

TECHtalk

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JUNE 2020

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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Get a Sneak Peek at 2021 Products this Summer

by **MARK GRUNDMEIER** SOYBEAN PRODUCT MANAGER

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Each July we introduce the new Latham® product lineup at our annual Dealer Kickoff event. This month you're getting a "sneak peek" at 12 possible new additions to our Latham soybean lineup for 2021 planting!

Contact your RSM, so you can look at these soybeans in plots this growing season:

E 00839 E3 – This might be our earliest Enlist E3 soybean for 2021. It performs best along and north of Highway 2 in North Dakota and Minnesota with an excellent score for Iron Chlorosis.	E 1094 E3 – Carries some genetic tolerance to high salt soils and is completely resistant to Brown Stem Rot. Scores for Iron Chlorosis and White Mold are also very good.
E 0269 L – This line could become our earliest Ironclad™ soybean. Take notes on its great emergence and lateral branching. You also should see very good tolerance to Iron Chlorosis, Brown Stem Rot (BSR), Sudden Death Syndrome (SDS) and White Mold.	E 1758 E3 – Here's a soybean that dominated Group 1 breeder trials in 2019. It features strong soybean cyst nematode (SCN) protection from PI 88788. It also has the Rps1-k gene and very good tolerance to White Mold and Iron Chlorosis.
E 0293 E3 – Early notes indicate that this soybean should be terrific when placed up and down the northern side of the Red River Valley. It is BSR-resistant and very good against Iron Chlorosis.	E 2049 E3 – I'm excited to look at this soybean in our own plots in 2020 because it has been an "eye-catcher" for the past two years in breeder trials. Look for extensive clusters of pods at the top of the plant.
E 0785 E3 – This exciting new product carries the combination 3a + 1c gene for Phytophthora. It handles stress very well and is really good against White Mold and Iron Chlorosis.	E 2379 E3 – Take a long look at this potential new Ironclad product. It has good height and extra lateral branching, so it should work in many fields and row spacings. It's excellent against BSR and SDS.
E 0852 LLGT27 – This new line has tremendous yield potential! It topped the summary of our 2019 Latham Elite Trial. It has the 3a gene for Phytophthora and should excel in South Dakota and western Minnesota.	E 2638 E3 – Another potential new Ironclad to add to the lineup! Look for excellent emergence, BSR resistance and great scores for Iron Chlorosis and Sudden Death.
E 1085 LLGT27 – Here's a medium-tall plant with great tolerance to stress and tougher soils. It is fully resistant to BSR with a good score for Iron Chlorosis.	E 3329 E3 – This big, bushy plant excels in fields where stress tolerance is needed. It produced great yields in 2019 breeder trials. Visit plots where the seeding rate was adjusted to fit the soil type.

NOTE: This is just a sneak peek at our possible E3 additions. We are anticipating an XtendFlex approval. When that happens, we will have a strong first class. Watch for more product updates coming soon!

As we continue to work together against the Covid-19 pandemic, please be wise when viewing plots and walking fields. We must still practice social distancing, but I'll gladly walk a plot or two with you over the growing season. Stay tuned for more details as plans for plot tours come together.

Tissue Sampling Helps Uncover Fertility Issues



by **DARIN CHAPMAN** PRECISION AGRONOMY ADVISOR
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Early season field scouting is essential to detect potential issues like weed and insect pressure, as well as to monitor the effectiveness of your fertility program. One great tool to try and discover fertility problems is a plant tissue analysis. To assure good results from the lab, you must collect the proper part of the plant for the current growth stage of the crop.

For the most effective tissue sample, consider following these four steps:

- 1 Sample multiple areas within a field to better diagnose issues.**
- 2 Do not sample too early. Work with your Precision Agronomy Advisors to find the proper timing and placement.**
- 3 Try to start with the nutrients that are more likely to be deficient for your specific crop.**
- 4 Look at multiple sources of information to make your decisions. Tissue sampling is just one important tool to use.**

A proper method to collecting early season corn tissue samples is to gather 15 or more plants to complete a single sample. This method is best when the corn is up to 12 inches tall, which is approximately the first three weeks following emergence because much of the nutrients come from the tissues within the seed at this stage.

One example of how a tissue sample can help determine a cause is the case of a purple-colored corn plant. This could be the result of phosphorous deficiency, or it could be because nighttime temperatures were too low.

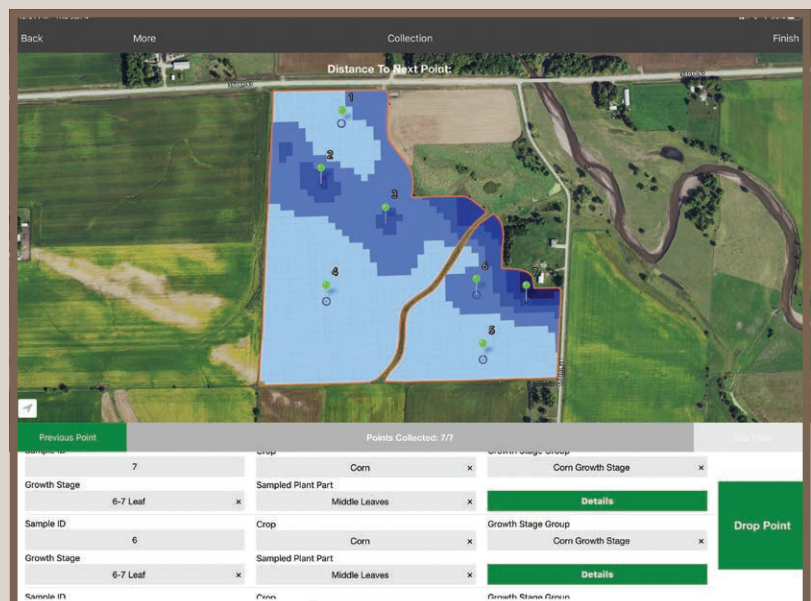
Plant tissue analysis is a proven diagnostic tool that compares nutritional variances between normal and abnormal zones in the field. No matter the crop, plant tissue analysis is worthwhile to help determine nutrient needs. Don't make fertilizer decisions based on plant tissue samples alone. To create a nutrient plan,

combine tissue sampling with soil test results, records of lime and nutrient applications, cropping history and recent crop protectant applications.

Wait until V2 growth stage, which is three to four weeks after emergence before taking tissue samples of soybeans.

Accurate tissue testing begins with proper sample collection and handling. Collect the proper part of the plant for the correct growth stage of the crop. Also make sure to collect the proper number to have an accurate complete sample. Try to package samples in paper bags. If it will take a while before you get the samples shipped, store samples in a cool environment but do not freeze the sample. In addition, never include roots with the plant samples.

If you're interested in learning more about how to conduct your own tissue samples, call your Latham Precision Agronomy Advisor. We can help download your Latham Data ForwardSM app, so you can use the no-cost tissue sampling function to collect your samples!



Hidden Hunger Can Only Be Detected Through Tissue Testing



by **COREY CATT** FORAGE PRODUCTS MANAGER
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Crop scouting provides many visual cues to alert you of potential problems, but there is a hidden hunger that can only be detected by tissue sampling.

Many articles have been written on the topic of tissue testing. Tissue testing gains more favor every year, especially among innovative farmers, as another tool to help increase yield and quality.

To insure the most reliable results, it is critical you take a representative sample for the crop stage. Each lab follows similar guidelines, but it is extremely important to verify as they may have slight differences in crop staging or specimen collection due to their lab equipment calibration.

We must be mindful that results are only as good as the sample that gets submitted. I have seen lots of variation in crop staging and sampling techniques, and this variation could be the difference between sufficiency and deficiency.

If you are apprehensive because you have never used the tissue testing tool, start small by sampling one challenging field. Sampling early gives you time to add nutrients while the growing crop is smaller because it's more challenging to add nutrients as the crop gets taller. Also, earlier fertility applications have a better chance of a positive crop response.

Talking about tissue testing offers one more reason for a Latham® Dealer to stop by a customer's place and look at his or her Latham brand products. It's important that the crop has enough food to fuel its best performance. Likewise, talking about tissue sampling with a prospect could open the door in

the future. Even if a farmer already is working with an agronomy team, you can stop by and see how things are looking. I tend to learn something from each farm stop I make. If you farm yourself, consider sampling and sharing some of your results.

Each farmer's situation is different. There are variables to consider from farm to farm such as soil type, plant growth staging, and type of fertility you intend to use, such as a foliar or broadcast. Agriculture is so dynamic and is evolving so rapidly that our fields are like one big classroom where we can perpetually experiment and discover new paths to the destination of yield and quality. I believe we can learn so much as long as we are willing to keep our hearts and minds open to new ideas, and our eyes fixed on a vision of constant improvement.

This is an example of why you must verify with the lab to determine sampling collection staging and nutrient ranges.

SOURCE: <https://ipcm.wisc.edu>

Crop	Alfalfa	Field Corn	Field Corn	Field Corn
Growth Stage	Bud to 1" flower, prior to any cutting	12" tall or smaller	Pre-tassel	Tassel to silk
Plant Part to Sample	Top 6"	Whole plant	Leaf below whorl with collar exposed	Ear leaf
Number of Plants to Sample	35	20	15	15
Nutrient Sufficiency Ranges				
N, %	2.5 - 4.0	3.5 - 5.0	3.0 - 3.5	2.5 - 3.33
P, %	0.25 - 0.45	0.30 - 0.50	0.25 - 0.45	0.25 - 0.34
K, %	2.25 - 3.50	2.5 - 4.0	2.0 - 2.5	1.75 - 2.63
Ca, %	0.7 - 2.5	0.30 - 0.70	0.25 - 0.50	0.30 - 0.55
Mg, %	0.25 - 0.70	0.15 - 0.45	0.13 - 0.30	0.16 - 0.34
S, %	0.25 - 0.50	0.15 - 0.50	0.15 - 0.50	0.16 - 0.25
Zn, ppm	20 - 60	20 - 60	15 - 60	19 - 34
B, ppm	25 - 60	5 - 25	4 - 25	6 - 13
Mn, ppm	20 - 100	20 - 300	15 - 300	19 - 68
Fe, ppm	30 - 250	50 - 250	10 - 200	21 - 170
Cu, ppm	3 - 30	5 - 20	3 - 15	3 - 7.5



Spring Field Notes Help Explain Fall Performance

by **LYLE MARCUS** CORN PRODUCT MANAGER

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Early season corn growth is well under way, making June a great month for Latham's Corn Product Team to begin their initial evaluations of hybrids in testing for 2020.

The crop stage in June provides a great deal of information. We note differences in emergence, vigor, and tolerance to planting conditions. Early season notes help Latham's Product Team – as well as farmers – better understand the performance results we see in the fall. The back story of the early growing season sometimes gets forgotten when assessing overall performance.

We especially look forward to assessing hybrids in Latham's 2020 MiniStrip plots. These plots will provide data on 92 hybrids, consisting of 41 hybrids currently in our lineup, 40 potential new hybrids and 11 competitors. Here we get the opportunity to see potential new hybrids side-by-side with our favorite Latham® hybrids. This group of plots spread across our seven-state sales territory helps us find the best products to build on Latham's great hybrid lineup.

Plots are such an important part of our product testing program, so I want to give a huge thank you to every cooperator who planted a corn plot this spring. The variability in management practices across plot cooperators provides excellent information that aides in fine-tuning our product positioning statements.

We're also working with Latham's precision agriculture team to upload as many plots as possible into our Data ForwardSM app. This will provide some excellent detail, so we can look deeper into soil and weather variations. We're especially excited to see the Data Forward info from SuperStrip cooperators, who use the harvest data tool for their plot. **Precision Ag tools like Data Forward will tell the yield story for 2020, and we look forward to sharing our results with you.**

