LIANG DONG – SOYBEAN RESEARCH PROFILE

Farmer Blog

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Why did you decide to pursue a career that includes soybean research?
As an engineer, my research has been focused on developing sensors primarily for use in corn. However, to expand that work, I am exploring how that work can be used in other crops. Soybeans have very different features and characteristics than corn that challenge adaptation. Figuring out how to engineer sensors useful to both major crops is a fun challenge to tackle.

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?
Adapting an array of plant sensors for use in soybeans is the first project I have worked on for this crop. However, in the past, I have developed nitrogen sensors for corn plants and soil, and the process of adapting that concept to develop phosphorus and potassium sensors in soybeans will benefit farmers and soybean researchers.

How has the soybean checkoff enhanced your ability to find answers to production problems for farmers?
Soybeans have different characteristics than other plants, and farmers include the crop in their rotation for different reasons. Soy checkoff funding makes it possible to discover adaptations of sensors for use in the crop that will help find solutions to production challenges.

Within your area of expertise, what are the top two or three general recommendations you would offer farmers to improve their management practices?
As an engineer, I recommend farmers to try out new technologies that potentially make field sensing and data collection easier and more efficient. Even more importantly, sharing

feedback on how these tools work in real-world conditions helps engineers like me improve their sensor design and functionality to support smart farm 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?
Developing better tools to gather crop information will help look beyond symptoms to the root cause of problems. Research should also foster collaboration across disciplines, bringing together agronomists, engineers and other experts to tackle challenges from different perspectives. This kind of integrated approach is key to developing practical, effective solutions that can boost long-term profitability for farmers.

SRIN articles:

Deep Sensing to Monitor Soybean Health

SOYBEAN RESEARCH & INFORMATION NETWORK

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