DATA YOU CAN HANG YOUR HAT ON.

INFIELD ADVANTAGE
your farm, your future.

Nitrogen Replicated Strip Trials

"With replicated strip trials, we are looking at a single change in management. We'll alternate strips of the management type four times across a field. This gives the participant a really good opportunity to look at the differences across a variable field."
—INfield Advantage group leader

What do you need?

- GPS-equipped nitrogen application (preferred)
- Calibrated GPS-equipped yield monitor (required)
- Flags (to locate treatment site)

Trial Area Design

- Two or more treatments that vary nitrogen
  - For example: rate, timing, form, placement or cover crops
- Each set of treatments needs to be replicated at least four times across the field
- Each replication must be identical

Treatment Strip Width

- Border rows are needed on each side of the strip to avoid edge effects
  - Treatment strip width is dependent on the size of the farm equipment
  - Strips are often twice the width of the combine head, but the width of application equipment also needs to be considered during this process

Strip Length

- Strips should be a minimum length of 1400 feet; no maximum length
  - If minimum length of 1400 feet is not possible, strips of at least 600 feet will be considered
- Strips should not include turn area or other buffer zones

INfield Advantage provides farmers, like you, the opportunity to gather and analyze personalized, field-specific data.

Replicated strip trials (RST) allow participants to use precision agriculture tools and technologies to conduct research on their own farms. In small group settings, participants can share the pros and cons of different management types — such as nutrient management rate, timing and form — and then evaluate the effectiveness of each by comparing and contrasting their own personalized and local data.

Replicated strip trials need to be implemented following specific protocols.

Treatment strip width examples based on equipment

IMPLEMENT	EXAMPLE 1	EXAMPLE 2	EXAMPLE 3
PLANTER	12 ROW	16 ROW	12 ROW
APPLICATOR	12 ROW	8 ROW	12 ROW
COMBINE	6 ROW	8 ROW	8 ROW
TREATMENT WIDTH	12 ROW	16 ROW	24 ROW

Selecting a Field

- Field should be a good representation of your overall operation
- If possible, treatments should run perpendicular to significant soil variations

Standard Trial Layout*

- Mark each treatment strip with plastic flags
- Use extra flags to mark outside of trial area
- Mark flag locations with GPS (contact your group leader)

After nitrogen application, download as-applied files as raw data and submit to group leader via email or flash drive.

	Minimum Length=1400 ft. **
REPLICATION 1	TREATMENT 1
	TREATMENT 2
REPLICATION 2	TREATMENT 1
	TREATMENT 2
REPLICATION 3	TREATMENT 1
	TREATMENT 2
REPLICATION 4	TREATMENT 1
	TREATMENT 2

** In some trial layouts, treatment order is randomized.*
*** If minimum length of 1400 feet is not possible, strips of at least 600 feet will be considered.*

Harvest

- Calibrate equipment according to manufacturer's recommendations
- Harvest each treatment from the center of the strip

After harvest, download yield files as raw data and submit to group leader via email or flash drive. Participants will receive replicated strip trial reports at their local winter meeting.

For more information, contact your local INfield Advantage group leader or the INfield Advantage State Coordinator at 317-232-8770.

"The program gives us a way to evaluate our nitrogen management program in a scientific and unbiased way." —INfield Advantage participant

INfield Advantage is a proactive, collaborative opportunity for farmers to collect and understand personalized, on-farm data to optimize their management practices to, ultimately, improve their bottom line and benefit the environment.

LEARN MORE ABOUT INFIELD ADVANTAGE AT WWW.INFIELDADVANTAGE.ORG.

INfield Advantage is brought to you by:
Indiana Soybean Alliance, Indiana Corn Marketing Council, Indiana State Department of Agriculture, Indiana Association of Soil & Water Conservation Districts, Purdue Extension and the Indiana Conservation Partnership.

This communication funded with Indiana soybean and corn checkoff dollars.

21-MC28-09/14
32501-12