

Precision Agriculture

Testbed Site Field Guide

Headwaters Tech Hub (HTH) Testbeds offer distinct environments, including varied terrain, controlled settings, and advanced connectivity, designed to help partners test and demonstrate near-commercial products in real-world conditions. These testbeds specialize in smart photonic sensing systems with applications in natural resource management, national defense, precision agriculture, wildfire resilience, and disaster prevention.



Smart Farming
Tools



Remote
Sensing



Ag Robotics
& Autonomy



Grower
Validation



1,000s of
Annual Visitors



0.5-100 Acre
Custom Plots



25,000 Sq Ft
Shop/Event Space



Project Management
Support



Custom Farm
Management

FIELD GUIDE HIGHLIGHT

With unmatched visibility, custom farm management, and access to a global innovation network, Grand Farm turns research into adoption—fast.

GRAND FARM INNOVATION CAMPUS

- Precision Agriculture | Visibility
- Ag Innovation | Real-World Impact
- 24 miles west of Fargo, ND
- 590 acres
- High-traffic test plots (0.5 acre each)



KEY CAPABILITIES

- 0.5-100 acre high-visibility test plots for real-world Ag-Tech validation
- Advanced data and analytics support
- Access to Grand Farm's network of growers, researchers, and industry leaders
- Custom farm management
- Opportunities to collaborate with leading innovators
- Invitations to top industry events
- 25,000 sq ft shop for demos and events
- High visibility campus with thousands of annual visitors
- Advanced data and analytics support



Grand Farm Innovation Campus High-Visibility AgTech Showcase



0.5-100 Acre Custom Plots in a Public Living Lab

Demonstrate innovations in front of growers, researchers, and industry leaders in a real-use environment.



Global Visibility with Thousands of Annual Visitors

Gain exposure and adoption faster with unmatched access to end-users and decision-makers.



Custom Farm Management Support

Hands-on collaboration from concept to trial execution with Grand Farm's dedicated project management innovation team.



Advanced Data Collection & Analytics Tools

Receive high-quality, reliable data to validate and optimize your technology in the field.



Access to 25,000 Sq Ft Shop & Conference Space

Host field days, demos, and stakeholder meetings in an onsite facility designed to support innovation rollouts.



Embedded Industry Collaboration Opportunities

Build valuable partnerships with innovators, investors, and ag professionals through exclusive events, visibility, and facilitated matchmaking.

FIELD-TESTED VALUE

Grand Farm's Innovation Campus is where agriculture problems meet technology solutions. With customizable half-acre test plots, advanced data collection tools, and custom farm management, innovators can

validate solutions in grower-informed conditions. Through deep ecosystem engagement, the campus helps accelerate ideas into impactful, scalable outcomes that benefit the entire agriculture industry.




Cost offsets available for projects that benefit the regional photonic sensor ecosystem.

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