Studying root traits could aid development of hardier crops

If you want a better corn crop, you need to get to the root of the matter.

So says Duke University scientist Philip Benfey, Ph.D., who co-founded his second startup company, Durham-based Hi Fidelity Genetics, to use data on roots to breed and sell corn seed with desirable traits.

“We’re in the process of developing a fully integrated seed company,” says Benfey. “Our goal is to sell conventional corn seed. We’re not doing genetic modification. It’s data driven and exploits our intellectual property around root traits.”

The company uses its RootTracker field device to collect data on root traits. “Our approach is to improve breeding, make it faster and get greater value,” Benfey says. That may even lead to seeds that grow good corn crops in niche markets such as the Southeast, where the soil and weather make it difficult.

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While the company’s focus is on developing corn seed, it may also both license and sell the RootTracker device and technology. “It can also act as the canary in a coal mine,” Benfey says, “and alert farmers to infestation and water issues. There are all sorts of ways for farmers to use it and it can be used for other plants. But that’s not our preferred first market.”

Hi Fidelity Genetics’ RootTracker devices help speed the search for desired corn traits

The GLP aggregated and excerpted this article to reflect the diversity of news, opinion and analysis. Read full, original post: Getting Down to the Roots of Breeding Better Corn