



On-Farm Trials for Nitrogen & Water Management

Improving efficiency, protecting groundwater



What it is?

- ✓ Field test
- ✓ Real farm conditions
- ✓ Compare practices
- ✓ Small area vs. normal practice
- ✓ Support better decisions

Why Consider an On-Farm Trial?

- **COMPARE** = current practice vs. alternative.
- **IDENTIFY** = what keeps yield, what improves returns.
- **PROTECT** = groundwater sustainability and productivity.

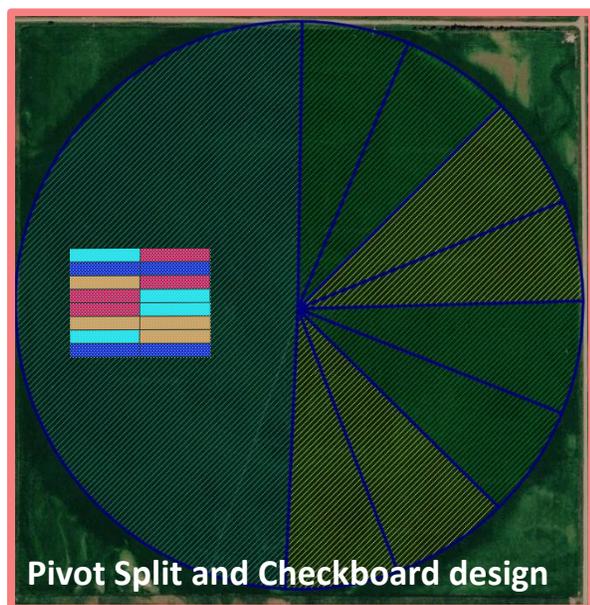
What Can Be Tested?

- 🌽 N Rate, Timing Source
- 🌱 Hybrids

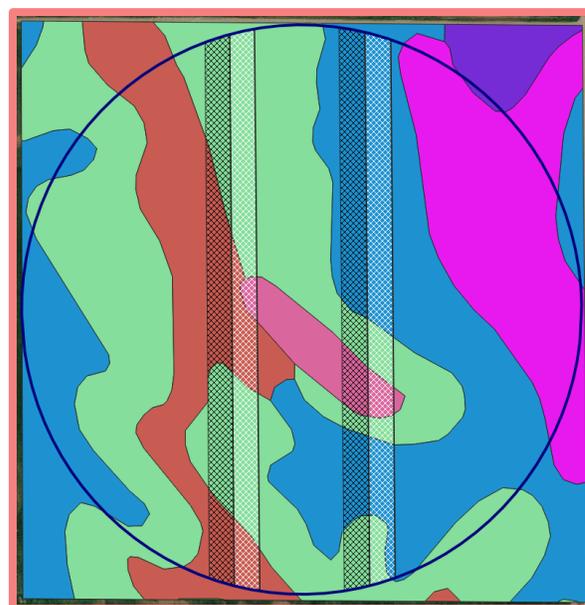
- 💧 Irrigation
- ⚙️ Equipment

- 🌱 Seeding Rate
- 🧪 Other ideas

What Does an On-Farm Trial Look Like?



Pivot Split and Checkboard design



Management Zone design

What You Receive?

- ✓ Field-specific results
- ✓ Economic analysis (UNL)
- ✓ Summary for decision-making
- ✓ Alignment with NRD/NRCS

How The Process Works?



Roles and Responsibilities

Producer

- Field access
- Apply treatments
- Rest normal management

Extension Educator

- Trial design
- Data support and Analysis
- Results interpretation

Opportunities & Benefits Available to Producers

Opportunity	Helps with	Typical support	What you need to know
Deep soil N sampling (LENRD)	N planning + compliance	Cost-share (limits apply)	Keep invoice + results; reimbursement deadlines apply
Soil moisture sensors (LENRD)	Better irrigation timing	Cost-share / incentive up to a cap	Multi-year participation; data-sharing possible
Flow meter + telemetry (LENRD)	Track water use efficiency	Cost-share up to a cap	Pre-approval required; must report flow data
Chemigation equipment (LENRD)	Split N applications	Cost-share up to a cap	Needs permit/inspection; water nitrate test required
Cover crop payments (LENRD)	Soil health + N recovery	\$/acre payment	No-till + seeding/termination rules
NRCS cost-share (EQIP / NWQI)	N, irrigation, cover crops, residue management	Cost-share (varies)	Funding depends on ranking dates + approval
State irrigation tech cost-share (NSWCP)	Flow meters, sensors, VRI, etc.	Cost-share (varies)	NRD-administered; requires NRCS specs
Sentinel Ag	In-season variable rate N	Tool subscription	Pre-approval required
Practical Farmers of Iowa	Cover crops, yield protection	\$/acre payment	Pre-approval required

Pablo Duarte Hernandez | Nebraska Extension Educator | Office 402.371.7313 Ext. 305