ANNA LOCKE – SOYBEAN RESEARCH PROFILE

Farmer Blog



Anna Locke, Plant Physiologist, USDA Agricultural Research Service

Why did you decide to pursue a career that includes soybean research?
I thought plants were interesting, and then I became fascinated with how they respond to the environment. My interests were broad, but I wanted my research to impact agriculture. Working with soybeans is one way I do that.

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?
As a plant physiologist, I focus on understanding how plants work, so that others have the knowledge they need to improve or manage crops better. My ongoing research to understand how protein markers can be used alongside genetic markers in soybean breeding has potential to significantly impact soybean breeding.

How has the soybean checkoff enhanced your ability to find answers to production problems for farmers?
The soybean checkoff funds critical research projects. We couldn't have started many of our projects without farmer support. They make much of our research possible by funding initial work that allows us to apply for other research grants.

Within your area of expertise, what are the top two or three general recommendations you would offer farmers to improve their management practices?
I have more to learn from farmers than they can learn from me. The data I provide about how plants respond to their environment makes up a small piece of the big picture they use to make management decisions.

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?

We need research to better understand how soybeans respond to weather and climate stress, so we can determine how to make improvements in the crop to manage conditions. Summers are getting hotter. Drought has been an issue and will continue to be a threat. Research that helps us effectively screen to find soybean genetics that can handle these challenges will improve breeding programs, leading to better yields under stress.

SRIN articles:

Creating a New Breeding Tool Based on Plant Proteins and Machine Learning

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This website is funded by the soybean checkoff

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