SOYBEAN RESEARCH PRINCIPAL INVESTIGATOR PROFILE – JOSH LOFTON

Farmer Blog

Josh Lofton, Extension agronomist, cropping system specialist, Oklahoma State University

Why did you decide to pursue a career that includes soybean research?
My trip into soybean production systems is a roundabout journey. I did not grow up on a farm nor did I work on soybeans during my graduate programs (mainly focused on winter canola and sugarcane). It was not until my first position with the Louisiana State University AgCenter that I had a project that primarily focused on soybeans. However, it was during the early stages of my career that I worked with growers and fellow researchers/Extension specialists that had such a passion for the crop that my passion started growing as well. Now, in my current position at Oklahoma State University, soybeans are one of my primary crops of focus.

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?
Throughout my career, one of the most interesting to me has been double-crop soybean systems. Fortunately, in both Louisiana and Oklahoma, it is one of the most prominent systems. While in certain areas double-crop soybeans are considered insurance, in Oklahoma, it is the system with the highest potential production, especially in more semi-arid environments. It has always been interesting to see how management potentially shifts when we move from a more traditional single crop to a double-crop system. We are currently looking at how management practices, such as herbicide, maturity group selection, insect management and planting practices shift in double-crop systems, especially with different residue management techniques.

How has the soybean checkoff enhanced your ability to find answers to production problems for farmers?
Local, regional and national soybean boards are vital to the success of my program. Not only

are they one of the primary sources of funding for applied field specialists to answer "real world" questions, they make Extension events better with a greater reach. It was the soybean board in Oklahoma that worked with me and other Extension specialists to put on a conference that brought all commodities together in one location for a grower-focused production meeting. This allowed growers to hear talks from all crops they grow in their production systems. Without the support of the Oklahoma Soybean Board, this would not have been possible.

Within your area of expertise, what are the top two or three general recommendations you would offer farmers to improve their management practices?
1. In drier systems like we have in Oklahoma, we do not need as much soybean seed planted to achieve optimum yields. To limit total biomass production, sometimes lower seeding rates are better.

2. Residue is a friend of soybeans. Good straw from a cover crop or a no-till rotation will help with moisture retention.

3. Late-season insect pressure is potentially one of the highest yield robbing factors in both single and double-crop systems.

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 must find ways to continue to minimize stressors that influence soybean production. Environmental stress from excessive heat or dry conditions will always be something to contend with in my region. However, how can growers minimize the impact of these stressors by optimizing other aspects of their production system? This ultimately will come down to a genetic-by-environment-by-management (GxExM) mindset. Additionally, sometimes the way growers make more money is to spend less. Growers in more arid systems need to make sure money spent on inputs does not put the crop at greater risk of failure through greater environmental stress.

SOYBEAN RESEARCH & INFORMATION NETWORK

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