AARON WILSON – SOYBEAN RESEARCH PROFILE

Farmer Blog



Aaron Wilson, State Climatologist of Ohio and Assistant Professor – Ag Weather and Climate Field Specialist, Ohio State University Extension

Why did you decide to pursue a career that includes soybean research?
I always wanted to be a meteorologist. However, I was also fascinated by plants and crops. The career assessment tests I took growing up all recommended that I pursue ag science. As the state climatologist for Ohio, I do what I love — applying weather research and data — to help farmers and ag researchers. I can help explain changes in weather patterns and provide information that helps agriculture, including soybean production, be more resilient. My role within Ohio State University Extension allows me to reach stakeholders where they are, and I love 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?
Improving weather monitoring in Ohio provides weather instrumentation that supports practical applications for soybean production.

- *Pathologists, nematologists and others can use weather data to identify the spread diseases and pests.*
- *Temperature and windspeed monitoring helps manage against drift in herbicide and other pesticide applications.*
- *Understanding weather patterns and extremes informs efforts like future irrigation needs and genetic selection for soybeans that can handle variable conditions.*
- *Accurate weather predictions helps farmers take advantage of planting and harvest timing windows.*

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

Working with the soy checkoff provides opportunities to listen to production challenges and problems as described by board members and other farmers. Then, I can link those challenges to weather and climate data that can help find solutions. The magic is in the conversations and sharing of expertise that helps us all.

Within your area of expertise, what are the top two or three general recommendations you would offer farmers to improve their management practices?
Weather patterns impact areas where farmers need to focus management efforts. For example, the trend of warmer, wetter springs and dry summers informs how farmers manage water. They can consider practices like controlled drainage, cover crops and variety selection. Warmer winters and springs also affect weeds, which love warm, wet conditions. Weed management becomes even more critical in those conditions.

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?
Soybean production faces challenges of adjusting the type of soybeans grown based on heat and humidity challenges. Climate models continue to indicate that Ohio's summers may be more like Arkansas's today by the end of the century. What does soybean production in this region with that climate look like? Research can answer those questions throughout the U.S. and inform genetic work to develop soybeans that can thrive in changing conditions. I also think research needs to focus on interactions between changing weather patterns and disease and pest pressure. Weather conditions could allow new invasive pests to appear, and farmers need research to be prepared to manage them.

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