

Agrology unveils the First-to-Market Low-Cost Nitrous Flux Sensor for Agriculture

13 November 2024 | News

The Agrology Nitrous Flux Sensor delivers a groundbreaking solution, enabling farmers to measure and report climate-smart practices for verified greenhouse gas (GHG) reductions at scale



The Agrology Nitrous Flux Sensor delivers a groundbreaking solution, enabling farmers to measure and report climate-smart practices for verified greenhouse gas (GHG) reductions at scale

Agrology launched the first real-time, in-field nitrous oxide (N₂O) flux sensor, breaking new ground for climate-smart agriculture. This technology advances efforts by farmers, academics and supply chain partners who are seeking scalable solutions to accurately measure nitrous oxide and other GHG emissions at scale in commercial agriculture. Currently undergoing rigorous in-field validation with experts and partners, the Agrology Nitrous Flux Sensor is available in limited quantities, with a commercial release slated for early 2025.

Agrology's Nitrous Flux Sensor is a paradigm shift in sustainable agriculture as it provides any grower with an affordable, accurate, and continuous tool to measure, reduce, and monitor nitrous oxide emissions, and thus enables GHG reductions

and innovations at the source while replacing static factors and rigid, non-conforming models.â

The agricultural sector recognizes its role in N₂O emissions and has sought ways to mitigate them. However, reducing N₂O emissions and achieving accurate impact quantification have been challenging due to the lack of affordable measurement tools. This gap has forced farmers and supply chains to rely on estimated emissions factors. Agrolgy's new sensor solves this problem at a fraction of the cost of research-grade equipment.

Adam Koepfel, Co-Founder and CEO of Agrolgy, highlighted the challenge and opportunity: "Accurately measuring N₂O emissions at scale has been a significant barrier, limiting the adoption of practices that reduce greenhouse gas emissions. Our Nitrous Flux Sensor changes that by enabling precise nitrogen application without compromising yield, empowering growers to implement agricultural practices that lower emissions effectively.â

The launch of Agrolgy's Nitrous Flux Sensor addresses the critical challenge of nitrogen fertilizer management. Fertilizer applied at the wrong time, location, concentration, or in the wrong form not only releases N₂O but also causes water pollution and biodiversity loss. With Agrolgy's sensors, growers can measure and verify the impact of climate-smart nitrogen management strategies. These tools, combined with nitrogen reduction programs, support insetting initiatives by providing in-situ data that transparently quantify emission reductions. Growers can benefit from incentives beyond fertilizer savings, further encouraging sustainable practices.