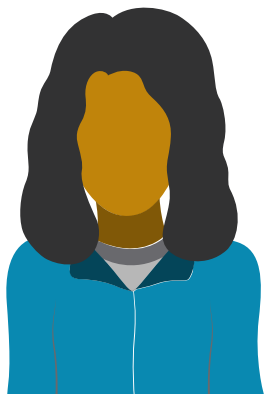


# 4Rs and Conservation – A Whole Farm Approach to Nutrient Management

## Starting the Conversation...

**How to start a conversation with a farmer about retaining and trapping nutrients**



I've noticed you have some wet areas in your fields this year. Have you considered using yield mapping to identify areas where you might be losing money? Converting these areas to a conservation planting like a field border, filter strip, pollinator habitat or riparian buffer may increase your overall profitability.

Do you notice more gullies forming in your no-till fields? Seems like rainfall intensity is increasing and no-till alone is not stabilizing your fields. It may be time to think about "upping your cover crop game" and installing grassed waterways to protect these vulnerable areas. Installing a contour buffer strip or terrace may also be appropriate.

Tell me about your planting, harvesting, and spraying equipment – what width are they? Your 12-row corn head may be too wide for the curve in this contour strip. We should make sure your traditional conservation practices like strip-cropping and contour farming are appropriate for your equipment size.

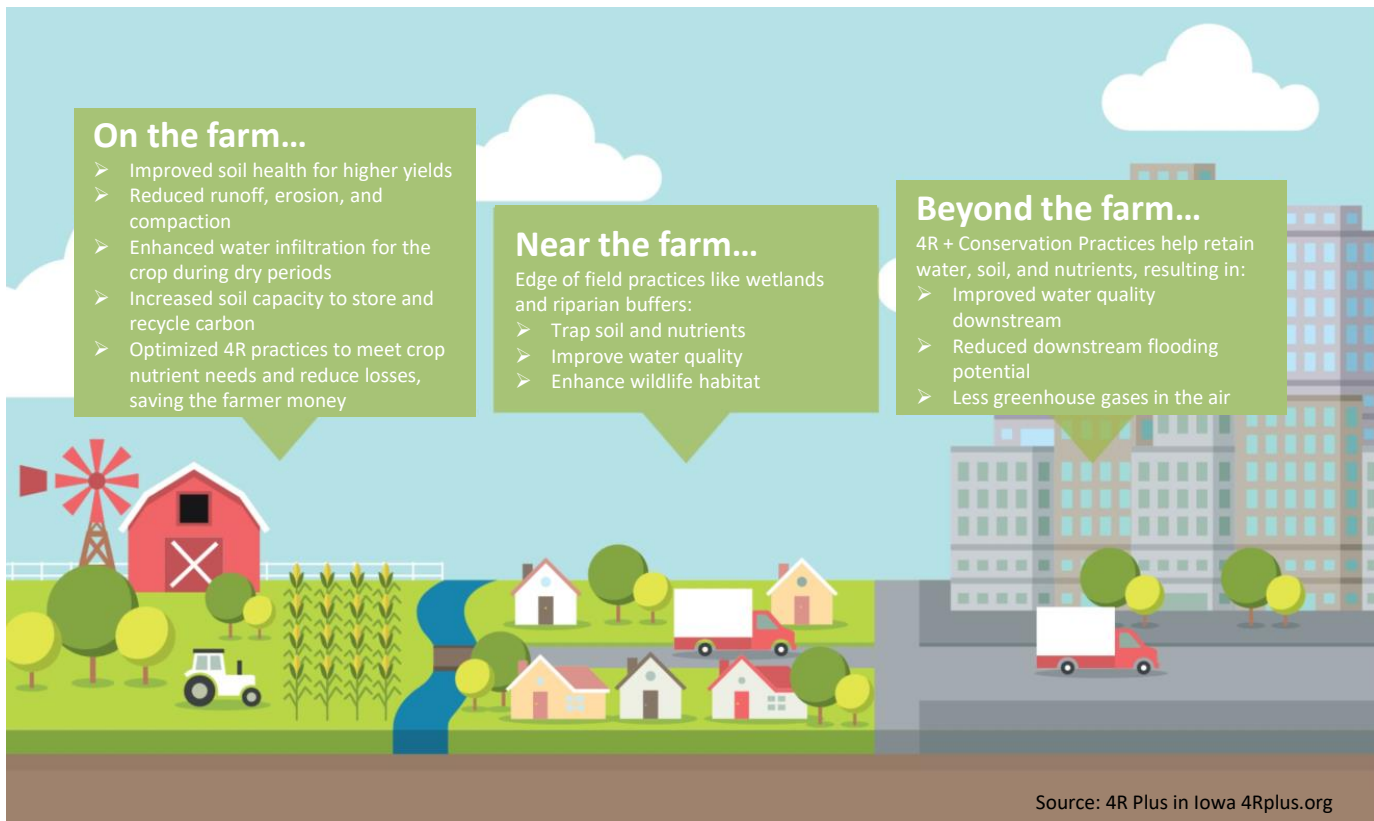
Corn silage acres, like yours, could have 60-80 lbs/acre of "free nitrogen" in the soil following harvest that can easily be lost over the winter. What information do you need to make your decision about planting cover crops on your corn silage acres?

## 4R and BMPs to consider in your whole farm nutrient management approach

	Rate	Source	Time	Place	Beyond
Cover Cropping					
Water management					
Nitrogen Modeling					
Soil Testing					
Variable Rate N					
Riparian Buffers					
Wetlands					

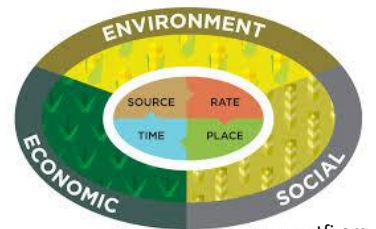


# 4Rs & Conservation



*4R Nutrient Stewardship works hand-in-hand with conservation best management practices to ensure nutrients stay on the farm and out of our streams and rivers.*

**Nutrient Management brings together all aspects of farm planning—Economic, Environmental, and Social. Conservation BMPs work with nutrient management to optimize nutrient use and trap nutrients and sediment leaving fields to protect downstream waters and habitat.**



- Cover crops contribute to early season immobilization of nitrogen for crop use and contribute to available nitrogen as they decompose, while also trapping nutrients remaining after a crop
- Practices like grassed waterways and terraces prevent nutrient and sediment pollution of streams
- Precision Ag can be used to identify areas that require more careful management of nutrients
- Improved soil structure and drainage reduces risk of denitrification
- Setbacks and riparian buffers trap nutrients before they enter our waterways