



Overcoming Environmental Challenges with Sidedressing

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Unless you are in one of the very few “garden spots” this year, you and your crop are experiencing yet another challenging growing season. Too dry, too wet, too cold, late planting, not planted, hail damage... The list goes on and on.

But don't wave the white flag! There are things you can do to minimize the negative effects of yield-robbing environmental factors. Namely:

- Starter fertilizers
- Sidedress programs
- Foliar programs
- Adding biologicals to all of the above

Past issues of *Ground Work* have addressed starter fertilizers and biologicals. This week we're going to think positively and assume your crop is far enough along for a **sidedress program**. Next week we'll talk about foliars.

Crop nutrient status throughout the entire growing season, especially at critical times of crop growth, plays a big role in determining the yield of your crop. For many people, a sidedress application is a planned part of their **nitrogen management** program. For others, it can be part of a rescue treatment to compensate for a nutrient shortfall. You certainly need to evaluate your

nitrogen status if you have experienced excessive rainfall when your nitrogen was in a form (nitrate) that is subject to leaching, even if all of your “planned” nitrogen had been applied.

Evaluating your nitrogen status can be done by using the PSNT (pre-sidedress nitrate-nitrogen test). If your soil does not contain **21-25 parts per million of nitrate nitrogen** when your corn is at the six-leaf stage, additional nitrogen applications are probably warranted. Colorimetric or tissue tests can tell you the crop’s current nitrogen status, but they won’t tell you about the soil’s continued ability to supply needed nitrogen.

Many growers find it beneficial to apply nutrients other than nitrogen in their sidedress applications. Mobile nutrients, subject to leaching, are often added to sidedress nitrogen applications. These include **potassium, sulfur, and boron**.

Because sidedress applications are usually banded, potassium efficiency can be greatly enhanced in a sidedress application. Soils that have adequate potassium levels often times still respond to sidedress applications of potassium because potassium quickly becomes less available in dry soil conditions which are often encountered during the growing season. A potassium-rich band of fertilizer makes it easier for plant roots to pick up the potassium necessary to maintain yield potential. It is even more important if your soil is low in potassium or you were not able to make other potassium applications for whatever reason.

For many growers, sidedressing is the only convenient time to apply sulfur; and the added sulfur helps to increase the utilization of the nitrogen being applied. Sidedressing may also be the most convenient time to add a significant amount of boron. Most soils are low in boron, which is needed to move sugar and nutrients within the plant. Other micronutrients that are in short supply can also be added to the mix.

AgriEnergy Resources always encourages adding **carbon** to fertilizer mixes to enhance nutrient efficiency and to help feed microbes. We use many carbon rich products such as Drammatic Fish hydrolysate, **Bio Humus, Activator II**, molasses and corn syrup. We also encourage the addition of **SP-1™** to the sidedress mix to stimulate the microbiology. The microbes will consume some of the nutrients and release them later for use by the crop.

Sidedressing is not just for corn! Many crops respond to “spoon feeding” during the growing season. Whether you are a Biological Farmer or an Organic Grower, consult your **AgriEnergy Resources** representative. He or she will help you determine what sidedress program gives you **the best shot at enhancing or rescuing your crop’s yield potential**.