

27th Annual National No-Tillage Conference

January 8-11, 2019 * Indianapolis, IN - Downtown Marriott

The maximum number of CCA credits you can earn is 13 when you attend the 3-hour workshop, "Cover Crop Basics for Rookies," led by Steve Groff. The maximum number of credits that you can earn is 12 when you attend the 2-hour workshop, "Training the Trainers," led by Steve Groff. If you do not attend a workshop, you can earn a maximum of 10 credits.

Credit Abbreviations Key

- NM = Nutrient Management – 7 credits
- SW = Soil & Water Management – 5 credits
- PM = Integrated Pest Management – 1.5 credits
- CM = Crop Management – 21 credits
- PD = Professional Development – 2 credits

| Date | Session | Speaker | Credit | | | |
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| Monday, January 8 | | | | | | |
| 10:00 am - 12:00 Noon | Special Workshop - Training the Trainers on Cover Crop Adoption | Steve Groff | CM 2.0 | | | |
| | Pennsylvania no-tiller and cover crop educator Steve Groff will host a seminar for agronomists, seed salespeople, NTCS/Extension agents, researchers and other stakeholders in agriculture whose job is to work with growers to adopt cover crops and provide technical assistance or guidance. Groff will cover roadblocks to adoption, setting realistic goals, what to do or NOT do when sharing anecdotes from innovators, and how to help growers understand the proper mindset for successful adoption. He'll also cover mistakes cover crop salespeople need to avoid and share some tips for organizing field days that are helpful for growers. | | | | | |
| 2:00 pm - 5:00 pm | Special Workshop - Cover Crop Basics for Rookies and Early Adopters | Steve Groff | CM 3.0 | | | |
| | Shifting gears Tuesday afternoon, Pennsylvania no-tiller and cover crop educator Steve Groff will provide valuable guidance and strategies to farmers for getting off the starting block with cover crops in a session geared toward cover crop rookies or those early in the adoption process. Groff will discuss the mentality needed to make cover crops work, how to set realistic goals, evaluating the payback on covers and the pros and cons of different seeding methods. He'll also provide some answers on common challenges for cover crop adopters like termination timing, nitrogen tie-up, herbicide carryover and planting green effectively. | | | | | |
| Tuesday, January 9 | | | | | | |
| 8:30 am - 9:20 am | No-Till Isn't Just Planting - It's a Year-Round Ecological System | Trey Hill | CM 0.5 | | | |
| | No-Tillers are known for being solid, traditional and having a steady hand at the wheel. But as farming gets tougher and more complex, there's a need for no-tillers to innovate to be successful in the future, says Trey Hill. Viewing farming as a creative endeavor, the Rock Hall, Md., no-tiller will share how he effectively no-tills 13,000 acres of cover crops and cash crops at Harborview Farms while still doing his part to safeguard the environmentally sensitive Chesapeake Bay watershed. He'll discuss the advantages and challenges of planting cash crops green into living cover crops vs. planting brown, and share some of the game-changing goals he's set for his no-till operation | | | | | |
| 9:20 am - 10:10am | Getting the Most From Your No-Till Operation by Farming Green | Rick Clark | CM 0.5 | | | |
| | To Rick Clark, "farming green" is a systematic approach to regenerative soil health and that's what he brings to the 7,000 acres he manages at both Clark Land & Cattle and for his family. A main component of his no-till system is maximizing cover crop performance and planting his cash crops into living covers to build biomass, suppress weeds, recycle nutrients and feed soil microbes. The Williamsport, Ind., no-tiller of non-GMO corn, soybeans, wheat and alfalfa will share details about his unique system of tissue testing cover crops in spring to analyze soil nutrients taken up that could be available for the next cash crop. He'll also share adjustments he's made to successfully no-till crops into green cover crops. | | | | | |
| 10:30 am - 11:30 am | Choose from 6 High-Powered No-Till Classrooms | | | | | |
| | Class 1) Putting Manure in it's Place Without Making a Mess of No-Tilled Fields | Phil Reed | NM 1.0 | | | |

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| | <p>The task of injecting liquid manure has always been difficult for no-tillers wanting to utilize the product for its nutrient and soil organic matter benefits, as injection methods can disturb a lot of residue and soil. But corn and soybean farmer and custom hog feeder Phil Reed came up with a solution, designing and building an attachment that injects manure below the soil surface with far less soil and residue disturbance. The Washington, Iowa, no-tiller will discuss the high-speed, low-draft merits of the Vertical Till Injector for getting manure under the soil surface with better results. He'll also discuss the soil testing and analysis performed on his farm that allows for precise manure and nitrogen application for optimal no-till corn production.</p> | | | | | |
| | <p>Class 2) Winning Waterway Construction and Maintenance Strategies to Help No-Till Systems Work Efficiently</p> | <p>Marion Calmer</p> | <p>SW 1.0</p> | | | |
| | <p>With high-intensity rainfall events becoming more numerous, the battle to install, repair or maintain waterways becomes more challenging, says Marion Calmer. The Alpha, Ill., no-tiller recognizes that just because you're no-tilling doesn't mean you can't have problems with soil erosion. Calmer will discuss why no-till waterways fail and how they can be reshaped; the best way to prepare a no-till seedbed to stand up to water flow; seed mixtures that get you quick regrowth and withstand future attacks; equipment needs and setups; and the best time of year to establish or repair waterways.</p> | | | | | |
| | <p>Class 3) Putting More Money in Your Pocket with a Diversified No-Till Operation</p> | <p>Jan Layman</p> | <p>CM 1.0</p> | | | |
| | <p>With grain prices remaining stagnant, the balance sheet might seem bleak for many no-tillers. But Jan Layman is putting more dollars in his family's pockets by being diversified and up to date on seed and fertilizer application technology. The longtime Kenton, Ohio, no-tiller will share the economic payoffs he's seen by adopting intensive soil sampling methods and utilizing precision fertilizing and seeding technology. Layman will discuss how he's successfully managing more than 600 acres of no-tilled continuous corn on his 4,800-acre farm and finding local markets for the grain. The 2016 Ohio Master Farmer will also share how he's bolstered farm income by starting a custom tiling, excavation and fertilizer application business.</p> | | | | | |
| | <p>Class 4) Tips for Better No-Till Planter Adjustments and Operation</p> | <p>Paul Jasa</p> | <p>CM 1.0</p> | | | |
| | <p>When it comes to no-tilling, equipment choices and setups for planters have a major impact on a grower's success during the season. The key to successful no-tilling is understanding the soil and conditions no-tillers have in their own fields and whether the planter equipment, attachments or methods they're using will actually solve their challenges. Jasa will help no-tillers develop a mindset to work through many variables with no-till planter setups, including proper adjustments to row units and the relationship between disc planting down the old row vs. between old rows, how to use no-till soil structure to optimize proper planting depth and the importance of weight distribution for the best planting results.</p> | | | | | |
| | <p>Class 5) Spring Strategies for Building Soil Health with Cover Crops and No-Till</p> | <p>Barry Fisher</p> | <p>CM 1.0</p> | | | |
| | <p>Rebuilding soil health and function is the key to regenerating full soil productivity. Cover crops can play multiple roles - scavenging nitrogen, improving infiltration and increasing water-holding capacity - which are critical for achieving maximum production in conservation cropping systems, says Barry Fisher. The Central Region Leader for the NRCS Soil Health Division will focus on springtime strategies to help avoid any unforeseen circumstances that may limit successful integration of no-till and cover crops, including adaptive nutrient strategies, cover crop termination timing and weed and pest management.</p> | | | | | |
| | <p>Class 6) Using Advanced No-Till Seeding Methods to Protect Soils and Improve Soil Health</p> | <p>Jim Hershey</p> | <p>CM 1.0</p> | | | |

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| | <p>Growers have been faced with increasing and more-intense weather events in recent years that challenges their ability to protect and manage their soils to raise productive crops. But if you're willing to look at cover crops as a 'cash crop', there are seeding practices no-tillers can implement to safeguard soil, water and crops, says Jim Hershey. The Elizabethtown, Pa., no-tiller and livestock producer will share his experiences in successfully no-tilling cash crops into living cover crops and how he handled challenges interseeding covers to improve soil health. Hershey will discuss what he's learned through his experimentation with row spacing and cover crop selection for interseeding on his 500-acre operation.</p> | | | | | |
| 11:45 am - 1:15 pm | The Annual NNTC Luncheon with Support from AgroLiquid | | NM 1.0 | | | |
| | <p>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.</p> | | | | | |
| 1:30 pm - 2:30 pm | 20 Super No-Till Roundtables | | | | | |
| | 1) Drill Setups for Dynamite Soybean Stands | | | | | |
| | 2) Simple Strategies for Applying Manure Effectively | | | | | |
| | 3) Proven Tips for No-Tilling Vegetable Successfully | | | | | |
| | 4) Super Sidedressing Strategies for No-Tillers | | | | | |
| | 5) Safeguarding No-Tilled Fields from Seed, Soil Diseases | | | | | |
| | 6) Ramping Up Production of No-Tilled Alfalfa, Forages | | | | | |
| | 7) Exclusively for Case IH Planter Users | | | | | |
| | 8) Finding a Fit Using Twin Rows on Your Farm Operation | | | | | |
| | 9) Getting Back to Basics with Strip-Till Berm Building | | | | | |
| | 10) Outstanding Opportunities with Non-GMO Crops | | | | | |
| | 11) Cover Crop Strategies in the Northern Plains, PNW | | | | | |
| | 12) Cover Crop Strategies in the Mid-South, Southwest | | | | | |
| | 13) Cover Crop Strategies in the Northeast, Mid-Atlantic | | | | | |
| | 14) Cover Crop Strategies in the Great Lakes, Ontario | | | | | |
| | 15) Cover Crop Strategies in Ohio | | | | | |
| | 16) Cover Crop Strategies in Indiana | | | | | |
| | 17) Cover Crop Strategies in Illinois | | | | | |
| | 18) Cover Crop Strategies in Iowa | | | | | |
| | 19) Cover Crop Strategies in Missouri | | | | | |
| | 20) Cover Crop Strategies in the Southern & High Plains | | | | | |
| 2:30 pm - 3:10 pm | Networking/Refreshment Break | | | | | |
| 3:15 pm - 4:30 pm | Making Your Cover Crops Pay Off - Every Day of the Year | David Brandt | CM 1.0 | | | |

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| | <p>Cover crops have the potential to do many things for no-tillers, one of the most important being improved nutrient cycling in no-tilled soils that can lead to input savings and a healthier bottom line. But many no-tillers are spending \$25-\$30 an acre on covers and still spending too much on fertilizer due to poor nutrient management, says David Brandt. The Veteran no-tiller and cover crop expert from Carroll, Ohio, will help no-tillers understand how they can get more ROI from covers through making the proper adjustments to their farm's nutrient program to reduce fertilizer costs without sacrificing yield. Brandt will also share research data on 25 different corn hybrids seede into high-biomass cover crops on his farm to examine differences in corn emergence, stands and yield.</p> | | | | |
| 4:30 pm - 5:15 pm | Earthworms: Bioengineers and Sentinels of Living No-Tilled Soils | Paul Hepperly | SW 0.5 | | |
| | <p>Most no-tillers know the presence of earthworms is an important sign of healthy soils, but their role in farming systems goes well beyond simply digesting residue and improving water infiltration with the tunnels they burrow, says Pail Reed Hepperly. The Maryville, Tenn.-based agricultural consultant, educator and scientist has studied earthworms for many years and will highlight little-known facts about earthworm behavior and the important job these belowground creatures play in nutrient recycling and balancing soil acidity and soil health. The former research director at The Rodale Institute will also share how no-tillers can create a more favorable environment for earthworms.</p> | | | | |
| 5:15 pm - 7:20 pm | Dinner On Your Own | | | | |
| 7:25 pm - 8:15 pm | Harvest Sunlight, Cater to Covers and Preserve Corn Yields with Wider Rows | Bob Recker | CM 0.5 | | |
| | <p>Are you looking for ways to boost soil health without taking fields out of production? Retireed John Deere engineer and farm consultant Bob Recker might have the answer: By turning off every other row on yor planter and doubling per row populations, 60-inch corn leaves space for cover crops, companion crops, grazing livestock and high-clearance equipment. Recker, who operated Waterloo, Iowa-based Cedar Valley Innovation, will share how his system - discovered by accident in 2017 and now under study on 23 farms across the Midwest - can help no-tillers build soil health and leverage increased sunlight without dinging corn yields.</p> | | | | |
| 8:15 pm - 9:05 pm | Preparing No-Till Operations for the Digital Revolution in Agriculture | Scott Shearer | CM 0.5 | | |
| | <p>Many data scientists argue that machine and agronomic data in agriculture fail to meet the definition of "big data". But the combination of technology and venture capital directed at agriculture are changing the landscape with respect to the food system , says Scott Shearer. The chair of Ohio State University's Department of Food, Agriculture and Biological Engineering will explain how machine learning and cloud computing, the Internet of Things (IoT), data standards and exchange, data ownership, privacy and security, emerging ecosystems and broadband internet access and automation will affect all facets of food systems in the future and how no-tillers should prepare.</p> | | | | |
| Wednesday, January 10 | | | | | |
| 7:00 am - 8:00 am | Early Bird No-Till Breakfast Sponsored by Syngenta | | | | |
| | <p>Following the buffet breakfast sponsored by Syngenta, an industry expert will provide you with information and insights on protecting your crops for the upcoming growing season and keeping resistant diseases in check.</p> | | | | |
| 8:00 am - 8:45 am | Fighting Through the Evolving Landscape of Row Crop Diseases and Finding No-Till Profitability | Carl Bradley | PM 0.5 | | |

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| | Diseases in no-tilled corn, soybeans and wheat are often unpredictable, which leads to a growing environment for plants that is constantly in flux. Resistant diseases such as strobilurin-resistant frogeye leaf spot are spreading each year. Target spot is emerging as a new, important driver disease in Southern soybeans, and Southern rust is moving further north each year, says Carl Bradley. The plant pathologist at the University of Kentucky will discuss how no-tillers can stay ahead of new disease pressure and further development of resistant diseases; how disease management can fit into the overall program for no-tilling row crops; and how new research and technology can help growers get the upper hand in disease management. | | | | |
| 9:00 am - 10:00 am | Choose from 6 High-Powered No-Till Classrooms | | | | |
| | Class 7) Applying the Principles of Process Improvement to Your No-Till Farm | Dick Wittman | PD 1.0 | | |
| | Many no-till operations are becoming larger and more complex, and involve increasing diversity and numbers of employees and owners working toward a common mission. No-tillers today operate in a global environment where how goods are produced are almost as important as what is produced, which requires growers to consider the importance of process improvement, says Dick Wittman. The 38-year no-till veteran and renowned farm business consultant will explain what process improvement is and where the principle can be applied in no-till operations. He will outline how no-tillers can develop standard operating procedures and identify the risks of operating without them, and discuss how to measure benefits of improved efficiencies and create reward systems for motivating improvement in farming systems and processes. | | | | |
| | Class 8) Making Cover Crop Interseeding a Success Rather than a Lofty No-Till Goal | David Brandt | CM 1.0 | | |
| | Interseeding cover crops into cash crops holds promise for no-tillers needing help getting them established on time and providing tangible benefits - especially where growing seasons are short. But choosing the right equipment, proper cover crop cocktails and optimal cash crop varieties or hybrids for interseeding can be difficult. Carroll, Ohio, no-tiller David Brandt will discuss what he's learned from many years of interseeding cover crops into cash crops on his 1,100-acre farm, including what cover crop species have worked best and what his on-farm data has shown in terms of yield. Brandt will also share how corn hybrid choices and populations factor into successful cover crop establishment. | | | | |
| | Class 9) 5 Ways to Speed Up the Payoff for Your No-Till System | Dan Towery & Hans Kok | CM 1.0 | | |
| | When it comes to no-till, are you crawling along at 50 mph on your quest for improved soil health and reduced fertilizer costs? There are different approaches growers take that can push the speedometer on their no-till system to 60 mph, 80 mph or more - that is, assuming you can handle it, says Dan Towery and Hans Kok. While it's not exactly rocket science, the veteran conservation consultants from Indiana will explain the methods and science behind these approaches to revving up no-till systems, including the timing of seeding cover crops, adding wheat in rotations and following with a cover crop cocktail, planting green, grazing cattle and "doing the math" for profit, not yields or organic production. | | | | |
| | Class 10) Leveraging Data and Benchmarks to Develop a More Profitable No-Till System | Ron LeMay | CM 1.0 | | |

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| | <p>You can't manage what you don't measure, as the saying goes. And with modern no-till operations, tracking and analyzing the massive amounts of data being produced via precision technology to investigate management returns can be truly daunting for many growers, says Ron LeMay. The founder of Main Street Data - a firm that has developed tools to measure and improve productivity ranging from agronomics to grain marketing - will share lessons learned through validation, benchmarking and predictive performance as they can be applied to agriculture. He'll also discuss the value of leveraging data science and machine learning to develop benchmarks that provide insight into the true effectiveness of farming practices, such as no-till, relative to other practices.</p> | | | | |
| | <p>Class 11) Turning Aerial Scouting into a Powerful Tool for No-Till Management</p> | Bob Recker | CM 1.0 | | |
| | <p>There's a lot going on in no-till fields that isn't visible from the pickup or tractor seat. Patterns visible from above may be driven by soil variability, weed or pest pressure, climate impacts or equipment malfunction, says Bob Recker. These may or may not be reflected in yield maps, but the cause of the yield map variability may not be obvious at harvest. Drawing on his experience with aerial scouting by planes, drones and satellite imagery, the operator of Waterloo, Iowa-based Cedar Valley Innovation will illustrate how a view from the air can help no-tillers get a new perspective on crop nutrient uptake, stands, water infiltration, crop maturity, drift issues and other no-till challenges. He'll also discuss interpretation of aerial scouting results and how to address the problems either immediately or in the next growing season.</p> | | | | |
| | <p>Class 12) Using Watershed-Scale Cover Crops to Keep More Nutrients on No-Tilled Fields</p> | Jennifer Tank | SW 1.0 | | |
| | <p>Nutrient runoff from fields can enter nearby waterways, harming sensitive species, contaminating water supplies and fueling algal blooms. But researchers at Notre Dame, with collaborators at Indiana University, have been measuring and documenting the effects of winter cover crops seeded in these areas to reduce nutrient losses, says Jennifer Tank. The Galla professor and director of the Environmental Change Initiative at Notre Dame will share results from the Indiana Watershed Initiative, where the team is measuring nutrient losses from multiple subsurface tile drains and along ditches in two Indiana watersheds where cover crop programs have been implemented. She'll discuss the effect of cover crops on reducing the loss of nitrate nitrogen and dissolved phosphorus from tiles, and how these reductions influence estimates of watershed nutrient export.</p> | | | | |
| 10:10 am - 11:10 am | <p>20 Even Better No-Till Roundtables</p> | | | | |
| | <p>21) Tweaking Your Planter for Successful Soybeans Stands</p> | | | | |
| | <p>22) Stretch Your Input Dollars with Biosolids, Sludge</p> | | | | |
| | <p>23) Rounding Up Plans for Integrating No-Till and Livestock</p> | | | | |
| | <p>24) Using the Right Lime Source to Boost No-Till Productivity</p> | | | | |
| | <p>25) Getting a Leg Up on Pesky, Yield-Robbing Slugs</p> | | | | |
| | <p>26) Finding Success with Narrow-Row Corn - 12s, 15s, 20s, 22s</p> | | | | |
| | <p>27) Making the 'Impossible' Possible with No-Till Organic Systems</p> | | | | |
| | <p>28) Incredible Ideas for Improving Irrigation Efficiency</p> | | | | |
| | <p>29) Do-It-Yourself Shop Creations for Successful No-Tilling</p> | | | | |
| | <p>30) Lifting Up No-Till Efficiencies with Drones</p> | | | | |
| | <p>31) Stratification in No-Tilled Soils - a Challenge or Opportunity?</p> | | | | |
| | <p>32) Super Strategies for Continuously Strip-Tilled Corn</p> | | | | |
| | <p>33) Unbeatable Ideas for Utilizing Precision Ag Data</p> | | | | |

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| | 34) Taking the Fight to Foliar Diseases, Plant Viruses | | | | |
| | 35) Working Up a Win-Win with Double -Cropping Systems | | | | |
| | 36) Managing Micronutrients for Magnificent No-Till Yields | | | | |
| | 37) Getting it Done with One-Pass Planting, Fertilizing | | | | |
| | 38) Passing the Torch with Successful Farm Succession | | | | |
| | 39) Discussing Cover Crop Failures, Finng Solutions | | | | |
| | 40) Practical Practices for Succeeding with Annual Ryegrass | | | | |
| 11:20 am - 12:20 pm | Lessons Learned from 38 years of No-Till Farming Transitions | Dick Wittman | CM 1.0 | | |
| | Dedication to conservaton and community is what's driven Dick Wittman and his family business partners to pursue no-till, combining the practice with a healthy rotation of fall- and spring-seeded crops that comprise a sustainable cropping system among the steep hills of the Palouse. The Lewiston, Idaho, grower and farm business consultant will profile the evolution of his farm's no-till practices over the last four decades, and the critical support provided by creation of the Pacific Northwest Direct Seed Assn. He'll also cover the importance of balancing economic with environmental benefits to improve profitablility and quality of life on no-till operations, examine the value of collaborating with non-traditional partners, and discuss the importance of engaging in policy development related to conservation agriculture. | | | | |
| 12:20 pm - 1:20 pm | Lunch on Your Own | | | | |
| 1:30 PM 2:20 pm | Understanding and Perfecting Conservation Agriculture and Carbon Management in Your No-Till Operation | Don Reicosky | SW 0.5 | | |
| | Carbon is at the crux of a highly functioning no-till system, but are you fully maximizing yor farm's ability to produce carbon and realize its benefits to your soils? Don Reicosky, retired soil scientist for the USDA-ARS in Morris, Minn., will outline the connection between conservation agriculture and soil health principles that are elevating the importance of carbon management. Reicosky will discuss the differences in various cover crop characteristics as they affect biodiversity and relate to carbon production in soils, including carbon-to-nitrogen ratios, rooting characteristics and nutrient cycling. He'll cover the role that living or dormant covers or dead biomass play as an energy source for soil biology. | | | | |
| 2:20 pm - 3:10 pm | Get Better Results with a Systems Approach to No-Till and Soil Health | Paul Jasa | CM 0.5 | | |
| | No-Till doesn't just mean putting the plow away - it's really about a systems approach to farm management that starts by understanding the importance of avoiding soil disturbance and managing residue properly to optimize soil biological activity and get residue working better for you, says Paul Jasa. The ag engineer at University of Nebraska Extension will discuss why no-tillers should aim for 100% continuous no-till systems to promote proper no-till soil structure and nutrient cycling an dfacilitate proper heating and cooling of farm ground for raising better crops. He'll also cover the advantages of diversifying no-till rotation with wheat or forages and explaine the benefits of controlling wheel traffic in fields. | | | | |
| 3:10 pm - 3:45 pm | Networking/Refreshment Break | | | | |
| 3:50 pm - 4:50 pm | Choose from 6 More Intriguing No-Till Classrooms | | | | |
| | Class 13) Yield-Robbing No-Till Pests to Protect Against in 2019 | Syngenta Agrono | PM 1.0 | | |

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| | <p>When it comes to raising profitable no-tilled crops, what's been keeping you up at night? Is it poor weed control in no-tilled soybeans or corn? Are old foes like nematodes in soybeans or new diseases like tar spot in corn eating your lunch? Are rootworms chewing away at the foundation of your profits due to poorer performance from traits? An agronomist from Syngenta will review some of the troubles seen in no-tilled fields in 2018, how they might impact no-till management decisions in 2019 and what you might be able to do culturally and with crop protection classes of chemistries to protect your yields and bottom line.</p> | | | | |
| | <p>Class 14) Cows on Cropland: How Grazing Synergies Boost Yields and Soil Health</p> | Michael Thompson | CM 1.0 | | |
| | <p>The initial reason Michael Thompson introduced livestock on his no-till operation was to deal with herbicide resistance issues. But he soon found cattle were an essential tool for stimulating soil biological activity, increasing soil organic matter, cycling nutrients and residue and increasing plant diversity. The Almena, Kan., no-tiller will discuss how he addressed challenges to the integration of animals on his 4,000-acre farm, including how he handles fencing and watering logistics and manages for soil moisture for growing a cover crop and cash crops. He'll also address concerns about compaction and explain how he uses the Haney soil test for nutrient planning</p> | | | | |
| | <p>Class 15) Using the Whole No-Till Toolbox to Manage Nitrogen with Precision</p> | Trey Hill | NM 1.0 | | |
| | <p>Most no-tillers know what cover crops bring to a no-till system in terms of fixing nitrogen in the soil profile to be utilized by cash crops. But due to application challenges, fickle weather, residue tie-up and other management issues, identifying and utilizing those benefits can be a challenge, says Trey Hill. The Rock Hall, Md., no-tiller will share how he balances carbon-to-nitrogen ratios with his cover crop program to balance organic matter formation with nutrient availability, factoring in termination timing and starter fertilizer rates to optimize his nitrogen investment. Hill will also share precision tools he uses to diagnose and fix nitrogen management issues, and what he learned using dual nitrogen-placement systems.</p> | | | | |
| | <p>Class 16) How Soil Disturbance Disrupts Your No-Tilling Efforts</p> | Don Reicosky | SW 1.0 | | |
| | <p>Still hanging on to that disc or chisel plow in your shed? Or thinking "just this one time" it's OK to do some recreational tillage? You might be doing more harm than you realize to the structure and biological health you've been working to build in your no-tilled soils, says Don Reicosky. The retired soil scientist for the USDA-ARS in Morris, Minn., will discuss how tillage practices - even vertical tillage - and other soil disturbances fragment fungal hyphae networks and disrupt the balance between fungi and bacteria, and subsequently, carbon and nitrogen storage and utilization efficiencies.</p> | | | | |
| | <p>Class 17) The Importance of Nutrient Cycling and the Pitfalls of Poor Soil Fertility</p> | Ray Ward | NM 1.0 | | |
| | <p>Whenever forage or grain is removed from a field, many valuable nutrients that are vital to the soil's long-term health are removed with it. Taking action to ensure carbon and other essential nutrients are applied to replace the deficiency - via organic matter decomposition, manure or fertilizer application - should be a top priority for no-tillers, says Ray Ward. The president of Ward Laboratories will discuss the importance of nutrient cycling in maintaining productive soils and share valuable nutrient application strategies that will help no-tillers not only raise profitable crops but promote healthy soil microbes as well.</p> | | | | |
| | <p>Class 18) Breaking Through Yield Barriers, Soil Health Issues with Long-Term No-Till and Gypsum</p> | Ken Curtis | NM 1.0 | | |

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| | Traditional corn fertility plans often center around soil testing and applying enough nutrients each year to replace what's been removed by crops to keep fields productive. But veteran no-tiller Ken Curtiss sees a different story when reviewing long-term data he's assembled on what drives yields on his 2,100-acre farm. The Prairie City, Ill., grower will share the results of research he's done on his farm jointly with Ohio State University on the benefits of long-term no-till soil biology vs. conventionally tilled fields, and outline new efficiencies he's identified applying fertilizer in the row vs. broadcasting it. He'll also highlight soil-health benefits he's seen from long-term applications of gypsum in his fields. | | | | | |
| 5:00 pm - 6:00 pm | Another Set of 21 Engaging No-Till Roundtables | | | | | |
| | 41) Dealing with Dicamba - Tips for Protecting Yourself | | | | | |
| | 42) Strategies for Building Better Weed Burndown Formulas | | | | | |
| | 43) Wonderful Ways to Win Over Landlords with No-Till | | | | | |
| | 44) Managing Moisture Effectively with Tile, Drainage Systems | | | | | |
| | 45) Exclusively For Kinze No-Till Planter Owners | | | | | |
| | 46) Powering Up Soil Health with Mycorrhizae, Humics, Soil Builders | | | | | |
| | 47) Terrific Tips for Foliar Fertilizer Application Success | | | | | |
| | 48) No-Tilling Cotton and Other Specialty Crops | | | | | |
| | 49) Getting a Grip on Successful Guidance Systems | | | | | |
| | 50) Winning Ways to Whip No-Till Weeds | | | | | |
| | 51) Helpful Tips for Handling Residue with the Combine | | | | | |
| | 52) Finding Consistent Results with Variable-Rate Fertility | | | | | |
| | 53) Setting Up Your Planter for Strip-Till Success | | | | | |
| | 54) Boosting Pest Control with Biological Solutions | | | | | |
| | 55) For No-Till Dairy Farmers Only | | | | | |
| | 56) Busting Through Challenges with Compaction | | | | | |
| | 57) Tweaks and Tricks for Better Air Seeder Performance | | | | | |
| | 58) Large-Scale Cover Crop Seeding - How It's Done | | | | | |
| | 59) Tips for More Timely Cover Crop Seeding | | | | | |
| | 60) Helpful Hints for Higher No-Till Wheat Yields | | | | | |
| | 61) Slamming the Door on Voles, Varmints, Critter | | | | | |
| 6:00 pm - 10:00 pm | NNTC Reception, Gala (introducing the latest class of no-till innovators), Dessert/Networking | | | | | |
| | Thursday, January 11 | | | | | |
| 8:00 am - 9:00 am | 20 More High-Value No-Till Roundtables to Gather Ideas & Solutions | | | | | |
| | 62) Moving Past Cold-Climate No-Till Obstacles | | | | | |
| | 63) Stepping Up Coverage, Efficacy with Sprayers | | | | | |
| | 64) Penciling Out an Inexpensive Cover Crop Program | | | | | |
| | 65) For John Deere Planter Owners Only | | | | | |
| | 66) Seeking Success with Strip-Till Fertilizer Placement | | | | | |
| | 67) Breaking Through Soybean Yield Barriers | | | | | |
| | 68) Managing Nitrogen for Better Yields and Profits | | | | | |
| | 69) Balancing, Building No-Till Soils with Gypsum, Calcium, Sulfur | | | | | |
| | 70) Powerful Tips for Protecting Ag Tires from Stubble | | | | | |

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| | 71) Succeeding from Day 1 when No-Tilling Green | | | | |
| | 72) Measuring No-Till Success with Soil Biology Tests | | | | |
| | 73) Utilizing Verticle Tillage without Trashing No-till | | | | |
| | 74) Rounding Up Real No-Till Benefits with Radishes | | | | |
| | 75) Getting Into the Zone with Variable-Rate Seeding Success | | | | |
| | 76) Eradicating Rootworms, Other Tough No-Till Insects | | | | |
| | 77) Obliterating Obstacles with No-Tilled Corn | | | | |
| | 78) Fending Off Fusarium Issues in Cereal Crops | | | | |
| | 79) Pointers for Keeping More 'P' and 'N' in Your Fields | | | | |
| | 80) Tools and Tweaks for Effective Herbicide Tankmixes | | | | |
| | 81) Debating Drilled, 15- or 30-Inch Soybeans - What's Best? | | | | |
| 9:10 am - 10:10 am | Choose from 5 More Top-Notch No-Till Classrooms | | | | |
| | Class 19) Finding New Opportunities Raising Non-GMO Crops in a No-Till Environment | Rick Clark | CM 1.0 | | |
| | Surveys show more and more no-tillers are interested in raising various non-GMO crops, especially corn and soybeans, to help their farm become more diversified, meet new market demands and improve their operations profitability. But it's no walk in the park, Rick Clark says. The Williamsport, Ind., no-tiller will share how he raises non-GMO feed for Dannon, including choosing the right hybrids and varieties for his corn, soybeans, wheat and alfalfa. He'll also cover how he manages cover crops and fights weeds in this system, and what's leading him to convert some of his 7,000-acre farm to organic methods. | | | | |
| | Class 20) Optimizing No-Till Yields Through Pinpoint Phosphorus Placement | Tryston Beyrer | NM 1.0 | | |
| | Cool, wet soil conditions common in the Upper Midwest in spring can create big challenges for no-tillers focused on raising high-yielding corn and soybeans. But these conditions tend to elicit the best responses from nutrient applicationis - even in situations where soil tests may not recommend additional fertilizer, says Tryston Beyrer. The strip-tiller and agronomist at WinField United, who recently completed his PhD under the direction of Fred Below at the University of Illinois, will dig into the key finding of his research on interactions between phosphorus fertilizer placement, rate, source and timing in corn and soybeans. | | | | |
| | Class 21) Tackling Challenges, Seizing Opportunities With a One-Pass Organic No-Till System | Paul Hepperly | CM 1.0 | | |
| | Marrying no-till practices and organic production isn't easy. But years of studying these systems convinced Paul Reed Hepperly that a one-pass organic no-till system that incorporates cover crops and the nutrient cycling power of earthworms is a viable option to eliminate dependence on synthetic inputs and supply this growing consumer market. The Maryville, Tenn.-based agricultural consultant will reveal the results of his trials highlighting the competiveness of organic no-till systems, especially in soybeans with their potentially 100% organic price premium and lower production costs. He'll also discuss how to work through transition from traditional to organic no-tilling, including handling documentaion and independent monitoring. | | | | |
| | Class 22) Reducing the Hype, Knowing Your Limits with New Soil Health Tests | Eileen Kladviko | SW 1.0 | | |

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| | <p>New, advanced commercial soil tests can provide no-tillers with a lot of information about the level of biological, chemical and physical properties in their soils to help farmers improve soil productivity. But sometimes the picture these samples provide isn't as clear as it may seem, says Eileen Kladvko. Drawing on evaluations of on-farm data, the agronomist at Purdue University will discuss interpretations of some results of the Cornell, Haney and Phospholipid Fatty Acid Analysis (PFLA) tests and explain why they aren't as clear cut as they may seem.</p> | | | | | |
| | <p>Class 23) It's All In Your Mind: Overcoming Mental Stumbling Blocks to Adopting No-Till and Cover Crops</p> | Eric Volsen | PD 1.0 | | | |
| | <p>Are you at the National No-Tillage Conference to learn more about no-till and cover crops, but struggle with making the change back home? It's not always easy to grasp new ideas and concepts, let alone put them into play, says Eric Volsen. The no-tiller from Wells, Minn., who raises corn, soybeans and small grains on 600 acres, will share his take on why many operations struggle to implement a new practice like no-till or cover cropping - even when the facts say farmers should do it. The sixth-generation grower will explain some of the personal and generational problems that might be holding growers back from no-till and cover-crop adoption and share what he's doing on his own farm to make a difference now and for the future.</p> | | | | | |
| 10:10 am - 10:45 am | Networking Break | | | | | |
| 10:50 am - 11:40 am | Advancing Toward Autonomy: What No-Tillers Need to Know | Norbert Beaujot | CM 0.5 | | | |
| | <p>Widespread availability of fully autonomous vehicles in agriculture may still be several years away. But with the size of today's ag equipment getting to the point of diminishing returns, companies have publicly showcased self-driving innovatins - advancing development to the cusp of commercial production, says Norbert Beaujot. The president and founder of Saskatchewan-based SeedMaster and DOT will lay out diverse opportunities with autonomous machinery for no-tillers based on his own experimentation. He'll discuss the potential for efficient intercropping, seeding multiple varieties simultaneously in different fields and targeted in-season application of different fertilizers - all performed by a remote controlled implement.</p> | | | | | |
| 11:40 am - 12:35 pm | Unlocking the Profit Potential of an Effective, Responsible No-Till Nutrient Management Program | Marion Calmer | NM 1.0 | | | |
| | <p>After 33 years of large-plot, independent on-farm research, Marion Calmer, a veteran no-till farmer from western Illinois, has learned there's a huge difference between maximum physical yield and maximum financial yield. Calmer will discuss 10 years' worth of yield, economic and soil-test data from his fertility plots and how he identifies profitable applications of nutrients. Years of surface-applied phosphorus, potassium and lime on these plots not only show the nutrients are stratifying, but his PH levels are as well. Calmer will share some innovative ideas for managing nutrient challenges without sacrificing yields.</p> | | | | | |
| 12:35 pm - 12:40 pm | Get Ready to Put All that No-Till Knowledge to Work | | | | | |
| | <p>The No-Till Farmer staff will send you home with a final encouragement to improve your no-till system in 2019 as we wrap up the 27th edition of the National No-Tillage Conference</p> | | | | | |