

Fertilizer on the Farm



Overview

All plant nutrients should be applied using the 4R Nutrient Stewardship framework, meaning farmers implementing best management practices (BMPs) based on the **right** nutrient source, applied at the **right** rate, at the **right** time and in the **right** place. This goal is the driving force behind The Fertilizer Institute's nutrient stewardship advocacy and outreach efforts.

The 4Rs are a proven method of reducing the loss of nutrients to the environment while also addressing sustainability concerns. Primary concerns addressed through 4R efforts include:

**Improved
farm profitability**

**Improved
water quality**

**Reduced loss of
greenhouse gases**

All aspects of fertilizer usage on the farm hinge on the willingness of farmers to implement BMPs. TFI is actively working alongside farmers to determine the cost benefits of implementing the 4Rs and how this drives their decision-making on fertilizer application. Merging smart farm economics and practical research is the key to improving fertilizer use on the farm.

Why Does it Matter?

Farmers are the end-users of all fertilizer products and hold the key to improved nutrient use efficiency. As more farmers adopt 4R practices, TFI is able to compile additional data showing how adoption of 4R practices positively impacts both farmer profitability and environment stewardship. This data adds to the compelling story TFI can tell in encouraging more producers to adopt 4R practices.

*"At least **4.2 million acres** of farmland in the United States are documented as having 4R practices implemented."*



What Should be Done and Why?

TFI supports funding and incentives to encourage farmers to adopt 4R Nutrient Stewardship practices on their land. Scientific studies have shown that implementing nutrient management practices based on source, rate, timing, and placement of fertilizer can have a significant impact on reducing the amount of nutrients lost to the environment. The 2018 Farm Bill included language that prioritizes 4R Nutrient Stewardship practices in a number of programs, and TFI strongly urges USDA to implement these programs.

Conservation Stewardship Program (CSP)

Agricultural retailers are an important resource for farmers when it comes to providing agronomic recommendations and nutrient-management planning. The 2018 Farm Bill aims to enhance the Technical Service Provider (TSP) by directing the USDA to streamline the process through which qualified employees in commercial entities, such as agricultural retailers and farmer co-operatives, could become certified. The bill also provides authority for these non-federal entities to act as a certifier of technical service providers. The result of these necessary changes will be more acres with nutrient-management plans, a win for the environment and America's farmers.

4R Research

TFI supports scientific research, which is essential to giving farmers the information and tools necessary to ensure that our products contribute to crop growth and soil health. The fertilizer industry does more than talk about research. We are responsible for \$11 million in funding (\$5.5 million matched on a dollar-for-dollar basis) for research projects. Federal research projects examining nutrient management based on source, rate, time, and placement of nutrients was identified as a high-priority research initiative in the 2018 Farm Bill. TFI urges the USDA to maintain appropriate funding levels for the Agriculture and Food Research Initiative to ensure that U.S. farmers have the information they need to continue the upward trajectory of fertilizer use efficiency.

Environmental Quality Incentives Program (EQIP)

The EQIP program provides assistance to producers and landowners to adopt conservation activities on agricultural and forest lands to protect and improve water quality and quantity, soil health, wildlife habitat, and air quality. TFI supports directing at least 10 percent of funds at managing the source, rate, timing, and placement of fertilizer on land.

BY THE NUMBERS

*In 2018, the fertilizer industry contributed **\$1.2 million** to the 4R Research Fund.*

*In 2018, there were **4,731 fertilizer industry employees** who provided agronomic services to farmers. Of those, **1,037** had a CCA or CPAg certification.*

*The fertilizer industry spent **\$27.3 million** on research and development of innovative products and 4R practices in 2018.*

*An additional **\$3.2 million** was spent on partnerships that support 4R nutrient stewardship.*