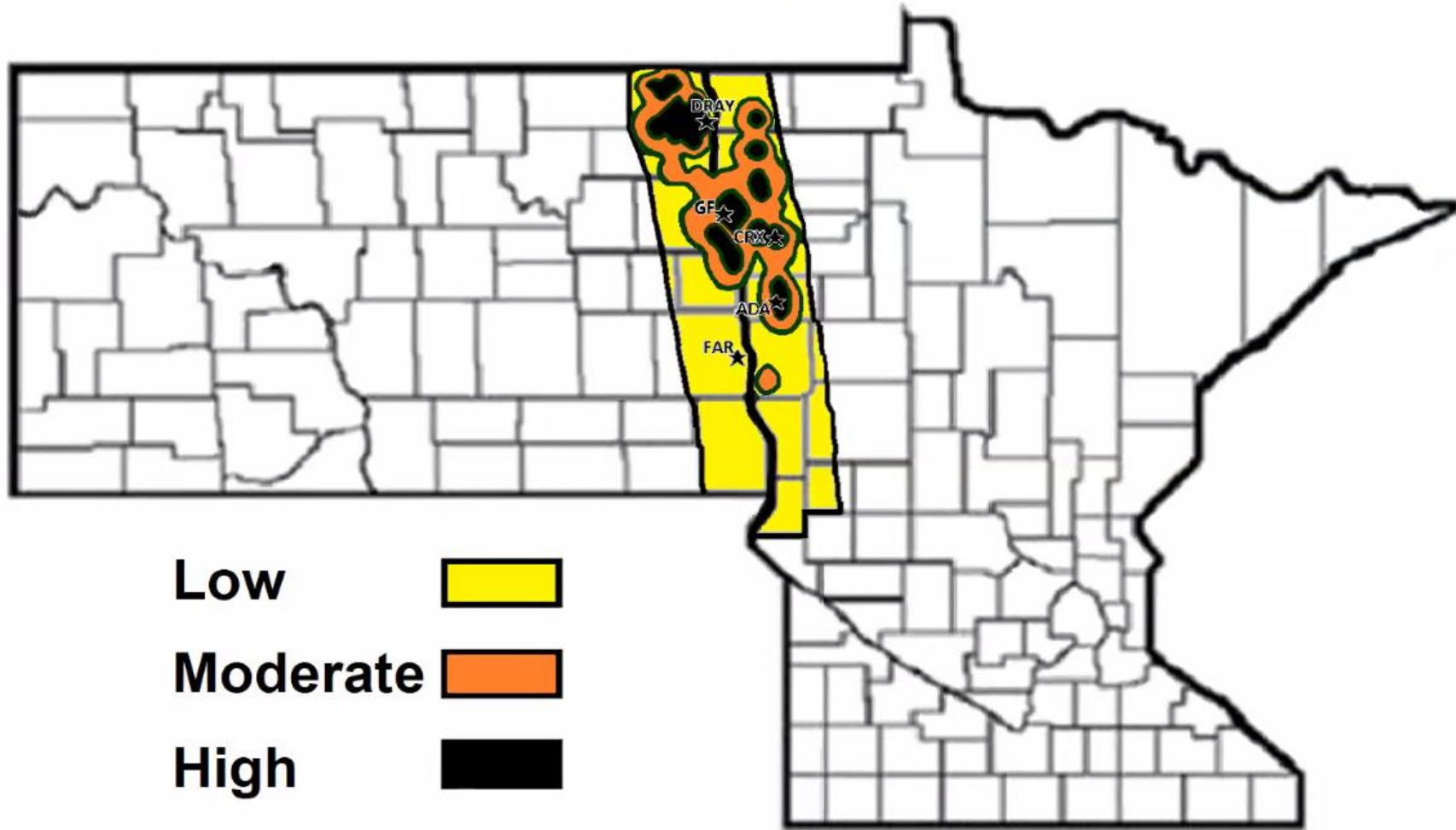
Moderate



High



## 2022 Root Maggot Forecast\*



\*Based on fly counts & root maggot feeding injury ratings

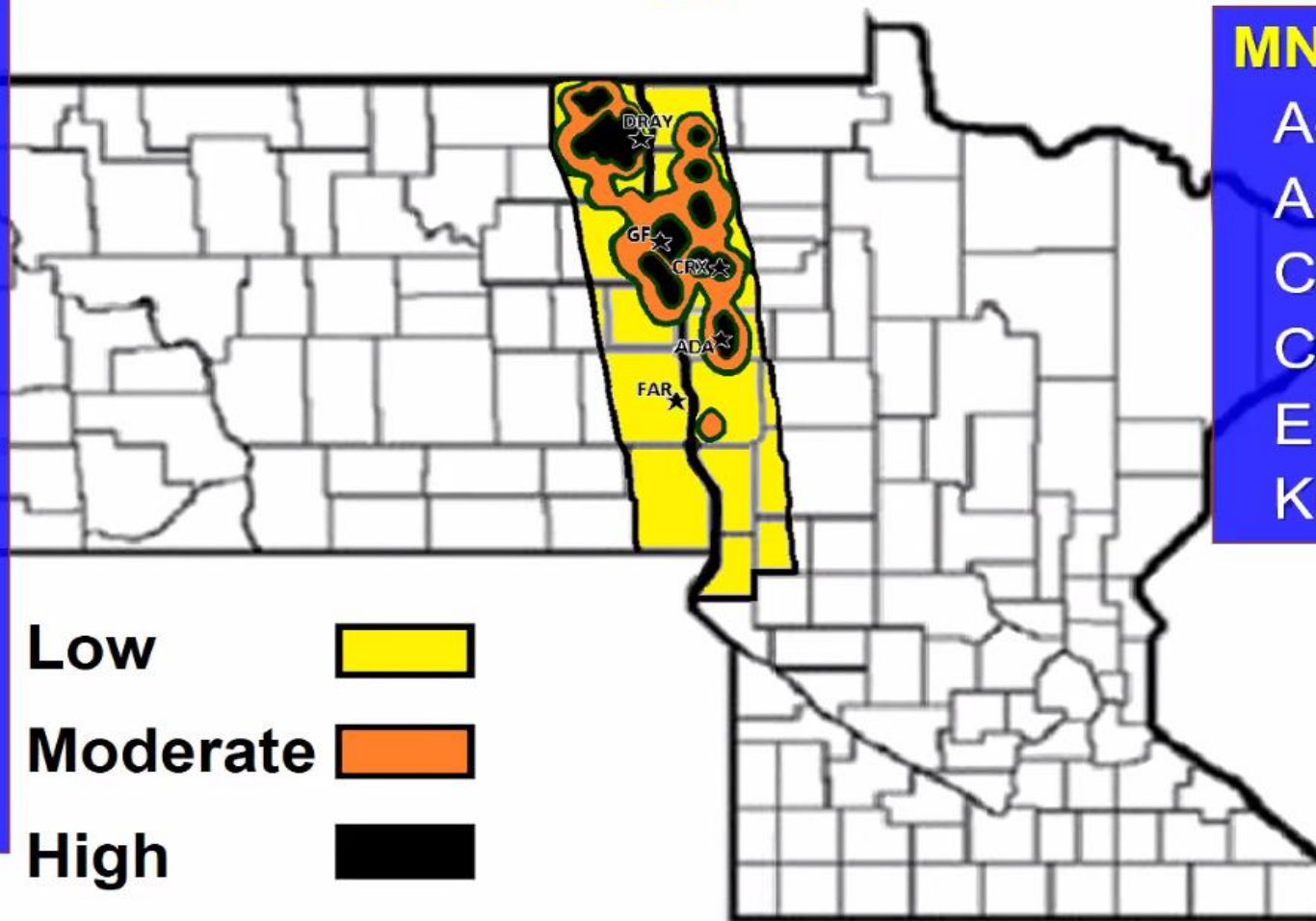
# 2022 Root Maggot Forecast\*

## ND high risk:

Auburn  
Buxton  
Cavalier  
Crystal  
Drayton  
Grand Forks  
Oakwood  
Reynolds  
St. Thomas  
Thompson

## MN high risk:

Ada  
Argyle  
Climax  
Crookston  
E. Grand Forks  
Kennedy



\*Based on fly counts & root maggot feeding injury ratings

# Moderate Root Maggot Risk in 2022

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## North Dakota:

- Bathgate
- Caledonia
- Forest River
- Hamilton
- Hoople
- Leroy
- Merrifield
- Minto

## Minnesota:

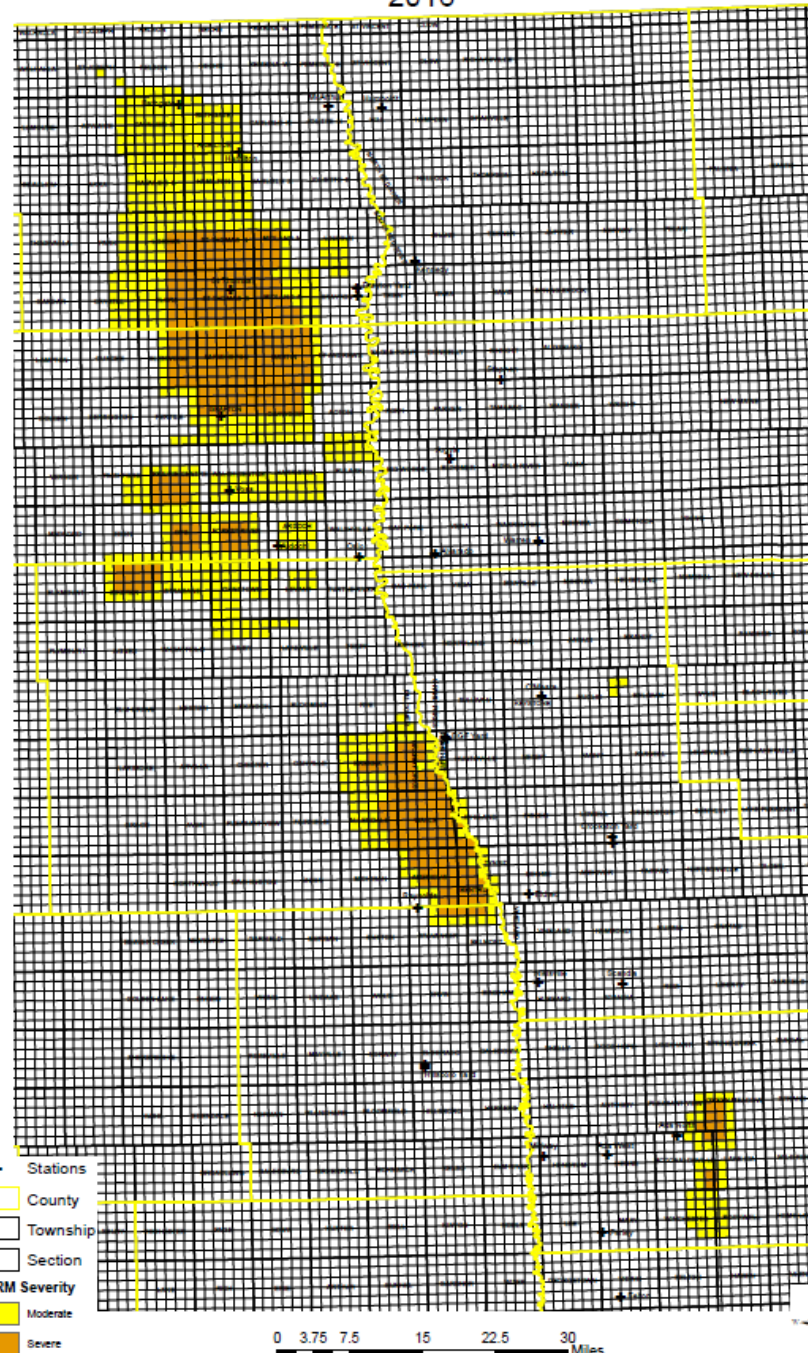
- Angus
- Borup
- Donaldson
- Euclid
- Fisher
- Sabin
- Stephen
- Warren

# 2021 Sugarbeet Root Maggot (SBRM) Observations

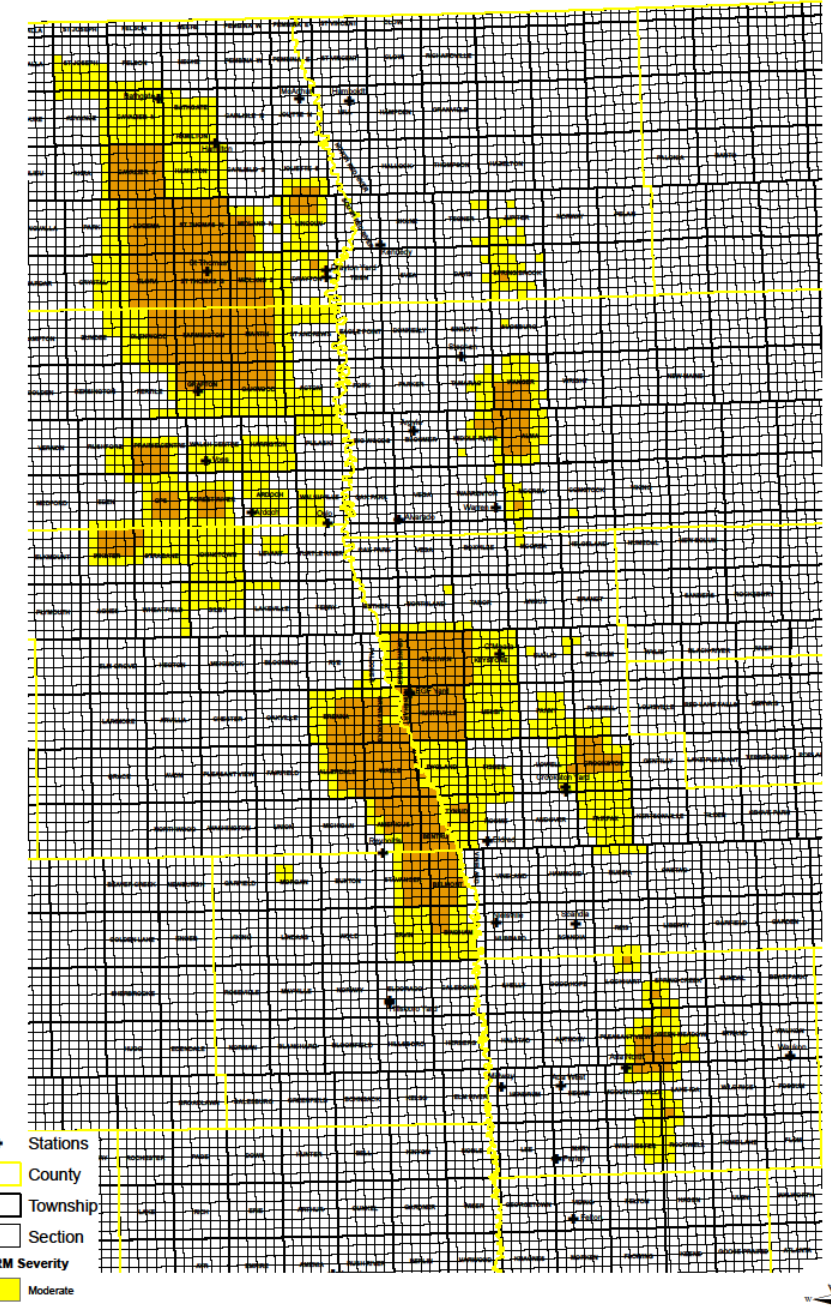
SBRM area & acres have grown

- Moderate Severity Acres = 87,992
- Severe Severity Acres = 61,769
- **Total Acres = 149,761 (36%)**
- **Total Growers Affected = 348 (54%)**
- Up 10,000 acres from 2020
- Mostly in the Severe category

Sugarbeet Root Maggot Severity  
2016



Sugarbeet Root Maggot Severity  
2021



# Additive Granular Insecticides for SBRM Control: St. Thomas, ND

## 7-yr Combined Analysis (2015-2021)

Treatment	NS	Rec Sucrose (lb/ac)	Tons/ac	\$/ac above Check
Counter 8.9 lb Band + Thimet 7 lb Post Band		8,746 a	29.3 a	\$438
Poncho Beta + Counter 8.9 lb At-plant Band		8,735 a	29.7 a	\$414
Poncho Beta + <b><u>Counter 8.9 lb Post Band</u></b>		8,544 a	28.9 a	\$399
Poncho Beta + Thimet 7 lb Post Band		7,851 b	27.2 b	\$285
Counter 8.9 lb Band		7,771 b	27.1 b	\$269
Poncho Beta		7,533 b	26.3 b	\$237
CHECK		5,744 c	20.8 c	---
	<b>LSD (0.05)</b>	<b>541.7</b>	<b>1.68</b>	

\*No significant Treatment x Yr Interaction ( $\alpha = 0.05$ )



# St. Thomas – 2021



Check



Counter 8.9# + Thimet 7# PB



Poncho Beta



PBeta + Counter 8.9# at-plt.



PBeta + Counter 8.9# POST

# Single, Dual, & Triple Appls. for SBRM Control: St. Thomas, ND

6-yr Combined Analysis\* (2016-2021)

At-Plant	Post	Rec. Sucrose (lb/ac)	Tons/ac	\$/ac above Check
Poncho Beta + Counter 8.9 lb	<del>Lorsban 4E</del> 1 pt	9,114 a	30.6 a	\$439
Poncho Beta + Counter 8.9 lb		8,891 ab	29.6 ab	\$424
Poncho Beta	Counter 8.9 lb	8,733 ab	29.3 ab	\$398
Counter 8.9 lb	Thimet 7 lb	8,715 ab	29.1 ab	\$400
Poncho Beta	Thimet 7 lb & <del>Lors. 4E</del> 1 pt	8,342 bc	28.3 bc	\$332
Poncho Beta	Thimet 7 lb	7,896 cd	27.1 cd	\$262
Counter 8.9 lb		7,873 cd	26.8 cd	\$271
Poncho Beta		7,706 d	26.3 d	\$250
CHECK		5,964 e	21.2 e	---
LSD (0.05)		599.6	1.97	

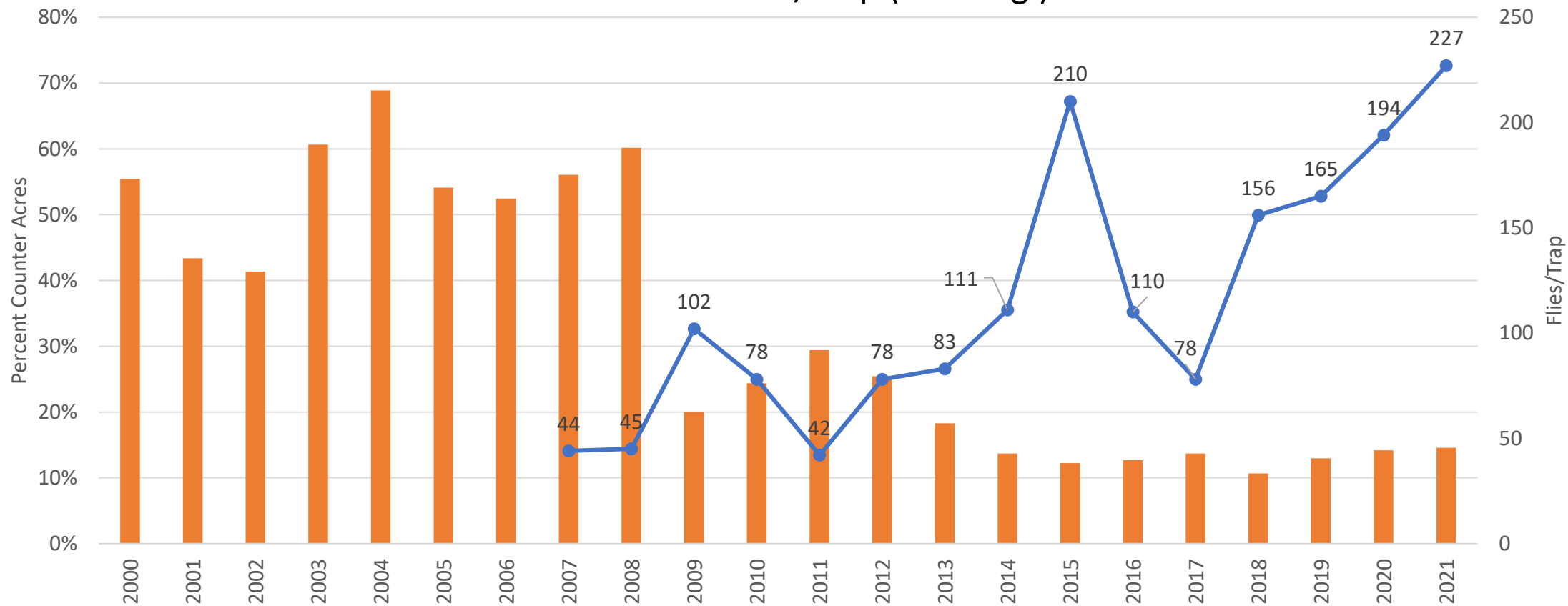
\*No significant Treatment x Yr Interaction ( $\alpha = 0.05$ )

**There is no change in chlorpyrifos  
revocation status!!!**

**Chlorpyrifos cannot be used in  
2022 if is found it will considered a  
miss applied chemical application.**

**What will growers need to do?**

## Percent of ACSC Acres Treated w/Counter Vs. SBRM Flies/Trap (RRV Avg.)



### Acres Treated with Counter

- 2004 = Highest @ 69% - 346,712 acres
- 2009 = Year insecticide seed treatments became available
- 2018 = Lowest @ 11% - 41,554 acres
- 2021 = 15% - 60,104 acres

# We need to get more Counter down

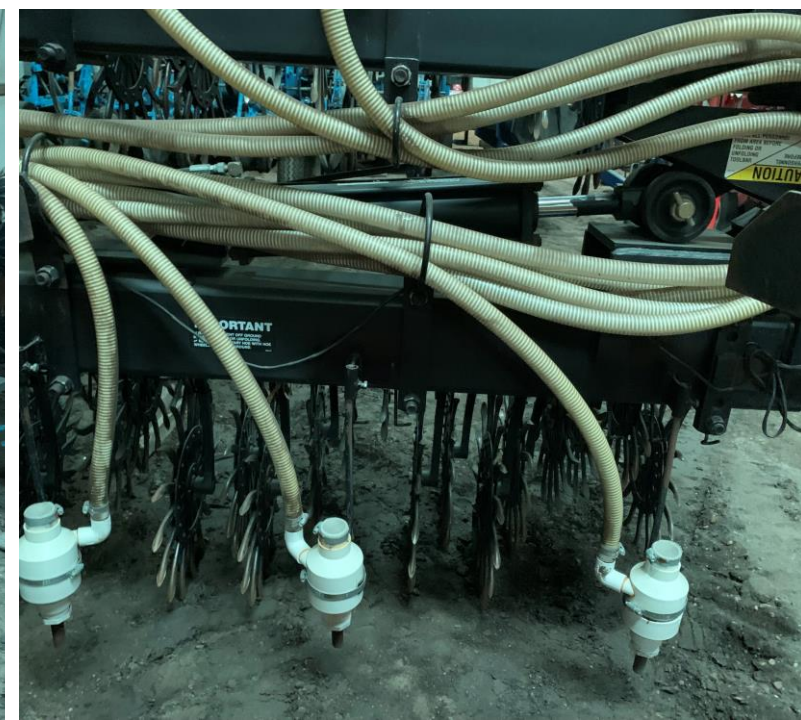
- Pull the Smartboxes out of the trees
- Used 24row set of Smartboxes is roughly \$15,000
- Used boxes are hard to find if you aren't using yours Amvac would sure take them off your hands
- Amvac has went away from Smartboxes and has a new system is \$53-55,000 with no rebate and sales reps are as excited for new system
- Supply is good but shipping is a major concern
- Scott Nelson is our area rep [605-880-1500](tel:605-880-1500)  
[Email:ScottN@AMVAC.com](mailto:ScottN@AMVAC.com)

# Thimet Applicators & Application

- Create/Develop/Modify existing equipment
- Install a Gandy Unit or Smart Boxes on to a bar
- Examples to right:
  - Rotary hoe
  - Keller band sprayer
- Share/Rent with neighbors
- Custom work

## Timing & Rate:

- 5 – 13 days Pre-Peak
- 7 lbs./acre in 5-7" Band
- Thimet requires incorporation: Mechanical or Rain event
- Moisture is required to activate Thimet



# Recommendations for SEVERE area

- High rate of Counter 20G 8.9# At-Plant
- Thimet (7.0#) application 6-14 days Pre-Peak

## When fly counts reach threshold\*

- Mustang Maxx at 4 oz./acre

-or

- Asana XL @ 9.6 oz./acre

## \*Sugarbeet Root Maggot Fly Thresholds

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

- Unprotected fields have cumulative fly counts of 40-45 flies/stake
- Fields protected with an at-plant insecticide exceed cumulative fly counts of 70 flies/stake

## Insecticide Application Timing:

- Post Granule Applications: 6-14 days before expected SBRM fly activity peak
- Post Liquid Applications: 2-3 days before expected SBRM fly activity peak

# Recommendations for MODERATE area

- Moderate rate Counter 20G 7.5# At-Plant

When fly counts reach threshold\*

- Mustang Maxx at 4 oz./acre

-or

- Asana XL at 9.6 oz./acre



# Recommendations for LOW area

- Moderate rate of Counter 20G 7.5# At-Plant
- -or - a seed treatment
- -or - Midac FC In-Furrow
  
- Monitor SBRM fly population
  
- If fly counts reach threshold\*
- Mustang Maxx at 4 oz./acre
- -or
- Asana XL at 9.6 oz./acre

# Websites for fly counts and growing degree days

- [https://www.ndsu.edu/snrs/people/faculty/mark\\_boetel/sugarbeet\\_entomology/](https://www.ndsu.edu/snrs/people/faculty/mark_boetel/sugarbeet_entomology/)
- <https://ndawn.ndsu.nodak.edu/help-sugarbeet-root-maggot.html>
- <https://ndawn.ndsu.nodak.edu/sugarbeet-root-maggot.html>
- <https://www.crystalsugar.com/agronomy/ag-tools/pest-alert/>

# Questions??

