

# Rice Diseases Research Update

Luis Espino

University of California Cooperative Extension

2022 Rice Grower Meetings

March 14-17, 2022

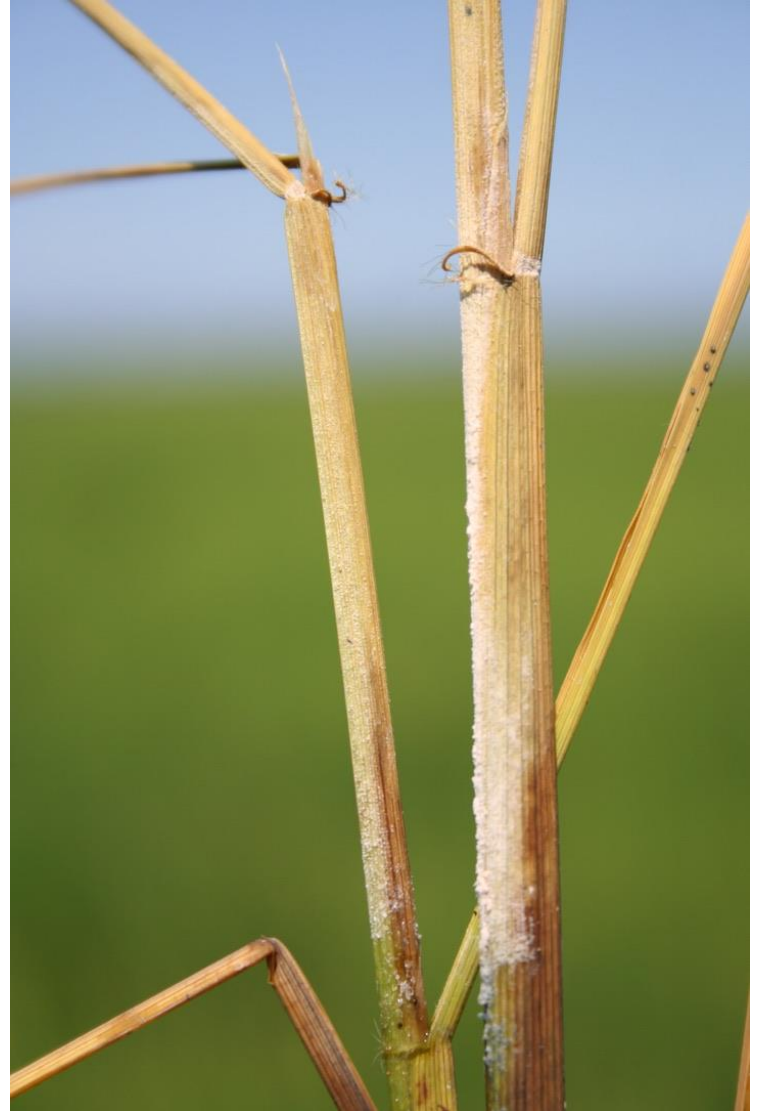
# Contents

- Bakanae
- Stem rot and aggregate sheath spot
  - Varieties
  - Fungicides

# Bakanae



# Bakanae



# Bakanae

- Fungal pathogen
- Mostly seed born, but it can survive in the soil
- Control: sodium hypochlorite (bleach) soak



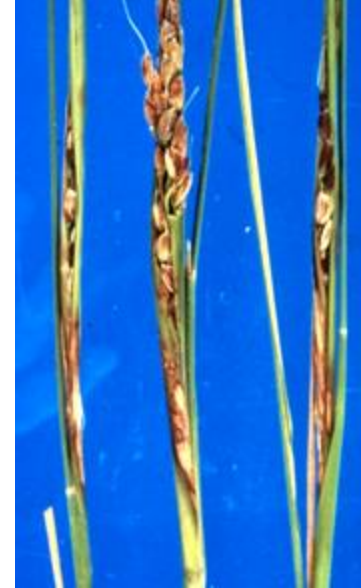




# Stem Rot and Aggregate Sheath Spot



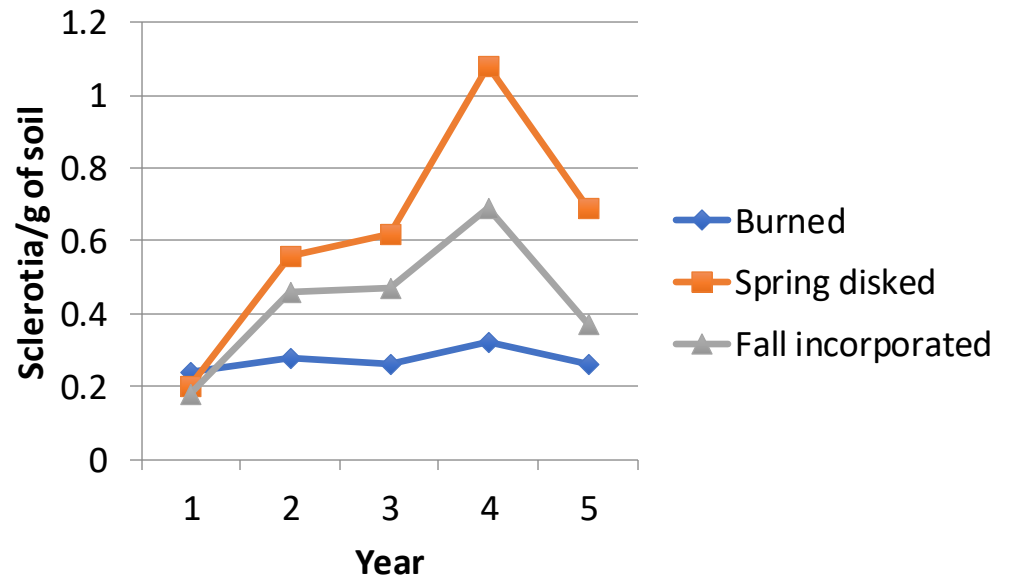
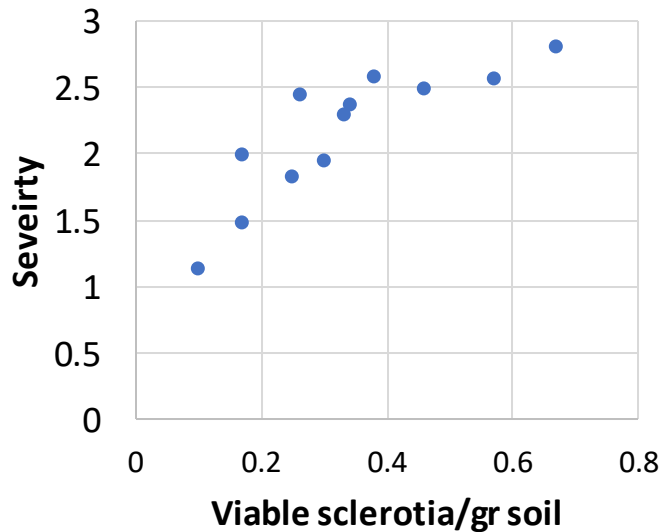
# Stem Rot and Aggregate Sheath Spot





# Stem Rot and Aggregate Sheath Spot

- Residue management



# Stem Rot and Aggregate Sheath Spot

- Residue management
- Appropriate levels of N and K
  - High N favors SR, N deficiency favors AGSS
  - Low K favors both diseases

# Stem Rot and Aggregate Sheath Spot

- Residue management
- Appropriate levels of N and K
- Varieties

Variety	Stem rot score (0-10)
M-104	5.4
M-105	4.8
M-205	4.9
M-206	4.8
M-209	4.9
M-401	4.3



# Stem Rot and AGSS Variety Trials

- Varieties

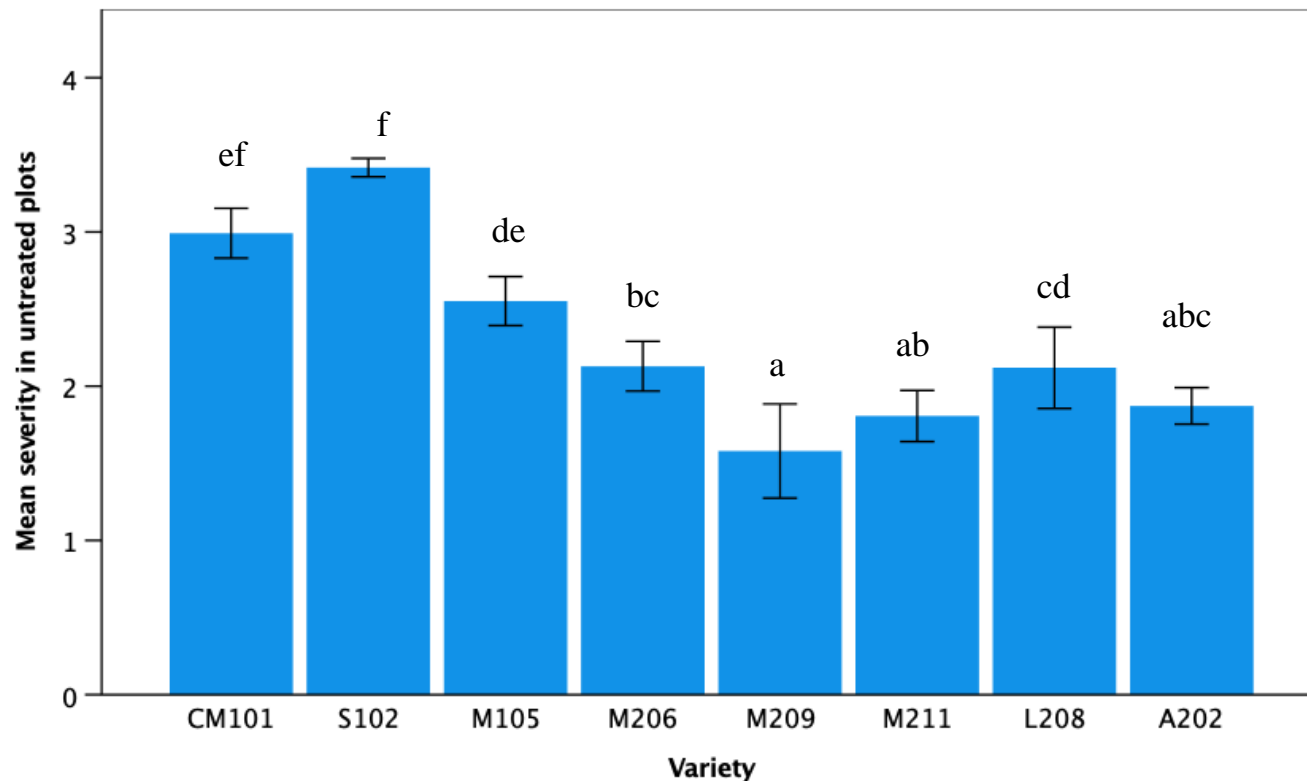
- S-102
- CM-101
- M-105
- M-206
- M-209
- M-211
- L-208
- A-202

- Treatment

- Untreated
- Quadris 15.5 oz/a at early heading

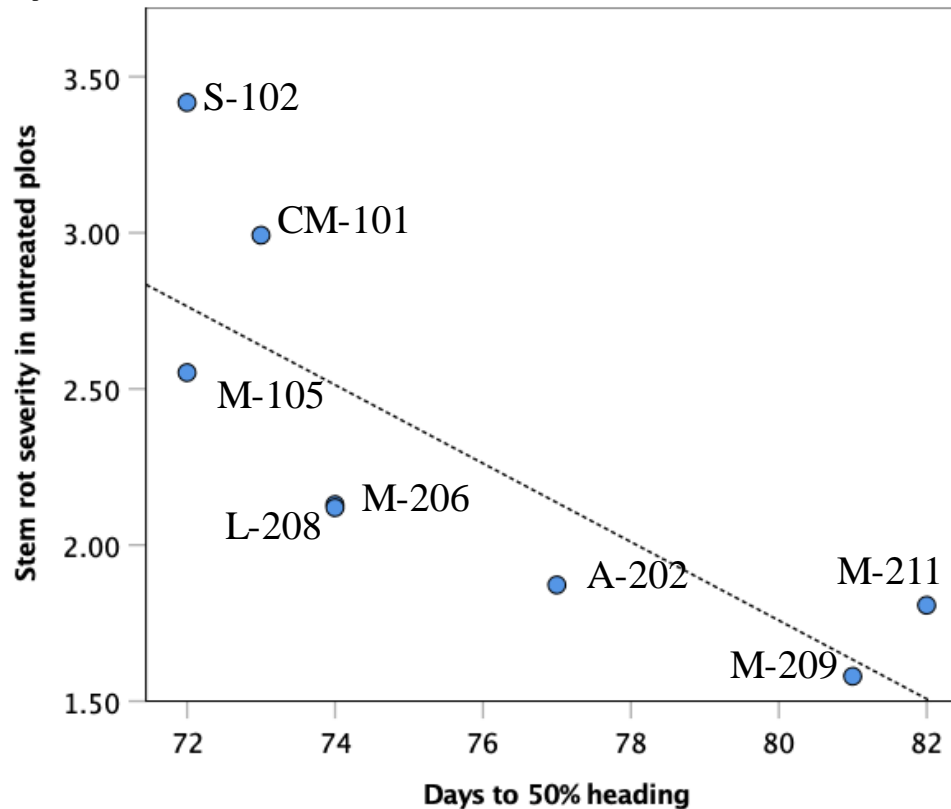
# Stem Rot

- Stem rot severity differed among varieties



# Stem Rot

- Relationship between maturity and stem rot severity





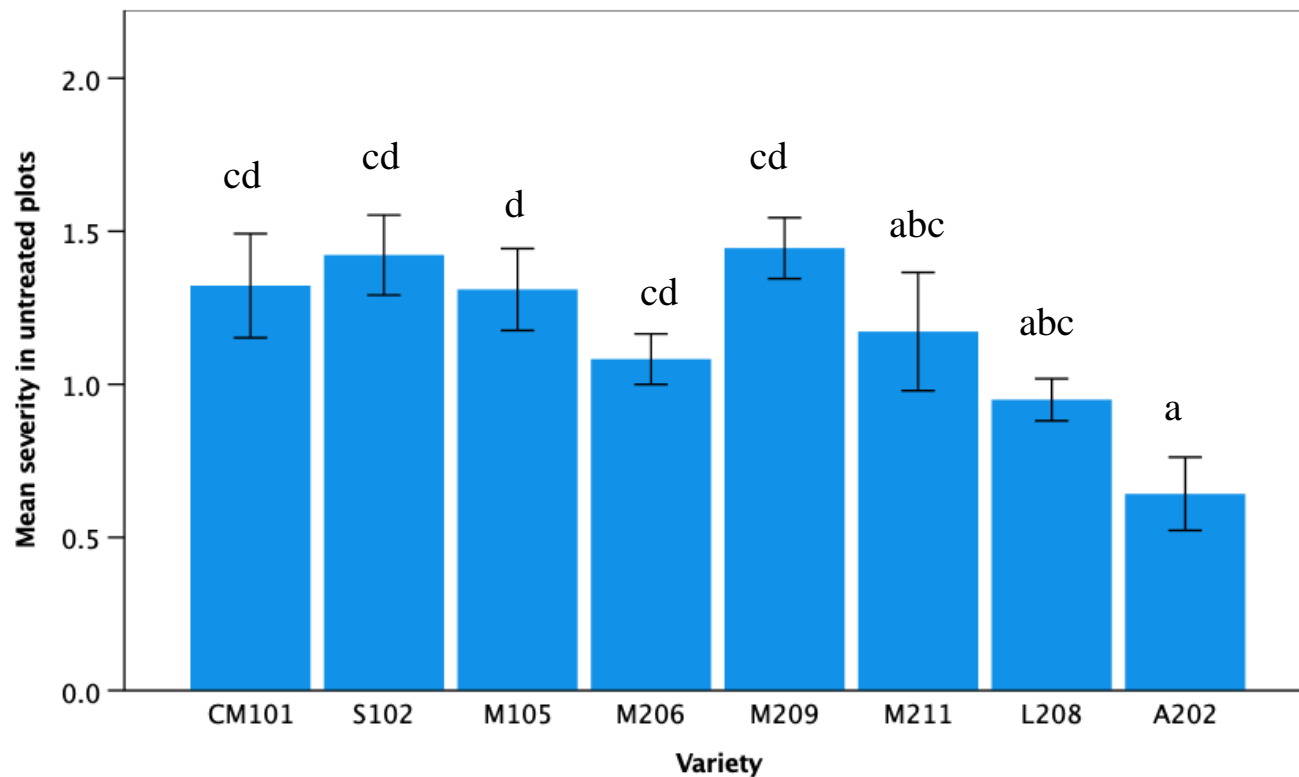
# Stem Rot

- Relative susceptibility

Variety	SR severity	Relative susceptibility
<b>M-209</b>	<b>1.58</b>	<b>1.00</b>
M-211	1.81	1.14
A-202	1.87	1.19
M-206	2.12	1.34
L-208	2.13	1.35
M-105	2.55	1.62
CM-101	2.99	1.89
S-102	3.42	2.16

# AGSS

- AGSS severity differed little between varieties



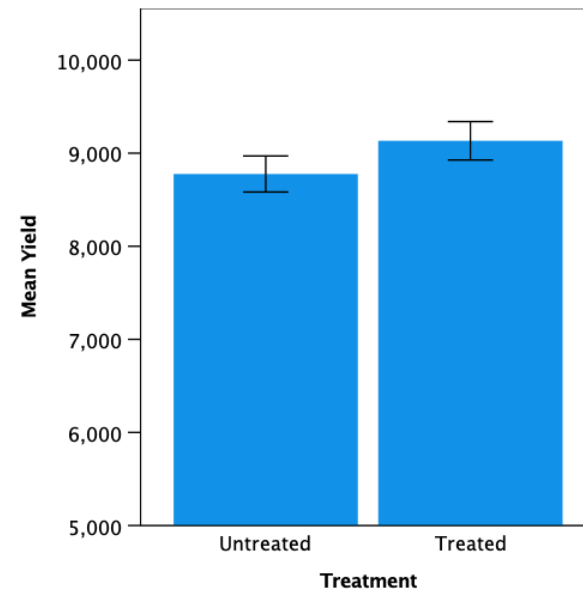
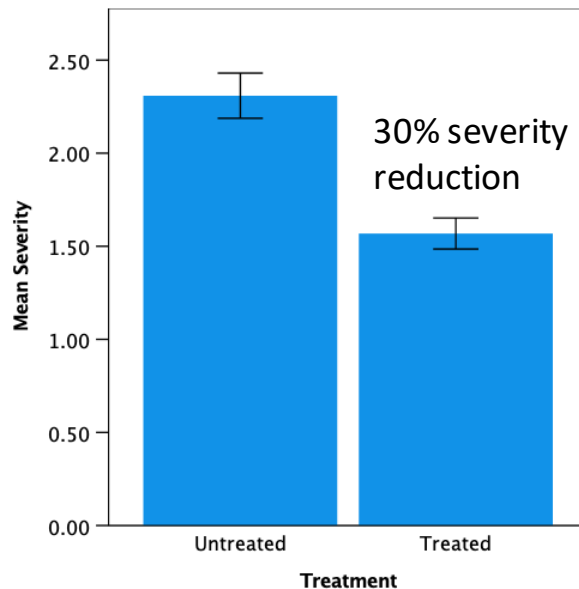
# Stem Rot and Aggregate Sheath Spot

- Residue management
- Appropriate levels of N and K
- Varieties
- Fungicides
  - Azoxystrobin (Quadris, etc)
  - Trifloxystrobin (Stratego)



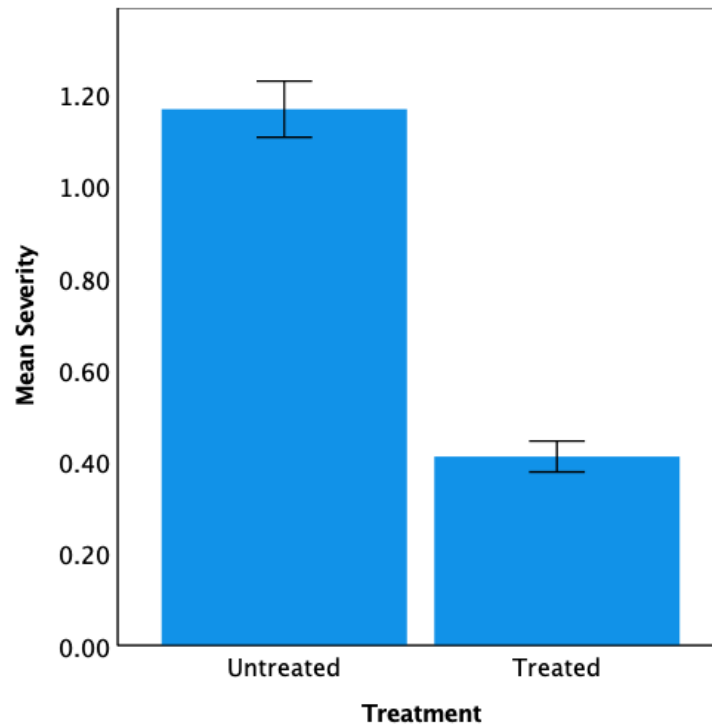
# Stem Rot

- Stem rot severity reduction due to treatment with Quadris was similar for all varieties, 30%
- Average yield increase of 4% in treated plots (350 lbs/a)



# AGSS

- AGSS was reduced by treatment by 67%
- No effect on yield



# Fungicide Application Timings

