

# Impact Report

Growing together in 2022





## A note from Hannah

It may not surprise you to learn that 70% of Pasa's staff and board have either worked as farmers in the past or are actively farming now. The collective knowledge and passion that comes from that experience allows us to truly meet farmers where they are. We understand the delicate balancing act of trying to grow the best food possible, steward the land, and do right by our communities, all while trying to earn a living.

Connecting with farmers out in the field is the work we love—the work we live for. That's where we learn and grow together, that's where we measure our impact, and that's where these stories come from.

But behind every story from the field, there are also untold hours of work done at our desks. From planning events to analyzing data, our dedicated team accomplishes so much work that may not be as visible, but it's absolutely essential to the farmer-focused services we provide.

Thank you for supporting our work, out in the field and at our desks, and for helping us grow a brighter future for our farms and communities. Let's keep growing together.

Hannah Smith-Brubaker  
Executive Director, Pasa Sustainable Agriculture

Pictured on the cover:  
Lauren Todd, Ash Phillips, and Nina Berryman  
at Weavers Way Farms in Northwest Philadelphia

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## PLANTING ROOTS OF RESILIENCE

# When it comes to fighting climate change, nothing beats trees

Agroforestry predates what many consider the agricultural revolution. Like most climate-smart farming practices, it has its roots in Indigenous knowledge that emphasizes growing in harmony with natural systems. Over the centuries, subsequent agricultural movements have emphasized efficiency above all else, and we've grown accustomed to farms as vast open fields—many without a single tree.

But a new generation of land stewards is embracing the power of farming with trees, and a different kind of agricultural revolution is taking root.

Many farmers in our community have been leading the way in agroforestry in recent years, developing acres of **silvopasture** systems that incorporate trees with livestock to provide cooling shade, watershed protection, and in many cases additional forage or revenue streams.

This year the three farms participating in our Alley Cropping Project collectively incorporated 725 trees and shrubs on their operations. **Alley cropping** involves planting perennial or annual crops in "alleys" between rows of trees. We held field days at each of these sites to demonstrate the versatility of this climate-smart—and business-smart—practice to other farmers.

While all three farms in our Alley Cropping Project are located in Eastern and Central Pennsylvania, thanks to investments from leaders in the Western part of the state we've been able to expand this work into that region as well. Our new agroforestry project manager is working with 12 farms in Western Pennsylvania eager to embark on alley cropping and silvopasture projects to keep growing this movement.



Weavers Way Farms' alley cropping plan involves adding perennial veggies to boost productivity on their existing urban orchard in Northwest Philadelphia. They're also expanding their lineup of popular fruit tree varieties.

Farmers interested in agroforestry gather for a field day at Good Work Farm in Northampton County, Pennsylvania, one of three farms serving as demonstration sites for the benefits of alley cropping in the state.



## We're nuts about agroforestry.

Leaves devour carbon dioxide and provide cooling shade. Deep roots strengthen the soil, helping farms withstand the increasing extremes of drought and heavy rain. And many trees produce valuable fruit, nut, and floriculture crops that are in high demand.

## While conventional livestock farms require pollution mitigation, grazing operations can be part of the climate solution

Over the past decade, the dairy industry in Pennsylvania, one of the largest in the U.S., has experienced historic decline. However, increased consumer demand for grass-fed products and efforts to restore the Chesapeake Bay Watershed have set the stage for a thriving regenerative dairy market in the region.

We've forged partnerships across the Mid-Atlantic and Northeast to help local farmers benefit from and grow this movement. From experienced graziers seeking a better price for their milk, to conventional farmers only beginning to think about how grazing might support their operation, our Dairy Grazing Project is helping farmers learn from one another about best practices for managed grazing and find a more secure path toward financial viability.



Hamilton Heights Dairy Farm in Franklin County, Pennsylvania



### What's all the hoopla about rotational grazing?

Long rest intervals allow soil and forage to recover. This creates resilient, perennial pastures that can keep the herd fed, protect waterways by reducing nutrient runoff, and stand up to extreme weather.



#### "I was ready for a different way of farming,"

Aaron Lantz told attendees at our Dairy Grazing Project pasture walk, explaining his decision to transition from a conventional confined dairy operation to a rotational grazing system.

Attendees had the chance to tour Lantz's 100% grass-fed dairy in Lancaster, Pennsylvania. Sue Ellen Johnson of Team Ag Inc., a Dairy Grazing Project partner, used a hula hoop to select random parts of the pasture to examine forage diversity, nutrient availability, and soil health.

## From labor issues to climate change to urban agriculture, we seek the wisdom of the people who steward our land

We recently visited two local farms with workers in the H-2A visa program, designed to fill employment gaps on U.S. farms with temporary agricultural workers from other countries. H-2A workers at Spiral Path Farm expressed deep gratitude for being able to participate in the program. They described finding a job back home in Honduras as “muy muy difícil.” They enjoy the work at Spiral Path and described the atmosphere on the farm as being part of a family.

They also shared challenges. Being far from home for a large part of the year takes an emotional toll. “There’s no doubt about it. These guys sacrifice. I can’t imagine being away from my kids for nine months out of the year,” said farm owner Will Brownback.

The farmworkers also spoke about experiencing discrimination from some members of the surrounding community. One farmer described being asked to show his passport at a local grocery store. “No toda la gente, pero...”

At Chicano Sol, we met with farm owners Jarrah and Augustin Cernas and their four H-2A workers, who are also their nephews. Jarrah echoed the issue of farmworkers from other countries experiencing racism and discrimination in the local community. She described her family often being noticeably stared at when they go out into the community.

“I want to say to those people, you wouldn’t be able to eat today if it weren’t for these guys. Our country is sadly misinformed if they think we can survive without immigrant labor.”



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Jarrah Cernas, Chicano Sol Farm

Pasa staff along with Pennsylvania legislators and officials hear from the crew at Spiral Path Farm



Chicano Sol Farm in Perry County, Pennsylvania



The H-2A crew at Spiral Path Farm



Thistle Creek Farms in Huntingdon County, Pennsylvania

LISTENING TO FARMERS

## A farm family shares their climate impact story

**“It was a tough year,”** George Lake said of rain-drenched 2018 that flooded fields across the region and left Thistle Creek caked in mud. “What really killed us though...was no sunlight. We really are farming sunlight.”

Pasa staff visited the Lake family at Thistle Creek Farms in Huntingdon County, Pennsylvania, where they graze cattle and sheep for meat and prioritize the health of both the animals and the soil.

The farm’s holistic approach has created a resilient system that helped them weather that tough year better than some of their neighbors. Water infiltration tests of the farm’s perennial pastures indicate their soil can absorb up to 12 inches a day, unlike neighboring lands, whose bare soil washed onto their property. But with tougher years in forecast, they’re going to need more support.

LISTENING TO FARMERS

## Urban agriculture grows more than food

This year we opened an office in Philadelphia to better connect with our community of farmers and food system changemakers in the area. Our summer interns Sha’mir (Mir) Ravenell and Abdalee (Abby) De Castro visited farms and gardens across the city learning about the specialized knowledge and unique challenges of urban growers.

**“I always say, it’s horti-culture,”** Iris Brown, a founding member of the Norris Square Neighborhood Project, told Mir and Abby. For 50 years, the project has worked to protect their gardens from pressures like crime and property development, and maintain safe green spaces for cultivating food, medicine, and art. They also provide youth education, and preserve history and heritage for the Puerto Rican community in this North Philadelphia neighborhood.



Novick Urban Farm in South Philadelphia



Norris Square Neighborhood Project in North Philadelphia

**“I always say, it’s horti-culture.”**

**Iris Brown, Norris Square Neighborhood Project**

## Widely revered farmers share their knowledge with the next generation during a special field day at their “bucket-list farm”

Anne and Eric Nordell have been Pasa members since our founding in 1992. Over the years they have become enthusiastic participants in all three of our farm-based research studies, and have pioneered highly regarded organic soil, weed, and farm management strategies. The Nordell's are always eager to share their knowledge with the sustainable agriculture community. Their article, “Weed the Soil, Not the Crop,” has become required reading for all our Diversified Vegetable Apprentices.



Left to right:  
Pasa's Sarah  
Bay Nawa,  
Eric Nordell,  
Anne Nordell,  
Pasa's Lisa  
Miskelly and  
Dan Dalton



Beech Grove Farm in Lycoming County, Pennsylvania

This year, apprentices, pre-apprentices, journeyworkers, and their mentor farmers, all got a chance to take an up-close look at these unique systems in action on the Nordell's six-acre, draft-horse-powered diversified vegetable operation, Beech Grove Farm in Lycoming County, Pennsylvania.

Farmers in training and experienced farmers alike marveled at the Nordell's pest-free brassicas—pristine leaves of kale and massive stalks of broccoli. Pasa's Lead Research Coordinator, Sarah Bay Nawa, reviewed the results of the farm's individual Soil Health Benchmark Study data and demonstrated soil

sampling techniques, giving participants a chance to get their hands in Beech Grove's remarkable soil.

**“It's especially exciting that many of our pre-apprentices could be here,”** says Pasa's Associate Director for Farmer Training and Development, Dan Dalton. “The goal of this program is to clear pathways into careers in agriculture for people who don't necessarily have a background in it. Our pre-apprentices may not have grown up on a farm, but now they can say, I've been to Beech Grove.”

GROWING TOGETHER

“It was so rewarding to see all these farmers in training together—sharing their challenges and goals. Connecting and learning from one another. And to be able to gather on such a special farm... This was a once-in-a-farming career moment I’ll treasure.”

Lisa Miskelly, Pre-Apprenticeship Manager



CLOCKWISE, FROM LEFT: Eric Nordell shares Beech Grove’s Soil Health Benchmark results. Participants and graduates of Pasa’s Diversified Vegetable Apprenticeship and Pre-Apprenticeship gathered along with mentor farmers, training partners, and Pasa staff at Beech Grove Farm in Lycoming, County Pennsylvania. Eric Nordell guides Amirah Mitchell, owner of Sistah Seeds, as she takes a turn driving Beech Grove’s draft horses, Cindy and Sue.

## Measuring nutrients in crops helps farmers ensure they're growing the healthiest food possible for their customers

The concept of nutrient-dense food has been growing in popularity for decades, but how do we actually define and quantify it? Several farms participating in our Soil Health Benchmark Study are collecting additional soil and crop samples to help us explore how factors like variety, land management practices, and growing climate can impact nutrition content.

Preliminary data is already proving to be a helpful decision-making tool for our farmer research collaborators. One farmer in the study recently switched from their once-favored variety of golden beet, after seeing its drastic lack of antioxidants compared to other varieties. Another farmer is digging into the impact of management practices with two trial kale fields to see whether reducing tillage in one field has an impact on nutrient density.



Pasa's OpenTEAM Research Fellow Jeanne Lurvey collects soil samples from squash at Spiral Path Farm in Perry County, Pennsylvania



### Without skipping a beet

We're working with labs that specialize in measuring the presence of key compounds like antioxidants, as well as mineral content of elements like magnesium, calcium, potassium, and iron.

# By the numbers

## GATHERING IN THE FIELD

In addition to our annual Sustainable Agriculture Conference, we held **40+ events** for over **1,000+ participants** this year. The majority of attendees were farmers, and we designed many events specifically for participants in our farmer training programs.



## GROWING NEW FARMERS

The **3 graduates** who completed our two-year Diversified Vegetable Apprenticeship in 2022 bring our total number to **12 beginning farmers** who got their start with this program.

Diversified Vegetable Pre-Apprenticeship works with **8 training partners** in rural and urban sites across Pennsylvania. So far the program boasts **6 graduates**, and there are currently **53 active pre-apprentices** learning the fundamentals of sustainable vegetable farming.



## MORE TREES PLEASE

We partnered with the **Keystone Ten Million Trees project** to distribute native trees all over the state. We gave away **10,000 trees** to over **80 farms, families, and individuals**—all claimed in **8 hours!**

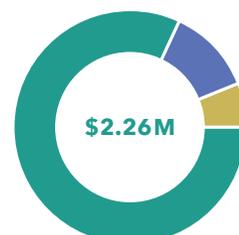


## A SNAPSHOT OF OUR FINANCIAL HEALTH (FY 22)



### Funding sources

- 71%** Grants & Awards
- 16%** Individual Contributions & Dues
- 6%** Events
- 7%** Sponsorships & Underwriting



### How we spend our funds

- 82%** Programs & Services
- 12%** General & Admin
- 6%** Fundraising



# A look at the year ahead

The support you have given us to help farmers on the ground in Pennsylvania has set the stage for us to grow a broader movement with farmers across the Mid-Atlantic and Northeast.

We work hard to multiply your investment through grant support for the programs you value. This year we were honored to be awarded two major USDA grants totalling nearly \$90M. We're thrilled to report that the majority of these funds will go directly to farmers, with the remainder helping us provide technical support responsive to their needs.

Here are a few things we'll be working on in the coming year:

- Deepening our soil health research to unearth the best practices for sequestering carbon
- Expanding our technical support for climate-conscious farmers across the Mid-Atlantic and Northeast
- Extending pandemic relief to frontline farm & food workers in 14 states
- Lifting the voices of sustainable farmers for the 2023 Farm Bill reauthorization
- Digging into technical assistance and training for urban farmers and growers
- Gathering in the field to keep learning and growing together

We hope you'll join us.

**Learn how you can support this work: [pasafarming.org/impact](https://pasafarming.org/impact)**

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