

# SURVEY OF SCN IN WISCONSIN

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# Motivation for the Survey

- General perception is SCN is not widespread
- This attitude brings apathy
- Historically, SCN in most states has gone from undetected for years to a widespread problem
- Our goal is to prevent a repeat of history
- It is not a case of if, but when SCN damage will be evident and widespread

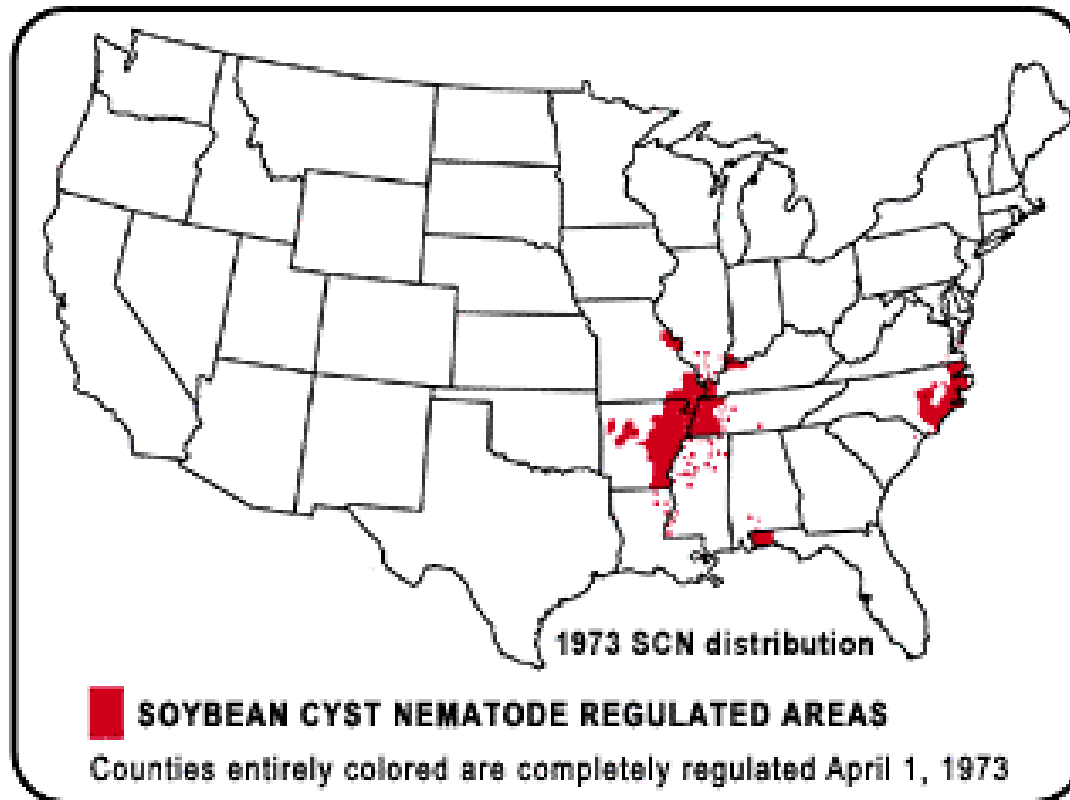
# FOUR DIFFERENT STAGES OF BEHAVIOR

- **Know.** What is SCN?
- **Think.** Could I have it and not know it?
- **Feel.** If I'm losing yield to SCN, I want to know about it and stop it now.
- **Do.** I'm going to test my fields for SCN.

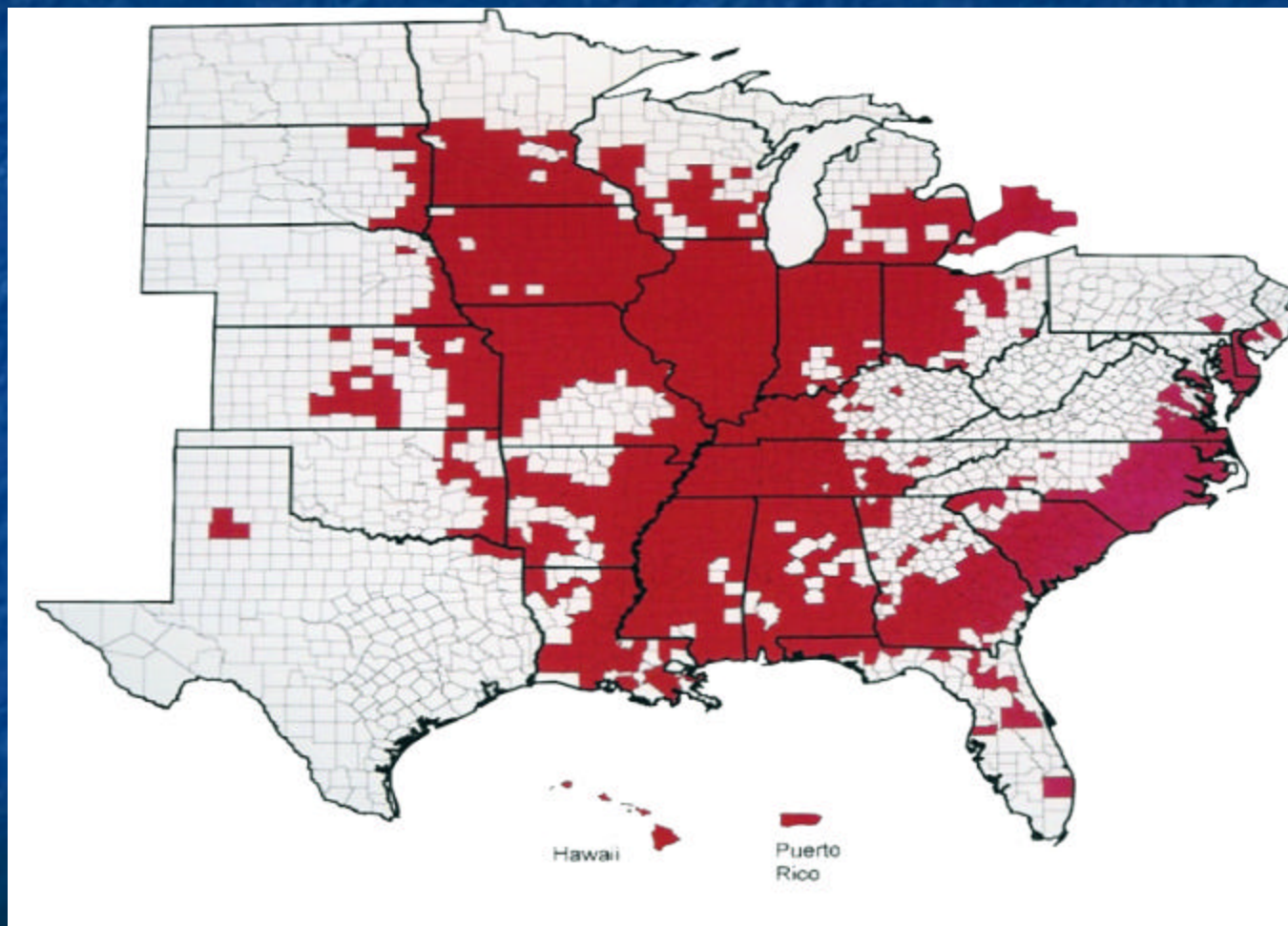


# SCN Distribution in the US-1973

## SCN – A BIG PROBLEM



# SCN Distribution in the US Today



# Controlling SCN

- Identify its existence
- Rotate crops and varieties
  - Relieve stress from weeds, fertility, herbicide, etc.



# EDUCATIONAL

## Soil Testing Program

- Goal is to help growers identify pest in fields
- Begun in 2002
- Free kit sent to growers
- Grower responsible for taking sample and sending in

# EDUCATIONAL

## Soil Testing Program

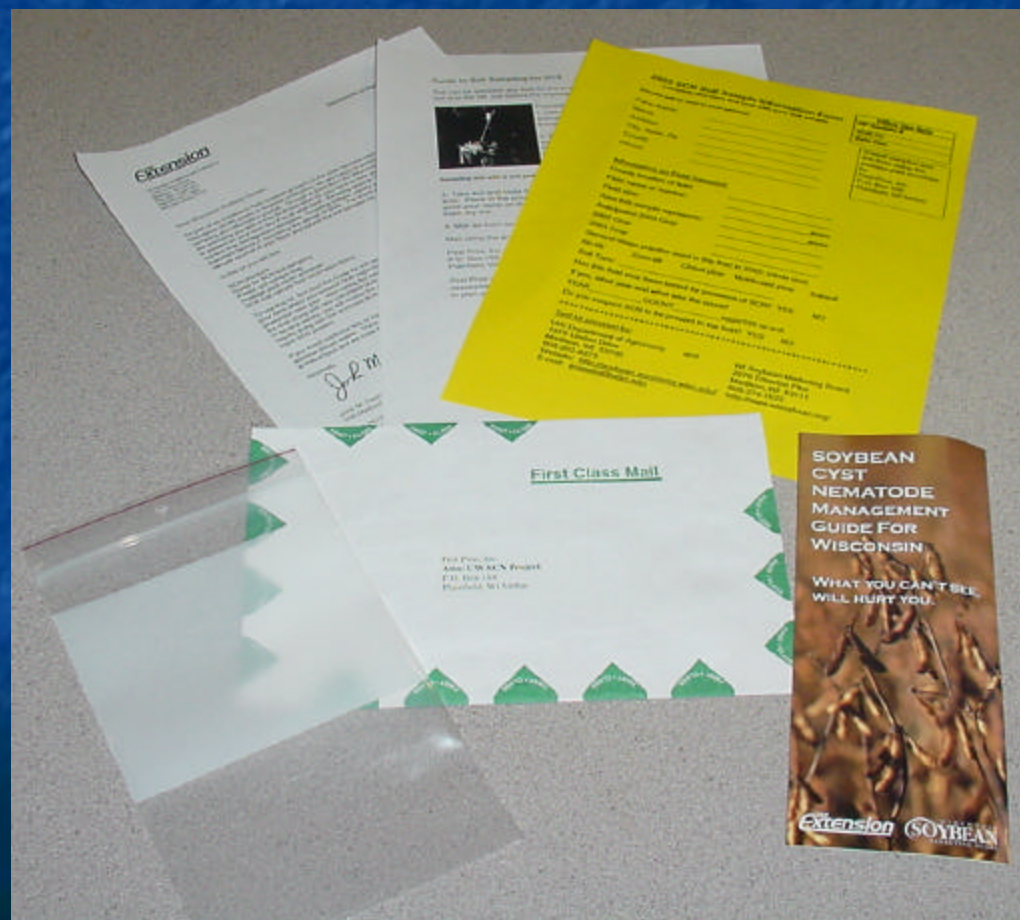
- Promotion through field days, Ag agents, crop consultants and commodity associations
- Sponsored by a grant from the Wisconsin Soybean Marketing Board





# SCN Kit

- Postage paid mailer
- Sample bag
- Field information sheet
- Guide to soil sampling
- Letter
- SCN brochure



# Participation

- 300 test kits sent out
- 160 were returned to lab
- 25 counties represented



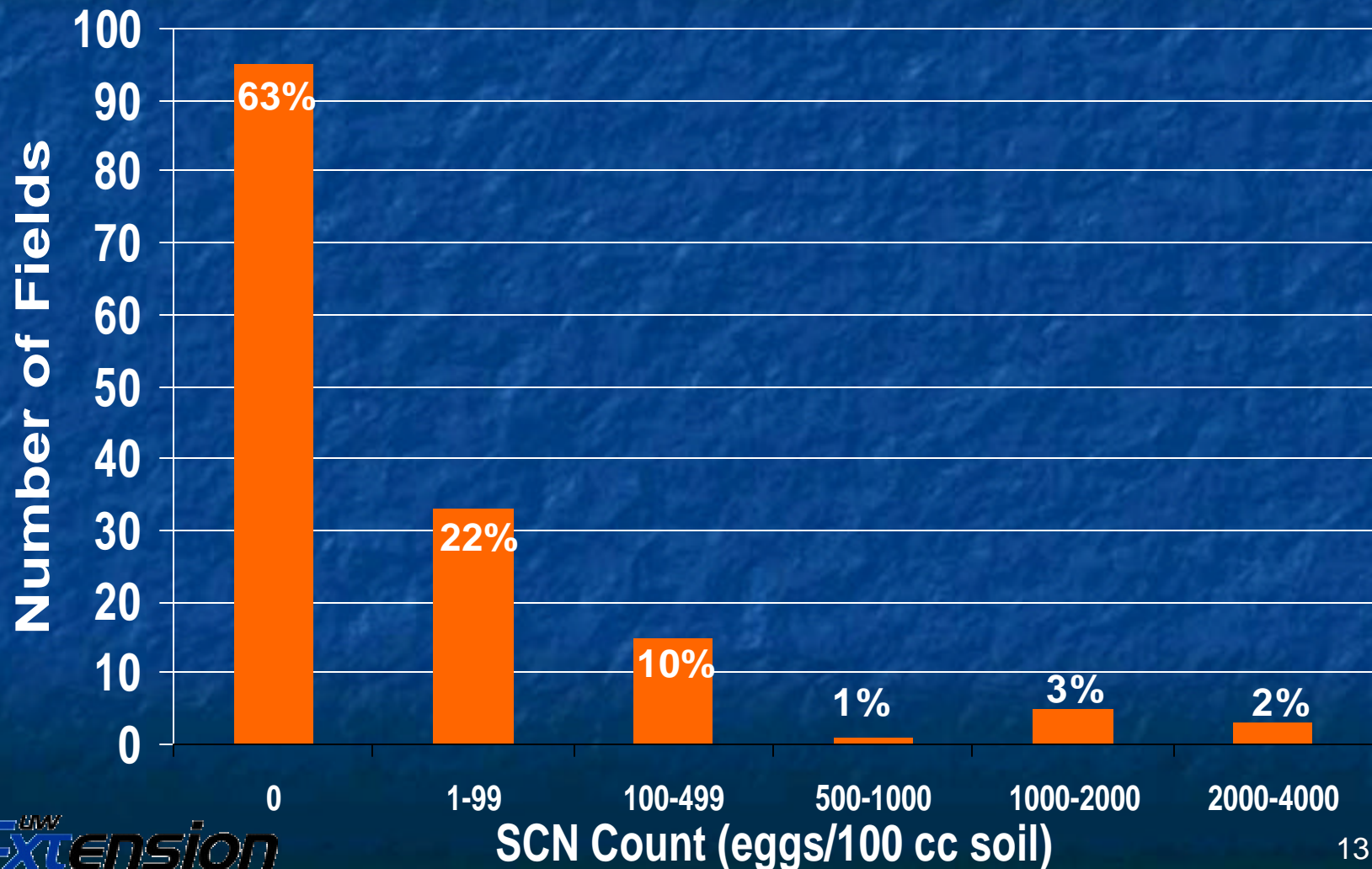
# UNDERSTANDING SCN SOIL TEST RESULTS

Risk	Egg count range	Potential yield loss for SCN susceptible variety
None	0 eggs/100 cm <sup>3</sup> soil	None
Low	1-500 eggs/100 cm <sup>3</sup> soil 1-500 eggs/100 cm <sup>3</sup> soil	0-10% silt or clay soils 10-30% sandy soils
High	500-10,000 eggs/100 cm <sup>3</sup> soil	10-50% all soils
Very High	>10,000 eggs/100 cm <sup>3</sup> soil	Very high-expect yield loss for resistant variety



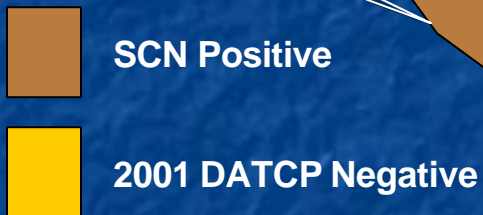
And the Survey Says....

# Frequency Distribution of SCN egg Counts in 2002 Survey

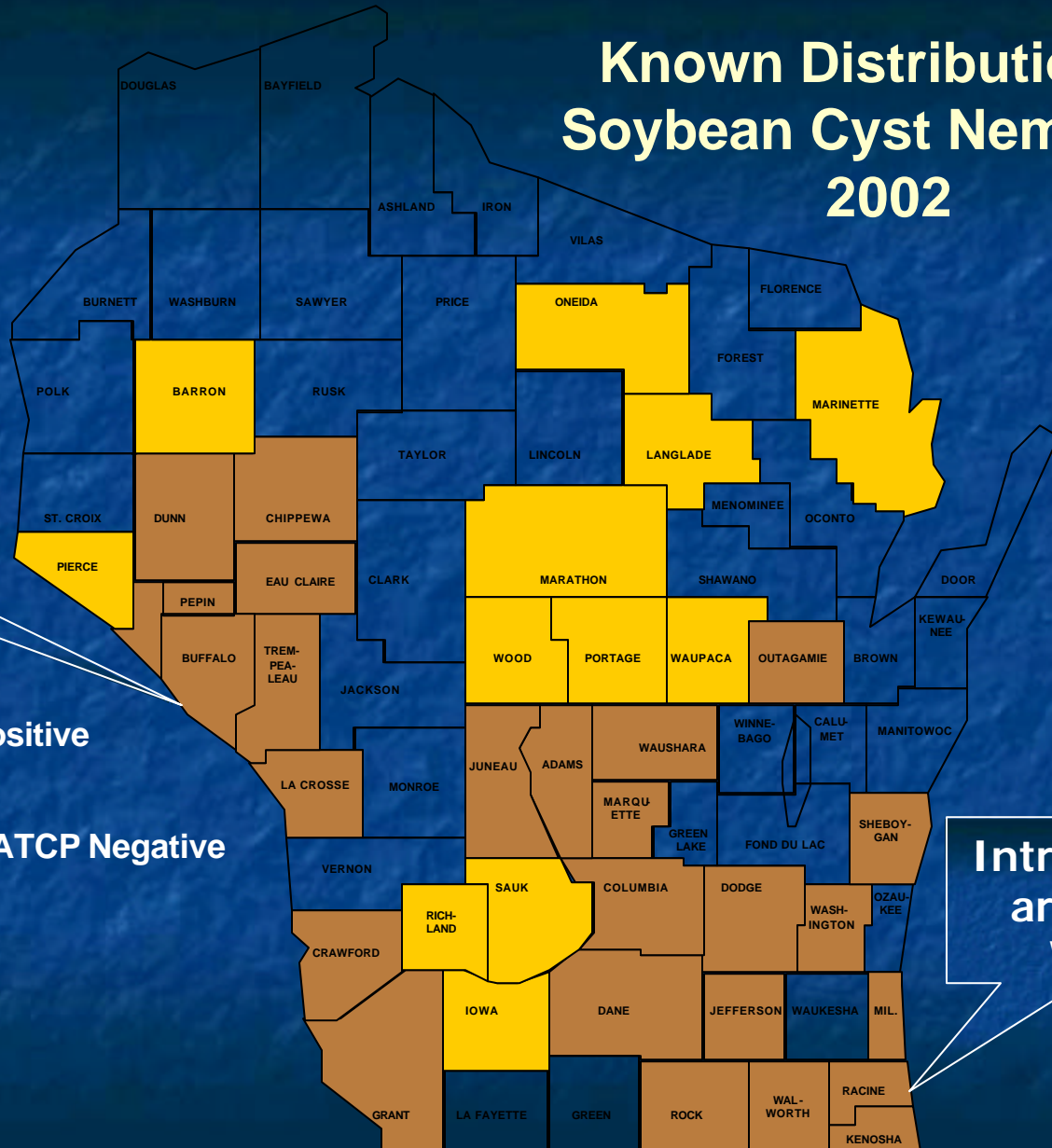


# Known Distribution of Soybean Cyst Nematode 2002

Mississippi river effect?



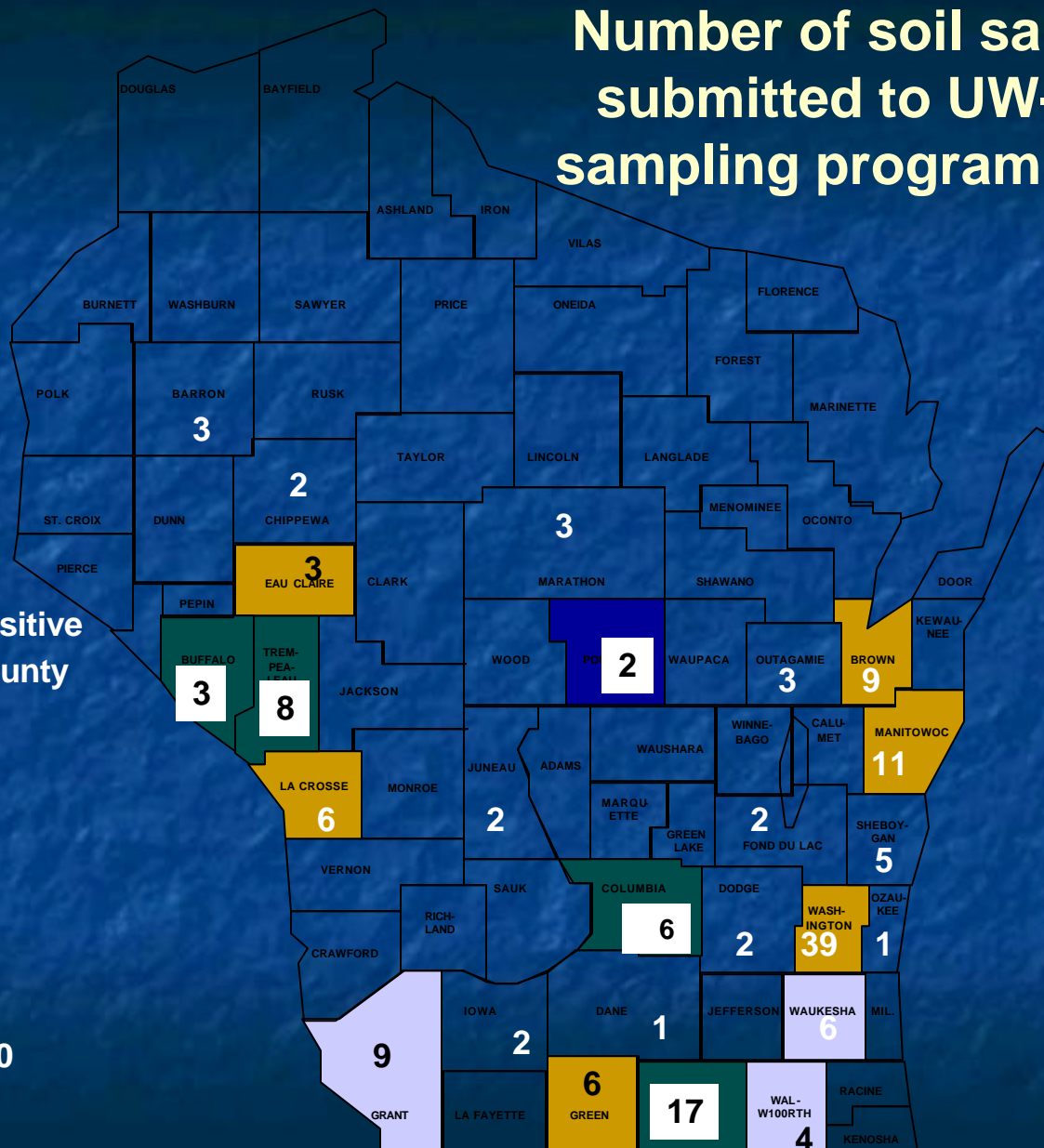
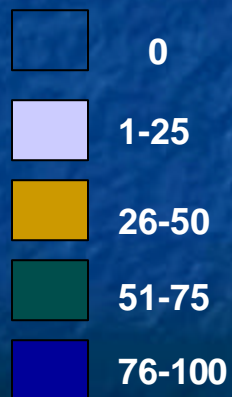
Introduction area into WI??





# Number of soil samples submitted to UW-SCN sampling program - 2002

Percentage positive samples for county

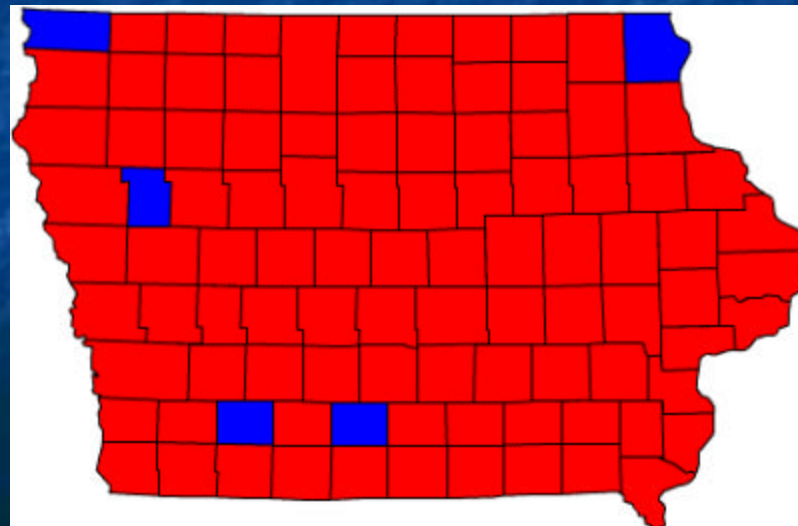
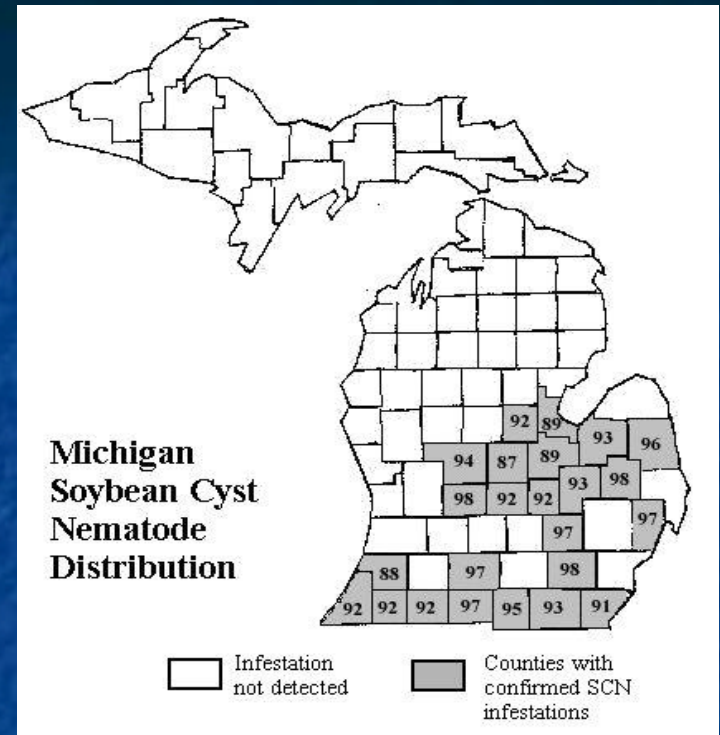
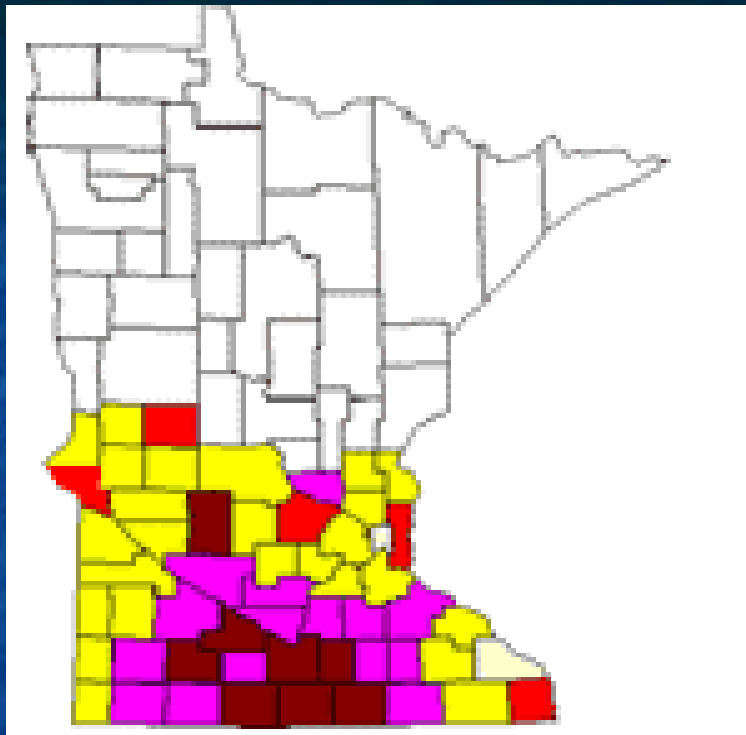


**Known Distribution of Soybean Cyst Nematode 2002**

**Legend:**

- Known Distribution
- Positive
- Confirmed UW Positive

**Counties shown on map:** DOUGLAS, BAYFIELD, ASHLAND, IRON, VILAS, BURNETT, WASHBURN, SAWYER, PRICE, ONEIDA, FLORENCE, POLK, BARRON, RUSK, FOREST, MARINETTE, ST. CROIX, DUNN, CHIPPEWA, TAYLOR, LINCOLN, LANGLADE, MENOMINEE, OCONTO, PIERCE, EAU CLAIRE, CLARK, MARATHON, SHAWANO, DOOR, KEAUW-NEE, PEPIN, BUFFALO, TREMPER-LEAU, JACKSON, WOOD, PORTAGE, WAUPACA, OUTAGAMIE, BROWN, WINNEBAGO, CALUMET, MANITOWOC, LA CROSSE, MONROE, JUNEAU, ADAMS, WAUSHARA, MARQUETTE, GREEN LAKE, FOND DU LAC, SHEBOYGAN, VERNON, SAUK, COLUMBIA, DODGE, WASHINGTON, OZAUKEE, CRAWFORD, RICHLAND, IOWA, DANE, JEFFERSON, WAUKESHA, MILWAUKEE, GRANT, LA FAYETTE, GREEN, ROCK, WALWORTH, RACINE, KENOSHA.





# Summary of Survey

- 63% of the fields tested, no SCN was found
  - No change in management practices
- 30% had 1 - 500 eggs/100 cc soil
  - Moderate risk
  - rotate with non-host crops, resistant varieties, and tolerant or susceptible varieties when SCN numbers are low again
- 10 fields had very high levels >500 eggs/100 cc soil
  - High risk
  - rotation out of soybean for several years and careful selection of resistant varieties

# Summary

- SCN will never go away
- Continued monitoring needed
- More growers need to test their fields

Support for this project  
provided by:

