

## 29<sup>th</sup> Annual NATIONAL NO-TILLAGE CONFERENCE

January 12-15, 2021 • Indianapolis, Ind.

**94.6%**  
OF 2020 ATTENDEES  
RECOMMEND  
THE EVENT!

# LAPPING THE FIELD WITH NO-TILL!

The 29th annual National No-Tillage Conference, to be held January 12-15, 2021, in Indianapolis, will bring all the resources, information and networking opportunities you need to help your no-till operation reach new heights in 2021.

### *You won't want to miss this! See the highlights:*

- ✓ Impactful Learning, Actionable Ideas from Dozens of Top-Notch Speakers
- ✓ Roundtables to Get Answers to Your Toughest No-Till Challenges
- ✓ Exclusive Workshop on Soil Health and the Plant Health Pyramid
- ✓ Valuable Attendee Bonuses Including New Reports, Useful No-Till Info & Much More!

## **...AND MUCH MORE!**

### **Essential Networking! Impactful Learning!**

See you January 12-15, 2021, in the Circle City!

Co-Sponsored by *No-Till Farmer* and These Leading No-Till Suppliers:



**Register Online Today at [www.NoTillConference.com](http://www.NoTillConference.com)!**

29th Annual National No-Tillage Conference • January 12-15, 2021 • Indianapolis, Ind

# Get Your Growing Season Off to a Fast Start During 4 Days of Invaluable Learning!

For more than a quarter of a century, the National No-Tillage Conference has been providing the practical tips and information you need to run a more successful no-till operation. In our 29th year, we're ready to do it again as our event takes place at the spacious JW Marriott Indianapolis hotel.

Behind the theme *"Building Your No-Till Edge"* we've lined up more than 30 top-notch no-tillers, agronomists, researchers and other no-till experts to deliver innovative ideas that can help you get the

most out of your no-till farming system. This powerful annual conference offers an early workshop, General Sessions, No-Till Classrooms and No-Till Roundtables — plus, valuable pesticide recertification and Certified Crop Advisor credits are available to qualifying attendees.

Just as important is the opportunity for you to profit from networking with the most innovative and forward-thinking minds in no-till during this January event that kicks off the 2021 crop production season. Don't miss out!

## TUESDAY, JANUARY 12

### Special Members Only Workshop — "Building Disease Suppressive Soils, Higher Yields with the Plant Health Pyramid."

*(This limited-attendance workshop, costs just \$99 to attend and is available only to paid registered NNTC attendees. Sign up for this workshop using the form on Page 12.)*

While the science behind soil health is important, the ultimate goal for most no-tillers is building a farm ecosystem that is regenerative and capable of helping them be low-cost producers with profitable operations. There are definitive, practical steps to achieving both soil health and plant health through achieving steps outlined in the Plant Health Pyramid, says John Kempf.

In this exclusive 3-hour workshop, the crop health consultant and founder of Middlefield, Ohio-based Advancing Eco Agriculture will provide a comprehensive look at this pyramid and how growers can progress through each step toward achieving complete photo and protein synthesis and increasing lipids and plant secondary metabolites that will ultimately establish complete pest and disease resistance in soils and build the highest level of plant and soil health.



### National No-Tillage Conference Welcome Reception

Take some time to relax and network with fellow attendees in a casual environment at the annual welcome reception, made possible with the support of **Midwest Bio-Tech** and **Neudorff**. This is the perfect way to start 3 days of learning and make those initial connections with fellow farmers, sponsors and other no-till experts.



## WEDNESDAY, JANUARY 13

### Official Kickoff to the 2021 Conference

#### GENERAL SESSION

#### "How Embracing Diversity, Innovation Breeds No-Till Profitability."

There was a point when Loran Steinlage was fairly content with raising corn and soybeans like many Corn Belt farmers. But getting his first taste interseeding in 2006 sparked a wave of hunger and creativity in Steinlage, as he's turned to a multi-crop rotation that to build soil resiliency and productivity on his 750-acre operation.



Loran Steinlage

The West Union, Iowa, no-tiller will share the "story behind the story" on how he converted his farm over a 14-year period from a traditional corn-on-corn operation to a hub of innovation with relay cropping, organic no-till, wide-row corn and stacked enterprises. Steinlage will also explain why no-tillers who focus on low-cost farm management and offering higher crop-nutrient densities will have a better chance of increasing farm profitability now and down the road.

#### GENERAL SESSION

#### "Building a Dynamic No-Till System That is Efficient, Effective and Profitable."

When Annie Dee's family moved to Alabama, it meant a transition from farming white sand in Florida to working with heavy, abused clay soils in their new location — making planting and establishment of cash crops very difficult. But turning to high-tech, conservation-based farming has significantly brightened the results and outlook for the family's 4,000-acre operation.



Annie Dee

The Aliceville, Ala., no-tiller and former No-Till Innovator Award winner will share how reduced tillage and no-till practices, cover crops cocktails, precision technology and spoon-feeding nutrients has rejuvenated the farm's rain-soaked soils, stabilized corn and soybean yields and set the operation up for future productivity and profitability of Dee River Ranch.

### ► NO-TILL CLASSROOM

#### "Experience Through Experiments: a Learn-by-Doing Approach to No-Till Productivity."

It's been said that if you aren't experimenting, you aren't learning. This is a philosophy that fifth-generation farmer Jon Stevens has adopted to diversify and drive profitability on his 700-acre Rock Creek, Minn., operation. Transitioning into no-till in 2013 after decades of full-width tillage, Stevens wanted to improve soil health and reduce fertilizer costs.



Jon Stevens

Stevens will detail how he's integrated and intertwined progressive experiments, including interseeding cover crops, 60-inch corn, the reintroduction of cattle onto the farm and strip-till to contribute to a \$40 per acre savings since transitioning out of full-width tillage.

### ► NO-TILL CLASSROOM

#### "Gauging Product Effectiveness, Reducing Waste with Plant Sap Analysis."

Although soil sampling is a foundation for managing nutrients effectively, many no-tillers would like to pinpoint plant nutrient deficiencies during the growing season before they happen. Utilizing plant sap analysis



***“The diversity and amount of speakers and topics to choose from is excellent. There is something for everybody with so many content choices...”***

**— Jason Erfling, Hermann, Mo.**

can show plant mineral levels and highlight nutritional deficiencies and excesses before they cause any damage, says John Kempf.

The founder of Advancing Eco Agriculture will briefly explain the basics of using sap analysis effectively and then shift to illustrating how the test can be used to identify wasted nutrient applications, evaluate product effectiveness and performance and develop responsive, custom nutrient application programs for their farm to optimize crop health and yields.

## ► NO-TILL CLASSROOM

### **“Strategies for Developing Variable-Rate Seeding and Fertilizer Programs.”**

Dialing in correct seeding and fertilizer rates for variable-rate applications can be challenging but the potential cost savings and possibly improved yields make it worthwhile. Mark Chapman writes all the prescriptions for his no-till farming operation and has developed a systematic approach to setting seeding and fertility goals and identifying how to achieve them in the midst of multiple complicating factors.

The no-tiller from Bowling Green, Ky., will walk through the decisions that need to be made in developing variable-rate seeding and fertilizer programs, and will discuss the functional, agronomic and maintenance impacts of each. He'll talk about how labor, equipment and cost factor into his decisions and how to cut through the confusion of having multiple reasonable options.



**Mark Chapman**

## ► NO-TILL CLASSROOM

### **“Making No-Till, Cover Crops Work with Processing Vegetables.”**

No-till practices are often said to be incompatible with processing vegetable crops like black eyed peas, edamame or lima beans since they require machine harvest that greatly disturbs the soil. But Jay Baxter has found a way to make no-till work in this system.

The Georgetown, Del., grower will describe how he implemented no-till practices for vegetables while avoiding the much-feared yield drag, and he'll show what cover crops brought to the game to fight harvest compaction, beat back weeds and reduce herbicide applications — all adding to his operation's bottom line.

## ► NO-TILL CLASSROOM

### **“Combine Settings to Manage No-Till Residue, Harvest Top Yields.”**

Marion Calmer takes corn harvest seriously. The Alpha, Ill., no-tiller knows a properly adjusted combine will allow him to harvest every kernel possible, but he needs to process residue to successfully no-till next year's crop with limited problems from last year's residue.

Bt stalks, corn-on-corn, narrower rows, higher populations and fungicides all make corn residue difficult to decompose and turn into humus and organic matter. Calmer will offer his best tips for a highly functioning combine, including his No. 1 most profitable adjustment.

## ► NO-TILL CLASSROOM

### **“Is Weed Seed Control at Harvest in Your No-Till Future?”**

The rapid increase in herbicide-resistant weeds requires the introduction of alternative control strategies, including harvest weed seed control (HWSC) as a tactic to prevent seeds from being thrown by the combine back into the field with chaff and crop residue during harvest.

Iowa State University Extension weed specialist Bob Hartzler will explain various tactics that comprise HWSC that either destroy the seeds or restrict their spread in the field. Noting that nearly 75% of growers in western Australia are using some version of this control method — such as the Harrison Weed Seed Destructor and other models — Hartzler will discuss different approaches used to intercept weed seeds in combines, and their effectiveness and limitations.

### **The Annual NNTC Luncheon with Support from AgroLiquid** (Included in your registration fee.)

#### **13th Annual Responsible Nutrient Management Practitioners Program**

AgroLiquid and *No-Till Farmer* will recognize 3 no-tillers judged to be environmentally, economically and practically responsible with their no-till nutrient management programs. The fertility practices and techniques utilized by these top-notch no-tillers — recognized as Responsible Nutrient Management Practitioners — will provide you with some valuable ideas to consider in your own no-till operation for the coming year.



### **No-Till Innovator Awards Ceremony**

Join the staff of *No-Till Farmer* to honor individuals, businesses and organizations who have made major impact on the growth of no-till systems in the U.S. and across the world. (Made possible with the support of Calmer Corn Heads)



**Register today at [www.NoTillConference.com](http://www.NoTillConference.com) or call (866) 839-8455!**



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## GENERAL SESSION

### Harry Young Jr. Memorial Lecture Series (Made possible with the support of Valent) “Don’t Just Save Your No-Tilled Soils — Regenerate Them!”

Soil regeneration is different from soil sustainability, which could be seen as maintaining a degraded resource. Soil biological activity is key to regenerative processes and is crucial to building more robust, profitable no-till systems, says soil microbiologist Kris Nichols.

The founder and principal scientist of KRIS Systems Education & Consultation will describe the different types and roles of various microbial communities and outline the interactions needed to regenerate the soil. The former Rodale Institute chief scientist will also discuss what practices and tools can be put in place that positively impact soil biology and contribute to soil regeneration.



Kris Nichols



## GENERAL SESSION

### “How Understanding the Rhizophagy Cycle Can Transform Your Nitrogen Management.”

Although nitrogen is one of the most essential nutrients for plants, it's also among the most expensive inputs on no-tillers' ledgers and the subject of long-running debates on what form is most efficient and cost-effective. But John Kempf says many of these questions can be answered by understanding the rhizophagy cycle and using that knowledge to manage nutrients in a way that improves crop health and profits while increasing resilience to weather stress.

The founder of Advancing Eco Agriculture will discuss how plants absorb and utilize different forms of nitrogen, how some forms of nitrogen increase a plant's water requirements, how to greatly increase nitrogen use efficiency and reduce application rates. He'll also describe how plants absorb microbes directly from the soil, how to get the greatest benefit from seed treatments, and how to use other nutrients to get the same growth energy that nitrogen delivers — but with much higher quality.

## GENERAL SESSION

### “Two Divergent Roads for No-Tillers: Which One Will You Choose?”

Fundamental change in American agriculture is no longer an option — it's an absolute necessity, says John Ikerd. One road to the future promises to fix the ecological, social and economic problems of today's agri-food system with new biological, digital and mechanical technologies. The other road promises to avoid today's problems by creating food and farming systems that are inherently resilient, regenerative and socially responsible.

The ag economist, author and professor emeritus at the University of Missouri will explain how no-tilling has a different path on each of these divergent roads. He'll discuss and compare the environmental, social, and economic implications of each road — including how they impact soil erosion, water quality, greenhouse gas emissions, carbon sequestration, economic opportunity, and quality of life for farmers and people in rural communities. Which road will you choose?



John Ikerd

## GENERAL SESSION

### “Cutting Your Herbicide Dependence with Alternative Weed Control Strategies.”

Legal and regulatory scrutiny continues to proliferate for popular herbicides such as Roundup, paraquat and dicamba. In fact, bans of certain herbicides by some European countries and food industry giants could be harbingers for what no-tillers will face in the future as crop production faces increased scrutiny, says Steve Groff.

The longtime Holtwood, Pa., no-tiller and cover crop producer will go over some alternative weed control strategies he's seen in the field, including using cover crops and roller-crimpers, as well as other mechanical innovations, that can help growers extend the life of the herbicides on their farm and improve their effectiveness.



Steve Groff

# THURSDAY, JANUARY 14

## ► NO-TILL CLASSROOM

### “Getting Off the Starting Block with Interseeding.”

Interseeding offers many no-tillers — including those ‘Up North’ with shorter growing seasons — the opportunity to get cover crops established earlier in year and maximize the benefit for their investment. But beginners may find it tough getting questions answered on how to get started successfully.

West Union, Iowa, no-tiller Loran Steinlage, who's been interseeding covers into cash crops since 2006, will share some history on how he got started with the practice, and offer some insights on equipment (you don't have to break the bank), species selection, seeding options and timelines, termination and more. He'll also share some of the yield data he's pulled from his 750-acre farm and open up the floor for some extra Q&A time.

## ► NO-TILL CLASSROOM

### “Top Tips for Succeeding with No-Tilled Hemp.”

The hemp industry has been booming in the U.S. and has long-term promise as an alternative crop. But hemp is a lot different than traditional row crops and there's a learning curve when it comes to seeding practices, genetics, harvest methods or dealing with the legal requirements, says Steve Groff.

The Holtwood, Pa., no-tiller, cover crop coach and owner of Hemp Innovators will share his experiences raising hemp for the CBD market and provide attendees with an understanding of what's required to break into this market, the equipment and fertility requirements, and what mistakes to avoid. He'll also how cover crops can be incorporated with hemp plants to facilitate soil health and provide nutrients for optimal growth.

## ► NO-TILL CLASSROOM

### “Filling the Bin with New Market Opportunities.”

An ongoing quest for alternatives to conventional food choices has been magnified by the coronavirus pandemic. The movement to mitigate global climate change, coupled and growing scientific evidence of the environmental and public health impacts of the industrial agri-food system, had already fueled explosive growth in organic food sales and triggered a vibrant local food movement says John Ikerd.

**“The roundtables and classrooms  
are consistently excellent.  
Roundtables give me specifics  
I can use on my farm every year...”**

**— Jerry Seidel, Belle Rive, Ill.**





During the COVID-19 crisis, farmers with direct access to customers through farmers markets, CSAs and local food hubs experienced greater demand than they could possibly supply. A professor emeritus, author and ag economist, Ikerd will explain the importance of internet marketing options to respond to new market demands and help no-tillers learn and share perspective on the potential of no-tilling to benefit from these new and emerging food markets.

## ► NO-TILL CLASSROOM

### “No-Till Planting 101: Getting Back to the Basics.”

The last few years have reinforced the importance of proper no-till planter setups. Getting consistent seed-to-soil contact in less-than-ideal conditions can be challenging, regardless of experience. But a working knowledge of essential do's and don'ts for no-till planter setup — from attachment selection and settings to precision technology must have's — can increase the likelihood of success.

Bill Lehmkuhl, owner of Precision Agri Services and a no-till planter expert from Minster, Ohio, will deliver an in-depth classroom session on getting back to no-till planter basics, understanding the “why” and “how” of choosing and setting up the right no-till attachments, meter calibration, planting rates and speeds, and also sharing 2020 planter plot research on closing wheels, down force adjustment and emergence.



**Bill Lehmkuhl**

## ► NO-TILL CLASSROOM

### “Going Back to School: Soil Health Assessment 101.”

It can be a challenge for farmers early in their no-till journey to get an accurate picture of how healthy their soil is, or how much it's improving. Using the right tools holds the key to getting answers, says Kris Nichols.

The soil microbiologist and founder of KRIS Systems will describe various basic soil health assessment techniques that can be implemented on any farm, how to do them and how growers can interpret what they're seeing in the field. She'll also review all the newfangled soil health assessment tests and what growers can learn from utilizing them.

## ► NO-TILL CLASSROOM

### “Using Precision Technology to Boost Your Irrigation ROI.”

With 54 inches of annual average rainfall, most wouldn't think Annie Dee wouldn't need irrigation on her 4,000-acre farm. But often the rain shuts off in late summer and isn't available during the critical developmental stages of corn — costing the family farm precious yield and income.

The Aliceville, Ala. no-tiller will discuss the advanced irrigation system installed for 3,000 acres on her operation, including a reservoir that collects runoff, high-efficiency pumps and utilization of Lindsay's FieldNET program that ties together different technology platforms on her farm. Dee will also discuss the return on investment she's seen after implementing irrigation in 2011 to water crops at critical growth junctures to increase yields.

## GENERAL SESSION

### Frank Lessiter Legacy Lecture Series

*(Made possible with the support of Calmer Corn Heads)*

### “Sowing No-Till Profitability with Regenerative Farming.”

Even though Rick Clark has realized much success with a progressive no-till program, he's not one to rest on his laurels. There's always something new happening at the Williamsport, Ind., no-tiller's farm, where he raises corn, soybeans, wheat, alfalfa and field peas, while also managing a 200-head cow-calf operation.

A hit speaker at NNTC in 2019, Clark returns to update attendees on his intense journey to adapt his 7,000-acre organic operation to regenerative principles. Clark will cover the in-row roller system on his planter that lets him terminate cover crops and plant cash crops in one pass, and he'll detail why grazing livestock is an important part of his operation. He'll also review the financial benefits he's seeing by farming this way.



**Rick Clark**



## GENERAL SESSION

### “Building a Brighter Future with a Diversified No-Till Operation.”

Jay Baxter had big shoes to fill when his father passed and he took the reins of their family farm. But his family has moved the ball forward, implementing no-till practices, cover crops, high-tech irrigation technology and other practices on their 2,000-acre farm near Georgetown, Del.

Baxter will provide an overview of his family's diversified farm operation that includes corn, soybeans, wheat, sweet corn and lima beans, as well as a 200,000 broiler chicken operation and potted plant production in greenhouses. He'll also describe the learning curve he encountered with planting cash crops and processing vegetables into living cover crops and how he overcame those challenges to continue improving soil health.



**Jay Baxter**



## ► NO-TILL CLASSROOM

### “Balancing Soil Needs with Forage Production on Highly Erodible Land.”

For dairy farmer Jack Herricks of Cashton, Wis., a dramatic shift to producing more high-quality, home-grown feed has been a key component in maintaining profitability in an increasingly challenging farm economy. But increasing forage removal — and taking carbon from the system as a result — can make it a challenge to maintain the soil health needed to produce the high-quality feed, especially on highly erodible land.

Herricks will share how he focuses on achieving longer-lasting ground cover, selecting the right forage and cover crop species to maintain a well-functioning ecosystem that nourishes soils and plants, as the plants nourish the cows and the cows nourish the soil.



**Jack Herricks**

## ► NO-TILL CLASSROOM

### “How Reduced Tillage, High-Residue Systems Can Help Growers in the Arid West.”

Although California is often seen as the epicenter of environmentalism, that hasn't been the case with the state's diverse, arid and irrigated cropping systems. Degraded soils and endangered water supplies have created major challenges for growers, says Jeff Mitchell.

The conservation specialist for University of California-Davis and founding member the state's Conservation Agriculture Systems Innovation Center will outline the recent focus on economics and soil health driving no-till and strip-till adoption in California. And he'll highlight several examples of reduced disturbance production system innovation spanning the spectrum from processing tomatoes to dairy silage to organic vegetables.



**Jeff Mitchell**

***“There are lots of people here with good solid answers and solutions. I was thoroughly impressed attending for the first time...”***

**— Stan Miller, Cedarburg, Wis.**

## ► NO-TILL CLASSROOM

### “Overcoming Challenges of Organic No-Till Systems.”

No-tilling and organic practices were once thought to be incompatible. But improvements in technology and the re-emergence of cover crops means some growers, like Rick Clark, are taking advantage of price premiums available on the rapidly growing organic market.

The Williamsport, Ind., no-tiller will share how he's gradually converting his 7,000-acre operation to organic methods for no-tilling corn, soybeans, alfalfa and field peas. Clark will review how he's overcoming the inherent learning curves with organic no-till systems and how he plans to convert most of his operation to organic by 2022.

## ► NO-TILL CLASSROOM

### “Hitting the Fundamentals of No-Till Seed Placement and Seedling Development.”

For several reasons, seed placement in no-till is fundamentally different from tilled systems, but vigorous stands in no-till are more attainable than you might think. You can achieve consistent stands every year in every field, says Tom Cannon.

The veteran grower from Blackwell, Okla., who no-tills corn, double-crop soybeans, cotton, winter wheat and milo, seeds cover crops and raises livestock, will document how he's implemented Exapta Solutions' forensic-level approach to no-till planting and seeding, while also sharing what helps and hurts stand establishment in a no-till farming system. Cannon will also arm you with a better understanding of how plants grow and how the no-till seed-installation process can be more effectively accomplished.



**Tom Cannon**

## ► NO-TILL CLASSROOM

### “Adding Wheat and Cover Crops for No-Till Success.”

There are many ways to go about building soil organic matter (SOM) but they're not all equal. Nathan Brause learned this the hard way after trying to build it with corn-on-corn fodder — which he now calls “poor man's manure.”

The Sulphur Springs, Ohio, no-tiller will reveal how he introduced winter wheat, diverse cover crops and planting green to feed soil biology and alleviate workload bottlenecks he faced. His transition from “planting brown” to “planting green” with covers on every acre, and the yield effects with his diversified approach, will also be discussed.



**Nathan Brause**





# INTERACTIVE NO-TILL ROUNDTABLES

The interaction between no-tillers that occurs over the course of 4 days at the National No-Tillage Conference will be some of the most valuable learning available.

Our roundtable sessions bring no-tillers together to discuss a focused topic for 60 minutes — a topic that participants find challenging in their no-till operation. These sessions provide you with the opportunity to get your burning no-till questions asked and answered to help shape future planning and decision making on your farm.

Taking home just one new idea from these candid conversations is annually cited as one of the top takeaways by attendees. Scheduled roundtable topics for the 2021 National No-Tillage Conference — with a full list to be announced at [www.NoTillConference.com](http://www.NoTillConference.com) — include:

- ❑ Cover Crop Management by Region
- ❑ Gearing Up for Non-GMO Crops
- ❑ Integrating Livestock with No-Till
- ❑ Building Better Soybean Stands
- ❑ Tips for Strip-Till Success
- ❑ Getting More from Micronutrients
- ❑ Tips for Case IH, Deere & Kinze Planters
- ❑ Learning from Cover Crop Failures
- ❑ Better Tile and Drainage Systems
- ❑ Stratification in No-Tilled Soils
- ❑ Fighting Off No-Till Weeds
- ❑ Using Mycorrhizae, Soil Builders
- ❑ Do-It-Yourself No-Till Machines
- ❑ Slamming the Door on Voles
- ❑ No-Tilling with Drones
- ❑ Using Precision Data More Effectively
- ❑ Tips for Timely Cover Seeding
- ❑ Managing Residue at the Combine
- ❑ One-Pass Planting and Fertilizing
- ❑ Variable-Rate Fertilizing
- ❑ What Soil Health Tests Really Say
- ❑ Double-Cropping Success with No-Till
- ❑ Cutting the Cord on Compaction
- ❑ Booming No-Till Corn Stands



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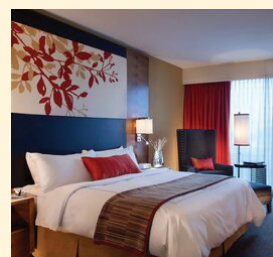
Just walking distance from Lucas Oil Stadium, Circle City Mall, White River State Park and more area attractions, the JW Marriott Indianapolis is the perfect home base for your stay.

### Benefits to staying at the host hotel include:

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- **Complimentary internet access** in your hotel room at no additional charge.
- **More networking opportunities!** There are always attendees in the lobby and other public spaces of the host hotel before and after sessions, during meal breaks, etc.
- **All-day access to your sleeping room** during meal and refreshment breaks and following sessions.
- **Reduced transit time and cost** to/from sessions at the beginning and end of each day.
- **Access to other hotel accommodations** and amenities available only to host hotel guests.

Reserve your room at the special conference attendee room rate by calling (317) 860-5800 or book your room online by visiting [www.NoTillFarmer.com/Hotel](http://www.NoTillFarmer.com/Hotel). Ask for the National No-Tillage Conference rate when making phone reservations.

For more information about the hotel and its amenities, please call the JW Marriott Indianapolis at (317) 860-5800.



Register today at [www.NoTillConference.com](http://www.NoTillConference.com) or call (866) 839-8455!





## ► NO-TILL CLASSROOM

### “Dotting the I’s on Cover Crops, Nutrients and Water Quality.”

In some research circles there is some debate as to whether cover crops help or hinder water quality, or possibly even increase nutrient runoff when covers are added to no-till systems — which could make water quality issues worse, says Hans Kok, noting two recent studies that made these conclusions.

The conservation consultant from Indiana — who has been involved in efforts to reduce phosphorus runoff in the Western Lake Erie Basin — will share what these controversial research projects found and discuss what pitfalls no-tillers or other stakeholders should try to avoid when doing on-farm research projects so they will produce reliable data that support conservation efforts.

## GENERAL SESSION

### “New Challenges with Herbicide Resistance and How No-Tillers Can Fight Back.”

Herbicides have been a backbone of agriculture since the 1960s and still play an important part in successful no-till systems. But herbicide resistance has become a major threat to farm production. New resistance problems are appearing more quickly than before and are largely being driven by



**Hans Kok**



**Bob Hartzler**

a different resistance mechanism in the plants, says Bob Hartzler.

The weed specialist at Iowa State University Extension will explain “rapid herbicide metabolism” in weeds and how it’s allowing weeds to develop resistance to herbicides more quickly. And he’ll provide an overview of why metabolism-based resistance requires a different approach to managing this problem and what no-tillers can do to preserve their herbicide program for the future.

## GENERAL SESSION

### “Putting 60-Inch Corn Rows to the Test with On-Farm Research.”

The concept of planting corn in 60-inch-wide rows — introduced at the National No-Tillage Conference by ag consultant Bob Recker a few years ago — has attracted the interest of many no-tillers across the Midwest. This system permits no-tillers to capitalize on additional sunlight and interseed cover crops in the early summer, getting them well established before harvest. Farmers can even graze the covers for additional economic and soil health benefits.

But how are corn grain yields affected by this newfangled practice? Reinbeck, Iowa, strip-tiller and retired ag engineer Jack Boyer will share the results of on-farm research conducted on 60-inch corn with Practical Farmers of Iowa’s Cooperators’ Program and help attendees understand the what, why and how of this practice and what data show about corn yields.



**Jack Boyer**

# FRIDAY, JANUARY 15

## ► NO-TILL CLASSROOM

### “Farming for 2030: Building a More Resilient No-Till Operation.”

There are countless threats facing agriculture: crop pests, market volatility, stagnant grain prices and environmental scrutiny. The solution for Eric Rademacher and his son, Frank, was eliminating tillage, and by 2017 they adopted no-till and cover crops on their entire 600-acre operation near Gifford, Ill.

In a broad overview of their operation, Frank will share how they embarked on planting green, raising non-GMO crops, using early maturing varieties and reducing synthetic inputs to increase profits and the long-term resiliency of their farm. They’ll also discuss future concerns driving their decisions and the steps they’re taking to streamline their cropping system.



**Frank Rademacher**

## ► NO-TILL CLASSROOM

### “Pushing No-Till to the Next Level with Planting Green.”

A long-term no-till corn/soybean rotation may not increase soil organic matter, but it’s a good foundation for adding soil health practices that will not only build soil carbon but also put a stop to soil erosion while increasing water infiltration and nutrient retention, says Mike Beam. Working land that has been no-till for more than 35 years, Mike and his father, Joe, added cover crops and planting green several years ago and are now on a path to regenerating their soils.

The Beams will discuss their expanding crop rotation, using ZRX rollers while planting green, how herbicide savings are helping to offset the cost of cover crop seed, eliminating insecticide applications and more. They’ll also talk about some of the challenges of planting green, such as managing carbon penalties and dealing with delayed planting.



**Mike Beam**





# Why You Should Attend...

Attendees at the 28th annual National No-Tillage Conference estimated an average per farm financial gain of \$15,226.63 based on their attendance at the 2020 event. Taking away just one idea to put to work on your farm operation can provide short- and long-term economic gains in your no-till operation.

Here are 5 takeaways from some of the most highly-rated sessions and speakers — as selected by attendees — from the 2020 conference.

**1 The most frequent question farmers have when considering integrating cover crops** is whether or not they pay off. Sustainable Agriculture Research and Education (SARE) has pegged the median cost of cover crops at \$37 per acre, which includes \$25 for the cost of seed and \$12 to plant it. Capturing return on investment is a multi-year process, according to Rob Myers, regional director of extension programs for SARE, and in year 5 the return on cover cropping on corn yields was \$17.90 and for soybeans it was \$10.18, assuming average weather and management conditions.

**2 Washington, Iowa, no-tiller Mitchell Hora conducted monthly Haney tests on his 800-acre farm** in 2016-17, comparing inorganic nitrate levels on two no-till fields, one without a cover crop and one with cereal rye planted after corn harvest. In both fields, biological activity increased in August and September, with a large N release occurring after harvest when it wasn't useful.

In the field without a cover crop, a February warm up released about 35 pounds per acre of N into the soil, which then got washed away during spring rains, dropping below 10 pounds per acre by April. Hora says this testing showed that the presence of the cover crop was beneficial if for no other reason than it prevented N loss during the warm, wet spring prior to planting.

**3 According to David Johnson, agricultural soils in the U.S. have a low fungal to bacterial ratio and only about 11% of the energy captured by plants stays in the plants.** The rest goes to the soil as an attempt to restore its microbial community, he says. But he also believes it's possible to improve that ratio to more than 50% efficiency. He shared the results of one New Mexico test plot, where he saw a five-fold increase in dry biomass after just 1 year of his

Biologically Enhanced Agricultural Management (BEAM) system, a compost brimming with thousands of microbes. His test plot measured 50 grams per square meter whereas the BEAM plot had 250 grams per square meter.

**4 With 12,000 hogs in his Gaston, Ind., no-till operation, Jason Mauck is working on a solution** that will allow him to transform the copious amounts of manure produced every year into biochar, which would not only benefit his own soils but could also be easily transported for use elsewhere. To create biochar, manure is processed in a digester, which produces renewable natural gas and a digestate. From the digestate, he squeezes out the nitrogen and potassium and an effluent, along with some humics and micros, and get potable water that we can put back in the crops or back through the livestock barn, says Mauck.

"Then we burn those phosphates and organic nutrients into biochar, which is the gasification process that robs it from oxygen, basically just burns it down to non-water-soluble phosphorous and carbon." According to Mauck, when carbon is in a condensed state as it is in biochar, it has both a positive and a negative charge, so it absorbs a copious amount of nutrients. Once it is inoculated or charged, it can be placed in the soil to feed a crop for generations.

**5 In recent research shared by Wolford, N.D., no-tiller Paul Overby, he asked farmers** — a mix of no-tillers, conventional farmers and those who use a range of practices described as "reduced tillage" — how much extra they'd pay to rent land with 5% SOM instead of 3% soil organic matter (SOM). The response from the 145 farmers who took the survey surprised him: 36% of respondents said they wouldn't pay anything extra to rent the higher SOM land, while 29% would pay an extra \$10 per acre, 13% would pay an extra \$20 per acre, 3% would pay an extra \$30 per acre and about 2% would pay an additional \$40 per acre.

Overby found that among those who recognized that extra SOM was valuable, no-tillers were willing to pay more than non-no-tillers. On average, no-tillers said they would pay \$12 per acre for the higher-SOM land, while reduced tillage farmers said they would pay \$7.60 per acre and conventional farmers averaged only \$4.29 per acre extra. The overall average was \$8.67 per acre."

## We Fully Guarantee Your Satisfaction!

I've covered no-till for 49 years and I've picked up hundreds of new no-till techniques, tips and strategies during the first 28 years of the National No-Tillage Conference to share with *No-Till Farmer* readers.

That's why if — after attending the National No-Tillage Conference — you don't feel this highly intensive, information-filled conference is everything we promise, write me and I'll send you a full 100% refund. Take up to 6 months to decide so that you can measure the return on your investment from this unique learning experience.

For nearly 50 years, no-tillers have trusted *No-Till Farmer* to deliver unbiased no-tilling information. Hosting this annual event is still another way for us to help you continue your no-till education, not just through the talented and informative speakers and classroom presenters, but with the valuable networking opportunities that occur through the No-Till Roundtables and hallway conversations.

This unsurpassed guarantee ought to convince you that we're worthy of your trust and attendance at the 29th annual National No-Tillage Conference coming up Jan. 12-15, 2021.

### Transfer/Refund Policy

At any point prior to the event, you may request that your registration be transferred to the following year's event, or to a replacement attendee that would attend in your place.

To cancel your registration, please contact *No-Till Farmer*.

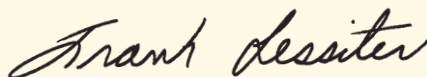
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- Your registration is 100% refundable through December 18, 2020.
- Your registration is 50% refundable December 19, 2020 through January 6, 2021.
- Sorry, no refunds after January 6, 2021.

*NOTE: In the unlikely event that the National No-Tillage Conference is cancelled in its entirety, all registrants will receive a full 100% registration refund.*

**See You in Indianapolis!**





## ► NO-TILL CLASSROOM

### “30 Tips for Controlling Slugs and Voles in No-Till.”

Slug and voles are major pests when no-till and cover crops are used together, as this system can provide beneficial food, shelter and habitat for them. Both thrive in dense, lush moisture and vegetation and so understanding the life cycle of these pests and learning how to manage the environment is the key to minimizing their population, says Jim Hoorman.

The soil health consultant and former NRCS educator will provide more than 30 management tips on cover crop mixes, seeding practices, natural predators, baits, repellents, harvesting methods and other solutions that may help reduce pest populations. Five fact sheets on slugs and voles, with the most current research included, will be available to help no-tillers be even more successful.



Jim Hoorman

## ► NO-TILL CLASSROOM

### “Rethinking Rotations for No-Till Dairy Farmers.”

A common rotation found on many dairy farms is 4 years of corn followed by 4 years of alfalfa with cover crops. But Daniel Olson says dairy farmers can lower ration costs, improve forage nutrient content and increase production by eliminating alfalfa and utilizing forages that closely mirror the desired dairy ration parameters instead.

A seventh-generation dairy farmer from Lena, Wis., and owner of forage consulting company Forage Innovations, Olson will address the intersection of agronomy and dairy nutrition. He'll outline how to design a no-till forage program that will benefit your operation, highlighting economics, forage nutrients, strategies for selecting cover crop species, crops that can thrive on large amounts of manure and more.



Daniel Olson

*“The amount of information that I gained by listening to no-till cover crop farmers, innovators and researchers was outstanding...”*

— Rachel Stout Evans, UDSA-NRCS, Ruston, La.

### GENERAL SESSION

#### “7 Steps to Better No-Till Agronomic Thinking.”

Many farmers attend trade shows, seminars, browse the Internet and read magazines looking for truthful information to better their operations. Then they try to utilize those “truths” by integrating them on their own farms, says Marion Calmer.

A veteran no-tiller from western Illinois, Calmer will explain how he's utilized his “7 Steps to Better Thinking” over his 46 years of farming to make successful agronomic and mechanical decisions — which he believes has helped make farming more environmentally friendly, profitable, rewarding and, most importantly, fun!



Marion Calmer

### GENERAL SESSION

#### “Twin-Row Practices that Make No-Tilling More Profitable.”

Roger Wenning's farm has steadily progressed since he started experimenting with no-till and cover crops 25 years ago, and he continues to add new tools — such as planting corn and soybeans in twin rows and adding inputs where needed to keep increasing yields.

The Greensburg, Ind., grower will share the equipment setups and agronomic approaches that helped him implement twin-row planting practices on his 850-acre farm, including the fertilizer, fungicide and biological products that have added to the success, in addition to cover crop seeding. He'll also explain why soil health has been important to yield increases on his farm and why better soils are important for planting higher populations with cash crops.



Roger Wenning

# “CONFERENCE WRAP-UP AND FAREWELL UNTIL 2022!”



# YOURS FREE! \$111.80 of Valuable No-Till Reports, Guides

These special “No-Till Bonuses” provide hundreds of pages of essential, innovative no-till information that enhance the value of your conference registration fee. It’s all yours FREE for the commitment you’ve made in taking your no-till operation to the next level by attending our nationally acclaimed no-tillage conference.

## BONUS #1



### No-Till Farmer & Conservation Tillage Guide

Each registered attendee receives a FREE 1-year subscription to *No-Till Farmer* delivered monthly, including 8 issues of the popular newsletter and 4 issues of the info-packed Conservation Tillage Guide quarterly magazine.

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## BONUS #2



### Farm Innovations

This specialty product directory serves as a year-round reference to the latest innovative products from more than 100 shortline farm machinery manufacturers and suppliers throughout the world.

**Bonus Value: \$29.95**

## BONUS #3



### Covering Up, Part 4: Getting Results from Innovative Cover Crop Systems

In this 32-page special report, you’ll read about some of the farmers and researchers who are pushing the boundaries of cover crop management, discovering new ways they can extend the growing season, supplement grazing, capture more sunlight, feed the biology underground and even improve the bottom line.

**Bonus Value: \$15.95**

## BONUS #4



### Top Tips For Growing High-Yielding No-Till Soybeans

In this 36-page valuable report, you’ll learn the latest tools, technologies and techniques from the best no-till soybean researchers, agronomists and successful no-tillers themselves for raising high-yielding no-till soybeans.

**Bonus Value: \$15.95**

**Total FREE “Bonus Package” Value For NNTC Attendees: \$111.80**

## 4 EASY WAYS TO REGISTER

**ONLINE:** Register securely at the conference website: [NoTillFarmer.com/NNTC21](http://NoTillFarmer.com/NNTC21).

**PHONE:** Call (866) 839-8455 or (262) 432-0388 (*with your credit card handy*) to register.

**MAIL:** Send the registration form on the back of this page to NNTC, P.O. Box 624, Brookfield, WI 53008-0624.

**FAX:** Just fax the registration form on the back of this page to (262) 786-5564.

Register today at [www.NoTillConference.com](http://www.NoTillConference.com) or call (866) 839-8455!



# 29th Annual National No-Tillage Conference

Hosted by *No-Till Farmer*

P.O. Box 624

Brookfield, WI 53008-0624

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## Get a Really Quick Payback in 2021!

Take home an average of \$15,226.63 in NEW ideas that you can put to immediate use in your no-till system.

—2020 NNTC Attendee Survey

# Boost Your No-Till Yields in 2021!

## Primary Registrant:

☐ Register me at the address above.

Name: \_\_\_\_\_

Farm or Company Name: \_\_\_\_\_

Address: \_\_\_\_\_

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☐ Register me for the Tuesday bonus workshop, "Building Disease Suppressive Soils, Higher Yields with the Plant Health Pyramid" (\$99)

## Additional Registrant:

Name: \_\_\_\_\_

☐ Same address as primary registrant.

Farm or Company Name: \_\_\_\_\_

Address: \_\_\_\_\_

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☐ Register me for the Tuesday bonus workshop, "Building Disease Suppressive Soils, Higher Yields with the Plant Health Pyramid" (\$99)

\*Please attach contact information for any additional attendees.

## Registration Options:

Call or fax or mail back this completed form to the information listed on page 11. Registration forms must be received by 12/31/20 to get the discounted pre-registration rate of \$379 (\$50 savings off the onsite rate).

### #1 First Attendee

\_\_\_\_\_ attendee x \$379 = \$ \_\_\_\_\_  
(*\$429 after 12/31/20*)

### #2 Additional Attendees

\_\_\_\_\_ attendee(s) x \$352 = \$ \_\_\_\_\_  
(*\$429 after 12/31/20*)

### #3 Bonus Workshop, Tue., Jan. 12

*Limited attendance. See page 2 for more details.*

### "Building Disease Suppressive Soils, Higher Yields with the Plant Health Pyramid"

\_\_\_\_\_ attendee(s) x \$99 = \$ \_\_\_\_\_

### #4 BOOK OFFER: *A History of No-Till Farming: From Maverick to Mainstream*

Enjoy a stunning and unique collection of stories, photographs, facts, and figures chronicling the history of no-till and strip-till farming. This extraordinary 416-page hardbound book takes a decade-by-decade look at the world of no-till, as seen through the eyes of those who observed the many changes in no-till since the first commercial U.S. plot in 1962.

\_\_\_\_\_ book(s) x \$47.95 = \$ \_\_\_\_\_

☐ I'd like my book(s) autographed by *No-Till Farmer* editor and author, Frank Lessiter.

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