UNIFORM SOUTHERN SOFT RED WINTER WHEAT FUSARIUM HEAD BLIGHT SCREENING NURSERY

2000 NURSERY REPORT

Coordinated by:

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This is a joint progress report of cooperative investigations underway and funded by the State Agricultural Experiment Stations, private companies and the United States Department of Agriculture, Agricultural Research Service. This report contains preliminary data that have not been sufficiently confirmed to justify general release; interpretations may be modified with additional experimentation. Confirmed results will be published through established channels. The report is a tool for the use of the cooperators and their official staff and those persons having direct interest in the development of agricultural research programs.

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LOCATION NOTES

Bay, Arkansas

- Cooperators: June Hancock, David Hill, Luis LazoAnaya
  Novartis Seeds Inc.
- Reps: 3 Plot size: 4 rows by 3 feet Seed date: October 26, 1999
- Inoculation method: Corn kernels twice (3/27/00 and 4/14/00)
- Precipitation during grain fill: Sprinkler daily
- Avg temp. during grain fill: 70's
- Date/Feekes growth stage when scored: Ratings taken 21 days after last inoculation

Urbana, Illinois

- Cooperators: Fred Kolb, Larry Boze

University of Illinois

- Reps: 2 Plot size: Single 3' row Seed date: October 6, 1999
- Inoculation method: Grain spawn-infected wheat seed
- Precipitation during grain fill: Natural + mist irrigation, 6-7:30 AM and 7:30-9 PM (0.36"/day)
- Avg temp. during grain fill: Mod. cool, 70's and 80's

Wooster, Ohio

- Cooperators: Pat Lipps, Larry Herald, Audrey Johnston, Jessica Engle, Anju Gupta

Ohio State University

- Reps: 3 Plot size: 1-m long row Seed date: October 5, 1999 Harvest date: July 10-15, 2000
- Inoculation method: Infested corn kernels spread throughout plot
- Precipitation during grain fill: Mist irrigation supplied each day 6-9 AM and 8-10 PM during flower
- Avg temp. during grain fill: 69.1 F
- Date/Feekes growth stage when scored: 11.2

Lexington, Kentucky

- Cooperators: Dave Van Sanford, Brenda Kennedy, Maria Hall

University of Kentucky

- Plot size: Four-row plot, 4' by 4"
- Inoculation method: Plots were inoculated using the scabby corn seed method on April 24
- Precipitation during grain fill: Overhead misting system used intermittently during 6-10 AM and 8-10 PM

Blacksburg, Virginia

- Cooperators: Carl A. Griffey, Jianli Chen

Virginia Tech

- Field design: Randomized complete block Reps: 3 Plot size: 4 x 5 ft^2
- Inoculation method: Spraying conidial suspension (5 x 10^4 spores/ml) used in field tests and floret inoculation (5 x 104 spores/ml) was applied in greenhouse tests; plots inoculated 3 times when 50%, 100% of heads were heading and 50% of heads were beginning to flower
- Data collection: 50 heads from each plot rated for incidence and severity at 21 and 28 days after inoculation; scabby seed hand-counted based on 200 kernels of each plot; severity for greenhouse test was 21 days rating

Kinston, North Carolina

- Cooperators: Rene Navarro, Goran Srnic, Paul Murphy
  North Carolina State University
- Reps: 3 Plot size: 4 rows x 4' Seed date: October 29, 1999
- Inoculation method: Field: Colonized corn kernels applied twice (early and mid-boot stages) at a rate of 2 g/sq ft. Mist irrigation daily 8-10 AM and 4-6 PM. Greenhouse: Mix of five isolates, 50,000 conidia/ml. 10 µl of inoculum applied to central floret. Transferred to humity chamber for 72 hr. Symptoms read 21 days post-inoculation.
- Date/Feekes growth stage when scored: Approximately 28 days after heading.

Griffin, Georgia

- Cooperator: Jerry Johnson
  University of Georgia
- No data to report--Negligible FHB

Baton Rouge, Louisiana

- Cooperator: Steve Harrison
  Louisiana State University
- No data to report--Negligible FHB

Clemson, South Carolina

- Cooperator: Doyce Graham
  Clemson University
- No data to report--Negligible FHB