



28th Annual
**NATIONAL
NO-TILLAGE
CONFERENCE**

January 7-10, 2020 • St. Louis, Mo.

GATEWAY TO NO-TILL SUCCESS

The 28th annual National No-Tillage Conference will bring all of the resources, information and networking opportunities you need to help your no-till operation reach new heights in 2020.



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

- ✓ Impactful Learning, Actionable Ideas from 3 Dozen Top-Notch Speakers
- ✓ 76 Roundtables to Seek Answers to Your Toughest No-Till Challenges
- ✓ 2 Exclusive Workshops on Soil Biology and Raising Hemp as a Specialty Crop
- ✓ 2 Meals, 2 Receptions and 3 Refreshment Breaks for Valuable Networking
- ✓ NEW! Enhanced Ladies Program with Expanded Educational Opportunities
- ✓ Conference Bag Stuffed with New Reports, Useful No-Till Info & Commemorative NNTC Hat

**...AND
MUCH
MORE!**

Essential Networking! Impactful Learning!

See you January 7-10, 2020 in the River City!

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



Register Online Today at www.NoTillConference.com!

28th Annual National No-Tillage Conference • January 7-10, 2020 • St. Louis, MO

Get Your Growing Season Off to a Fast Start During 4 Days of Invaluable Learning in the River City!

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 28th year, we're ready to do it again as our event takes place at the newly renovated Union Station Hotel in St. Louis.

Behind the theme "Banking More Dollars With No-Till," we've lined up more than 30 top 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 2 early workshops, 13 General Sessions, 23 No-Till Classrooms and 76 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 unlimited hallway networking with the most innovative and forward-thinking minds in no-till during this January event that kicks off the 2020 crop production season. Don't miss out!

TUESDAY, JANUARY 7

Noon to 7:30 p.m. "No-Till Registration Time."

Get registered! Pick up your conference materials, including FREE Special No-Till Reports valued at \$131.75.

10:00 a.m. to Noon "Special Members Only Workshop — How No-Tilling Hemp Could Add to Your Operation's Bottom Line."

(This workshop, limited to 100 attendees, 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.)

Legal changes in the most recent Farm Bill approved by Congress created a burgeoning market in the U.S. for hemp, which can be grown for fiber, seed and CBD products. But raising this specialty crop is much different than traditional row crops, whether you're talking about seeding practices, genetics, harvest methods or dealing with the legal requirements, says Holtwood, Pa., no-tiller Steve Groff.



Steve Groff

In an exclusive 2-hour workshop from 10 a.m. to noon on Jan. 7, Groff will share his experiences raising 70 acres of 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 even share how cover crops can be incorporated with hemp plants to facilitate soil health and provide nutrients for optimal growth.

2:00 to 5:00 p.m. "Special Members Only Workshop — Courting the Two 'M's' that Make or Break Your Soil's Biological System."

(This workshop, limited to 100 attendees, 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.)

Tiny organisms play a powerful role in building productive no-till soils, but a lot still must be learned about the specific players in the system and how to maximize their presence and effectiveness. Two of these invaluable organisms are metarhizium and mycorrhizal fungi and they're both essential to your soil resource, says James Hoorman.

In this exclusive workshop, the former NRCS educator and owner of Hoorman Soil Health Services will introduce metarhizium fungi and define its role as a soil health parasite to over 200 insect species and recycler of soil nitrogen. Hoorman will also outline the importance of mycorrhizal fungi functions, report on what mycorrhizae species are present in the soil and which ones are needed to improve agricultural production, as well as discuss ag products that are harmful or helpful to establishment of these fungi in no-till systems.



James Hoorman

6:30 to 9:30 p.m. "NNTC Welcome Reception."

Get checked into your hotel room and then get set for a relaxing evening with light dinner items and drinks — and some engaging discussion with your fellow no-tillers. Our annual Welcome Reception is made possible with the support of **Topcon**, **Midwest Bio-Tech** and **Neudorff**. This is the perfect way to network with farmers, sponsors and other conference attendees before you start absorbing 3 days of no-till techniques.



WEDNESDAY, JANUARY 8

6:30 a.m. to 9:00 p.m. "No-Till Registration Time."

6:30 to 8:20 a.m. "Breakfast on Your Own."

8:30 to 8:40 a.m. "Official Kickoff to the 28th Annual National No-Tillage Conference."

Join us in the Grand Ballroom as the *No-Till Farmer* staff sets the stage for 3 days of intensive no-till learning.

Frank Lessiter Legacy Lecture Series
(Made possible with the support of Calmer Corn Heads)



8:40 to 9:30 a.m. "The Road to Continuous No-Till and Enhanced, Efficient and Profitable System Performance."

No-tillers today must farm in a globalized and competitive world

trying to meet the ever-growing demand for agricultural products — all while becoming more and more efficient, meeting environmental goals and staying profitable, says long-time no-tiller and consultant Roberto Peiretti.

A founding member of the Argentinian no-till farmers association AAPRESID and a co-founder of Bioceres, Peiretti will share the main principles of his systemic approach to no-tilling honed over the past 40 years in Argentina, Brazil, Paraguay and Uruguay. He'll explain the benefits of integrating crop rotation, cover crops, carbon farming and fertilizer use and placement to create an efficient, high-powered no-till system. Peiretti, who farms with his wife Cintia, will also provide a glimpse of no-till adoption progress and benefits obtained in South America.



Roberto Peiretti

"I walk away with 6 to 8 ideas that I will try on a small amount of acres..."
— Benoit Delbecq, Auburn, Ind.

9:30 to 10:20 a.m. “Capturing and Harnessing Sunlight and Carbon with the Constant Canopy System.”

When no-tiller Jason Mauck isn't driving a tractor or sprayer, he's busy driving innovation on his 3,000-acre operation near Gaston, Ind. Ever the tinkerer and futurist when it comes to farming, Mauck endeavors to capture as much sunlight and carbon as possible through his system of relay intercropping cash crops and cover crops, and integration of manure from his 25,000 wean-to-finish pigs.

Mauck will share the components of his Constant Canopy system that he's building upon to raise high-yielding corn, soybeans and wheat, which allows him to capitalize on crop synergies, improve soil health and suppress weeds for a more profitable and sustainable farm operation for his family and future generations.



Jason Mauck

10:35 to 11:35 a.m. “Choose from 6 High-Powered No-Till Classrooms.”

Select one of six outstanding No-Till Classrooms to absorb more specialized learning. Send others from your farming operation to separate sessions to broaden your no-till knowledge.

▶ NO-TILL CLASSROOM #1...

“Finding the Value of Practical Technology on Your Farm.”

The wonders of precision technology can do a lot for no-tillers' profits and bottom line, if they can stomach the potential price or the learning curve involved. But Chad Colby says there are some great options to add technology without breaking the bank or increasing frustration levels.

The founder and principal of Goodfield, Ill.-based Colby AgTech will share why it's important to stay current with technology — whether it's a smartphone, tablet or UAV — and he'll reveal some other types of technology trends for 2020 that could save no-tillers time and money.



Chad Colby

▶ NO-TILL CLASSROOM #2...

“Tips and Tweaks for Raising High-Yielding Strip-Tilled Corn.”

The challenges of strip-tilling corn aren't lost on Jeff Martin, but he and the family have devised a comprehensive plan involving both their machinery and input management to keep corn yields high and input costs low while managing residue as necessary.

Martin will outline how they use a vertical-tillage tool and Ortho seeder to manage corn stubble and seed cover crops after harvest to rejuvenate fields ahead of the next growing season. He'll also describe the setup and reasoning for their John Deere strip-till bar and cover various precision upgrades made recently to their planter to get the best results for strip-tilled corn.

▶ NO-TILL CLASSROOM #3...

“Microbial Nutrient Cycling and Minimizing Tillage in Organic Systems.”

No-tillers have the opportunity to enter into organic production and boost their bottom lines when their soils are highly dynamic with microbial life — and that's usually achieved through utilization of cover crops and a more diverse crop rotation, says Dani Kusner.

The agronomist for The Andersons, who leads initiatives in organics, soil health, and 4R nutrient management for the company, will review the basics of soil health and microbial nutrient cycling for a successful organic sys-



Dani Kusner

tem and share the potential for reduced tillage or no-till in these systems. Kusner will also provide a brief introduction to the USDA National Organic Program and its accompanying rules, and include tips for attendees on record-keeping required by the USDA organic label.

▶ NO-TILL CLASSROOM #4...

“How Autonomous Machines Will Shape Your No-Till Success.”

The 'robots' are coming, but in farming that's nothing to be afraid of, as no-tillers who take advantage of the emerging opportunities in autonomous agriculture could hit new benchmarks in crop production and operational efficiency, says Robert Saik.

The ag futurist, entrepreneur and farm consultant from Olds, Alberta, will outline the emerging role of autonomous tools and machinery agriculture, including the use of driverless farm equipment, plant-sensing technology and other innovations that will help define the future success of modern farming operations.

▶ NO-TILL CLASSROOM #5...

“Facing Down Challenges with Establishing Cover Crops in Northern Regions.”

Without the abundant growing degree days and warmth of southern areas, no-tillers in the Upper Midwest certainly face challenges getting cover crops into their rotations, much less establishing a more diverse mix with something other than just cereal rye. But Jason Miller says the situation isn't hopeless.

The conservation agronomist for the NRCS in Pierre, S.D., will draw on his research and experiences at the Dakota Lakes Research Farm and other areas to discuss cover crop species selection in these areas and the advantages of diversifying rotations beyond corn and soybeans to get fuller-season covers established. He'll also touch on some yield data for grazing cover crops in dryland systems and controlling potential compaction challenges.



Jason Miller

▶ NO-TILL CLASSROOM #6...

“Residue Management Practices for Increased Yields and Enhanced Stands in Corn, Soybeans and Cover Crops.”

In high-yielding no-till systems, residue can be your best friend or, in some cases, your worst nightmare if field conditions aren't properly managed. But Marion Calmer has some insights to share that he's learned through many years of compromising with Mother Nature.

The Alpha, Ill., no-tiller and independent on-farm researcher will review his evolution of residue management practices throughout the past 35 years of no-tilling. Using necessity as the mother of innovation, Calmer will share several simple solutions to profit-robbing residue build-up problems. From dealing with floods to droughts, cornstalks to soybean straw, and using strip-till or no-till, his residue management strategies are built with profits in mind.



Marion Calmer

11:50 a.m. to 1:15 p.m. “The Annual NNTC Luncheon, Supported by AgroLiquid.”

(Included in your No-Till Conference registration fee.)

12th Annual Responsible Nutrient Management Practitioners

AgroLiquid and *No-Till Farmer* will recognize three 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.



1:30 to 1:45 p.m. “No-Till Innovator Awards Ceremony.”

Join Calmer Corn Heads and *No-Till Farmer* staff to honor individuals, businesses and organizations who've had a major impact on the growth of no-till systems in the U.S. and across the world.



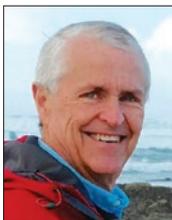
Harry Young, Jr. Memorial Lecture Series Sponsored by H&R Agri-Power



1:45 to 3:00 p.m. “Regenerating Soil Microbiomes for Improved Farm Productivity, Profitability.”

Microbes played a significant role not only in the development of our planet, but in formation of the soils used to produce food that feeds the world's population. Disruptions of these soil microbiomes can have serious consequences for both farming and mankind — but the good news, says David Johnson, is that microbiomes can be restored.

The molecular biologist at New Mexico State University's Institute for Sustainable Agricultural Research will share results of greenhouse and field research that helped him devise the Biologically Enhanced Agricultural Management (BEAM) system which promotes regenerative practices to help no-tillers further ratchet up soil health indicators and improve crop yields and profitability.



David Johnson

3:00 to 3:30 p.m. “Networking/Refreshment Break.”

Strike up a discussion with your fellow no-tillers about this afternoon's general sessions and get ready for another round of no-till classrooms with coffee and refreshments.

3:40 to 4:40 p.m. “Choose from 6 High-Powered No-Till Classrooms.”

Select one of six outstanding No-Till Classrooms to absorb more specialized learning. Send others from your farming operation to separate sessions to broaden your no-till knowledge.

▶ NO-TILL CLASSROOM #7...

“Boosting Biomass and Crop Production with a Super-Charged Compost Inoculant.”

With the ever-increasing prices seen for synthetic inputs pressuring margins, many no-tillers are looking for cheaper, more efficient ways to fertilize cash crops, including composted products that stimulate soil microbiomes to enhance plant growth and production.

Molecular biologist David Johnson and his wife, Hui-Chun Su Johnson, will discuss the process they use to create a fungal-dominant, biologically diverse compost inoculant to jump start soil biology and increase biomass production. They'll also highlight design, construction, care and feeding of the bioreactor used to create the inoculant, and preferred application methodologies for the product.

▶ NO-TILL CLASSROOM #8...

“Putting Dollars and Cents to the Value of Healthy No-Tilled Soils.”

Many no-tillers believe their farm ground should be more valuable than conventionally tilled fields because of improved soil organic matter levels, nutrient cycling, water-holding capacity and the like. But farmland appraisers typically don't see it that way. And if no-tillers believe their soils are worth more, would they pay more to rent or buy land with better soil health?

To bring this issue to the forefront, Wolford, N.D., no-tiller Paul Overby will share some insights from his own research and number-crunching — and a survey of hundreds of fellow farmers — while studying in the University of Wisconsin's master's program in Sustainable Management. Come with your thinking caps on — this discussion about the worth of healthy soils should be a lively one!

▶ NO-TILL CLASSROOM #9...

“How to Develop ‘Actionable Items’ for Better No-Tilling Through Aerial Imaging.”

For Dan and Brian Sutton, the key to managing their 1,300-acre no-till operation lies in what they can see from the sky, not just from the ground. The brothers from Lowell, Ind. developed ADVI technology, which is based on traditional NDVI but allows for thermal imaging of the soil, not just vegetation. They also specialize in long-wave thermal imaging, and hold several patents associated with its use in agriculture.



Dan and Brian Sutton

The brothers from Lowell, Ind., and proprietors of AirScout will share how they use this technology, and the timeliness of drone and airplane imaging, to build planting and application prescriptions, make tile and drainage decisions, detect pest and disease pressure, organize and evaluate test strips and more.

▶ NO-TILL CLASSROOM #10...

“Insecticidal Seed Treatments: How Do They Work and Where Do They Go?”

Neonicotinoid seed treatments are so common that it can be difficult for no-tillers to find seed without it. But, Mike Bredeson asks, have growers ever stopped to wonder how seed treatments really work or where it goes once their seed has been planted? And how do neonicotinoid insecticides really kill an insect?

The research scientist at the Ecdysis Foundation will discuss insecticide research that will be of interest to any no-tillers thinking about interseeding cover crops, or those concerned that insecticides might be protecting their herbicide-resistant weeds from beneficial insects.

▶ NO-TILL CLASSROOM #11...

“Building a More Sustainable, Profitable No-Till Dairy Operation.”

For Aaron and Todd Augustian, running a dairy farm the traditional way isn't the answer anymore. Through the help of various agencies and partners they're establishing several new conservation practices that are making their 1,100-acre operation more profitable and environmentally sustainable.



Aaron Augustian

The Kewaunee, Wis., growers — who manage 1,200 cows and young stock and are participants in the Door-Kewaunee Watershed Demonstration Farm Network — will share how they've successfully implemented no-till and cover crop practices on their farm, including interseeding alfalfa into corn. They'll also share the results of their cover crop and low-disturbance manure application program and comparative data they've generated with a water-monitoring station as they seek to mitigate the risk of groundwater and surface water contamination.

▶ NO-TILL CLASSROOM #12...

“Tar Spot and Target Spot: New Corn and Soybean Diseases to Look Out For in 2020.”

An increase in the incidence of tar spot in corn and target spot in soybeans — along with several leaf blights in both crops — continues to cause concern for no-tillers trying to optimize their crop production, says Phil Krieg.

The agronomic service representative for Syngenta will outline the causal pathogens, spread and management of these diseases, and



“The sessions are good for stimulating thought and the like-minded farmers present are great for sharing ideas with...”
— Rob Shellhamer, Wabash, Ind.

why cultural practices and fungicide applications are important management tools in battling these yield robbers. Control measures will be discussed, addressing the need for more aggressive scouting and management to protect the yield potential of no-tilled crops.



Phil Krieg

4:45 to 5:45 p.m. “20 Super No-Till Roundtables.”

Select from 20 No-Till Roundtables where attendees can ask questions, discuss challenges and contribute field-proven ideas on a specific topic. Longtime conference attendees say these “one-of-a-kind idea swaps” are worth the cost of attending the conference all by themselves. Send others from your farm to different sessions to capture even more learning.

1. **Dandy Drill Setups for Dynamite Soybean Stands**
2. **Making the Most out of Manure Applications**
3. **Snagging Higher Yields with Super Sidedressing Strategies**
4. **Building Up Better Strip-Till Berms**
5. **Raising the Roof on Production of No-Tilled Alfalfa, Forages**
6. **Exclusively for Case IH Planter Users**
7. **Cover Crop Strategies in the Northern Plains, PNW**
8. **Cover Crop Strategies in the Mid-South, Southeast**
9. **Cover Crop Strategies in the Northeast, Mid-Atlantic**
10. **Cover Crop Strategies in Minnesota, Wisconsin**
11. **Cover Crop Strategies in Michigan, Ontario**
12. **Cover Crop Strategies in Ohio (North of I-70)**
13. **Cover Crop Strategies in Ohio (South of I-70)**
14. **Cover Crop Strategies in Indiana (North of I-70)**
15. **Cover Crop Strategies in Indiana (South of I-70)**
16. **Cover Crop Strategies in Illinois (North of I-70)**
17. **Cover Crop Strategies in Illinois (South of I-70)**

18. **Cover Crop Strategies in Iowa**
19. **Cover Crop Strategies in Missouri**
20. **Cover Crop Strategies in the Southern & High Plains**

5:45 to 7:30 p.m. “Dinner On Your Own.”

7:30 to 8:20 p.m. “Food 5.0: How No-Tillers Will Feed the Future.”

Food has become the new religion. But while denominations such as paleo, vegan and organic debate which is “the way,” the industry is ignoring a truth that affects us all, says Robert Saik: to support a population nearing 10 billion by 2050, agriculture must be infinitely sustainable.



Robert Saik

Drawing on themes presented in his recently released book, “FOOD 5.0: How We Feed the Future,” the veteran agrologist, entrepreneur and consultant from Olds, Alberta, will share a pragmatic look at the five iterations of agriculture, culminating in a discussion of how convergence of technologies such as sensors, robotics, and machine learning is reshaping the farm and consumer — and where no-tillers can expect to find themselves in the midst of all this change.

8:20 to 9:15 p.m. “Cover Cropping Around the World in 45 Minutes!”

Just like in the U.S., Steve Groff has found that no-tillers, min-tillers and strip-tillers in Canada, South Africa, Australia and numerous European countries are turning to cover crops to improve soil health and protect their fields against wind and water erosion.

The Holtwood, Pa., no-tiller and Cover Crop Coach will take attendees on a whirlwind virtual tour of these countries and share the innovative methods growers are using to get cover crops established on their farms — including clever equipment adaptations that make them work. Groff will also highlight concerns about glyphosate availability European growers have faced and alternative termination methods they’ve adopted.

THURSDAY, JANUARY 9

6:30 a.m. to 6:00 p.m. “No-Till Registration Time.”

Get registered! Pick up your conference materials, including **FREE** Special No-Till Reports valued at **\$131.75**.

7:00 to 8:00 a.m. “Early Bird No-Till Breakfast Sponsored by Syngenta.”



(Included in your No-Till Conference registration fee)

Following the buffet breakfast sponsored by Syngenta, industry experts will provide you with information and insights on protecting your crops for the upcoming growing season and keeping resistant diseases in check.

8:00 to 8:45 a.m. “Assessing SDS, SCN Threats to No-Tilled Soybeans and Finding Profitable Strategies and Solutions.”

Sudden Death Syndrome (SDS) and soybean cyst nematode (SCN) continue to be leading causes of yield declines and crop failures in soybeans across the Midwest, posing a major challenge to no-till profitability in an already challenging economic environment, says Jason Bond.



Jason Bond

After the Early Bird Breakfast sponsored by Syngenta, the plant pathologist at Southern Illinois University will provide an overview of what happened with SDS incidents in 2019 and discuss how a combination of host resistance and seed treatments impacts the disease — as well as outline the best methods to deal with this pathogen in the future. He’ll also cover the linkage between SCN and SDS and offer some perspectives on why this combination continues to chal-

lenge both farmers and the crop protection industry, even though the compounds to fight them are still effective.

9:00 to 9:50 a.m. “Taking No-Till Another Step: New Directions, Opportunities with Regenerative Agriculture.”

Through 15 years of no-tilling a variety of crops and adding cover crops to his Wolford, N.D., operation, Paul Overby has seen plenty of rewards. But an even bigger decision came when he was asked to raise oats for General Mills food products. That started his deep-dive into “regenerative agriculture” on his 1,900-acre farm that he co-owns with his wife, Diane.



Paul Overby

The farmer, owner of Verdi-Plus and president of Northern Plains Resource Conservation and Development Council will discuss his transition from successful no-tilling to regenerative ag and how he’s using cropping patterns, covers, livestock and other tools to build soil organic matter and unlock available nutrients in the soil profile. He’ll also share the current state of regenerative ag and the current opportunities waiting for no-tillers.

9:50 to 10:45 a.m. “How Soil Testing and Data Can Shape a More Comprehensive Approach to Soil Health.”

You can’t manage what you don’t measure, and when it comes to soil health, Mitchell Hora doesn’t like to leave anything to question. That’s why the 7th-generation farmer and his family — which has no-tilled for more than 30 years — relies heavily on information that can be seen and

analyzed to improve the sustainability and profitability of their operation.

A soil health consultant and co-founder of Continuum Ag, Hora will outline processes and data to both quantify and improve soil health on their 800-acre farm near Washington, Iowa. Hora will also share some helpful insights on reading and interpreting the Haney test and getting the economics to work once no-tillers have this information on their soil ecosystem.



Mitchell Hora

10:55 to 11:55 a.m. "20 Even Better No-Till Roundtables."

Once you determine which of the following 20 sessions to attend, send others from your farm to other sessions so you can later swap dozens of great ideas that you can add to your 2020 no-till operation.

21. Best Planter Tips for Better Soybeans Stands
22. Boosting the Bottom Line with Biosolids, Sludge
23. Innovative Ideas for Integrating No-Till and Livestock
24. Winning Ideas for No-Tilling Vegetables
25. Getting a Head Start on Pesky Slug Issues
26. Narrow-Row Corn: Which One is Best? — 12s, 15s, 20s or 22s?
27. Outstanding Opportunities with No-Till Organic Systems
28. Excellent Ideas for Better Irrigation Efficiency
29. Shop Wars: Do-it-Yourself No-Till Machines
30. Uplifting Insights on No-Tilling with Drones
31. Mantra or Myth? Stratification in No-Tilled Soils
32. Continuous Improvement with Strip-Tilled Corn-on-Corn
33. Obliterating Obstacles to Utilizing Precision Ag Data
34. Finding a Forward Gear with Non-GMO Soybeans
35. Piling Up Profits with Double-Cropping Systems
36. Making Micronutrients a Tool for Bigger No-Till Yields
37. Super Setups for One-Pass Planting, Fertilizing
38. Helpful Hints for Successful Farm Succession
39. Teachable Moments from Cover Crop Failures
40. Winning Ways to Work with Annual Ryegrass

11:55 a.m. to 1:15 p.m. "Lunch on Your Own."

1:15 to 2:10 p.m. "Banking on Soil Biology for Better No-Till Yields and Profits."

Jeff Martin and family are doing a lot of adding and subtracting these days as they work to boost soil health and productivity and log a more robust balance sheet for their farm. Does raising high-yielding no-tilled corn with only 50 units of nitrogen sound unrealistic? It can be done, he says.

The Mount Pulaski, Ill., no-tiller and strip-tiller will outline how his family reshaped their input program with broadcast and in-furrow application of a high-performing compost-like product that helped them eliminate phosphorus and potassium applications and focus attention on micronutrient applications and other yield-responsive practices. He'll also explain how utilizing cover crops by planting green or interseeding is boosting soil biology even further as they work to improve fungi-to-bacteria ratios in their soils.



Jeff Martin

2:10 to 3:05 p.m. "Farm Like an Architect: Interseeding Covers to Build Beneficial Insect Communities."

Have you ever seen a pest outbreak in a prairie? There is an interesting phenomenon that takes place in highly diverse plant communities, says Mike Bredeson, as an ecosystem supported by diversity is more resilient to different types of disruptions from herbivores, diseases and even extreme weather. Interseeding adds to diversity of farmland and influences many other agronomic factors, such as weed control, nutrient cycling and water infiltration. But how can growers replicate the resiliency of natural habitats — such as prairies — on their own farms?

Backed by data and his experiences in the field, the research scientist at the Estelline, S.D.-based Ecdysis Foundation will outline how interseeding cover crops affects insect communities and how beneficial invertebrates react when growers interseed covers into what would otherwise be a monoculture.



Mike Bredeson

3:05 to 3:35 p.m. "Networking/Refreshment Break."

You're halfway through the most informative day of the no-till year. Grab a refreshment while discussing the things you've learned with no-tillers.

3:40 to 4:40 p.m. "Choose from 6 High-Powered No-Till Classrooms."

Select one of six outstanding No-Till Classrooms to absorb more specialized learning. Send others from your farming operation to separate sessions to broaden your no-till knowledge.

► NO-TILL CLASSROOM #13...

"Protecting Productive Fields with Manure, Winter Wheat and Cover Crops."

Some no-tillers find it's a major challenge managing manure in a way that lets them meet their productivity, soil health and environmental goals. But Jason Mauck is turning manure into the centerpiece of his farm's fertilizer plan.

The Gaston, Ind., no-tiller and min-tiller of corn, soybeans and winter wheat will share how he's processing manure from his farm's 12,000 hogs, as well as from outside sources, to make a "biochar" of sorts that encapsulates nitrogen and boosts carbon content in the soil. He'll also describe his plans to integrate covers, wheat and the biochar into a one-pass system that keeps soils covered over winter and increases soil productivity.

► NO-TILL CLASSROOM #14...

"Solving the Riddle of Cover Crops and Fertilizer Management."

Simply just getting cover crops established on farms can be a challenge. But many no-tillers complain it's even harder to quantify the effect covers are having on soil nutrients and make the right decision on adjusting fertilizer applications to ensure cash crops still have the nutrients they need.

Veteran no-tiller and farm consultant Roberto Peiretti of Argentina will share some valuable insights on measuring the nutrients and biomass cover crops contribute to the soil profile and what mistakes no-tillers should avoid making when deciding on possible reductions in fertilizer application. The founder of AAPRESID, the Argentinian no-till farmers association, will also answer questions attendees might have about no-till innovations and developments in other regions of the world.

► NO-TILL CLASSROOM #15...

"A Multi-Faceted Approach to a Profitable No-Till System."

Simply adopting no-till on the family farm wasn't enough for Andrew Reuschel. His passion for improving soil health and profitability has morphed into a multitude of cropping systems and soil amendments that he utilizes on the 1,400-acre operation that his family has farmed for more than 125 years.

The Golden, Ill., no-tiller and participant in the Soil Health Partnership will share how he's evolved his whole-farm system, which includes interseeding cover crops and companion cropping, planting bio-strips and using a compost-tea extract in fur-



Andrew Reuschel

row to boost fertility levels for corn and soybeans. He'll also share some of the input efficiencies and cost savings he's realized through conservation practices.

▶ NO-TILL CLASSROOM #16...

"Getting to the 'How and Why' on No-Tilling Green."

With ever-tightening planting windows, farmers must consider how to effectively establish cash crop stands while maintaining soil structure and building soil health and nutrient availability. 'Planting green' into a living cover crop can alleviate some of those issues, but it comes with its own set of challenges, says Josh Payne.

The Concordia, Mo., no-tiller of 800 acres of corn, soybeans and wheat will share the "how and why" of planting green, including both the successes and failures he's experienced along the way. He'll also share the multiple strategies and planter setups he and his neighbors have tried in the process of making this dynamic no-till planting system successful.



Josh Payne

▶ NO-TILL CLASSROOM #17...

"Understanding How Cover Crops are Raised and Why it's Different Than Corn and Soybeans."

While most no-tillers enjoy the familiarity and consistency of the corn and soybean seed they buy, cover crop seed is a different animal for many reasons, says Nick Bowers. Weather patterns, market realities and, in some cases, a lack of understanding between the seed industry and the goals of the end users can cause frustration for no-tillers.

The co-founder of KB Seed Solutions will attempt to debunk some of the misconceptions about the way cover crop seed is raised and share what the production cycle in western Oregon is like for field work, fertilizer application, seed harvest and more. He'll also shed light on brands vs. varieties of seed, and outline the important characteristics of and differences between cereal rye and annual ryegrass.



Nick Bowers

▶ NO-TILL CLASSROOM #18...

"Understanding Soil Tests for Optimal No-Till Nutrient Needs."

Productive soils are paramount to a high-yielding, efficient no-till system. But ascertaining and interpreting what traditional soil nutrient

tests and newfangled soil biology tests are showing can be a tough chore, says Ray Ward.

The owner of Ward Laboratories will compare standard soil tests and the Haney test and discuss what the optimum levels are and when low scores on these tests should be a concern to no-tillers. He'll also cover some basics on nutrient removal rates and the importance of maintaining proper soil nutrient levels.



Ray Ward

4:50 to 5:50 p.m. "Another Set of 20 Engaging No-Till Roundtables."

The third set of 20 no-till roundtables gives you another chance for valuable "one-on-one" learning with no-till colleagues. It's also your opportunity to find an answer to a dilemma or be a hero to another no-tiller by offering your own farm-tested advice.

41. Turning to Dicamba — Tips for Protecting Yourself
42. Building Better Weed Burndown Formulas
43. Winning Over Landlords on No-Till, Covers
44. Turning to Tile, Drainage Systems for Better No-Tilling
45. Exclusively For Kinze No-Till Planter Owners
46. Using Mycorrhizae, Humics, Soil Builders to Unlock Soil Health
47. Turning the Tide with Foliar Fertilizer Application Success
48. No-Tilling Cotton and Other Specialty Crops
49. Finding a Foothold with Successful Guidance Systems
50. Taking the Fight to Tough No-Till Weeds
51. Helpful Hints for Handling Combine Residue
52. Getting Consistent Results with Variable-Rate Fertility
53. Steps for Preparing Your Planter for Strip-Till
54. Biological Solutions to Better Pest Control
55. For No-Till Dairy Farmers Only
56. Making Sense of Newfangled Soil Health Tests
57. Perfect Setups, Adjustments for Better Air Seeder Performance
58. Secrets to Seeding Cover Crops on a Large Scale
59. Terrific Tips for Timely Cover Crop Seeding
60. Shutting the Door on Pesky Voles, Varmints, Critters

5:50 to 7:00 p.m. "Getting Together: Hors d'oeuvres/Networking Opportunity."

We close out the day's events with refreshments and another opportunity to network with your fellow attendees and our conference sponsors. Then enjoy a night on the town with dinner and exploring all the attractions St. Louis has to offer!

FRIDAY, JANUARY 10

6:30 to 8:00 a.m. "Breakfast on Your Own."

7:00 a.m. to Noon. "No-Till Registration Time."

On the conference's last day, don't forget to check out *No-Till Farmer* Bookstore for any last-minute deals and take home information that can help you no-till better in 2020!

8:00 to 9:00 a.m. "16 More High-Value No-Till Roundtables to Gather Ideas & Solutions."

Select from 16 No-Till Roundtables where you can ask questions and discuss and contribute practical, field-proven ideas on a specific topic. If you came with a group, split up to take in more no-till learning.

61. Busting Myths About Cold-Climate No-Till Obstacles
62. Setting Up Sprayers for Super No-Till Success
63. Miserly Plans for Planting Cover Crops on the Cheap
64. For John Deere Planter Owners Only
65. Stepping Up Success with Strip-Till Fertilizer Placement
66. Breaking Through Barriers with Soybean Yields

67. Nuances to 'N' Management to Balance Yields and Profits
68. Better Soil Balance with Gypsum, Calcium, Sulfur
69. Protecting Your Tires from Stubborn Crop Stubble
70. Helpful Hints for Higher No-Till Wheat Yields
71. Breakthrough Ideas for Beating Compaction
72. Using Vertical Tillage without Trashing No-Till Benefits
73. Protecting No-Tilled Fields from Seed, Soil Diseases
74. Fending Off Fusarium Issues in Cereal Crops
75. Eradicating Rootworms, Other Tough No-Till Insects
76. Tackling Tricky Questions About My Soil Test Results

9:15 to 10:15 a.m. "Choose from 5 More Top-Notch No-Till Classrooms."

You've got five more top-notch no-till classrooms to choose from to help you make a big impact on your 2020 cropping operation.

Register today at www.NoTillConference.com or call (866) 839-8455!



January 7-10, 2020 • St. Louis, Mo.

▶ NO-TILL CLASSROOM #19...

“50 Years of Trial Data That Could Shape Your No-Till Management.”

One of the longest-lived research stations in the Midwest when it comes to no-till practices can be found at Southern Illinois University's Belleville Research Center (BRC). Established by SIU agronomist George Kapusta, the center boasts 50 years of data from continuous trials in tillage and fertilizer management.



Dane Hunter



Amanda Weidhuner

BRC farm manager Dane Hunter and SIU graduate student Amanda Weidhuner will share data spelling out the long-term challenges and benefits of no-till and various fertilizer regimes on a poorly drained silt loam soil when compared to moldboard plowing, chisel plowing and rotational tillage. They'll also explore how different fertilization approaches affect crops, and the ways these management systems affect soil properties and biological indicators like earthworm populations.

▶ NO-TILL CLASSROOM #20...

“Turning Troubled Soils Into a 4-Lane Highway for Roots with No-Till and Covers.”

Without commanding many headlines, Ralph Upton, Jr.'s farm near Springerton, Ill., has become a shining example of what can be accomplished with long-term no-tilling and cover crop applications, as he's transformed fragipan soils — previously thought to be unfixable — into the centerpiece of a productive no-till operation. In fact, this soil evolution was so shocking that one researcher came out of retirement to study how it was done.



Ralph Upton, Jr.

Drawing upon his collaborations with the late cover crop expert Mike Plumer and many other researchers, Upton will share the successes he's seen using no-till and covers to break up hardpans and retain valuable soil moisture, including the effects he's documented on the rooting depth of his cash crops through improved soil till and health.

▶ NO-TILL CLASSROOM #21...

“I'm No-Tilling Already: Why Do I Need to Change Again?”

Getting a no-till operation to a regenerative farming system with resilient soil may seem like a goal that is impossible to reach. The old saying is “How does one eat an elephant?” Answer: “One bite at a time!” Conservation ag consultants Dan Towery and Hans Kok will provide a better understanding



Dan Towery



Hans Kok

of the needed management changes, associated soil changes and the needed mindset that are all part of the process.

These details — such as planting shorter-maturing varieties, planting green and dropping neonics will be covered with relevant examples. Understanding the process enables no-tillers to set yearly goals to transition to the next phase and to eventually get to regenerative farming as they learn to focus on profit margins rather than chasing yield, say Towery and Kok. Without a plan, they point out, no-tillers may drift in the transition phase and may not ever capture all the potential benefits.

▶ NO-TILL CLASSROOM #22...

“The Biology of Soil Compaction and Safeguarding Your No-Tilled Soils.”

Most no-tillers know compaction problems adversely affect soil and plant health, but avoiding it might have been a challenge for many growers last year with all the wet weather. There's a science to how compaction forms in soils and understanding that can help no-tillers handle this challenge more successfully, says James Hoorman.

The former NRCS educator and soil health consultant will examine how soil texture and soil organic matter influences soil structure and soil compaction and review impacts of soil compaction on agricultural production and the environment. He'll also share how roots and soil biology improve aggregate stability and reduce soil compaction, and apply soil health concepts to improve aggregate stability, reduce nutrient and water runoff and improve yields.

▶ NO-TILL CLASSROOM #23...

“I've Got My Soil Health Data — Now What Do I Do With It?”

Many growers utilize popular soil health tests to get a better feel for their farm's soil health. But incorporating this information into management decisions can be an arduous process for many of them, says Mitchell Hora.

The consultant and longtime no-tiller from Washington, Iowa, will help attendees take what they've learned from the Haney test and adjust and account for soil resiliency and improved soil function so they can make better management decisions for their no-till operations. The no-tiller and consultant will also provide an overview of emerging credit markets for sequestered carbon and what opportunities may exist in the future for no-tillers.

10:15 to 10:45 a.m. “Networking Break.”

Continue discussions with fellow producers about this afternoon's general sessions and get ready for another round of no-till learning with coffee and refreshments.

10:50 to 11:40 a.m. “How Can Cover Crops Boost No-Till Profits?”

One of the biggest questions no-tillers have about cover crops has to do with profitability: they want to know if covers will pay, and how much, says Rob Myers. To address this, data from hundreds of farmers was collected by Sustainable Agriculture Research and Education (SARE) through 5 years of national cover crop surveys.



Rob Myers

The North Central SARE regional extension director will share results from a new USDA-SARE report evaluating cover crop returns under various crop management situations. He'll discuss insights on cover crop cost efficiency if you have herbicide-resistant weeds, soil compaction or are making adjustments to nutrient management. He'll also address how factors such as excessively wet or dry soils affect cover crop returns, and the profits that can be made from cover crop grazing.

11:40 a.m. to 12:25 p.m. “6 Secrets to Successful, Profitable No-Till Corn and Soybean Production.”

Veteran no-tiller Marion Calmer has been doing independent on-farm research with large-plot replications since he was 28. Now at 63, Marion will synthesize on-farm research data from around the country, along with his 50 years of experience growing corn and soybeans into this info-packed session.

The Alpha, Ill., grower will focus on both cost-cutting and yield-boosting management practices in the areas of no-tilling populations, row spacing, nitrogen rates, phosphorus and potassium applications, and residue management.

12:30 to 12:35 p.m. “Get Ready to Put All that No-Till Knowledge to Work.”

The *No-Till Farmer* staff will send you home with a final encouragement to improve your no-till system in 2020 as we wrap up the 28th annual National No-Tillage Conference.

Discover Dining, History and Entertainment in St. Louis

The 2020 National No-Tillage Conference is set to be held in the destination city of St. Louis, Missouri! The conference's venue, the St. Louis Union Station Hotel, brings a balance of nostalgia and renovation. The once-train station that connected all of America, now operates as a AAA Four Diamond hotel that mixes historic elegance and modern details. Eat at one of the hotel's 6 restaurants or attend the spectacular 3D light show in the Grand Hall lobby — the St. Louis Union Hotel is sure to leave you with lasting memories.

Take a break at the end of a busy day at the NNTC and discover the endless historic wonders St. Louis has to offer. From the famous Gateway Arch to the 20+ breweries throughout the city, there is something for everyone in the legendary city of St. Louis.



Did you know that staying in the host hotel room block is important to the success of the Conference?

Having the most people possible in our room block allows us to offer you the best rates at the conference hotel and contributes to the overall success of our event. Attendees who stay at the St. Louis Union Station Hotel not only receive the lowest rates, but they also experience no travel between an offsite hotel and the conference, which gives them even more opportunities for networking and interacting with other attendees!



Reservation Details:

Discounted Rate: \$109/night

Reservations: Book online at www.NoTillConference.com or call (314) 231-1234. When booking online or by phone, enter or mention group code: LSTR.

Booking Deadline: December 12th, 2019

Hotel Address: 1820 Market St., St. Louis, Mo. 63103

Check-in & Out: Check-in is at 4:00 p.m.; check-out is at 11:00 a.m.

Parking: Self-parking is \$27; valet is \$40

For additional information visit www.NoTillConference.com

Register today at www.NoTillConference.com or call (866) 839-8455!



New for 2020

Attend the Women for the Land Learning Circle



Still Another Great Spouses Program!

The Women for the Land Learning Circle is just one activity planned during a FREE 4-day program for spouses at this 28th annual event. In fact, these special sessions were put together by no-tilling spouses. To receive your copy of the spouse program, visit www.NoTillConference.com or call (866) 839-8455 and ask for one to be dropped in the mail to you right away.

Where: At the 2020 National No-Tillage Conference

When: From 8:30 a.m. to 12:00 noon and again from 1:30 to 5 p.m. on Wednesday, January 8

Who Should Attend: Female attendees, speakers and spouses

Cost: Free to conference attendees

Join experts from American Farmland Trust as they host a Women for the Land Learning Circle at the 2020 National No-Tillage Conference. Repeated during two different sessions on Jan. 8, these intimate educational and idea-sharing discussions are intended for women landowners and women involved in farming operations who are interested in learning about soil health and land conservation practices.

Women for the Land Learning Circle Attendees will learn:

- ✓ How to differentiate between healthy soil and unhealthy soil
- ✓ Practical and proven methods to improve soil health
- ✓ How to measure and maintain soil health through hands-on demonstrations of the slake test, rainfall simulators and slump test



We Fully Guarantee Your Satisfaction!

I've covered no-till for 48 years and I've picked up hundreds of new no-till techniques, tips and strategies during the first 27 years of the National No-Tillage Conference to share with *No-Till Farmer* readers.

That's why if this highly intensive, information-filled no-tillage conference isn't 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 76 No-Till Roundtables and hallway conversations.

This unsurpassed guarantee ought to convince you that we're worthy of your trust and attendance at the 28th annual National No-Tillage Conference coming up Jan. 7-10, 2020.

See You In St. Louis!



"I've always told farmers if they could only attend 1 conference a year, they will learn the most from the National No-Tillage Conference..."

— Joe Nester, Bryan, Ohio

YOURS FREE! \$131.75 of Valuable No-Till Learning Reports

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.

Bonus Value: \$59.95

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

Banking on Progressive Precision Practices to Improve ROI

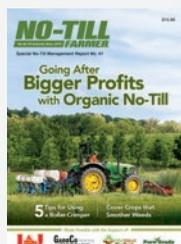


In this 48-page report, get perspective and direct experience from other no-tillers, strip-tillers, researchers and industry experts on how current precision tools are paying off and how to make the most of the innovations of the future.

Bonus Value: \$15.95

BONUS #4

Going After Bigger Profits with Organic No-Till



No-Till Farmer editors have been tracking increased interest from readers and conference attendees in organic no-till. This 32-page special report shares data trends describing growth in the U.S. organic market, practical insights from three no-tillers/strip-tillers who made the transition from conventional farming to organic; leads on where to find potential funding and technical assistance for converting farm acres to organic methods; and a roundup of naturally-sourced fertilizers, pesticides and soil amendments as well that could be part of an organic operation.

Bonus Value: \$15.95

BONUS #5

28th Annual National No-Tillage Conference Commemorative Hat



We’ve offered a stylish hat for every single one of our no-till conferences since the event debuted in 1993. Our 28th Anniversary No-Till Hat is yours free — wear it with pride and let others know you’re a committed no-tiller!

Bonus Value: \$9.95

Total “Bonus Package” Value For NNTC Attendees: \$131.75

And when you add in the welcome reception, breakfast, lunch and several networking breaks, the value of these reports and bonuses nearly match the cost of registration for this first-class educational conference on no-till.

4 EASY WAYS TO REGISTER

- PHONE:** Call (866) 839-8455 or (262) 432-0388 (*with your credit card handy*) to register.
- FAX:** Just fax the registration form on the back of this page to (262) 786-5564.
- MAIL:** Send the registration form on the back of this page to NNTC, P.O. Box 624, Brookfield, WI 53008-0624.
- ONLINE:** Registration is available and secure at the conference website: www.NoTillConference.com.

Register today at www.NoTillConference.com or call (866) 839-8455!



January 7-10, 2020 • St. Louis, Mo.

28th Annual National No-Tillage Conference

Hosted by *No-Till Farmer*

P.O. Box 624

Brookfield, WI 53008-0624



SEE INSIDE FOR FULL DETAILS...

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Get a Really Quick Payback in 2020!
Take home an average of **\$23,470** in NEW ideas that you can put to immediate use in your no-till system.
—2019 NNTC Attendee Survey

Boost Your No-Till Yields in 2020!

Primary Registrant:

Register me at the address above.

Name: _____

Farm or Company Name: _____

Address: _____

City: _____ State: _____

Zip/Postal Code: _____ Country: _____

Phone: _____

Email: _____

Register me for the Tuesday morning How No-Tilling Hemp Could Add to Your Operation's Bottom Line Workshop (\$99)

Register me for the Tuesday afternoon Courting the Two 'M's' that Make or Break Your Soil's Biological System Workshop (\$99)

Additional Registrant:

Name: _____

Same address as primary registrant.

Farm or Company Name: _____

Address: _____

City: _____ State: _____

Zip/Postal Code: _____ Country: _____

Phone: _____

Email: _____

Register me for the Tuesday morning How No-Tilling Hemp Could Add to Your Operation's Bottom Line Workshop (\$99)

Register me for the Courting the Tuesday afternoon Two 'M's' that Make or Break Your Soil's Biological System Workshop (\$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 12/31/19 to get the regular rate of \$359 (\$50 savings off the onsite rate).

#1 First Attendee
_____ attendee x \$359 = \$ _____
(\$409 after 12/31/19)

#2 Additional Attendees
_____ attendee(s) x \$332 = \$ _____
(\$409 after 12/31/19)

#3 Workshop Options
Choose one or both of these expert-led bonus workshops. Limited attendance. See page 2 for more details.

How No-Tilling Hemp Could Add to Your Operation's Bottom Line Tue., Jan. 7, 10:00 a.m. to Noon (Limit 100)
_____ attendee(s) x \$99 = \$ _____

Courting the Two 'M's' that Make or Break Your Soil's Biological System Tue., Jan. 7, 2:00 to 5:00 p.m. (Limit 100)
_____ 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.

Total \$ _____

Payment Information:

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(Please make checks payable to No-Till Farmer, in U.S. funds only)

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