

Soybean Best Management Practices

Soybean Research Summary 2010

Camden Point, MO, Technology Center

Introduction

In order to maximize soybean yield potential, it is important to mitigate yield robbing stress factors. Various management tools are available to improve plant health and control pests.

Seed treatment, such as Acceleron® seed treatment products, provides protection against certain insects, seed-borne diseases and seedling diseases. Foliar application of fungicide products such as Headline® and insecticides such as Mustang Max® or Warrior® also protect the yield potential of the variety.

Weed control is also a key management tool. Delaying weed control in soybean can result in 2 to 3% yield loss for every crop leaf stage of delay (Knezevic and Evans, University of Nebraska, 2003).

Studies were conducted at the Camden Point Technology Center from 2008-2010 to evaluate the impact of increased input management on soybean yield potential.

Plot Establishment

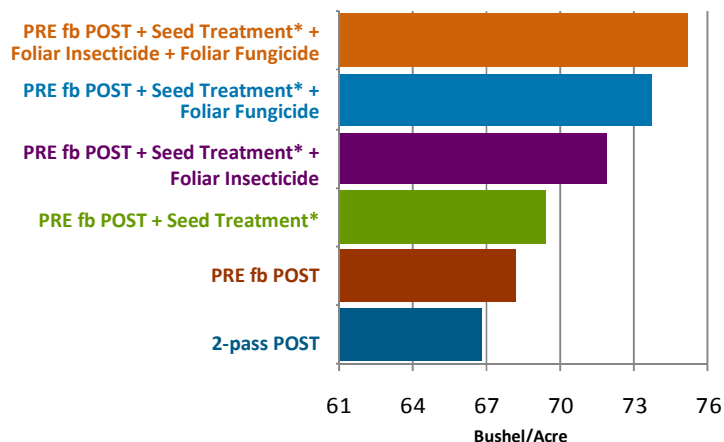
Different management tools were applied across three Monsanto varieties. Two herbicide programs were evaluated, including a postemergence (POST) application of Roundup WeatherMAX® herbicide and a preemergence (PRE) application of INTRRO® herbicide followed by Roundup WeatherMAX herbicide. Foliar fungicide and insecticide treatments were made when soybeans were at R3 (beginning pod)

growth stage.

Results

Similar yield results were achieved in 2008, 2009, and 2010 and across the different soybean varieties tested. The use of a preemergence herbicide provided a 1.4 bu/a yield advantage (Figure 1). In 2008, 2009, and 2010 treatments utilizing a seed treatment containing a fungicide and insecticide, consistently resulted in a yield advantage over the check. The combination of the foliar fungicides and foliar insecticides with seed treatments resulted in the greatest yield advantage. Additional research will be conducted to better understand the value of herbicide, insecticide, and fungicide applications in soybean. Contact your local seed representative for more information.

Figure 1. Yield effects on soybean from various input management techniques. Camden Point Technology Center, Camden Point, MO. 2008-2010.



*Seed Treatment contains both a fungicide and insecticide component

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