MIKE MULVANEY – SOYBEAN RESEARCH PROFILE

Farmer Blog

Mike Mulvaney, Hartwig Endowed Chair for Soybean Agronomy, Mississippi State University

Why did you decide to pursue a career that includes soybean research?
After years of working with peanuts and cotton, I took this position at Mississippi State that is dedicated to soybean agronomy in November 2021. Focusing on soybean allows me to tackle issues with a broader reach. The Science for Success team has been instrumental, sharing knowledge and experience.

What research topic have you completed in the past or are working on now that could have or has had the most significant impact on soybean production?
Much of the research I am leading will directly impact farmers, influencing recommendations for best practices. For example, work on high-speed planting will help farmers plant more soybeans on time despite the narrow planting window, after which soybeans experience a 0.4 bushel-per-acre-per-day yield loss. At the other end of the season, my research shows that delaying desiccation until growth stage R7, about a week later than average, protects yield in this region. I also believe my research on nitrogen credits, as well as nitrous oxide emissions during the soybean phase of crop rotation will impact the ability to market soybeans as a sustainable commodity.

How has the soybean checkoff enhanced your ability to find answers to production problems for farmers?
I couldn't do this research without the support of the Soy Checkoff. In fact, the Mississippi Soybean Promotion Board contributed to the endowment that supports my position. The Soy Checkoff is very important to improving recommendations to soybean farmers.

Within your area of expertise, what are the top two or three general recommendations you would offer farmers to improve their management practices?
A few areas offer low-hanging fruit for farmers to improve yields or profitability without

additional investments.

- *Maximize planting soybeans during the optimal planting window. After that, the crop suffers a 0.4 bushel-per-acre-per day yield loss. Do what you can to plant on time.*
- *Hold off on desiccation until the R7 growth stage or later, if possible. Though the recommendation has been to desiccate at R6.5, more recent research shows there's a higher probability of a yield hit at that time.*
- *Choose varieties that fit fields well, and scout regularly to catch potential challenges early.*
- *In times like these, it is important to use resources — including labor — efficiently.*

Within your area of expertise, what do you consider to be critical soybean research needs that can impact the profitability of famers in the future?
I am bent on improving efficiency. I think we can use resources and labor more efficiently, and research can help us find those efficiencies. For example, I think we should look at inputs used, and study how to get the same yields with fewer inputs or more efficient labor. This would improve the bottom line. As inputs get more expensive and labor gets harder to find, farmers need to maximize efficiency. I would also like to see research to improve double-cropped soybeans. It pains me to see land unused during the winter months, but our challenge is to make double-cropping profitable.

SRIN articles:

Scrutinizing Soybean Nitrogen Credits

SOYBEAN RESEARCH & INFORMATION NETWORK

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