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On-Farm Experimentation Community (OFE-C)

International Society of Precision Agriculture (ISPA)

Co-editor May 2026

Thanks to my co-editor of the month, Mr Juan Carlos Ramos MSc, On-Farm Research Coordinator, Nutrient Management Spear Program at Cornell University, Ithaca, NY, US.

The New York On-Farm Research Partnership puts farmers in the driver's seat

The New York **On-Farm Research Partnership**, led by the Nutrient Management Spear Program at Cornell University, pairs New York field crop producers with Cornell researchers, extension educators, and industry advisors to conduct wide-scale, statistically rigorous nutrient management field trials. By focusing on farmer-driven priorities, the partnership generates the large datasets needed to answer complex management questions efficiently. Results inform individual farm operations and are used to develop science-based guidance for both field-level and whole-farm nutrient management across New York. To learn more, read here.

New publication and OFE tool: SSEA for efficient farming decisions.

The single-strip spatial evaluation approach (SSEA) web-based tool automates spatial analysis for single-strip on-farm trials, removing the need for statistical expertise. Developed with advisory feedback, the intuitive interface processes yield data and yield stability zone maps to generate result charts. These visuals provide site-specific interpretations of management changes across different zones. The tool empowers farmers to make data-driven decisions and promotes broader adoption of site-specific agricultural practices. Read journal and extension articles.

The Value and Power of Manure Projects: Improving manure management in NY

While manure is a known driver of soil health and fertility, its specific nitrogen (N) fertilizer replacement value and ability to boost yield can be complex to quantify. The **Value and Power of Manure** project (2022-current) uses on-farm trials to measure the impact of different manure sources, application timings, and application methods on corn silage and grain yield. These findings help farmers optimize fertilizer offsets, improve farm economics, and enhance sustainability. To learn about our 2025 findings, read here.

Precision agriculture for on-farm research: Within-field yield stability zone management & remote sensing

Commercial dairy and cash grain farms share yield data with the NMSP team to build multi-year, farm-specific Yield Stability Zone maps that separate consistent high-performing areas from variable or low-yielding ones. These maps support on-farm research to identify yield constraints and guide targeted input and management decisions. We are also evaluating remote sensing to estimate yield and generate zone maps. Together, these tools optimize fertility rates, improving profitability and environmental efficiency. Learn more: yield prediction, yield data processing, yield stability zones.

Tracking and enhancing farm sustainability using Dairy Sustainability Key Performance Indicators (KPIs)

This project provides dairy farms with science-based tools to track Nutrient Mass Balances, GHG inventories, and biodiversity. By monitoring nutrient imports and exports, participating New York farms have already reduced N and phosphorus imports by 20-30%, boosting profitability and sustainability. Farms are also demonstrating that milk can be produced with low GHG inventories. Confidential, benchmarked farm reports help producers identify specific management changes that improve efficiency and meet environmental goals while maintaining economic viability. Learn more.

Ongoing reminder: Special Issue on Farmer-centric OFE enhanced by digital agronomy

There is an open call for OFE papers in the journal Frontiers in Agronomy. You can submit a manuscript summary until Sept. 2026 and the final deadlines for manuscripts will be February 2027.

This letter was prepared by Louis Longchamps, co-chair of the ISPA OFE Community
Should you have something to share with the Community or the Community leaders, let us know here.