

Fungicide Application Timing is Critical for Managing Cercospora Leaf Blight of Soybean

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Why CLB Is So Damaging and Worrisome

- *Apparently* seedborne and widely dispersed.
- Pathogen population is extremely diverse.
- The pathogen may undergo genetic recombination or renewed selection pressures on a yearly basis.
- There are location and time interactions.
- Varietal tolerance and resistance have been overcome within two years.
- Associated with green stem.

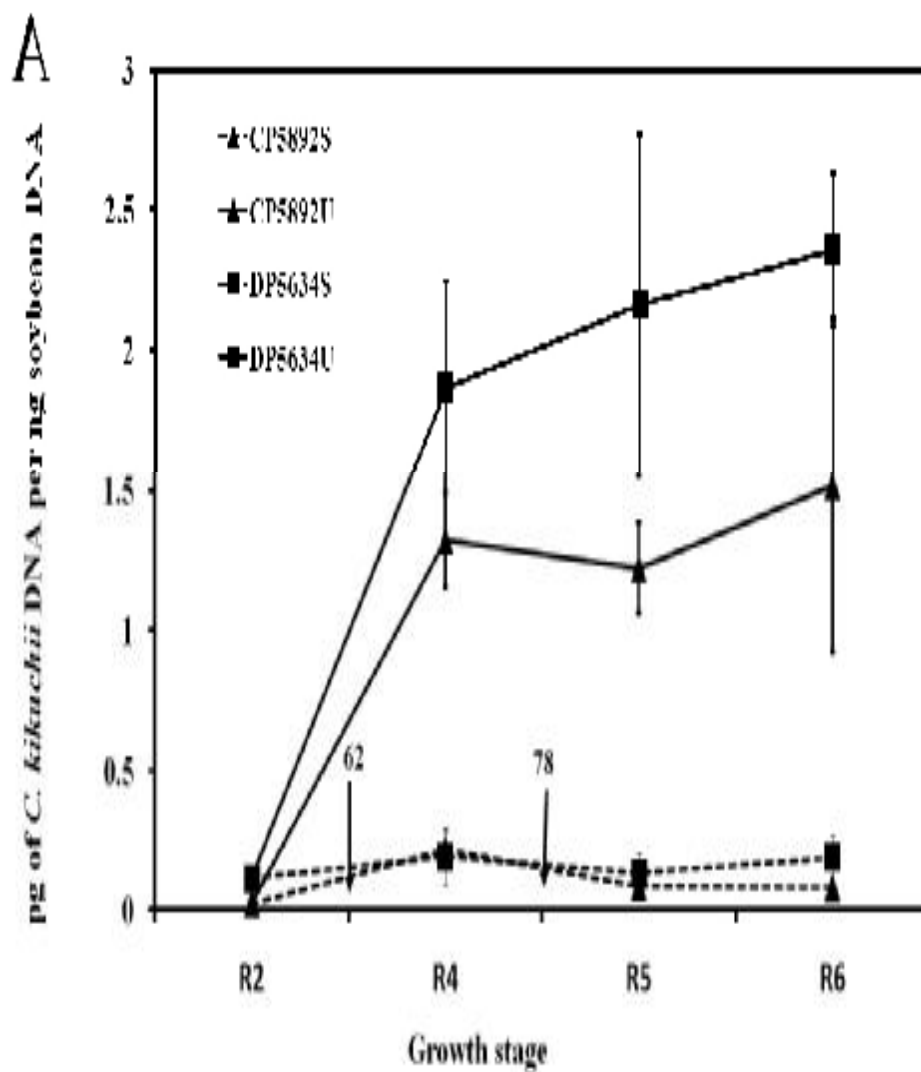
Cercospora Leaf Blight



Cercospora Leaf Blight



Infection Dynamics (qPCR) and Fungicide Applications



Z. Chen and A. Chanda

Infection occurs long before symptoms appear.



Objectives

- **Examine different rates and times of application of different fungicide chemistries.**
- **Examine whether multiple applications of very low rates of Topguard were efficacious (simulate tank mixes with insecticides).**
- **Conduct competitive fungicide tests.**

Commercial Protocols

Growth Stages at Time of Application

V5

V5, R1

R1

R1, R3

R3

R3, R5

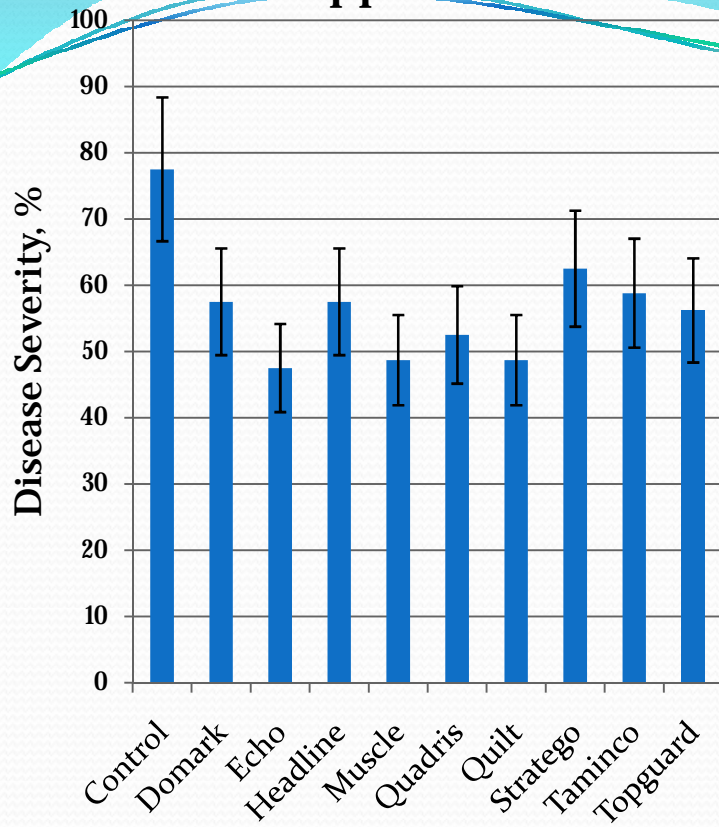
R6

Nonsprayed

Examples of Petiole Discoloration (Infection)

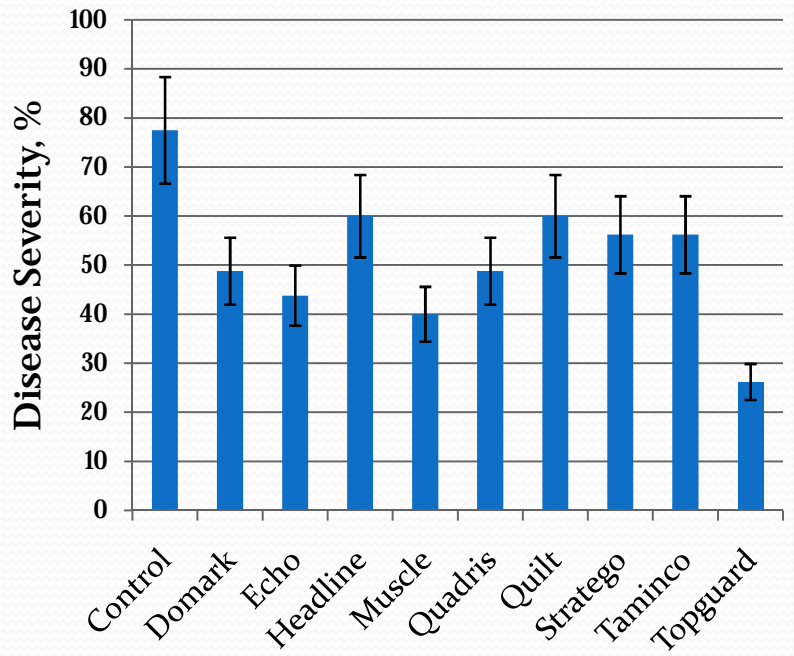


V5 Application



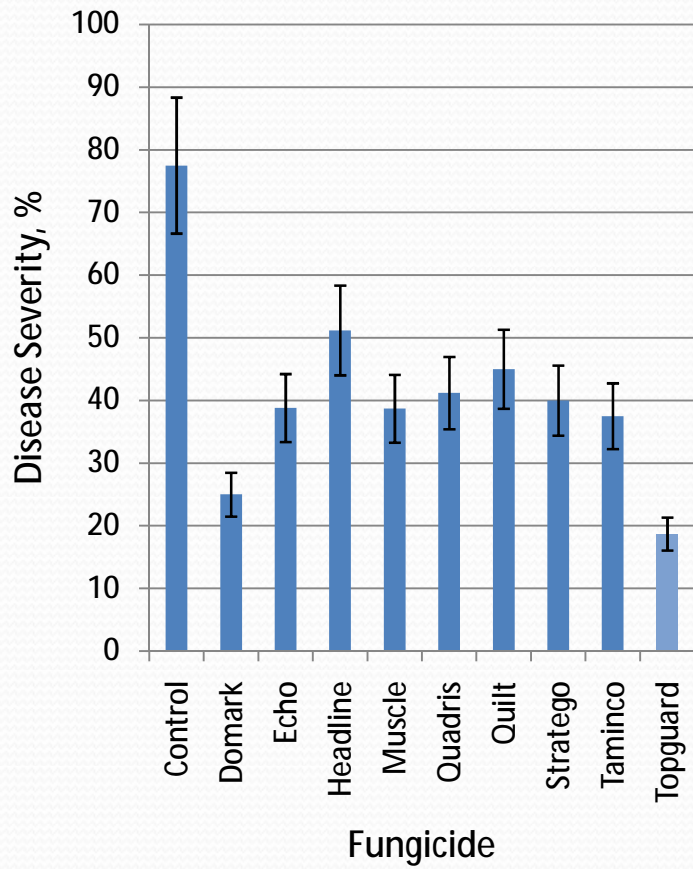
Fungicide

V5, R1 Application

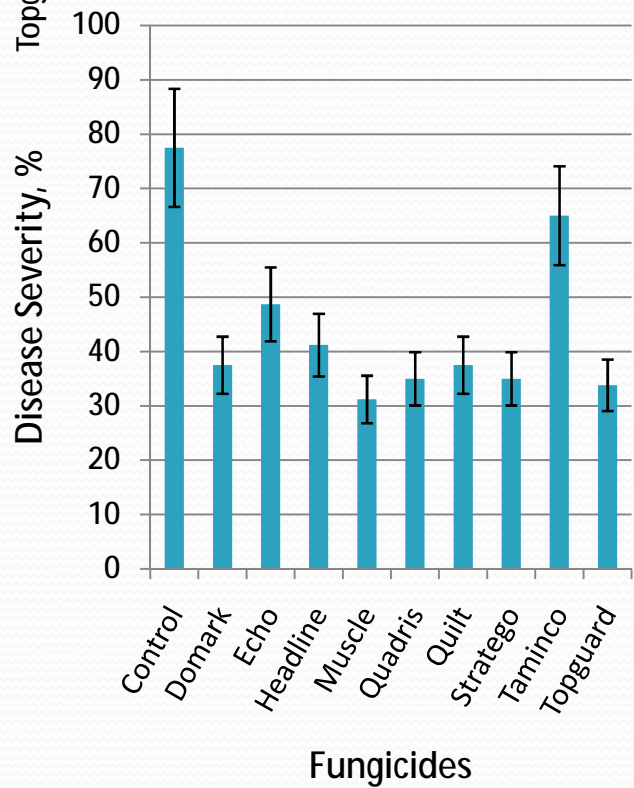


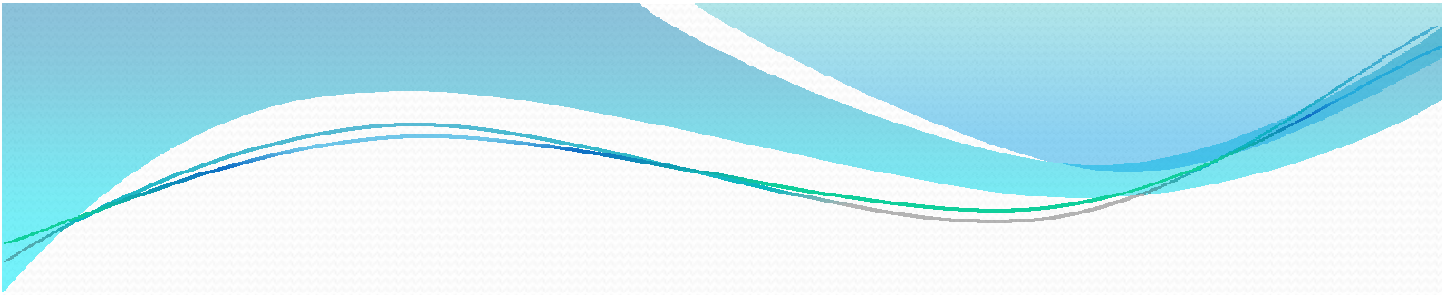
Fungicide

R1, R3 Application

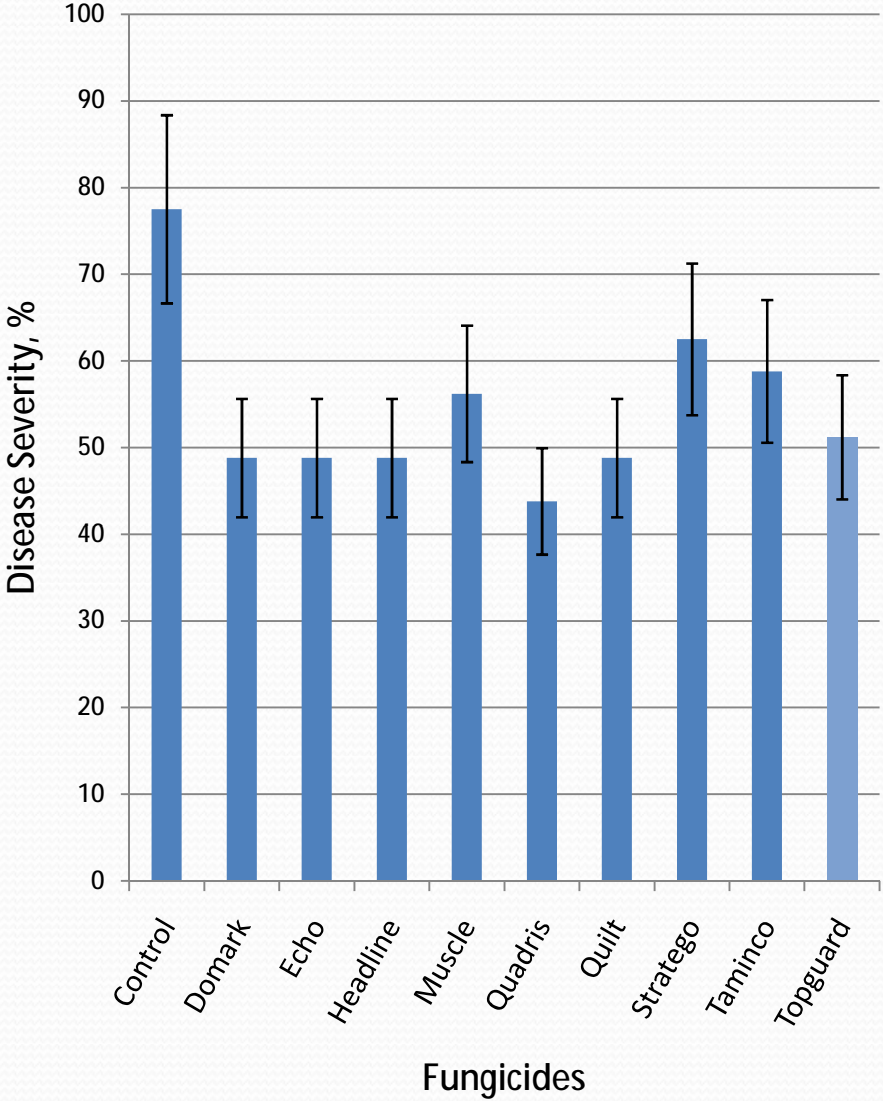


R3, R6 Application

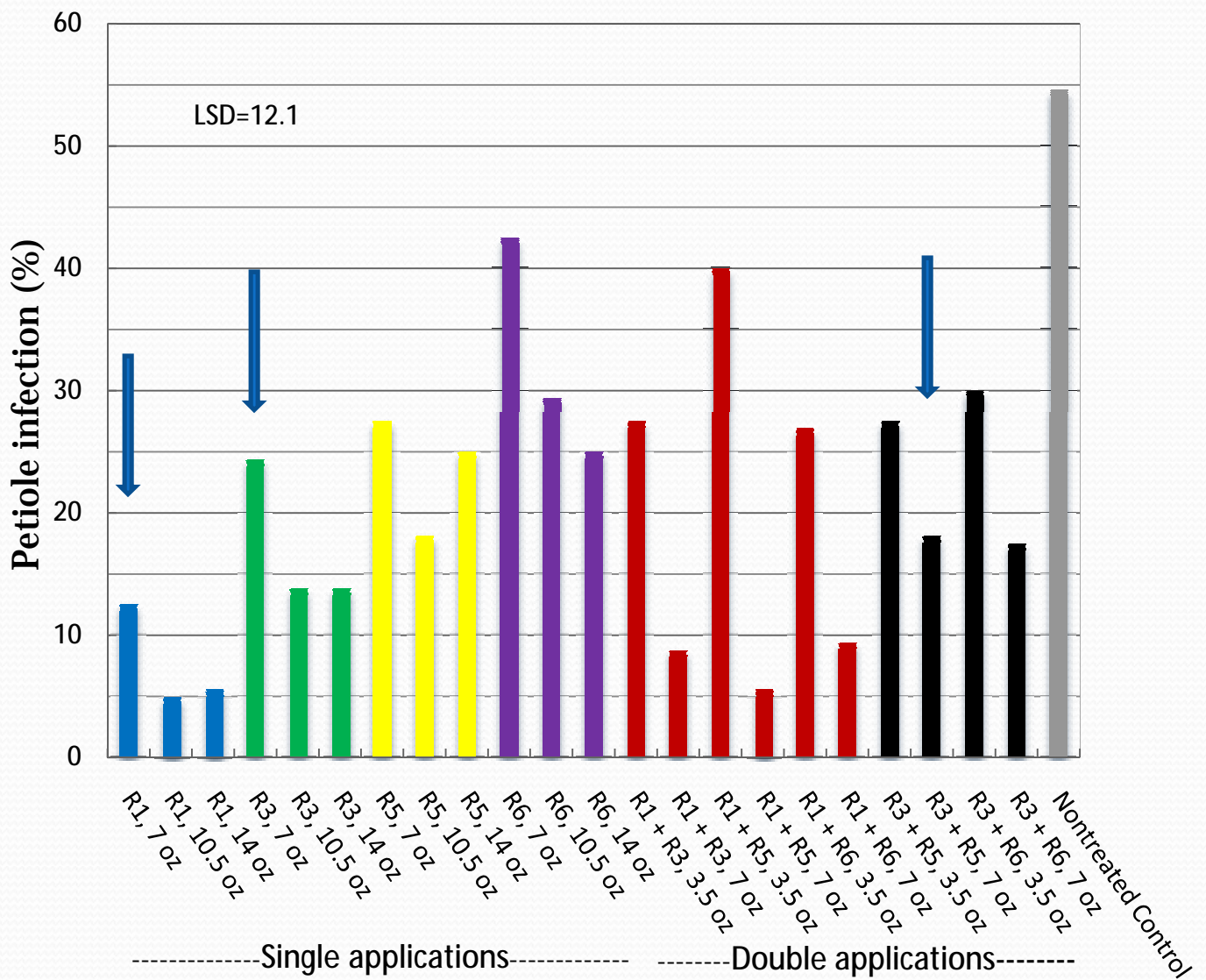




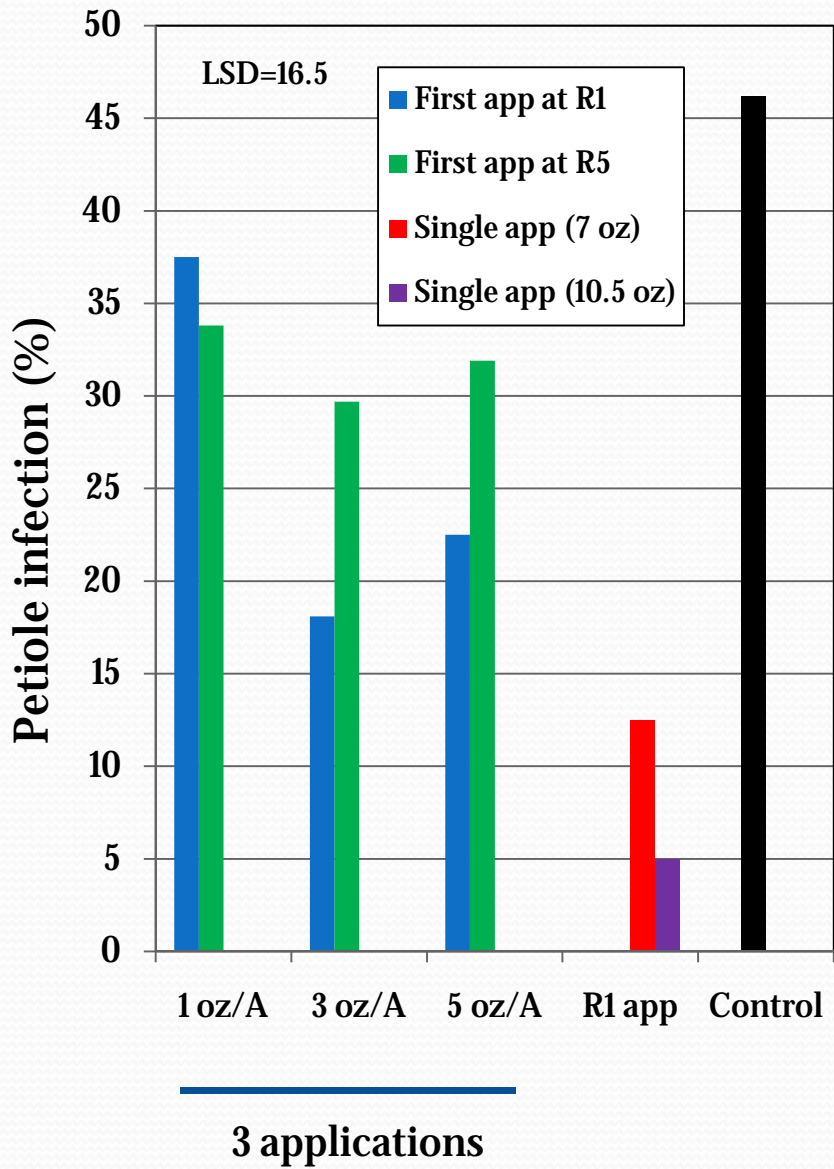
R6 Application



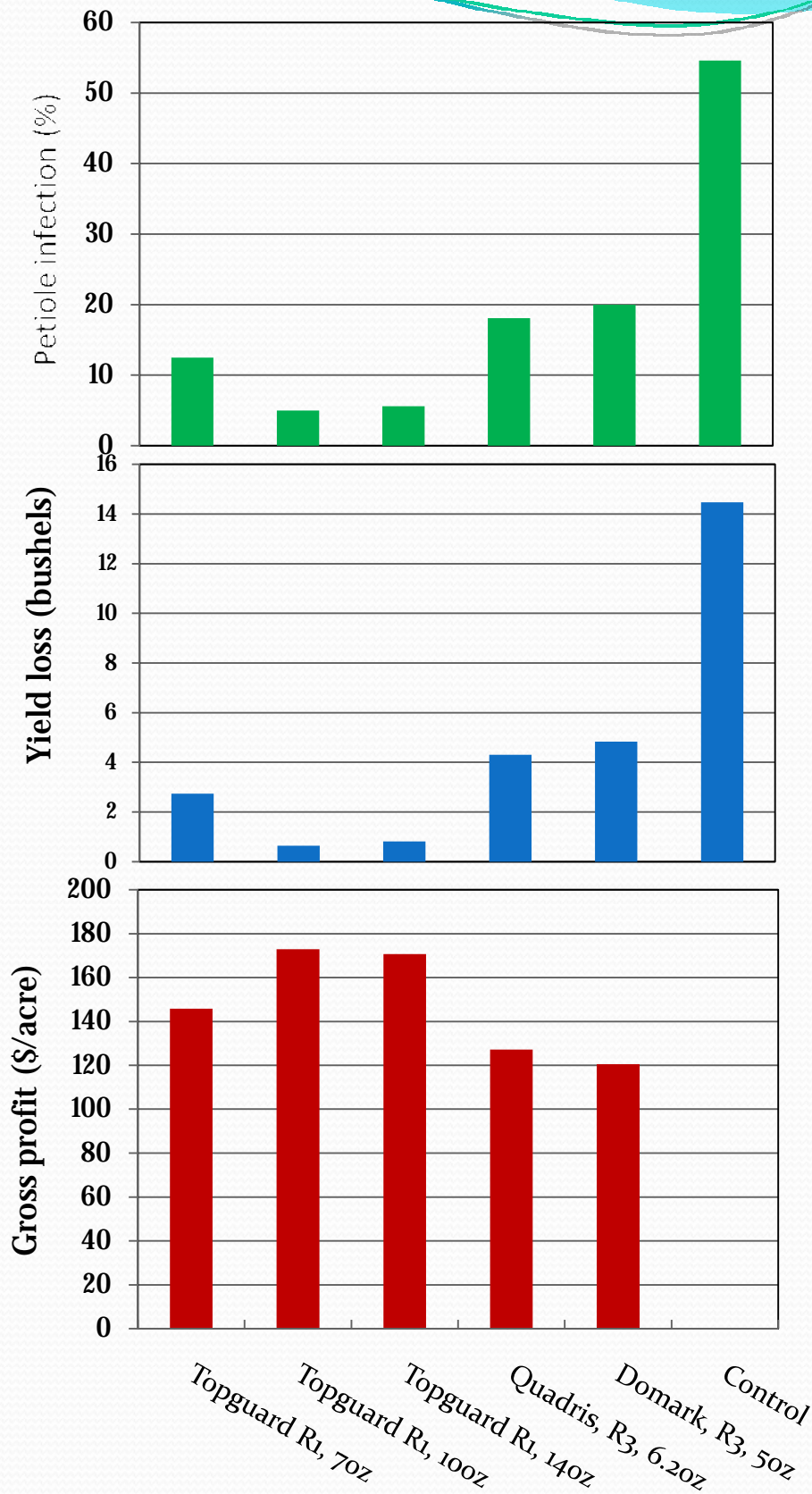
Evaluation of Topguard for Management of Cercospora Leaf Blight



Evaluation of Three Low Dose Applications of Topguard on Cercospora Leaf Blight



Gross Profit For Using Fungicides to Control CLB



Range of Disease Severities





Conclusions

- Early application (R1) of a triazole was clearly the most efficacious.
- A single application provided adequate control even under very severe disease conditions.
- Multiple applications with high rates begun at R3 were less effective.
- Probably need to increase rates of application.