

# THE MIDWEST

# BIO-TECH NEWS

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## **CROP PROGRESS IS A MIXED BAG SO FAR**

While making product deliveries around the Midwest this spring, I could see that there was a lot of variation in weather and soil conditions. In late April and early May, there were some areas that looked completely water logged while the tractors were running and the dust was flying in other areas. You can also see the variation in planting and crop conditions across the Corn Belt in the latest crop progress report that USDA issued on May 31.

In bad weather years, the weather tends to favor either the eastern or western Corn Belt so that half the region is on or ahead of schedule and the other half lags behind. This year, we find that the states in the center of the Corn Belt (Illinois, Indiana, and Missouri) are well behind schedule while farmers in the states on all sides have made normal progress. Also, these three states are much further behind in their soybean crop progress than in corn planting and emergence.

As of May 31, Illinois corn planting was 82 percent complete with 52 percent emerged, and the five year averages for these corn rates are 98 percent planted and 92 percent emerged. The good weather in late May was evident in the numbers because the planting completion number jumped by 20 percent from May 24 to May 31. For beans, Illinois was only 34 percent planted by May 31, which was third lowest among the 18 major bean producing states (only Kentucky and Tennessee had lower planting rates). The Illinois bean crop was only 6 percent emerged (last among the 18 major states).

The Indiana corn crop progress was about even with Illinois as of May 31, and the soybean planting and emergence rates were better than Illinois but still well behind the five year average for the state. Missouri fared better than both Illinois and Indiana in corn and bean progress, but it still had a 73 percent corn emergence rate that was 15 percent behind normal (88 percent) and a bean emergence rate (22 percent) that was half of the five year average (45 percent).

Among the surrounding corn producing states, Wisconsin and Michigan were only slightly behind planting schedule, and the other major corn states (Iowa, Kansas, Minnesota, Nebraska, Ohio, and South Dakota) were on schedule or ahead of the five year average. Despite the wide range of crop conditions, USDA reports that 70 percent of the current US corn crop is rated good to excellent, which is up from 63 percent last year. We find that a similar pattern appears in the soybean crop progress numbers for surrounding states, except Michigan is about 14 percent behind the five year average (76 percent) and Nebraska is running well ahead of normal.

In other crops raised in the Midwest, the current crop progress is even more mixed. For example, most states have oat crops that are emerged at about the normal pace, but North Dakota is well behind schedule.

Of course, we know that late planted crops can catch up to normal growth in a big hurry if we get the right weather pattern. Based on the information I get, I think this is what people are hoping for --- they don't want a repeat of the long growing season and late harvest dates from last year.

## CHANDLER FOLIAR

Like last spring, the weather during the planting season was relatively cold and wet in most areas. Under these conditions, plants may have limited root development, plant structure, and yield potential. Based on the experiences reported by our users, we know Chandler Foliar can help you to overcome these potential problems.

Chandler Foliar is a liquid plant food that contains nitrogen and other organic compounds, micronutrients, and proprietary biostimulants. The micronutrients in Foliar are chelated to make them more readily available to the plant, and the biostimulants are organic compounds that increase nutrient availability and uptake, accelerate plant growth, and enhance plant vigor and yield. The product can be applied to most crops, and we have seen excellent results with properly timed applications on alfalfa, soybeans, and small grains.

For soybeans, Chandler Foliar helps to generate higher bean pod count and fill, test weight, and yields. Many of our users add Chandler Foliar to the tank when they make their first or second post-emerge chemical application. However, some long-time users prefer to make a separate application of Foliar about three days after they spray chemicals. The product helps the plants to quickly recover from the stress of the chemical treatment.

Chandler Foliar may also be applied to alfalfa and other hay crops to enhance the photosynthesis process, which leads to quicker plant growth after each cutting and increases hay nutrient content. For alfalfa, the product is usually applied as soon as there is enough new plant growth to receive the spray after the first and third cuttings.

Chandler Foliar may be applied by itself or in a tank mix, and it is compatible with most liquid fertilizers and pesticides. Foliar should be applied with enough water (10-20 gallons per acre) to provide good coverage, and the product may be applied with newer equipment that uses lower water flow rates. Chandler Foliar costs \$5.33-8.75 per acre (depending on the application rate).

## FIELD RESULTS FOR CHANDLER FOLIAR

My busiest time of the year is right before the spring planting season, and this year was busier than ever. Spring is also one of my favorite times because I have a chance to talk with a lot of people over the phone or in person. I get calls from Chandler users as well as new customers who want to place an order or ask questions about the products. I also get to see a few of our customers while I am out delivering the orders that we don't ship by UPS. It is nice to see the country and check on planting progress while delivering product, but I really enjoy talking with the people.

Some of the most valuable things I gain from talking with users during the spring are their recent experiences with the Chandler Crop Products. During 2008, several users conducted side-by-side comparisons of Chandler Foliar and other foliar products, and most of the trials were conducted on soybeans and alfalfa. Following our privacy policy, I have not provided any names or other identifying information.

- Alfalfa treated with Chandler Foliar had taller plants with more leaves and deeper green color. Although none of these users tested the plants for protein or other nutrient content, they all said that the cattle seemed to feed better on the treated alfalfa.
- Soybeans sprayed with Chandler Foliar had stronger stalks, exhibited fewer signs of plant stress throughout the season, and had a deeper and darker green color. In all cases, the bean plants set more pods, and a lot of the pods have one more bean per pod than untreated soybean plants.
- Most Foliar users report fewer problems with insects in alfalfa, soybeans, and other crops. Foliar helps the plant generate more sugar, which deters insects. Many users don't apply any insecticide or fungicide on their alfalfa or soybeans while most of their neighbors have to spray for insects.
- Some users mix Foliar with their post-emergence herbicides, and they can cut their herbicide rate and save money.

## **FIELD RESULTS FOR OTHER CHANDLER PRODUCTS**

Several users also reported on their 2008 on-farm results with the other Chandler Crop Products, including Biocat 1000, Dry Seed Treat, and Soil. These comments represent the experiences of several users, and their identification is not provided in accordance with our privacy policy.

- Many soybean producers that I talked to are making good money raising non-GMO beans. Their seed costs are much lower, and they can earn premium prices for their soybeans by selling them for export to countries that ban or restrict GMO beans. Chandler Dry Seed Treat and Soil helps them to generate faster early-season plant growth, and the full range of Chandler Crop Products help the plants to generate more sugar to deter pests and to keep the plant robust during times of stress. These users feel they don't need to pay a lot for genetic disease tolerance or herbicide resistance when they can use Chandler products to get similar benefits at lower cost.

- Chandler Soil is a very popular product due to our improved understanding of soil structure and function. Most of our users who have applied Soil for at least 2-3 years have reported fewer problems with ponding and surface erosion during the wet spring weather over the past two years. They also see reduced evidence of soil compaction, fewer clods and lumps, and less surface crusting after heavy rains. All of these benefits for the soil tilth and structure mean that emerging or small plants will face fewer restrictions on early plant growth.

- Over the past few years, I have talked to more people who have adopted strip-tillage for their row crops. One of the key factors that they mention is the potential fuel savings, which may become very important in the near future as fuel prices are expected to rise over the coming years. The full line of Chandler Crop Products can help you to maintain crop yields and control costs as you switch to a reduced tillage system such as no-till or ridge-till.

## **CHANDLER SOIL**

Chandler Soil is a liquid biological soil conditioner designed to stimulate the beneficial soil microorganisms that improve soil tilth and fertility. As the soil bacteria and other microorganisms become more active, they convert soil nutrients to forms that may be used by the plant. As noted in our company background report at our website ([www.midwestbioman.com](http://www.midwestbioman.com)), we used a half-rate fertilizer treatment on corn when we were first evaluating these products on our farm, and the products generated higher yields than the full-rate fertilizer treatment in each of four years by making more soil nutrients available to the plants. Many of our users have also reduced their fertilizer rates while improving crop yields by using Chandler Soil.

Also, the increased biological activity generated by Chandler Soil enhances water and air infiltration, reduces soil compaction, encourages deeper root growth, and helps to prevent lodging due to rooting problems. Although most of our users find that it takes 2-3 years to realize the full benefits of Chandler Soil, the product may help your bottom line in the first year of use.

Chandler Soil is non-toxic and is compatible in a tank mix with most commonly used fertilizers and pesticides. The recommended application rate is 8-10 ounces per acre, but the rate should be increased to 10-12 ounces per acre on poorly drained or heavily compacted soils.

## **DON'T FORGET DRY SEED TREAT**

Although most of the spring planting activity will be completed by the time this newsletter hits your mailbox, some of our users buy Dry Seed Treat for a variety of summer and fall applications, including replanted corn or soybean acreage, double-cropped soybeans following wheat, and fall seedings of winter wheat or cover crops. For more information about Chandler Dry Seed Treat, refer to the product brochure at our website, [www.midwestbioman.com](http://www.midwestbioman.com).

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## **FOCUS ON CARBON AND RESIDUE IN SEPTEMBER**

For a long time, we have talked about the importance of managing crop residue, but it was rare to find others who spent much time considering this issue. Over the past few years, lots of people involved in farming have started to talk about crop residue, and in many ways that are not directly related to soil nutrient availability and plant growth. For example, two of the hottest topics in US agriculture are the use of crop residue to produce cellulosic ethanol and to serve as a carbon sink to reduce greenhouse gases. In our next (September, 2009) issue of the Midwest Bio-Tech newsletter, we plan to provide the latest information related to managing crop residue and the relationship between soil carbon, nutrient availability, and plant growth.

## **PRIVACY POLICY**

Chandler Crop Products help our users to earn higher net income, which may give them an edge when bidding for land. For this reason, we do not identify our users by name when we report on-farm yields or other product benefits. Although this policy reduces the information we can share with other users and prospective customers, we understand the need for privacy in modern farming and do not provide any identifying information about our customers without obtaining their permission in advance.

**IF YOU HAVE AN UPDATED ADDRESS  
THAT IS DIFFERENT FROM THE ONE ON  
YOUR ADDRESS LABEL, PLEASE SEND IT  
TO US OR GIVE US A CALL SO IT CAN BE  
CHANGED FOR FUTURE NEWSLETTERS.**