

### INNOVATION

Easy-to-use test kits that provide agricultural producers and consultants with on-site, real-time measurements of nitrate in soil, water, and crops.

### ACCOMPLISHMENTS

- ▶ Kits provide accurate, cost-effective alternative to sending samples to certified laboratories.
- ▶ Efficacy of test kits validated for different sample types at university and government agency labs, including Michigan State University, the National Water Quality Lab, and several USDA laboratories.
- ▶ Researchers who used kits have published results in peer-reviewed journals (*Environmental Science & Technology* and *Crop Science*) and trade publications (*American Lab News*).



### COMMERCIALIZATION

- ▶ Developed specialized kits for a variety of applications, including soil, livestock feed, plant tissue, and agricultural runoff.
- ▶ Kits are sold directly via company website.
- ▶ Annual company sales of \$90,000.

### IMPACTS

- ▶ New tool for nitrate testing enables producers to manage nitrogen more effectively at lower cost.
- ▶ More effective tests help protect water resources from excess nitrogen.
- ▶ Kits that test livestock feed help prevent animal death from nitrate toxicity. This is especially critical in drought conditions when feed plants accumulate excess nitrate.

**SBIR COMPETITIVELY AWARDS SMALL BUSINESS GRANTS FOR INNOVATIVE RESEARCH THAT HAS THE POTENTIAL OF SOLVING IMPORTANT AGRICULTURE AND RURAL DEVELOPMENT PROBLEMS.**

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