

THE LEADING EDGE

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A PUBLICATION DEDICATED TO MAXIMIZING YIELD POTENTIAL

Side dressing: the right time, the right placement, the right price

Producers have known for quite some time that application of fertilizer is critical to realizing optimal yields. In the past, fertilizers like nitrogen were applied liberally. And why not? Cost was minimal and time investment was justified.

Today's producers deal with a more complicated set of circumstances when it comes to fertilizer application. Nitrogen costs are high and show no signs of decreasing in the near future. Studies have revealed that liberal fall applications result in the loss of significant portions of the nitrogen by the spring planting season. And environmental effects of over-application are now well known and are regulated accordingly.



2984 Maverick™ Units

Why side-dress?

Side-dressing fertilizer has emerged as a solution for producers who want to get the most out of their fertilizer dollars.

When the side-dressing technique is properly executed, it encourages more even corn growth and increases your potential for better yields. Nitrogen tends to leach down through the soil and away from the roots, and side-dressing replenishes those needed nutrients for enhanced growth.

Split applications often produce the best yields. Applying a small amount of nitrogen pre-plant, during planting, or shortly after planting, is an option that should be considered in nitrogen management plans. An additional side-dressing a little later in the season ensures

Application after the plant has emerged puts the nutrients where crops—corn in particular—need it most. Placing fertilizer beside the row where roots can grow into the band allows plants to feed throughout the growing season.

crops never go hungry.

When roots hit the fertilizer zone, there is a growth explosion. As more roots develop, they too encounter the fertilizer for an ongoing boost during critical growth stages—almost half of a corn plant's roots are within 12" of the soil surface during tasseling.

Side-dressing also allows you to apply essential fertilizer without causing damage or burning of the roots or leaves, which could come into contact with the fertilizer if it were applied too near to the plant.

The right equipment makes the most of side-dress applications

Producers often question whether the increased equipment costs associated with injecting fertilizer are worth switching from dribbling. One study completed over 2 years showed a slight decrease in yield (5 bu.) in fields that received nitrogen by dribbling rather than injecting.

Side-dressing comes with a unique set of concerns. Many producers question whether or not application can be completed in the window between emergence and when the corn is too tall. One option to get into the field early is to apply nitrogen using a simple coulters and liquid injection system. This avoids flipping small chunks of soil onto vulnerable small plants as an applicator knife setup might.

Yetter Manufacturing Company offers a variety of coulters blade styles to fit the needs of every operation. Smooth, notched, and ripple coulters are ideal for fertilizer placement and cause minimal soil disturbance. Yetter coulters optimize fertilizer placement when a precision placement attachment such as a knife or nozzle is attached.

Mounting toolbars equipped with an injection system to high clearance sprayers will also buy some time to side-dress later in the growing season. Rigs like Yetter Manufacturing Company's 3600 Series Fertilizer Toolbar for the JD 4710/4720 Sprayers can take on the task of side-dressing as soon as plants emerge and continue well into the growing season.



Sidedress Fertilizer Toolbar

Including high-capacity fertilizer hauling equipment to supply the applicator is also an excellent way to side-dress; it saves a great deal of time, as there is no need to continually stop for refills. High capacity fertilizer carts like the All-Steer from Yetter Manufacturing

are designed to save trips through the field, and the tire tracking system reduces compaction.

Vary your application rate

To further enhance your side-dress application, consider varying the rate. Because of variations in the weather and soil composition throughout fields, applying the same amount of nitrogen year after year is not the most efficient, cost-effective, or environmentally conscious option.

New sensors are coming on the market that are capable of determining the amount of nitrogen necessary to maximize yield and minimize cost and impact on the environment. The sensors use light reflected from the crop to determine the amount of nitrogen necessary to bring the tested area up to the level of the lowest-rate strip sufficient in nitrogen. On applicator-mounted models, the sensor communicates with software that adjusts the amount of nitrogen applied during real-time application. This accurate data will make money by giving producers the confidence to cut rates where indicated.

Another option to determine the right amount of nitrogen for different areas is to combine the use of previous crop, yield history, soil fertility, drainage, and late spring soil tests. Satellite imagery can enhance this data. Map out a nitrogen-management plan by compiling and comparing results and dividing fields into corresponding zones.



Gen III Coulter

Apply nitrogen with a system that allows for rate adjustment mid-application. Some producers use hydraulically driven centrifugal pumps on their side-dress machines. Oil flow to the pump can be controlled from the cab, and the changes in pressure vary the rate of application as needed.

Both methods save producers from over-applying nitrogen in areas that already have low yield potential or satisfactory amounts available, and ensure nitrogen is being fed to the crops that will put it to the best use.

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