

# Mississippi Corn Promotion Board 2015 Progress Report

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Project Title: Evaluation of In-Furrow Sprays in Combination with Either Granular Insecticides or Insecticidal Seed Treatments in Field Corn.

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## Project Summary (Issue/Response)

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Increasingly, the addition of in-furrow insecticide sprays has proven to protect additional yield above that delivered by seed treatments or granular insecticides alone. Over the last few years we have investigated the potential for in-furrow sprays to provide protection against sugarcane beetles but have seen yield improvements in nearly every situation even where sugarcane beetles were not present. This data addressed numerous options that have not been investigated currently in today's production system in Mississippi and investigated benefits of in-furrow sprays in addition to insecticide seed treatments in the Delta and Hill regions of Mississippi. Below are results from an in-furrow Capture LFR tests in the absence of sugarcane beetles. These data suggests there could be numerous benefits for MS corn growers and need to further evaluated. However, the 2015 data indicates that there are some years where benefits will not be realized.



## Project Results/Outcomes

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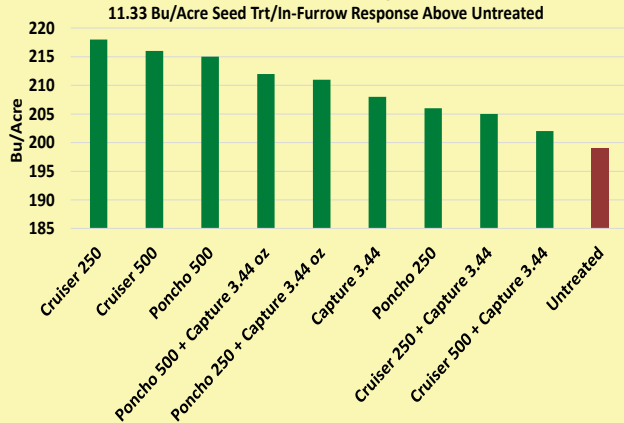
In 2014, data from Starkville, MS showed on average an 11.33 bushel/Acre response from use of a neonicotinoid seed treatment or combination of in-furrow bifenthrin spray. There were no significant differences between seed treatments or in-furrow spray combinations. With recent developments from EPA on potential bans of seed treatments, it will be critical to build data sets such as these to document current and future benefits. In 2015 there were no benefits for the addition of and insecticidal seed treatment either alone or in combination with in-furrow sprays.

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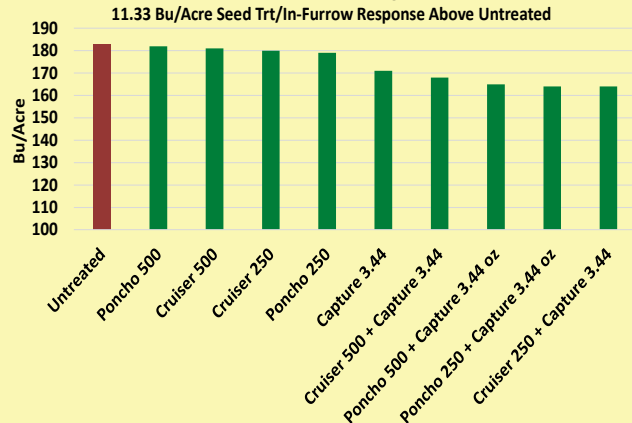
# Project Results

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## 2014 Corn Seed Treatment and In-Furrow Yield Response Test



## 2015 Corn Seed Treatment and In-Furrow Yield Response Test



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## Project Impacts/Benefits

This research confirms that there are situations when producers in Mississippi will see direct benefits from adding additional protection at planting in the form of in-furrow sprays but this will not be realized on every acre every year. The addition of in-furrow sprays for supplemental control of soil and early season insects should be restricted to acres that are at high risk such as no-till or corn following corn. Additional, fields that have a history of early season insect problems are more likely to result in economic benefits from the additional use of in-furrow insecticides with insecticidal seed treatments.

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## Project Deliverables

- Numerous County Producer Meetings
- MSU Extension Scout Schools
- Insect Control Guide Edits and Additions
- MSU Row Crop Short Course