

# FERTILIZE THE "RIGHT" WAY

## Nutrient Management for the Farm or Garden

When it comes to applying fertilizer and managing nutrients in the soil, the 4Rs of Nutrient Stewardship have it covered. These 4 principles were established to help guide farmers as they fertilize their fields, and you can use the same principles for your garden at home!

### FARM

Ensure plants have access to the proper amount of essential nutrients based on what they currently need.

**FORM:** Solid (manure, granular), liquid or gas.

**KEY NUTRIENTS (NPK):** The top 3 crop nutrients are nitrogen, phosphorus and potassium (NPK), plus a variety of micronutrients.

**CROP ROTATION:** Soybeans fix their own nitrogen source in the ground. Corn is planted after soybeans to take advantage of some of the leftover nitrogen.

When applying nutrients, farmers only apply the amount needed so the excess does not go to waste.

**SOIL TESTS:** Testing the soil provides a clearer picture of the nutrient levels in that field or field section.

**WEATHER:** Factors like precipitation and temperature impact nutrient application. Too much rain can cause nutrients like nitrogen to move lower in the soil.

Farmers determine the best time to give crops nutrients based on factors like weather, temperature and when nutrients were last applied.

**FALL APPLIED:** After harvest

**SPRING APPLIED:** Before planting

**SIDEDRESS:** When the corn or soybeans are still small

**MID-SEASON:** Use tools attached to high rise sprayers to go over the top and in between tall rows of corn

Farmers often apply nutrients close to the root of the plant so they are used efficiently.

**PLANT AND NOURISH:** Sometimes farmers place their fertilizer when they plant their seed.

**GET IT CLOSE:** Farmers use equipment right where the plant can use it instead of where it is at risk of being lost.

### GARDEN

Make sure you're using the right type of fertilizer for your garden plants.

**ASK THE EXPERTS:** You have many options for fertilizer. Talk to your local lawn and garden store for recommendations. These pre-made fertilizers contain the NPK that plants need to thrive.

**COMPOST:** Reuse and repurpose lawn and kitchen scraps, such as leaves, grass clippings, eggshells and orange peels to create a nutrient rich fertilizer.

Before applying fertilizer to your garden, know how much you need to properly feed your plants.

**SOIL TESTS:** Sending samples of the soil in your garden to a lab for testing can help you figure out what nutrients your plants need. For more information, visit [algreatlakes.com](http://algreatlakes.com).

**COMPOST:** When using compost, mix 1/4 to 1/2 inch into the top layers of the soil to provide it with added nutrients.

**WEATHER:** Homeowners have the advantage of watering their own garden, but don't over water — that could wash away the nutrients.

Determine the best time to apply fertilizer to your garden. This is dependent on the type of fertilizer and the plant you are fertilizing.

**BAGGED FERTILIZER:** For a vegetable garden, mix fertilizer into the soil for planting. Applying nitrogen too early before the plant can use it leaves it vulnerable to be lost in the soil. Apply nitrogen at planting or when the plants begin to emerge. Perennial plants should only receive fertilizer when they need it. Granular fertilizer can be mixed or watered into the soil after seeds have been planted.

**COMPOST:** The best time to incorporate compost into the soil is in the fall after harvesting your garden or in early spring before planting your garden.

Apply fertilizer close to the root of the plant for it to be taken up and used efficiently.

**KEEP IT CLOSE:** Apply fertilizer 2-3 inches to the side of and 1-2 inches below the seed row.

**COMPOST:** Mix the recommended rate of compost into the top 3-5 inches of soil.

**LOCATION NEAR WATER:** Be careful not to over apply fertilizer if your garden is near a pond, creek or other body of water, because heavy rain can cause run off.

RIGHT SOURCE

RIGHT RATE

RIGHT TIME

RIGHT PLACE