$25 Million...
How Much Did YOU Contribute?
Soybean Cyst Nematode

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Soybean Cyst Nematode

23 New Counties Identified (2005 - 2009)
SCN IS FOREVER...

BUT IT CAN BE MANAGED!
Obstacle

SCN ≠ STD
MANAGEMENT

- IDENTIFICATION
- SANITATION
- ROTATION
- RESISTANT VARIETIES
IDENTIFICATION

- First step to managing SCN
- Visual observation – one month or more after emergence (may or may not detect)
- Soil test – any time throughout the year, after harvest easiest (more conclusive)
SANITATION

- Clean equipment between fields
- Plant/till SCN infested fields last
- Minimize soil movement within and between fields
- Control weedy hosts
WEED HOSTS

Most Common:

▪ Field Pennycress*, Henbit*
▪ Common Chickweed*, Common Mullein, Pokeweed, Purslane, Other Wild Mustards*
  * - may grow as a winter annual

Management:

▪ SCN-infested fields with any of the weeds listed above should be considered a priority for fall or early spring weed control.
Winter Annual Weed Hosts

- Henbit

- Field Pennycress

- Research is ongoing to determine Nebraska SCN population reproduction levels on weedy hosts
**ROTATION**

- Year 1 – Non-host Crop
- Year 2 – *Resistant Variety*
- Year 3 – Non-host Crop
- Year 4 – *Resistant Variety*
- Year 5 – Non-host Crop
- Year 6 – *Resistant Variety*

*Know the source of resistance and rotate to a different source than you used the last time you planted soybeans.*
RESISTANT VARIETIES

- Know the source of resistance
  - PI88788 (*most common*)
  - Peking (PI54840)
  - Hartwig (PI437654)
  - Cyst-X (*selection from Hartwig*)
  - Others
SOIL SAMPLING

- 15-25 soil cores per sample
- 6-8 inches deep, through roots
- Randomly sample field, or
- Sample problem spots
- Mix thoroughly
- Submit 1-pint sample to UNL P&PDC
PROBLEM SPOTS

- Previously flooded areas
- Along fence lines
- Low areas in field
- Field entryways
- Areas with consistently lower soybean yields, but good corn yields
Soil Sampling

- Completed 5th year of project
- # of samples/year increasing
- About 20-25% positive for SCN
- Many farmers had no idea it was in their fields, even at high counts
UNL SCN RESEARCH
2006 - 2009

Ave. yield: 15 infested sites
- Resistant varieties: 52.9 bu/A
- Susceptible varieties: 47.6 bu/A

Ave. yield: 7 non-infested sites
- Resistant varieties: 63.1 bu/A
- Susceptible varieties: 65.7 bu/A
Egg counts at 12 infested sites
(eggs per 100 cc’s of soil)

Egg count: susceptible varieties
- Spring: 1,707 eggs
- Fall: 5,711 eggs + 235%

Egg count: resistant varieties
- Spring: 2,151 eggs
- Fall: 1,571 eggs - 27%
2010 SCN FIELD DAYS

Tentative Dates

- August 17 – Waterloo
- August 18 – Silver Creek
- August 23 – Waverly
- August 24 - Fairmont
New Project

Kit for testing for SCN in the Classroom

FFA chapters can purchase kits at a reduced price that include a training video and all the materials needed to test for SCN in the classroom.
Training Video Includes:

- Introduction  1:30
- Economic Impact & Global Demand  4:15
- Soybean Utilization  5:30
- Soybean Pests  4:45
- Field Inspection & Survey  3:00
Training Video Includes:

- Soil Sampling 1:30
- SCN Test Kit 6:30
- Egg Extraction from Soil 6:15
- Management of SCN 2:20
- Soybean Breeding 7:40

Total Run Time 43:15
Thank You!

Questions?