

# SOYBEAN RESEARCH PRINCIPAL INVESTIGATOR PROFILE – SCOTT SHEARER

... Farmer Blog



Scott Shearer, Professor and Chair, Department of Food, Agricultural and Biological Engineering, Ohio State University

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

*My professional interests have always revolved around Midwestern production agriculture. I've always been interested in the iron that drives crop production and technologies to automate tractors, sprayers and combines.*

## **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?**

*Without question, artificial intelligence, or AI. I'm an end user, and I respect what the computer scientist brings to the table. However, I understand production agriculture. The magic occurs when we bring together the engineering, computer sciences and agricultural science disciplines.*

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

*Funding from the Ohio Soybean Council has enabled us to do "proof of concept" at scale. These resources have made it possible for us to take the computing environment to the field, versus taking data from the field to the computing environment.*

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

*Ag technology will continue to change and evolve. Unfortunately, not all ag tech delivers the same for every farmer. When selecting ag tech, start first with the low-hanging fruit. We know the payback period for technologies like section control, making this a "no-brainer." Chemical, seed and fertilizer savings easily exceed the cost of section control in a short period of time. For other technology adoption, consider your pain points. Is planting capacity*

*a problem? If so, consider a high-speed planting upgrade. Is stand establishment problematic? If so, consider planter downforce control. Do your homework and solve problems of importance to your operation!*

**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 on the AI bandwagon. We are beginning to see multiple AI-driven products enter the marketplace, such as spot spraying for weeds. With a little imagination, farmers will discover and demand alternative product configurations along with expanded access to trained AI classifiers.*



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