



## Mississippi Corn Promotion Board 2021 Progress Report

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**Project Title: Evaluation of Insecticidal Seed Treatments in Field Corn**

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### Project Summary (Issue/Response)

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Increasingly, the use of insecticidal seed treatments have come under scrutiny for their alleged ties to Colony Collapse Disorder in honeybees. Many areas of the country claim little or no benefits of neonicotinoid seed treatments in field corn to producers. However, in the Mid-Southern region of the United States we enjoy a temperate climate with 55-60 inches of rainfall annually. This leads to intense pest pressure in all crops but especially soil insects in field corn. Research has repeatedly shown consistent returns on investments when growers prophylactically apply these seed treatments in Mississippi. Additionally, it is becoming necessary to assess the efficacy and profitability of these practices on an annual basis to defend the continued justification of their use. This research will look at benefits of insecticide seed treatments in the Delta and Hill regions of Mississippi. In addition, it is critical for the state of MS to build a yearly benefits data base to address future needs against the potential ban of neonicotinoid insecticides similar to what is currently underway with soybean seed treatments.

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### Project Results/Outcomes

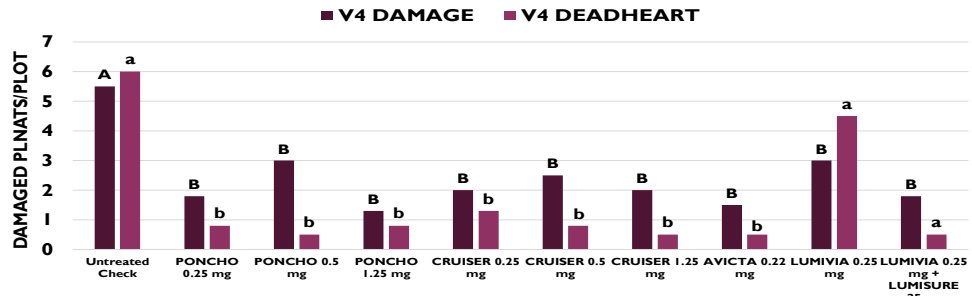
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At the V4 growth stage seed treatments significantly reduced the amount of damage and deadheart caused by underground insect pests with the exception of Lumivia. At the V6 growth stage there were no differences in above ground damage, however, Deadheart was significantly less in all treatments compared to the untreated check except for Cruiser 0.25, Lumivia, and Lumivia + Lumisure. On average across all seed treatment types and rates, there was a 21.1 bushel advantage to using a seed treatment compared to an untreated control. These data clearly show that the soil insect complex is yield limiting and can cause substantial damage.

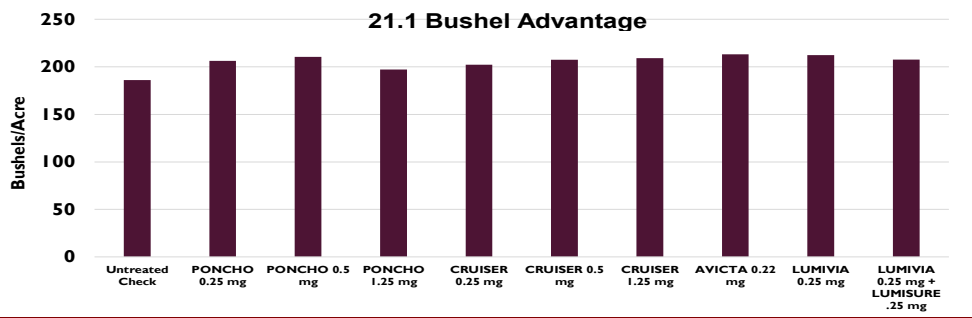


# Project Results

## REGIONAL CORN SEED TRT



## REGIONAL CORN SEED TRT- STONEVILLE



## Project Impacts/Benefits

Data demonstrates on an annual basis the value of various seed treatments and rates utilized in Mississippi corn production systems. Data incorporates new products that have limited university testing as they become available so growers of MS can make data driven decisions on which products to choose on their farm.

## Project Deliverables

Data is presented at numerous grower meeting and workshops across the state, regionally, and nationally. Additionally, this data is used with regulatory agencies to defend the right of growers to have access to products that protect yield.