

TECHtalk

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**HELPING FARMERS
FEED AND FUEL
THE WORLD**

TECHtalk is published monthly for dealers of Latham Hi-Tech Seeds, focusing on technology, agronomy, trends and news from around the seed industry.

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Update on XtendFlex® Soybeans

by **MARK GRUNDMEIER** SOYBEAN PRODUCT MANAGER

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Reports from around the seed industry indicate that Bayer CropScience is close to being granted approval for its new XtendFlex® soybean system. This new technology will be the first triple-stack soybean trait with tolerance to glyphosate, dicamba and glufosinate (Liberty®) herbicides. Pre-launch ads from Bayer cite advanced genetics and greater flexibility for weed management options.

Latham Hi-Tech Seeds in 2019 was granted a sneak peak of six XtendFlex soybeans at our research farm near our headquarters in Alexander, Iowa. This test was conducted under the guidelines of an

EPA-stewarded trial where the resultant soybean crop was harvested for data purposes but was then destroyed, so it could not reach the global supply chain.

The six soybeans we tested ranged from 1.9 to 3.0 in maturity and were compared to 14 soybeans that were in our lineup at that time. The test was split by herbicide tolerance. The same six XtendFlex lines were tested against 14 Liberty-tolerant products, including Enlist E3™, straight LibertyLink® and LLGT27™. They were also tested against 14 soybeans that were all tolerant to glyphosate:

Roundup Ready® 2 Yield (RR2Y), Roundup Ready® Xtend®, Enlist E3 and LLGT27.

On the Liberty side of the test, the six XtendFlex soybeans ranged in yield from 56.75 to 65.74 bushels per acre (bu/A) where the 14 current products went from 47.11 to 67.90 bu/A. The overall yield average of XtendFlex soybeans was 60.58 whereas the current products averaged 60.30 bu/A.

On the glyphosate-tolerant side of the trial, the yield of XtendFlex products ranged from 55.84 to 64.13 bu/A; the average yield was 61.67 bu/A. The yield of current products ranged from 54.70 to 69.37 with an average of 62.33 bu/A. **NOTE:** Due to late planting and other environmental factors, the later-maturing soybeans (2.8 to 3.0) in both sides of the trial struggled to reach full maturity and really suffered from a yield standpoint.

In general, I am pleased with the results of this trial. This was one location for only one year, but it did tell us that the first wave of the XtendFlex products tested in 2019 performed very well.

X TENDFLEX
SOYBEANS

Pending full approval, there should be some very solid lines available for Latham farmer-customers for 2021 commercial planting! The last hurdle for full global approval of XtendFlex soybeans is the European Union at press time of this article. Bayer is optimistic this will be resolved in time for planting. We'll keep you posted when we know more about this exciting new technology!

Optimize Yield with a Great First Pass



by **DARIN CHAPMAN** PRECISION AGRONOMY ADVISOR
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Controlling organic matter or residue to prepare an ideal seed furrow is crucial for attaining optimal seed emergence. Essentially, the planter pass is key to optimizing yield potential for each corn plant.

There are a few planter attachments to consider for controlling residue. Some planters may come equipped with “fixed” row cleaners that control the depth of residue removal using a manual pin or screw adjustment. This option is better than nothing, but one undesirable feature is that you must get out of the tractor cab to make an adjustment to fit the changing conditions when the contour of the field changes. If you have rolling farm ground, this can become a very tedious process. It’s also important to ensure you aren’t disturbing topsoil while removing necessary clods or residue.

Another option is “floating” row cleaners, and this is my recommendation. The benefit of a floating versus fixed row cleaner is when the contour of the field changes, it adjusts to the changing conditions. This option assures that you are only removing residue and minimally disturbing topsoil.

If you make the investment in floating row cleaners for your planter, take a couple of extra steps to ensure you’re clearing a wide enough path to let the gauge wheels run within the furrow. You could add treader wheels, which attach to the outsides of the row cleaners, to provide optimal depth control. Although your row cleaners may be floating, it’s critical they don’t dig too deep.

To really dial in your row cleaners as you make your pass through the field, add air adjust cylinders to each row cleaner. This allows you to adjust your row cleaners

from the cab. Since it’s easy, you will adjust when you should. To make a pressure adjustments with those air cylinders, move the lever in the cab to apply lift-pressure or down-pressure to the cylinders, so they clean the way you want. You can choose to be more aggressive or to run lighter. Making such adjustments prevents seedling diseases as well as late emergence from heat and moisture loss. It also prevents nutrients from being tied up by residue.

The most important pass made in the field is the first pass with the planter. If we don’t get this correct, the rest of the management practices we apply throughout the season aren’t effective and will hinder return on investment (ROI).

Working with trusted advisors and a cutting-edge precision ag platform allows you to monitor ROI. A precision ag program like Latham’s Data ForwardSM helps you track crucial investments to your operation. We want to be a resource for you when it comes to making precision ag decisions. Give Latham’s Precision Agronomy Advisors a call to implement performance benchmarking, on-farm trials, and reporting, or to evaluate ROI before making significant investments in your precision equipment.



Helpful Tools for Nutrient Planning



by **COREY CATT** FORAGE PRODUCTS MANAGER
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There are so many apps and tools at our disposal today, and you may have some favorites that are helpful to you. One such tool I reference is a crop nutrient removal application on my phone. The info can be helpful in many ways including revealing production-limiting factors leading to better product placement and fertilization.

The PlantCalc app (<http://www.ipni.net/article/IPNI-3374>) displays a guideline based on crop being grown. Enter your yield goal and within seconds you have a list of the primary nutrient removal standards for that specific crop to help build your nutrient

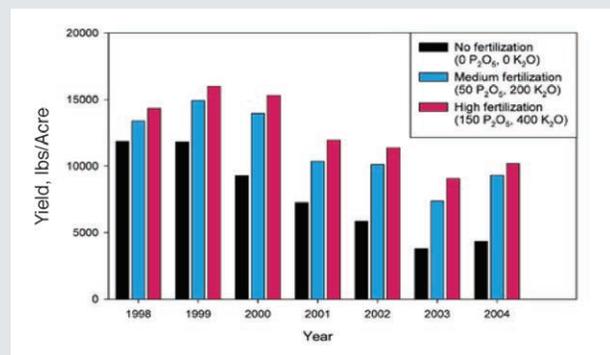
plan. We must be mindful that many nutrient removal guidelines focus only on the primary four to five nutrients. However, yield is comprised of a balance of 17 essential nutrients.



The USDA suggests daily food requirements (the food pyramid) for us as humans to keep our body in balance. Similarly, scientists have found that nutrients can impact yield as much as 60%. Yield is a complex matrix of which the delicate balance of the 17 essential

plant nutrients is critical. Technology affords us the ability to look deep into the complex world of the living soil microbiome, unfolding long-held secrets about how it interacts with yield and quality. We have active research currently taking place to understand your unique soil microbiome, the interaction with nutrient management, and even more precise product placement to reduce disease and increase yield optimization. It's very exciting research with more to come in the near future!

It's no secret that each crop has a unique nutrient demand and those nutrient demands are affected by soil health and the cation-exchange capacity. There are evolving plant and soil management applications to assist in furthering a deeper understanding of this complex world. Latham's Data ForwardSM certainly has gained a lot of favor in simplifying this. **The graph below shows the impact of potassium fertilization on alfalfa.** Proper fertilization of potassium and phosphorus not only adds yield each season, but it also maintains peak yield over the life of the stand.



At the end of the day, the mission should be to strike a balance of nutrient investment while leaving no yield in the field. My hopes are that you consider helpful tools for reminding us of the needed nutrients to fuel plants and forge the best yield and quality results each season.



Healthy Soils Lead to Increased Yields

by **LYLE MARCUS** CORN PRODUCT MANAGER

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The 2019 growing season left many acres across Latham Country less than optimum for good crop growth and development. Late harvest and saturated soil conditions reduce good soil organisms that help our corn hybrids get off to the best start. Using planter box treatments like Talc USA products offered by Latham Hi-Tech Seeds can improve your crop's success in 2020.

All planter manufacturers recommend some type of planter box additive to aid seed flow and lubricate seed meters. Talc USA's lineup provides the needed lubrication, plus a yield advantage:

Talc USA, planter box talc and talc/graphite combo product

- Premium 200 micron grind product
- Fortified with .7% iron and .09% manganese

MicroSurge Inoculant

- Increases atmospheric nitrogen used by your corn plants
- Adds Azospirillum organisms to the soil via the seed and enhances root function

Encompass

- Contains five microbials that fix nitrogen and mobilize phosphorus

- Helps with key functions of the corn plant through better uptake of nutrients

Inceptive

- Contains the Harpin Protein, which suppresses plant-feeding nematodes
- Shows yield response even when nematode populations fall below economic threshold

Latham's Agronomy team in 2019 showed an increase in yield and plant health at our Alexander research farm TALC USA trial. If you're looking for opportunities to improve the performance of your crops, find more information on TALC USA products at www.lathamseeds.com.

TALC USA

★ **+4.87 bu/a**
over straight TALC 80/20

2019 Yield Comparison

Product Name	Avg. Yield (Dry) bu/ac	Average Moisture %
5245 Corn Inoc	★ 163.67	22.15
5245 Talc USA	158.80	21.95
(All)	162.23	22.10

ROI of TALC USA

Product Name	Cost
MicroSurge	\$2.10/Ac
Inceptive	\$1.88/Ac
Total	\$3.98/Ac