TFI UPDATE

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The Fertilizer Institute

TFI is the voice of the fertilizer industry, representing the public policy, communication, stewardship and sustainability and market intelligence needs of fertilizer producers, wholesalers and retailers as well as the businesses that support them with goods and services.
State of the Industry Report

- The U.S. fertilizer industry generates more than $139 billion in economic benefit and provides more than 80,000 direct jobs and 370,000 indirect jobs for a total of more than 450,000 U.S. jobs.

- 2017 Report 1,418 representing 21 member companies in the U.S.

- https://www.tfi.org/our-industry/state-of-industry/fertilizer-on-the-farm

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**ALL PARTICIPATING NON-RETAIL LOCATIONS**

- There are a total of 217 Certified Crop Advisors (CCAs) across non-retail locations.

- 3.61 Agronomists at each non-retail location.

**ALL PARTICIPATING RETAIL LOCATIONS**

- There are a total of 910 Certified Crop Advisors (CCAs) across retail locations.

- 2.12 Agronomists at each retail location.
The Fertilizer Institute

https://twitter.com/i/status/1039904684847316992
What is 4R Nutrient Stewardship?

• Actively considering all management practices and site specific characteristics when making the right source, right rate, right time, and right place nutrient management decisions
4R Advocates

- Farmer & crop advisor partnerships
- Advocacy & examples of 4R on the farm
- Demo production & economic impact
Glenn Beck, Windermere, FL
Rob Watson, Griffith Fertilizer Co. Frostproof, FL

Maria Cox, Whitehall, IL
Kyle Lake, CHS Carrollton, IL

Chuck & Darin Dunlop, Parker, KS
Jason Sutterby, AgChoice, Moran, KS

Jeff, CJ, & Greg Durand, St. Martinville, LA
Earl Garber, Sanders/Pinnacle Ag, Crowley, LA

Doug Weathers, Salem, OR
John Peters, Wilbur-Ellis, Woodburn, OR
Cox Land and Cattle Co.

- 3,000 ac
  - Corn grain
  - Soybeans
  - Corn silage
  - Hay and cover crops
  - 750 cattle – cow/calf

- No-till since 1988
- Strip-till in corn

Maria Cox, Farmer
Kyle Lake Crop Consultant
Soybeans

- **Cereal Rye Cover crop**
  - Plant soybeans into green standing rye

- **4R Practices**
  - 2.5 ac grid sampling
  - Variable rate nutrient prescriptions using grid samples and yield maps
  - All P and K spring applied
  - Test manure for crediting

- **Performance**
  - 2016 – 71 bu/ac
  - Plus cereal rye hay production
Corn

- Strip-Till planting into cereal rye terminated at 10"
- No-till 25%
- Strip-till 50%
- Tillage on 25% that has hog manure
- 4R Practices
  - Variable rate N, P, K
  - Use N-serve (nitrification inhibitor) on all anhydrous ammonia
  - Split application
- Performance
  - 2016 – 190 bu/ac
Maria says:

• “We use cover crops as a way to build organic matter, prevent erosion, lessen weed pressure, and potentially lower fertilizer application rates long-term.”

• “4Rs can be implemented in all tillage situations, but we feel a no-till system on fields keeps the fertilizer from eroding and washing away.”
Strom Farms

- 5,600 acres
- Corn
- Soybeans
- Wheat
- Pasture for a 20-head Angus cow/calf operation

Grant Strom, Farmer
Adam Dexter, Crop Consultant
Soybeans

- **No-till**
- **4R Practices**
  - 2.5 ac grids
  - Zone soil sampling
  - Variable rate P and K applications
- **Performance**
  - 65 bu/ac - 2017
Corn

• No-Till
• Variable Rate Planting
• 4R Practices
  • 2.5 ac grid sampling
  • Zone sampling
  • Variable rate P and K
  • Variable rate N using field management software
  • All in-season N application
  • Y-Drops for side-dress and late season N

• Performance
  • 200 – 285 bu/ac – 2017 (256 avg)
Strom Farms on Farm Trials

- No-Starter test strips
- Continuous improvement
Grant says:

• “Following the 4R practices lets us spend less money on applying fertilizer and more on technology to improve our fertilizer use and put it where it needs to be.”
Initial projects: 5 meta-analyses
- Knowledge gaps related to 4Rs and environmental impact

Current research projects
- 4R practice impacts on N & P loss via water and air pathways and interaction with supporting conservation
Call for Pre-Proposals

- Projects focused on 4R practice outcomes for a broader range of crops and cropping systems including cotton, rice, fruit, vegetable and tree crops, particularly in combination with irrigation.

- Projects focused on innovation in improving the reliability of soil fertility and plant nutrition recommendation systems in general. Projects on other topics may be considered, but all projects must be focused on advancement of 4R Nutrient Stewardship.

- Due October 31, 2018

- https://www.tfi.org/newsroom/2018news/4R-research-preproposals
Science for Stewardship

Providing the science needed to use fertilizers sustainably—remaining profitable while protecting the environment and benefiting society

RIGHT SOURCE
Matches fertilizer type to crop needs.

RIGHT RATE
Matches amount of fertilizer to crop needs.

RIGHT TIME
Makes nutrients available when crops need them.

RIGHT PLACE
Keeps nutrients where crops can use them.
SEC. 7208. HIGH-PRIORITY RESEARCH AND EXTENSION INITIATIVES.

“(13) FERTILIZER MANAGEMENT INITIATIVE. - ‘(A) IN GENERAL.—Research and extension grants may be made under this section for the purpose of carrying out research to improve fertilizer use efficiency in crops—“(i) to maximize crop yield; and “(ii) to minimize nutrient losses to surface and groundwater and the atmosphere.
Resources

nutrientstewardship.org
ipni.net/4R
@4Rnutrients
@PlantNutrition

4R Nutrient Stewardship

https://www.youtube.com/user/1fertilizer/videos
Become a 4R Advocate

Applications are accepted August through October each year.

Winners will be announced in mid-December.

APPLY ONLINE: nutrientstewardship.org/advocates