Wheat Day 2008

Managing Wheat Head Scab With Fungicide

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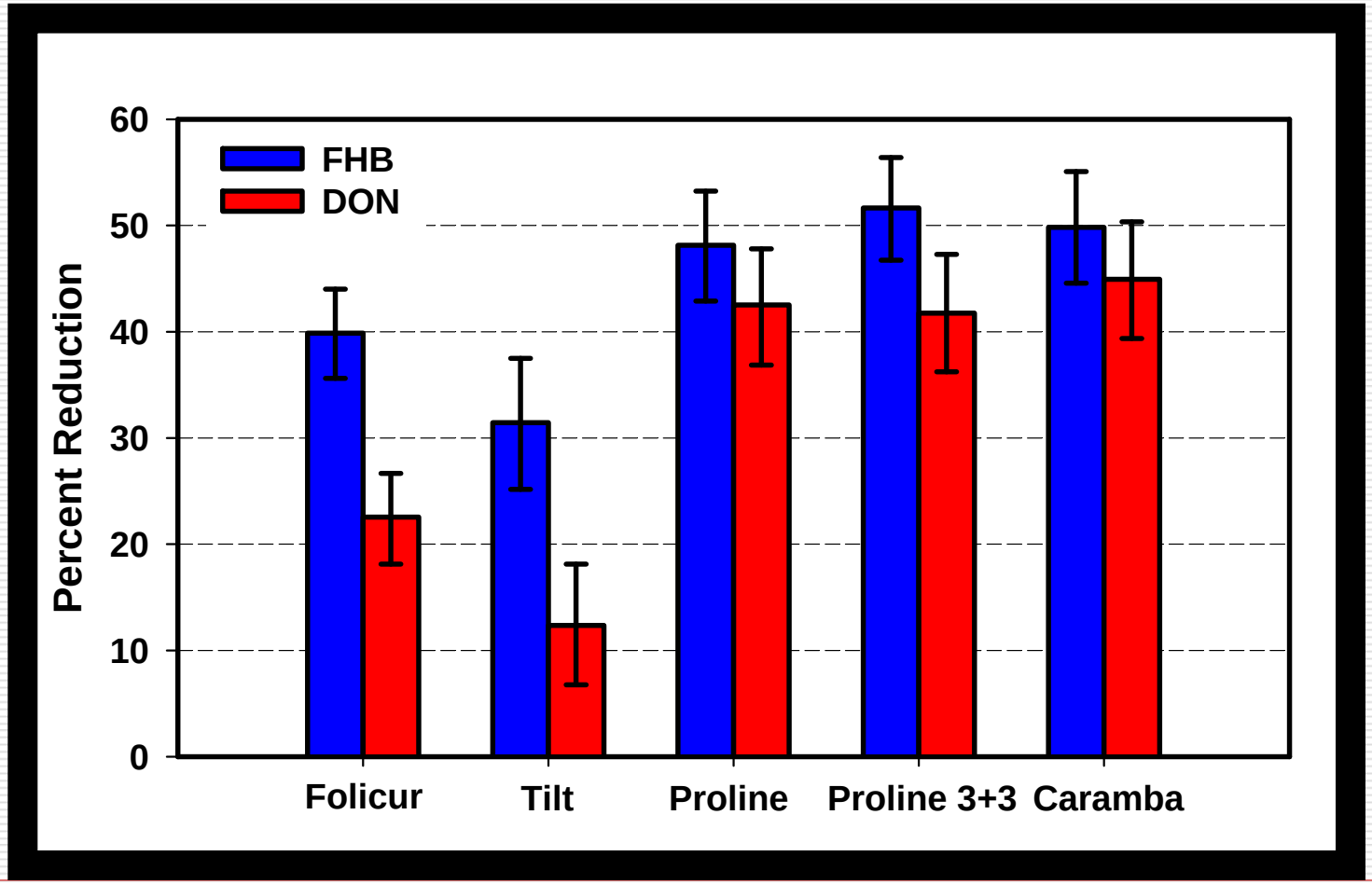
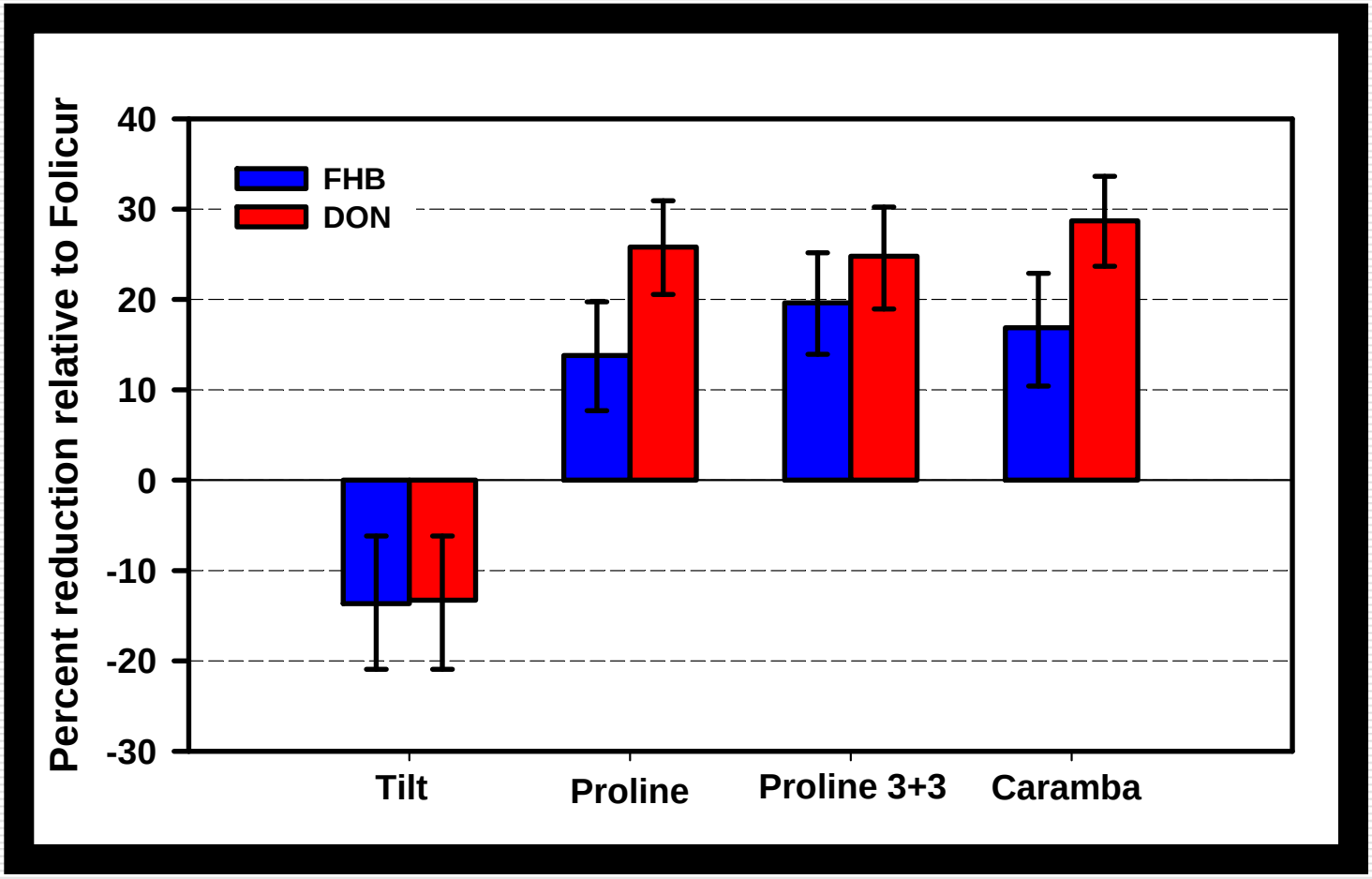
Most Effective Fungicides

Product	Active Ingredient(s)	Rate/A (fl. oz)	Head scab Rating
Caramba	Metconazole 8.6%	10.0 to 17.0	Good
Folicur 3.6 F	Tebuconazole 38.7%	4.0	Fair
Proline 480 SC	Prothioconazole 41%	5.0 to 5.7	Good
PropiMax 3.6 EC	Propiconazole 41.8%	4.0	Poor
Tilt 3.6 EC	Propiconazole 41.8%	4.0	Poor
Proline/Folicur 3+3	Prothioconazole + Tebuconazole	10.0	Good

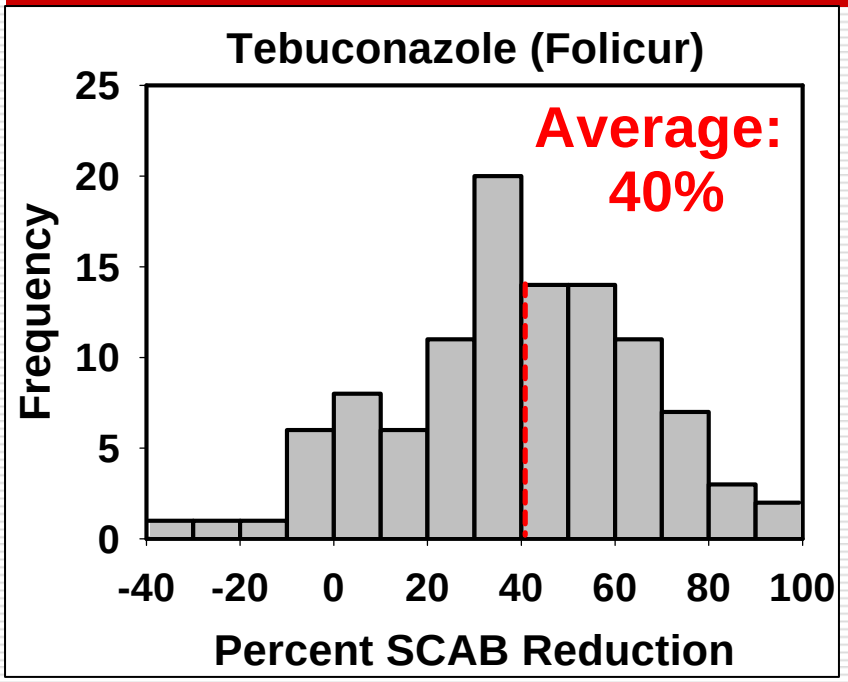
Average percent scab (FHB) and vomitoxin (DON) reduction compared to the check



Average percent scab (FHB) and vomitoxin (DON) reduction compared to Folicur

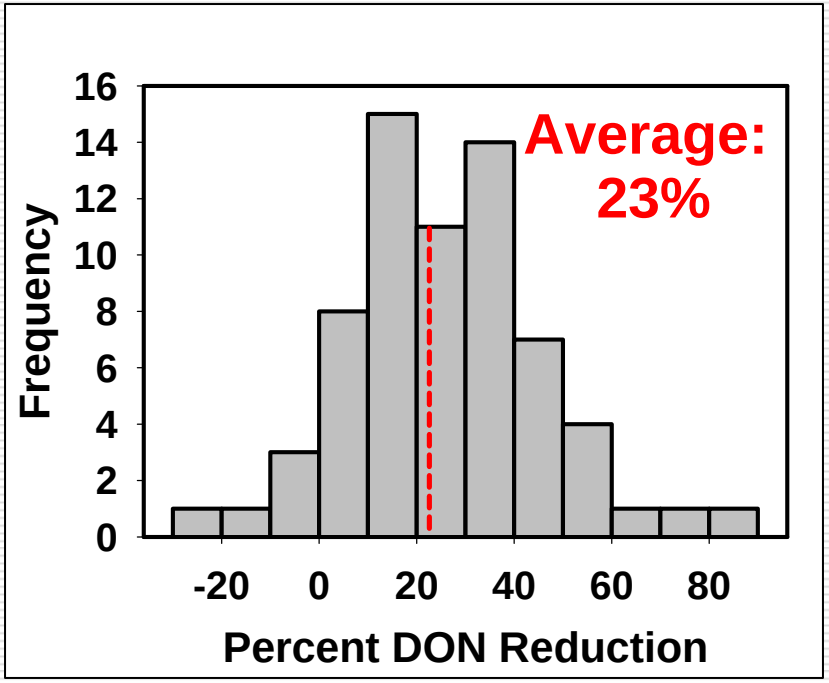


High variability in Fungicide Efficacy



Scab

Vomitoxin



High variability in Fungicide Efficacy

Possible reasons of high variability

- **Local weather conditions**
  - **Affect disease development and DON contamination**
  - **Affect fungicide efficacy**
- **Local fungal population**
  - ***Fungicide sensitivity***
  - **Aggressiveness**
  - **DON producing ability**
- **TIMING: poor application timing reduces efficacy**

Timing is extremely important

Correct time to apply

Flowering or Anthesis

FRESH anthers seen sticking out of florets

Late (less effective)

Anthers may still be seen sticking out of florets well after flowering is complete

Use The Scab Risk tool as a Guide when Making Fungicide Application Decisions

http://www.wheatscab.psu.edu

PENNSTATE 1855

THE OHIO STATE UNIVERSITY EXTENSION

U.S Wheat and Barley Scab Initiative

Home
Key items to obtain a prediction
Model details
Disease information
Risk map tool

prediction center

prediction center

Wheat Fusarium Head Blight

Fusarium head blight or head scab is caused by the fungus *Fusarium graminearum*. The disease causes tremendous losses by reducing grain yield and quality in many wheat production regions east of the Rocky Mountains.

The goal of this experimental predictive system is to help growers assess the risk of Fusarium head blight in their region. Major outbreaks of Fusarium head blight are associated with specific weather patterns prior to flowering of the wheat crop. Researchers at Penn State University, Ohio State University, Purdue University, North Dakota State University, and South Dakota State University have worked together to develop models that predict the risk probability of an epidemic with greater than 10% severity based on observed weather patterns.

You can customize the forecast for your region and production practices by clicking on the wheat scab "Risk map tool" from the menu above.

Wheat spikes with symptoms of Fusarium head blight

A Penn State EMS Enivironment Institute Prototype: Fusarium Head Blight Risk Assessment Tool - Netscape

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Bookmarks Location: http://www.wheatscab.psu.edu/riskTool.html What's Related

Fusarium Head Blight Risk Assessment Tool

Flowering Date

	S	M	T	W	T	F	S
MAY	2	3	4	5	6	7	8
	9	10	11	12	13	14	15
	16	17	18	19	20	21	22
	23	24	25	26	27	28	29
JUN	30	31	1	2	3	4	5
	6	7	8	9	10	11	12
	13	14	15	16	17	18	19
	20	21	22	23	24	25	26
JUL	27	28	29	30	1	2	3
	4	5	6	7	8	9	10
	11	12	13	14	15	16	17
	18	19	20	21	22	23	24
	25	26	27	28	29	30	31
	1	2	3	4	5	6	7

Forecast Available
click on state to zoom in

No Forecast Available

Step 1: Choose Flowering Date

Use the calendar at the left to select the flowering date for your fields. The flowering date is in dark blue; the previous 7 days are in light blue. ***more.....***

Step 2: Select Model

Use the **choose model** button to customize the risk model for your wheat type and production practices

Step 3: Zoom in to view risk map

Click on a state to zoom in and view risk maps.

Click on a **weather station** for station-based risk information.

Click the **full extent** button to zoom out to the US map and navigate to another state.

OK FAQ

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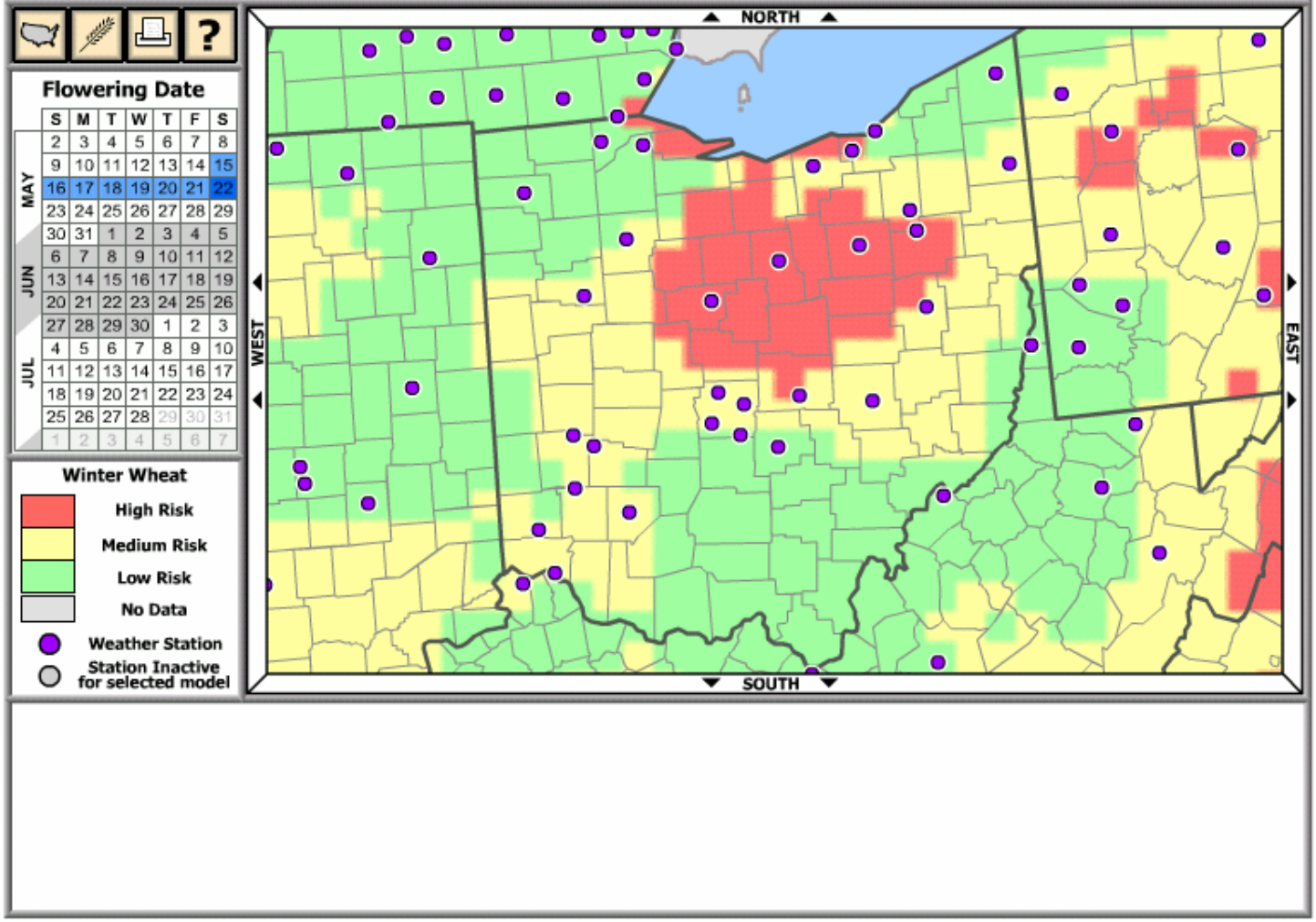
Fusarium Head Blight Risk Assessment Tool



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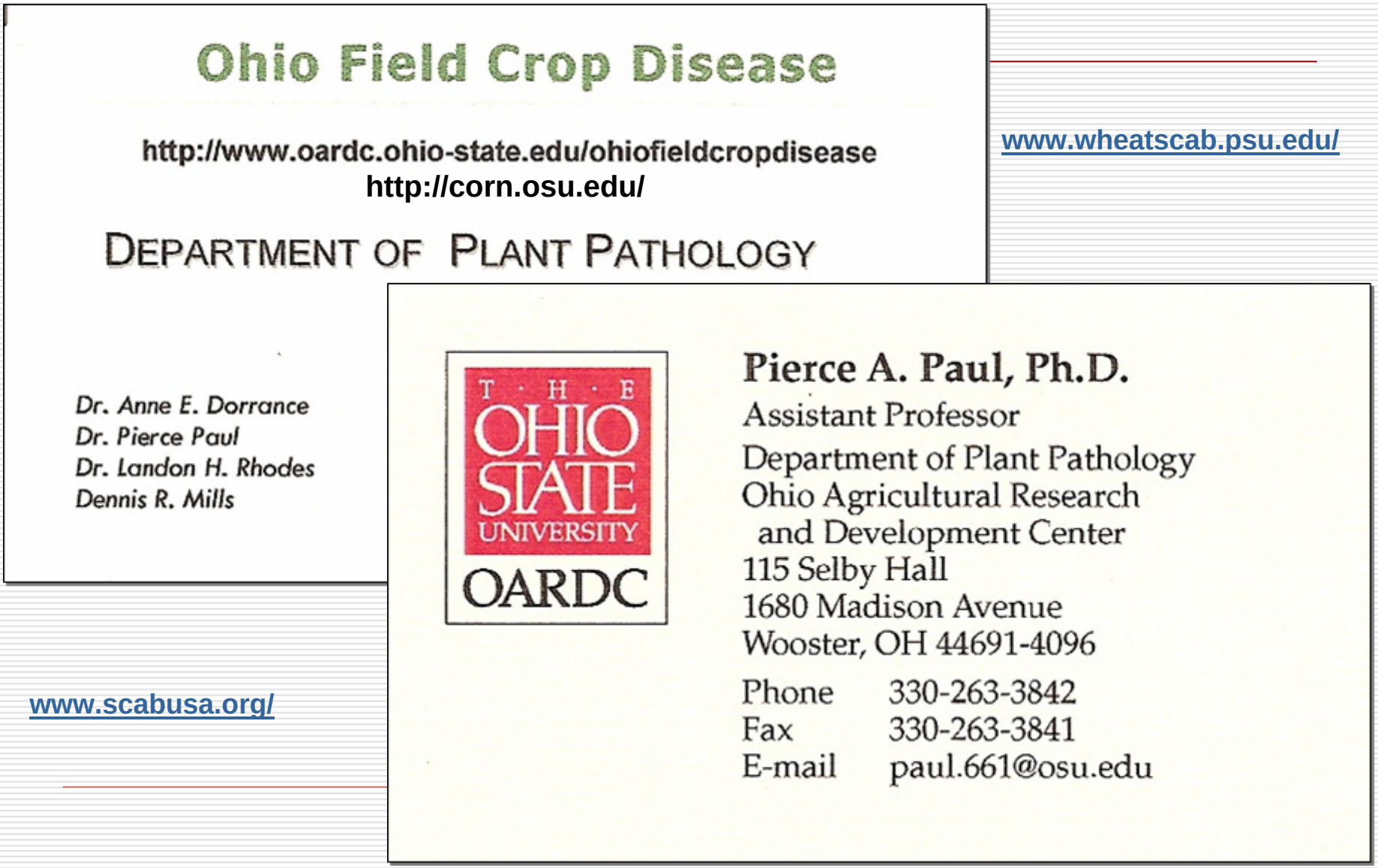
Summary

- Fungicides (triazoles) do reduce FHB and DON but results vary from one product to another.
- Proline, Caramba, and Proline+Folicur gave consistently better results than Folicur alone.
- DON may still exceed threshold levels in fungicide treated fields.
- For best results, apply fungicides **AT THE RIGHT TIME, AT FLOWERING**
- **INTEGRATED MANAGEMENT!!**



www.wheatscab.psu.edu/

www.scabusa.org/