

SOYBEAN RESEARCH PRINCIPAL INVESTIGATOR PROFILE – ALYSSA KOEHLER

... Farmer Blog



Alyssa Koehler, Assistant Professor and Extension Specialist in Plant Pathology, University of Delaware

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

I have always loved plants. Growing up, I was familiar with agriculture, and I started working at a plant nursery in high school. I also liked math and science and planned to go in that direction in college. I Googled plant jobs and applied for a plant pathology lab job, where I fell in love with the field. Though my graduate research covered other plants, my degree naturally led to a field crops job, and today I farm with my husband on the side. I want to provide practical solutions for farmers.

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?

My nematode research is important for the Mid-Atlantic region. We are a little south of north and a little north of south, and we have sandy soils. That means we have nematodes everywhere. My work starts with raising awareness of nematode pressure and then finding solutions with great potential to improve soybean yields.

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

As extension faculty, we want to learn interesting and cool things to share with farmers at winter meetings. The soy checkoff provides a great way to find short-term answers to production questions. This funding supports practical, short-term, applied research that can contribute to longer-term solutions, while also allowing us to share relevant updates at winter meetings.

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

Control measures for nematodes should start even before planting. Farmers need to be aware of the nematode populations in their fields, so they should take soil samples and get nematode counts. Then, they should take note of the varieties they are planting. Choose soybean varieties with resistance to nematodes and foliar pathogens that could be problems in their fields. The soil tests and variety selection also provide more information to make the best in-season management decisions.

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?

Breeding for resistance in varieties is critical. Farmers need seed optimized for performance in their fields, and that starts with plants that can defend against problems. Breeding research to improve resistance to nematodes, diseases and more will be critical. We also need research to understand and manage fungicide resistance.

SRIN articles:

[Mid-Atlantic Nematodes Overcoming Genetics](#)

[Visualizing Nematode Damage with Planter Boxes](#)



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