

SOYBEAN RESEARCH PRINCIPAL INVESTIGATOR PROFILE – R. WADE WEBSTER

... Farmer Blog



R. Wade Webster, Assistant Professor and Soybean Specialist, Extension Soybean Diseases

Why did you decide to pursue a career that includes soybean research?

As a kid, it was always my goal to go into agriculture. My family has a corn-soybean operation. It was my passion to become a plant breeder, but I had an opportunity in grad school to participate in a plant pathology research program. It was then I fell in love with pathology.

The diversity of pathogens attacking the soybean plant was eye-opening as well as intriguing. I focused on white mold in my graduate program because I saw it wiping out large portions of fields. Also, white mold is relatively less difficult to work with than other pathogens, so we were able to do a lot of quick and impactful research.

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?

I've been working a lot with predictive modeling and the development of decision support tools. One of them was developed by Jamie Willbur at Michigan State University and Damon Smith at the University of Wisconsin-Madison. While she was at the University of Wisconsin, Jamie led the development of the Sporecaster app, which is a predictive tool for white mold. Through that tool, I also helped to understand how genetic resistance can be overlaid with these resistance tools. This ultimately leads to reduced fungicide applications, cost savings and reducing fungicide resistance within the pathogens.

More recently, we've been developing another predictive decision support tool called Frogspotter, which looks for frog-eye leaf spot. We are testing this tool and hopefully it will be released soon publicly.

How has the soybean checkoff enhanced your ability to find answers to production problems for farmers?

Without soybean checkoff funding, we wouldn't be able to do this research. It's money from the farmers, for the farmers. Our work is to help improve farmers' livelihoods, to improve the ease of their day-to-day work, and making sure they have the best management practices and tools for increased productivity and reduced inputs in their systems.

Within your area of expertise, what are the top two or three general recommendations you would offer farmers to improve their management practices?

First, use integrated pest management, but don't rely on one single practice. As I've heard with weed science, use the 'many little hammers' approach. For white mold, use resistant varieties, cover crops if you can, wide rows and lower seeding rates as well as a fungicide. Second, scout your fields to understand where different diseases are, so you can target your management.

Within your area of expertise, what do you consider to be critical soybean research needs that can impact the profitability of farmers in the future?

Precision ag is important. Farmers are needing to produce more with fewer inputs, as everything is more expensive, especially from the chemical standpoint. If we can help them make applications more targeted, farmers won't be applying them in areas where they aren't needed. That will have a big impact both economically and environmentally.

SRIN articles:

[Searching for Phytophthora Resistance in North Dakota Soybeans](#)



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