

Iowa Launches Three-Year Nitrogen Soil Sampling Project to Support Farmers and Water Quality

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Iowa Secretary of Agriculture Mike Naig and the Iowa Nutrient Research & Education Council (INREC) have announced a new three-year Nitrogen Soil Sampling Project aimed at improving fertilizer efficiency and water quality outcomes across key agricultural regions.

The initiative will focus on conducting soil testing for residual nitrogen in targeted areas upstream from the Des Moines metro, helping farmers make more informed decisions about fertilizer application. By providing field-level data, the project is designed to reduce uncertainty, lower input costs and support more sustainable farming practices.

Residual nitrogen levels can vary significantly depending on weather conditions and field characteristics. According to modelling by Iowa State University, levels may be higher than average this year following a relatively warm winter, increasing the importance of accurate soil testing ahead of spring planting.

“Farmers are operating in a very challenging economy with low commodity prices and high input costs, including fertilizer prices near record highs,” said Secretary Naig. “With affordability top of mind, this is the perfect time for farmers to take a closer look at their fertilizer management programs. Soil sampling, coupled with the Iowa Nitrogen Initiative’s N-FACT tool, gives farmers better data to make input decisions. This project is a win-win; soil sampling has the potential to save farmers money on fertilizer costs while maintaining yields and delivering water quality benefits.”

The programme will analyse year-to-year variability in nitrogen availability and assess how residual soil

nitrogen influences on-farm decision-making. By grounding decisions in real data rather than estimates, the initiative aims to improve both economic and environmental outcomes.

“Nitrogen decisions involve many variables,” said Ben Gleason, INREC Executive Director. “This program gives farmers the chance to work off real numbers from their own fields. In a year where every input dollar matters, that kind of precision can make a difference.”

The first phase begins this spring, with INREC enrolling farmers in Boone, Calhoun, Greene, Hamilton and Webster counties. The programme is expected to expand later in the year to include additional fields across the Boone, Des Moines, Middle Cedar and Raccoon River watersheds.

Soil sampling and laboratory analysis will be carried out by SoilView, providing data to guide in-season nitrogen application. Participating farmers will contribute basic field information, including crop rotation and fertiliser practices, and complete a post-season survey. All data will be anonymised and shared with Iowa State University to support ongoing research and refine nitrogen management recommendations.

The project forms part of a broader effort to combine agricultural productivity with improved environmental stewardship, as policymakers and industry groups look to balance cost pressures with long-term sustainability.