

2018 Wheat Disease Update

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EXTENSION

2018 Problematic Wheat Diseases







Bacterial Leaf Streak



Discussed Right Now!

Fusarium Head Blight



Ergot



More Info During
Hands-on

Bacterial Leaf Streak







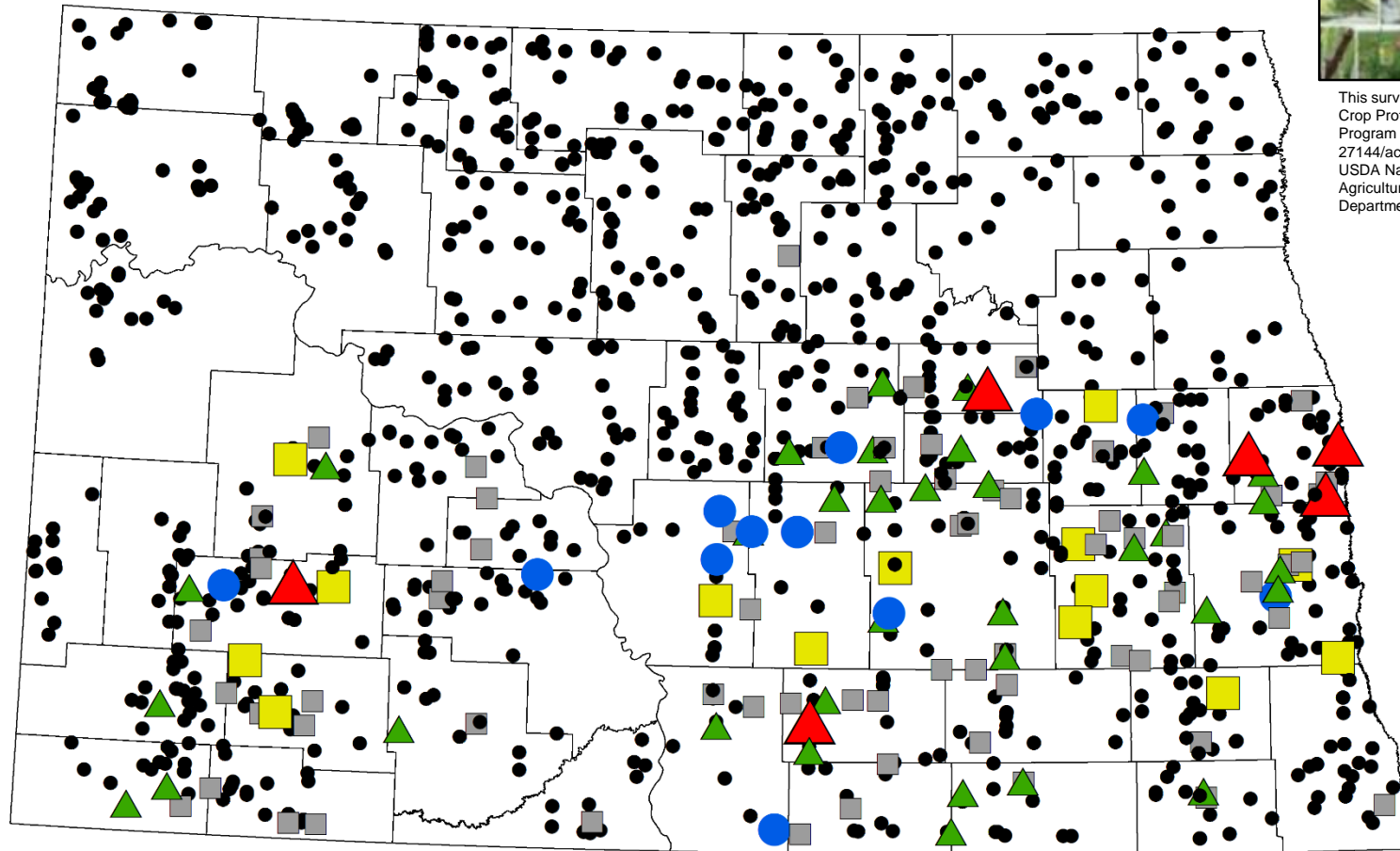


Bacterial Leaf Streak in ND

Season Final, 2018



This survey is supported in part by the Crop Protection and Pest Management Program [grant no. 2017-70006-27144/accession 1013592] from the USDA National Institute of Food and Agriculture and the North Dakota Department of Agriculture.



Percent Incidence



Environmental conditions

- 60-86 F
- Strong thunderstorms at flag leaf (other wounding events)
- High humidity and dews for infection

Grass hosts

- Several varieties are susceptible
- Can also survive on grassy hosts (ie: smooth brome)

Pathogen

- *Xanthomonas translucens undulosa*
- Survives primarily on seed
- Can also survive and other grasses and residue

Bacterial Leaf Streak Management

- Resistant varieties
- Clean seed
- Foliar applications??



MN10201-4A

Boost

Linkert

SY1080176
-18CL

Shelly

NDHRS16
-13-13

L12G09

L12G08

SY Ingmar

AC Goodwin

Varietal Resistance

SY Ingmar

SY Ingmar	6
SY Valda	8
Elgin	7
Linkert	7

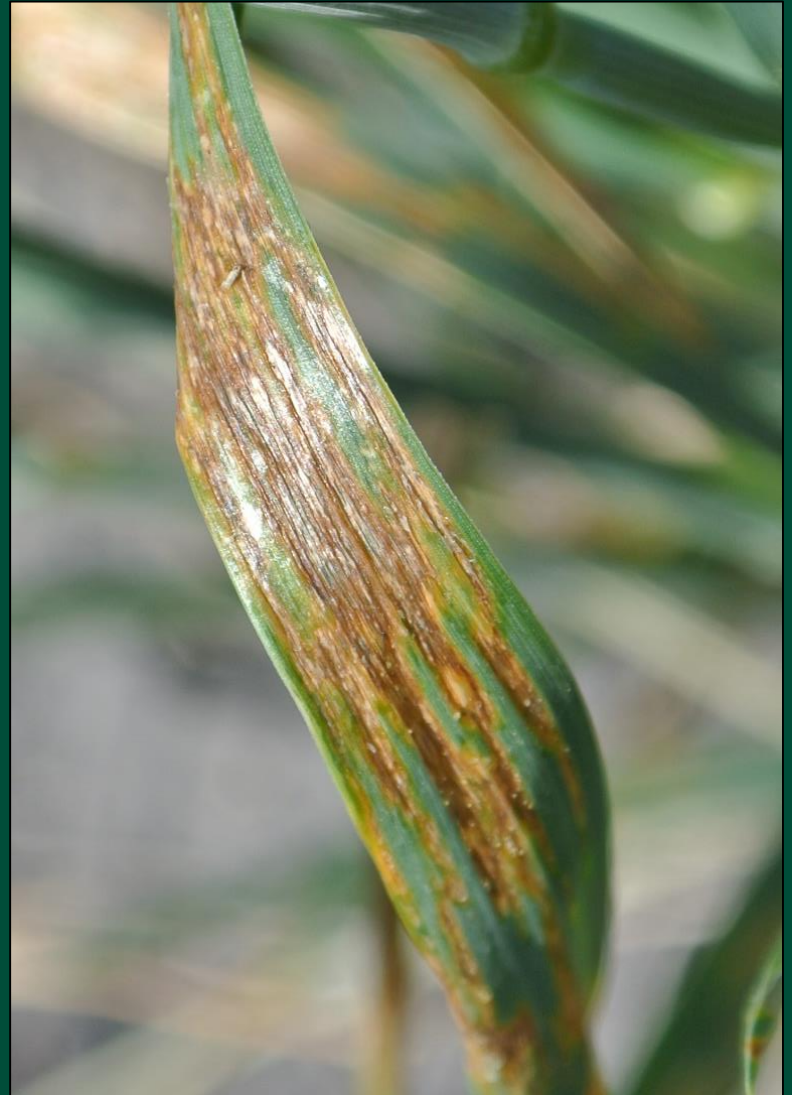
Linkert

Bolles

8

Bacterial Leaf Streak Management

- Resistant varieties
- Clean seed
- Foliar applications??



2018 Field Trial - Fargo

Variety – WB Mayville

Other diseases detected

DON levels below 0.5 ppm

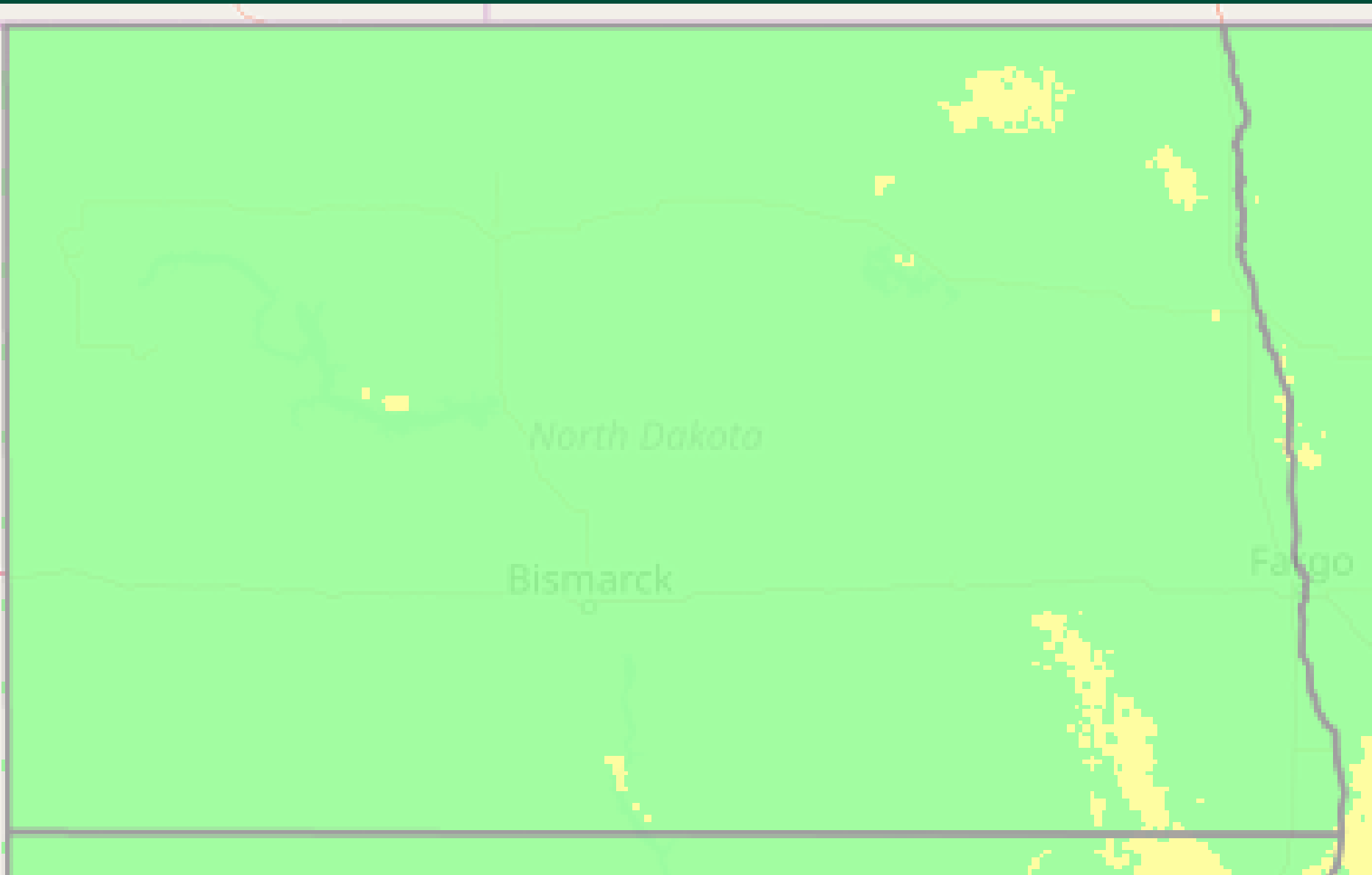
Treatment	Timing	Bacterial Leaf Streak Severity	Leaf Rust Severity	Yield (bu/A)
Non-treated	-	6.3%	0.8%	70.6
Headline @ 6 oz	Flag Leaf	6.5%	0.2%	72.5
Prosaro @ 6.5 oz	Early-Flowering	6.2%	<0.1%	72.9

Fusarium Head Blight

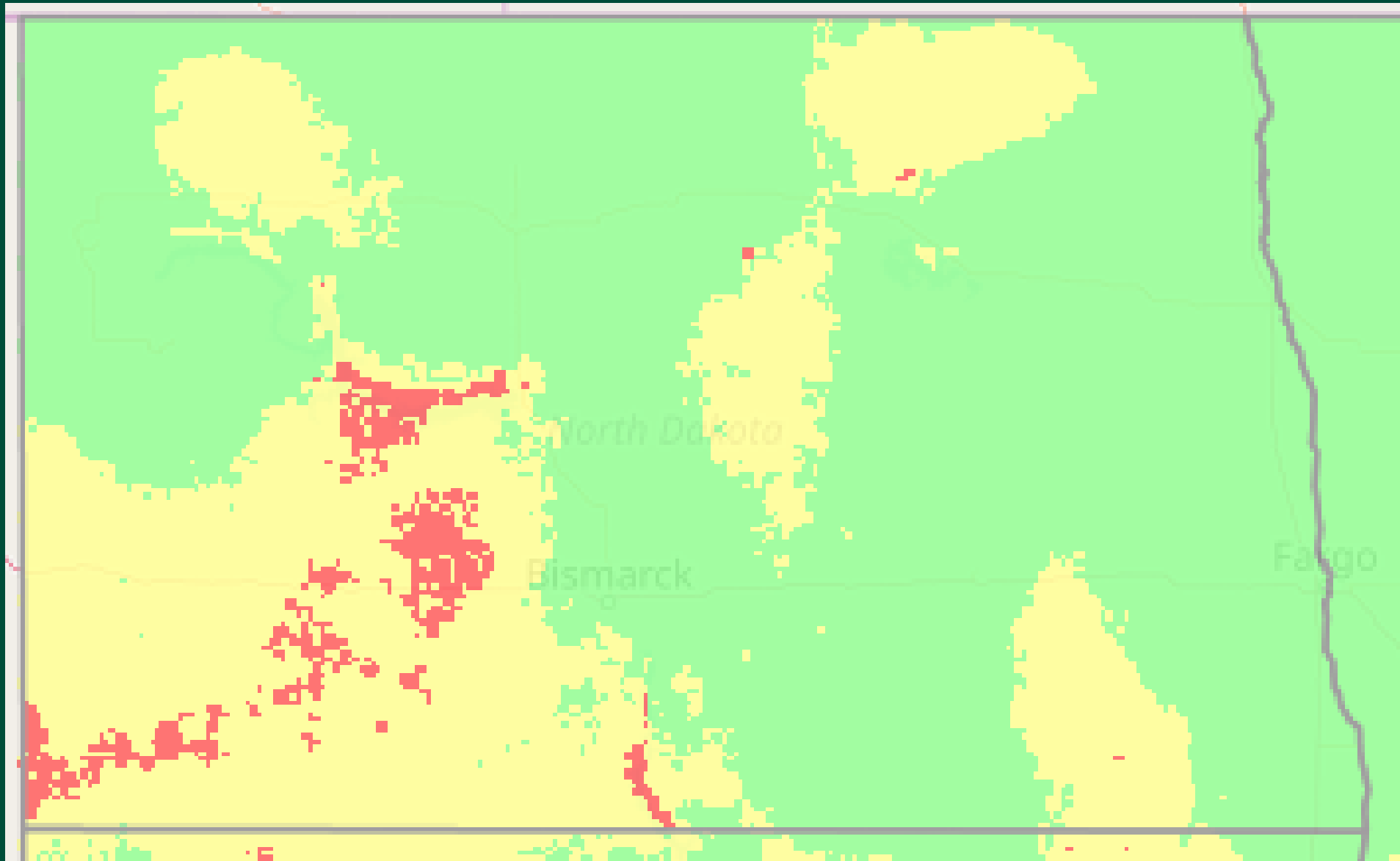


Scab Risk in North Dakota during 2018

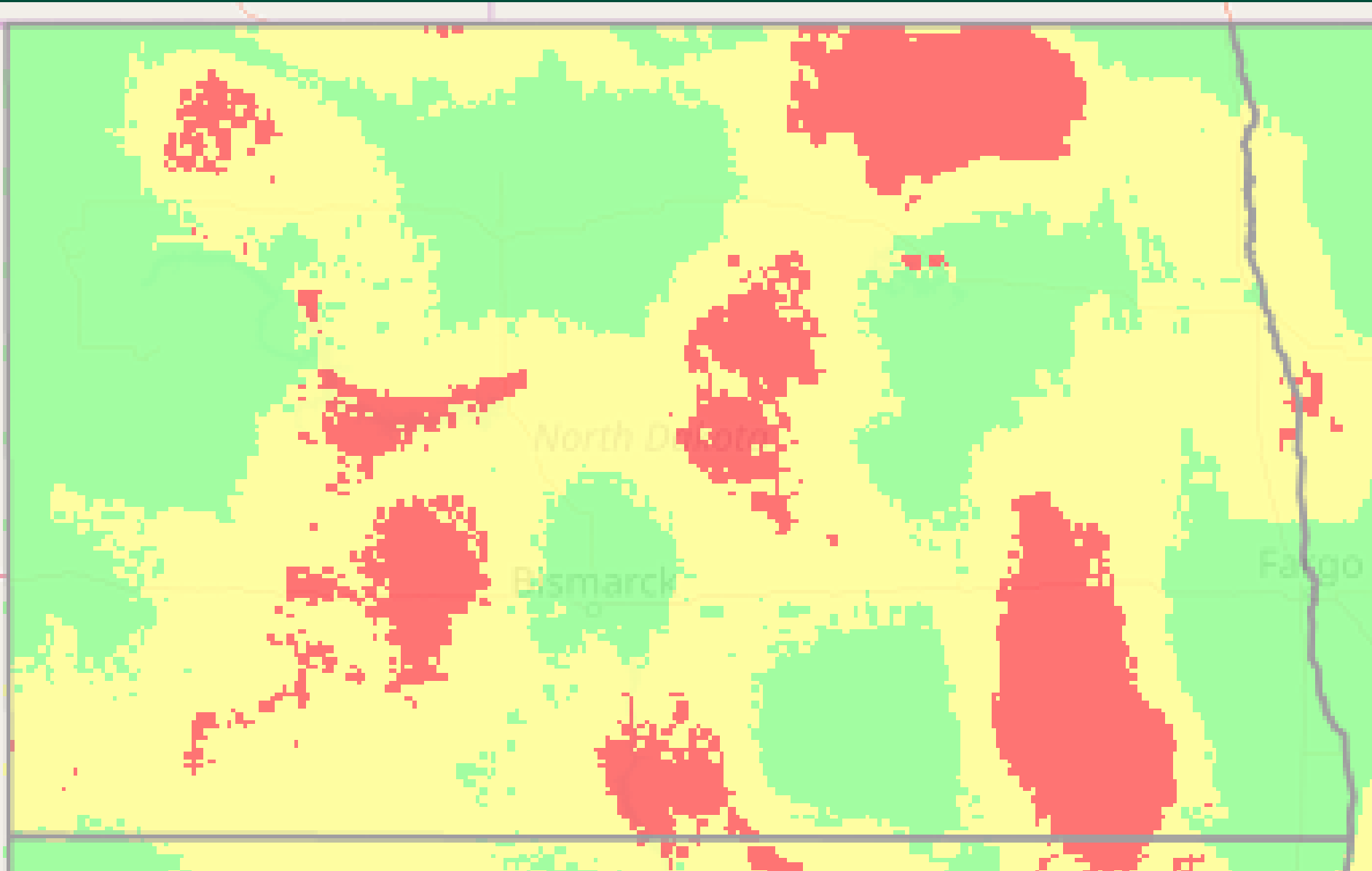
June 20, 2018



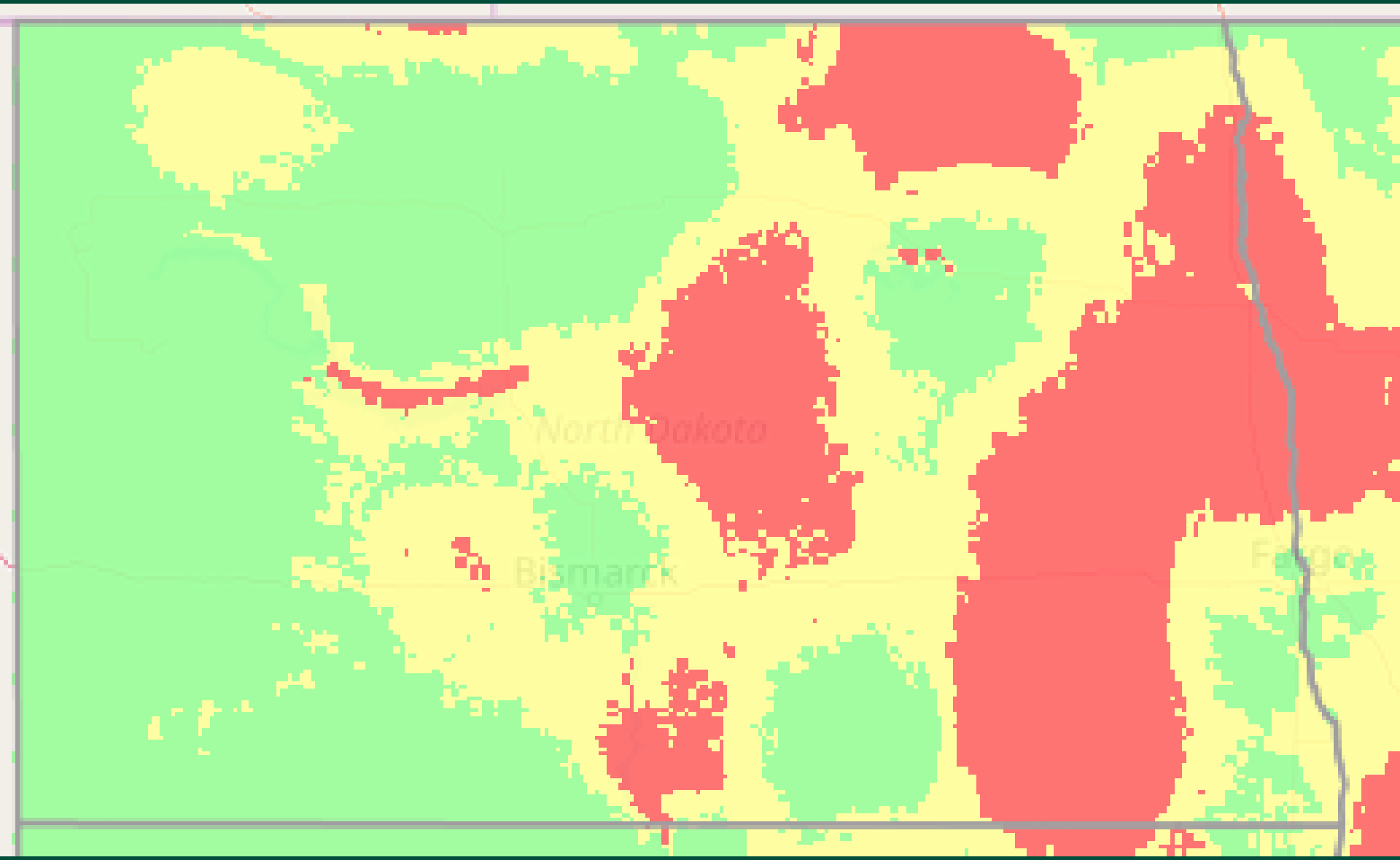
June 27, 2018



July 4, 2018

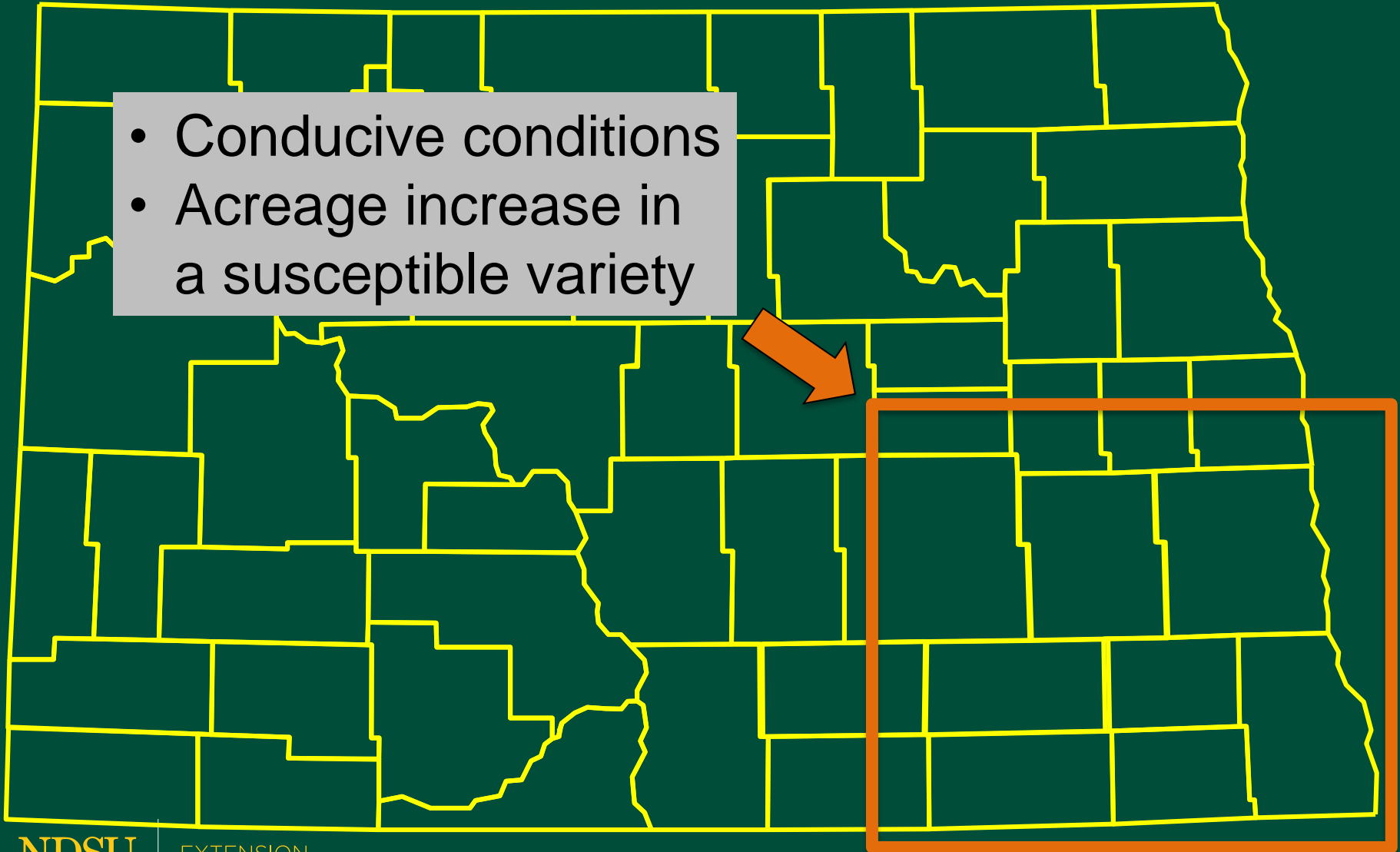


July 11, 2018



Highest Levels of FHB in 2018?

- Conducive conditions
- Acreage increase in a susceptible variety

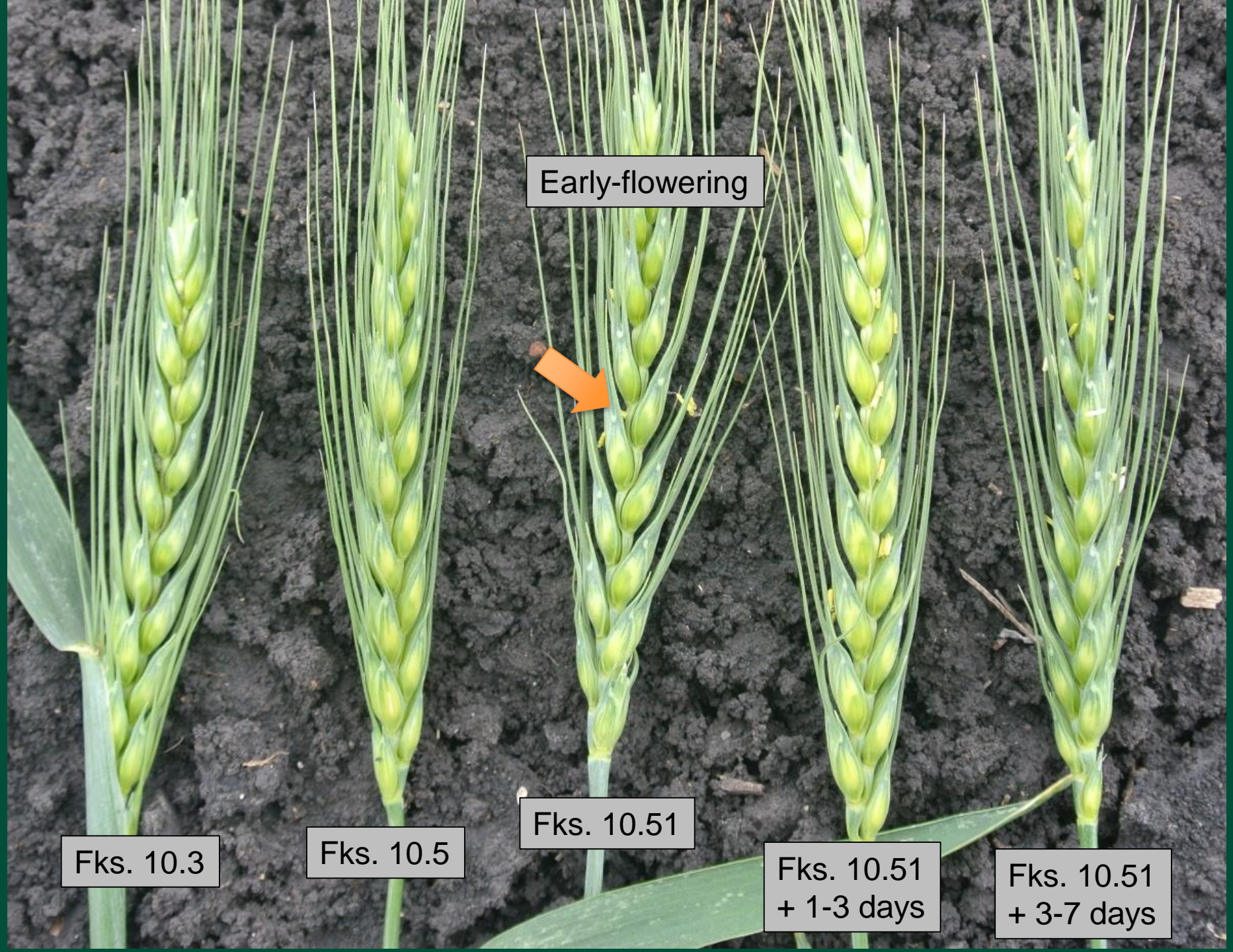


What is new with Fungicides for FHB Management?

Application window “opening up”

New fungicide available for 2019





Early-flowering

Fks. 10.3

Fks. 10.5

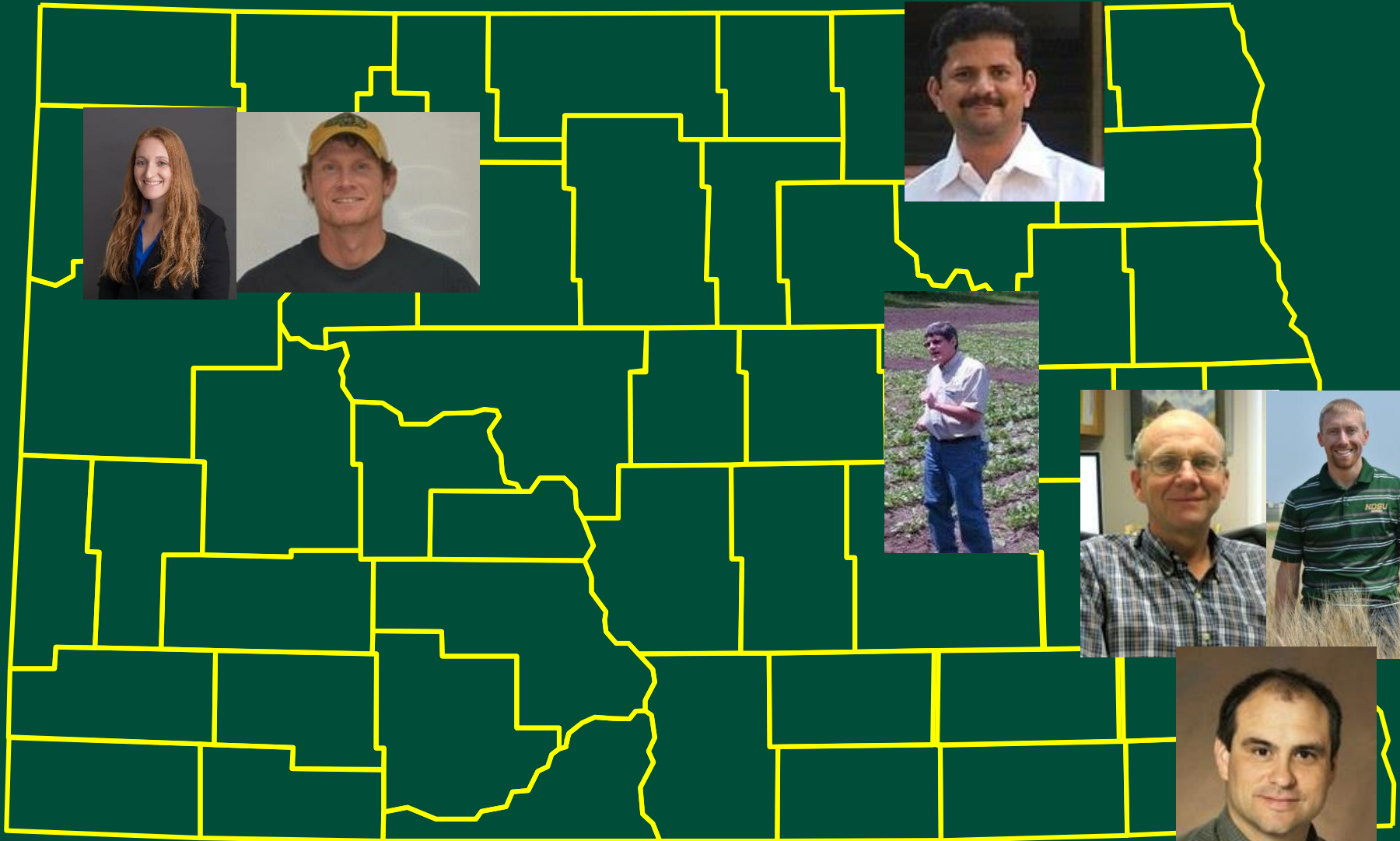
Fks. 10.51

Fks. 10.51
+ 1-3 days

Fks. 10.51
+ 3-7 days



USWBSI Fungicide Trials



Miravis Ace

- Adepidyn + Propiconazole
- Adepidyn – FRAC 7
- Succinate DeHydrogenase Inhibitor (SDHI)
- “Heavy lifting” will be from Adepidyn
- Timing?

$\frac{1}{2}$ head to $\frac{3}{4}$ head

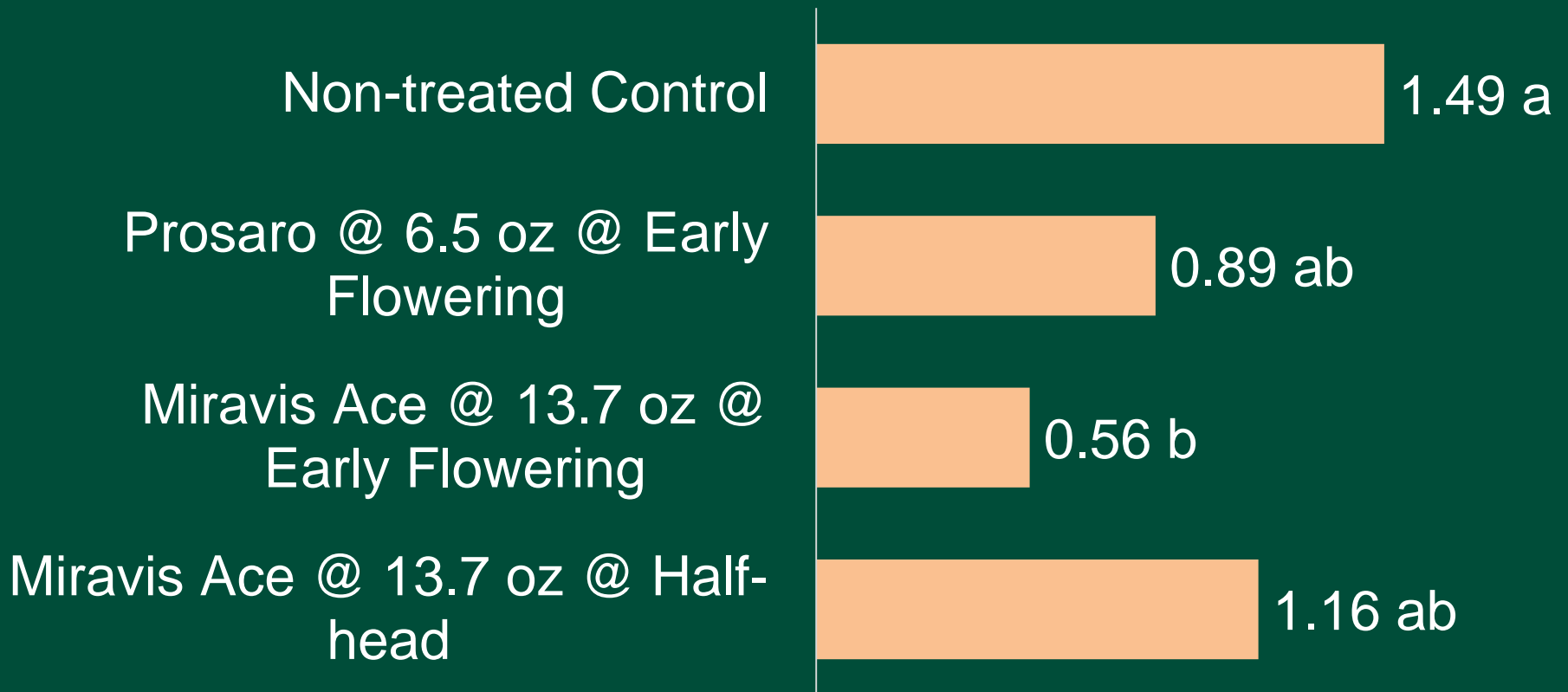


Flowering stages

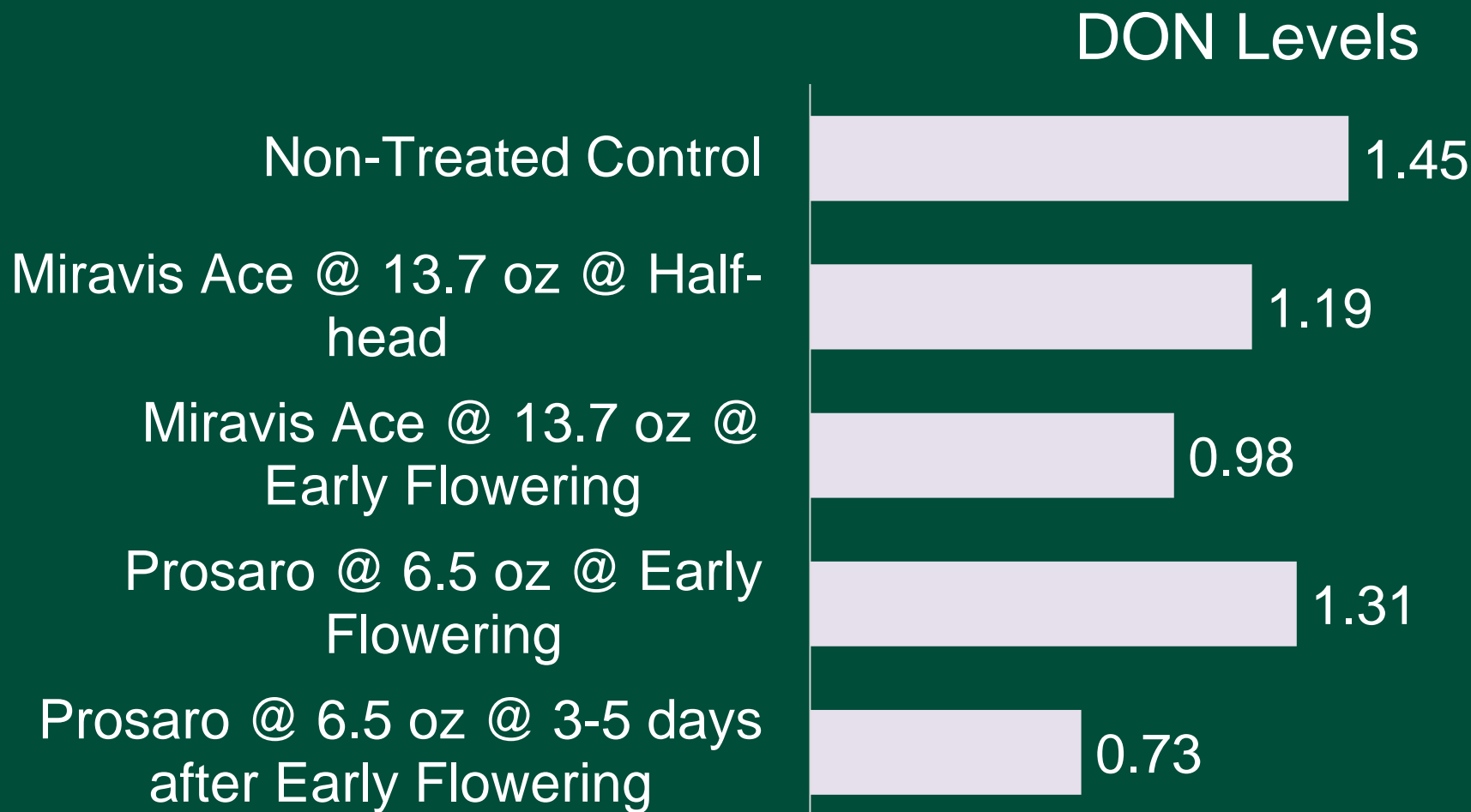


HRSW—Two Locations—Two Varieties

DON Levels



Durum—Three Locations—Three Varieties



Summary

- Top foliar disease in 2018 was bacterial leaf streak
- Preliminary results indicate Miravis Ace will be an effective FHB fungicide
- Still target early-flowering (Fks. 10.51) for Miravis Ace as half-head was inconsistent across environments