



Farmers Improving Soil Health

NO-TILL NUGGETS

Pennsylvania No-Till Alliance

April 2026

Make Plans Now to Attend Summer Soil Health Field Days

It's not too early to mark your calendars for the Alliance always popular summer field days.

July 21,
2026

Ernst Conservation Seeds

Calvin M. Ernst
8884 Mercer Pike,
Meadville, PA 16335

Ernst Seeds is a 60-year-old family farm in Crawford Co., which specializes in growing and marketing native and naturalized seeds for conservation and ecological restoration purposes. They have 56 years of no-till experience as they rotate corn and soybeans with subsequent crops of grasses and native legumes. Truly a unique operation that we're sure you'll enjoy seeing.

Flinchbaugh Farm, Orchard and Farm Market is a fourth-generation multi-enterprise family farm in York Co. An extensive crop operation includes corn, soybeans, wheat, milo, snap beans, grass hay, pumpkins, sunflowers and buckwheat. In addition, a large orchard and

July 23,
2026

Flinchbaugh Farms and Orchard

Andy Flinchbaugh and Family
110 Ducktown Road
Hellam, PA 17406

produce fields supply the year-round farmers market which is part of the operation.

The programs for each are still being developed, but attendees can expect the usual combination expert presentations, farmer panels and field demonstrations.

Keynote speaker both days will be Egon Zunckel, internationally known advocate of the use of no-till and cover crops from South Africa. Since taking over the family farm in 1983, it has expanded to over 15,000 acres which he farms in partnership his two sons.

If there is a particular topic you would like to see addressed, please let administrative coordinator Jay Howes know at jhowes@pennag.com



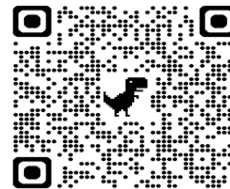
Photo: agriorbit.com

New for 2027: A Multi-day Mid-Atlantic Soil Health Conference

If you have never had the opportunity to travel to the National No-Till Conference, save the date for the new Mid-Atlantic Soil Health Conference planned for next winter! It will be held Feb. 24 & 25, 2027 in Harrisburg, PA.

This conference is being planned by farmers with early input from our Alliance and the Virginia No-Till Alliance as well as farmers from Maryland and New York. It is still in the early planning stages and you have the opportunity to help set the agenda and share the topics and speakers you would like to hear from.

The Alliance members have a lot of local knowledge and experience to share and it's to great to have this opportunity to develop the agenda for this exciting new conference.



Please consider sharing your thoughts by scanning the QR code.

Meet Your Board of Directors

Since its formation in 2005 the No-Till Alliance has attached significant value to maintaining a diverse board of directors representing varied agriculture enterprises, geographic areas of the state, age and experience, and types of equipment used. This provides valuable insight into the needs of farmers across the state when deciding program priorities.

That approach is reflected in the current board as described on pages 2 and 3.

Combating Slug Infestations with Integrated Pest Management

By Heidi Reed

(adapted from Lancaster Farming)

Now is the time to ward off slugs. We are a short few weeks away from corn and soybean planting, which means it's slug season. According to Penn State Extension farmers should know that managing slugs takes an integrated approach, so here are a few tips to consider when planting this year.

Plant crops at the appropriate soil temperature to allow faster germination and seedling growth. Smaller seedlings with slow growth are more vulnerable to slug feeding damage. Corn and soybeans need the soil to be 50 degrees F for three days (at planting depth) to germinate. However, the ideal three-day average soil temperatures should be 60 to 70 degrees for corn and 77 degrees for soybeans to achieve uniform stands. Waiting until soil temperature is optimum

can help crops, especially soybeans, outgrow slug damage.

Other research has shown that simply using row cleaners reduced the percentage of corn plants damaged by slugs. The row cleaners expose soil, allowing it to heat up faster, which speeds up plant growth. Additionally, it is important to pay attention to furrow closure. If the furrow isn't closed well, it can create a "slug highway," allowing slugs to easily feed on seeds and seedlings.

Finally, other data indicates that using starter or pop-up fertilizer can reduce the damage slugs cause to corn plants. With starter fertilizer, placement seems to matter with in-furrow and banded applications of ammonium nitrate reducing slug-damaged plants the most. Starter fertilizers get the plants growing and out of the ground quickly, and faster-growing plants experience less damage.

Study Shows Cover Crops Provide the Clearest Gains in Soil Health

A recently published study by researchers at the University Kentucky using data from 21 long-term field trials scattered across the United States, a multi-state research team has found cover crop use has the most impact on soil health.

The team examined trials ranging from four to 50 years old, all built around soybean-based cropping systems, and focused on the top 15 centimeters of soil. They compared the study compared four of the most common management decisions a farmer can make: crop rotation, tillage, cover cropping and artificial drainage. It then measured a suite of soil-health indicators tied to everything from biological activity and

soil structure to nutrient levels and pH.

When the numbers were analyzed, cover crops were the practice most consistently linked to improvements — specifically, higher levels of mineralizable carbon and water-extractable organic carbon, two markers that tell scientists the soil's microbial community is active and its carbon cycle is functioning well.

It was noted in the report that this research tracked soil-health indicators, not yield or profit. It couldn't say directly whether the improvements they measured translate into better harvests or higher bottom lines, though noted that a growing body of parallel research is making that connection.

2026 Board of Directors

President — Jim Hershey

Jim is perhaps the most well-known member of the board since he was a founding member and has served as president for many years. He and his team farm in Elizabethtown, Lancaster Co., producing primarily corn, soybeans and wheat. In addition the farm includes 6 boiler houses and a hog finishing bar.

Over the past 30 years he has steadfastly implemented numerous soil health practices on the farm and was most recently awarded the prestigious Leopold Award for Conservation excellence.



Vice-President – Dean James

Dean, another long serving board member recently retired from managing Cotner Farms in Danville, Northumberland Co. A variety of crops are grown with the emphasis on corn and soybeans and some small grains. Since Cotner Farms is affiliated with Boyd Station, a facility specializing in processing organic soybeans and other grains, in recent years Dean has been experimenting with various techniques to produce organic soybeans using no-till practices.



Secretary/Treasurer – Andy Flinchbaugh

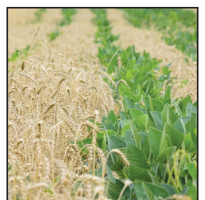
Andy and his family operate a fourth-generation multi-enterprise family farm in York Co. An extensive crop operation includes corn, soybeans, wheat, milo, snap beans, grass hay, pumpkins, sunflowers and buckwheat. He has been practicing inter-seeding for many years.

In addition, a large orchard and produce fields supply the year-round farmers market which is part of the operation which brings that perspective to the board.



Ron Carter

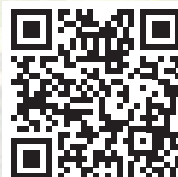
Ron is a fairly recent addition to the board and since his farm is in Washington Co., he brings his experience with southwestern PA soils and growing season to the board. He was one of the earliest adopters of no-till and cover crops in his area, so his farm is often used for both demonstration and research purposes.



Need Some Advice?

Would you like guidance on setting up equipment or selecting a specific cropping system? We encourage you to contact any of the directors by scanning the QR code.

Each profile includes details on their cropping experience and equipment models to help you find the person who best meets your needs.



2026 Board of Directors

Ryan Graham

Currently the longest serving board member from one of Pennsylvania's most western counties, Butler, Ryan, the brings perspective of the unique challenges faced by farmers using no-till practices in that part of the state. He converted his home farm to no-till when he returned from college, started a custom farming enterprise that at its peak planted 3,600 acres of corn a year and now farms 100% no-till and cover crops on over 1,600 acres of owned and rented ground.



Gordon England

Representing the central counties of PA is dairy farmer Gordon England. He is part of a multi-family operation encompassing 3 generations and 15 family members, where they farm over 1,600 acres and milk 1,400 cows.



As a result, Gordon recognizes the importance of maintaining healthy soils and crops. Every acre is cover-cropped, both for building soil health and for increasing the amount of forage available to feed the large milking herd and equal number of replacements.

Leroy Bupp

A founding member of the No-Till Alliance, Leroy farms in York Co. and is gradually transitioning the day-to-day responsibilities of the operation to his grandson Caleb Bacha. Leroy began farming with a dairy operation and openly admits that he initially shifted to no-till over 50 years ago for time and labor saving reasons. "We didn't know what soil health even meant back then." However, he soon learned the value and soon after incorporated cover crops as well.



Leroy is known to many for his homemade device for demonstrating the water retention value no-till brings and the entertaining presentation he has built around it.

Jeff Frey

Another veteran over 50 years of no-tilling Jeff owns a farm operation in Lancaster Co. with his wife Susan that grows a variety of small grains along with corn and soybeans. The farm also does custom manure hauling and includes a 4,000-head hog finishing operation.



He has now transitioned management to his son Ross and nephew and long-time employee Jeremy Railing. Interestingly, neither of them has ever plowed or disced an acre in their life which is a testament to Jeff's dedication to and faith in, a no-till/cover crop management system.

Ben Peckman

Ben, from Franklin Co., also brings the perspective of a dairy farmer to the board, but in addition he has also experience with rotational grazing beef cattle on his cover crops. Always experimenting, he has recently added growing commodity grade sunflowers, both as a cover crop and for marketing purposes to his crop rotation.



His critical thinking approach to issues is always a valuable addition to board discussions.

David Hunsberger

As both a farmer and an employee of King's AgriSeeds, David provides a wealth of knowledge on choosing various cover crop mixes to fit specific situations. Thus, he is often seen discussing the cover crop demonstration plots at the Alliance field days.



On his farm he has transitioned from dairy to feeding beef cattle for a specialty market and raises corn, barley, wheat and both grain and forage sorghum. As one might expect he uses as many as a dozen different species in his cover crop mixes.

Matt Ulmer

From Centre Co., Matt brings young eyes and perspective to the board. Growing up on a dairy farm, Matt, soon found his passion was for cropping healthy soils. He currently grows corn, mixed hay, small grains and soybeans on rented acreage in the State College area. The father of two young sons, he says one of his biggest joys is educating the next generation of farmers about the importance of healthy soils.



William Thiele

Another of the younger board members is William Thiele who has a dairy and crop farm with his parents and brother in Butler Co. William is enthusiastic about their experience with no-till and cover crops and always willing to tell that story to other farmers, students and the general public.



William is also known locally as the "drone guy" and has used his drone for everything from crop scouting on their farm to covering community events to locating their neighbor's lost calf.

John C. Johnson

John joined the board in 2025 after being an active member of the Alliance for many years. He has been using no-till and cover crops for nearly 40 years on his York Co. farm and on additional acreage in Maryland. An early proponent of rolling down covers, he brings a wealth of practical experience on various soil types to board participation.



Associate Director – Lisa Blazure

Lisa wears several hats as the PA Soil Health Coordinator for the Stroud Water Research Center including serving as an associate director of the Alliance. Previously, as part of the Clinton Co. Conservation District staff she served for many years as a director. Not only does she bring a depth of knowledge about soil biology to board programming, but she serves as a valuable liaison with other soil health focused groups in PA.



Our Mission

To promote the successful application of no till, cover crops and other soil health principles through shared ideas, experiences, education and new technology, resulting in improvements in soil health, water quality, productivity, and profitability for future generations.



Pennsylvania No-Till Alliance
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Harrisburg, PA 17112

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FOOD FOR THOUGHT

Regenerative Agriculture Market Size to Grow to \$37.44 by 2035

A recent analysis by a leading predictor of economic trends predicts that the regenerative agriculture product market, currently valued at \$9.83B will reach \$37.44B in the next ten years.

The report cites the primary factor behind the expansion of the regenerative agriculture market is the strong demand among consumers for food produced in an environmentally sustainable manner and with minimal chemical inputs. Additionally, an increasing number of studies confirm the connection between healthy soil metrics and the nutrient density of the product produced.

The market will also be driven by government policies and corporate initiatives to adopt sustainable business strategies

Finally, due to increased awareness of the importance of soil health, farmers have also accelerated implementing regenerative agriculture practices including rotational cropping, no-till, cover crops and bio-diversity. This is predicted to increase both the supply and the diversity of crops falling into the regenerative category.