

## GIVE CORN PLANTS A HEAD START

### SITUATION

Strong grain prices are helping to reinforce the importance of healthy, robust corn crops. Using a starter fertilizer can increase early plant growth, nutrient uptake and yield potential, as well as improve overall plant health. What is the best approach to applying a starter fertilizer?

### FACTORS TO CONSIDER

- Soil temperature
- Moisture levels
- Residue
- Soil type
- Organic matter
- Soil testing

### ACTION PLAN

**1. Understand the importance of a starter fertilizer application.** Starter fertilizer is a concentration of fertilizer placed near the corn root zone at planting to help plants get off to a healthy start. The primary purpose for using a starter fertilizer is to increase the nutrient source for the newly formed root system and help with any adverse conditions that may arise soon after planting.

**2. Determine the best application type for the situation.** Before applying starter fertilizer, it's important to determine which application method is best for the situation, and ensure that the proper equipment is available. Common ways to apply a starter fertilizer effectively are two-by-two, surface dribble and in the furrow ("pop-up").

*Two-by-two* placement is the most common, consisting of applying starter fertilizer 2 inches to the side and 2 inches below the seed depth. This requires precision placement and specialized equipment. Placing fertilizer below ground reduces the likelihood of runoff compared with surface-applied fertilizers. Two-by-two placement is an excellent choice for applying a portion of your crop nutrient needs next to the seed for the greatest response.

*Surface dribble* delivers a stream of fertilizer on top of the surface 2 inches to one side of the corn row. This method requires less equipment expense.

*In-furrow "pop-up"* placement requires basic equipment to apply starter fertilizer in the seed furrow. This method is best used in areas with high nutrient levels where lower fertility rates are needed, and also prevents seedling injury.

Depending on the soil type and amount of fertilizer applied, all of these fertilizer placement methods have benefits.

**3. Be aware of timing, soil temperature and type.** It's advantageous to apply a starter fertilizer in **early spring**, when the soil temperature is not warm enough to mineralize the organic matter for critical nutrients like nitrogen and phosphorus in conventional and/or no-till situations. Starter fertilizer application on cool, wet soils will supply nitrogen and phosphorus to the plants, producing healthier plants, vigorous root systems, faster growth, quicker canopy closure and higher yields. Using a good starter fertilizer program also can be beneficial on soils with a pH below 6.0 where the aluminum and iron are tying up phosphorus.

### SUMMARY

To maximize yields use the starter fertilizer program that fits your farming practices and equipment. A starter fertilizer should have nitrogen and phosphorus rates blended for your specific needs. For more information, contact your local Mycogen Seeds customer agronomist or trusted agronomic adviser.



Apply a starter fertilizer in early spring when the soil temperature is not warm enough to mineralize organic matter.

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Sources: Ohio State University: Using starter fertilizer; Fluid fertilizer: Don't forget starter fertilizer; Farmwest.com: Applying starter fertilizer; Soil Facts: Start fertilizer for corn production

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