SOYBEAN RESEARCH PRINCIPAL INVESTIGATOR PROFILE – LARRY PURCELL

Farmer Blog

Larry Purcell, Distinguished Professor and Altheimer Chair for Soybean Research, University of Arkansas System – Division of Agriculture

Why did you decide to pursue a career that includes soybean research?
As an undergraduate student at the University of Georgia, I had a wonderful advisor, Dr. Doyle Ashley. I got interested in the research that he and Dr. Roger Boerma were doing on canopy-apparent photosynthesis in soybean, and I was fortunate to work on my master's degree with them.

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?
For the past several years, I have worked on a large collaborative project to develop drought-tolerant soybean varieties. This project, funded by the United Soybean Board, is critically important to ensure economic and environmental sustainability of soybean, especially with challenges of climate change impacting our production practices.

How has the soybean checkoff enhanced your ability to find answers to production problems for farmers?
Research is incremental, but most agencies have at most funding cycles of two to three years. The soybean checkoff program has provided continuity to programs extending beyond this time frame. The farmers on the United Soybean Board and support staff require accountability from the projects they sponsor, but they recognize that our most pressing problems in crop production require a horizon that often extends beyond two or three years.

Within your area of expertise, what are the top two or three general recommendations you would offer farmers to improve their management practices?
For soybean production in the Midsouth, when it is time to plant corn, it is also time to plant soybean. It is also clear that our most productive varieties have indeterminate growth habits

and are 1 to 1.5 maturity groups earlier than those typically grown 20 years ago. Associated with early planting and slow seedling emergence is a need for fungicide/insecticide seed treatment.

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?
Like many other areas in our society today, managing soybean production in the face of climate change poses challenges. More intense rainfall events, drought and extreme heat periods will take their toll on all crops. There will also likely be greater demands for both groundwater and surface water for irrigation purposes. It is critically important to develop varieties that can withstand these weather-related challenges and to develop cropping systems that lessen their impact.

SRIN articles:

Breeding Research Lays Foundation to Investigate Links Between Fixing Nitrogen and Protein Concentration

Utilizing Genes from the Soybean Germplasm Collection to Mitigate Drought Stress

SOYBEAN RESEARCH & INFORMATION NETWORK

This website is funded by the soybean checkoff