

## Summary & Resources - Apostles Garden October 2024 OAK Farmer Field Day



### Growing On Principles: Soil Health, Farmer Health and Community Health

#### Event Summary

The soil, the farmer and the community are interconnected for Jackson Rolett. Paying attention to changes and needs, adapting practices and efforts based on the learnings over time and working towards healthy outcomes allows his family's market garden to thrive - from the roots and micro-organisms belowground to the supporting ecosystems aboveground to the greater community the garden serves. [Apostles Garden](#) is a ½-acre vegetable farm on the family's church grounds that serves Bowling Green's Community Farmers Market, church members, the Rolett family, a pair of part-time staff and various community needs. At this Farmer Field Day, Jackson shared his strategies for and experience creating efficient systems of year-round vegetable production; developing and maintaining conservation practices in and around the garden; supporting work-life balance with part-time, collaborative farming and treating a labor of love as a business that is healthy and profitable.

#### Production and Potential

Jackson broke ground at Apostles Garden in May 2023 using a process he repeats for all new garden beds or production plots:

- Soil testing to inform his fertilizer needs
- Laying UV-treated silage tarps to kill sod and perennial weeds
- Applying mineral amendments and micronutrients per the soil test results
- Incorporating amendments with an initial tillage (the sole mechanical tillage in his soil)
- Replacing the tarp (ideally after a rain or irrigation) to deplete weed seeds raised in the tillage
- Adding amendments for macronutrients
- Broadcasting cover crop seeds
- Once the cover crop is [terminated](#), finishing the beds with a broadfork and a tilter for minimal soil disturbance.

In the following year and a half, Jackson worked strategically, one field block at a time, to build his production space. Each field block is 100 feet x 50 feet and includes two garden plots of 10 crop beds, each 3 feet wide with 2-foot-wide walkways between them. This standardization allows space for the farmers to maneuver between beds, while providing a consistent size for irrigation, row cover, tarps and related materials. Jackson lays landscape fabric along the main irrigation line (which feeds every bed's two or three driplines) to reduce weeds, easily spot leaks and reduce the risk of accidental mowing of irrigation lines. The surrounding grass area is managed by mowing to keep the garden tidy and the weeds to a minimum. The walkways in the fields are managed with hand mowing and a wheel hoe.

Jackson uses caterpillar tunnels instead of larger high tunnels to avoid permanent structures on this leased land, to reduce labor for ventilation and management and to match the standardized size of his field blocks. These 4-foot-wide tunnels are 4 feet apart, and landscape fabric is laid between them for weed management. The ridge pole of each tunnel extends a foot beyond the tunnel, providing space to accommodate eventual "scissor door" end walls for winter production. A strap attaches the ridge pole to a ground auger to brace the tunnel in the event of a severe wind storm.

Jackson avoids using compost after a devastating application at a previous farm introduced persistent chemical herbicides to his soil. Instead, he uses targeted fertilizer applications to meet crop nutrient needs, cover crops to increase organic matter, living roots to maintain soil biological processes and crop and cover crop residue as "mulch" to suppress weeds. These practices combine to support the living biology in the soil that supports his crop health. When soil tests indicate nutrient needs, Jackson (who prefers [Logan Labs](#)) may add rock phosphate, sul-po-mag, boron, zinc, copper, combined NPK [fertilizer](#), azomite or biochar, depending on the need and always within lists of materials approved for organic certification, such as the [Organic Materials Review Institute \(OMRI\)](#).

While Apostles Garden is not certified organic, Jackson works with OAK's [Organic Transition Specialists](#) to maintain and confirm his practices as he develops the farm's production systems and considers certification within the farm's current and future marketing plans. Representatives from the Kentucky Department of Agriculture's (KDA) [Organic Program](#) joined Jackson's Field Day to elaborate on regulations and share support for OAK's educational services for farmers in transition or curious about certification. OAK's Organic Specialist Kenya Abraham invited farmers interested in transitioning their operation to organic certification to learn more about OAK's [Organic Farmer Mentorship](#), and she shared details of OAK's involvement in USDA's [Midwest Transition to Organic Partnership](#) (TOPP).

### Conservation Considerations

Jackson implements multiple conservation practices within and surrounding his garden plots and is exploring technical and financial assistance with the USDA's Natural Resources Conservation Service (NRCS). NRCS offers technical support for a multitude of practices, like [cover crops](#) and [residue/reduced till or no-till practices](#). When applying cover crops within NRCS standards, farmers must consider seeding rates and accurate [termination timelines](#) to complete contracts and receive reimbursements. No-till practices are also eligible for NRCS cost-share payments in small-scale production using a broadfork and tilter like Jackson's and for larger, mechanized systems. NRCS offers technical assistance with system designs and cost-share payments for [micro-irrigation](#) practices similar to Jackson's caterpillar tunnels. Jackson is also considering [pollinator stands](#), [hedgerows](#) and

[field borders](#) for Apostles Garden as he works to enhance the farm's ecology, build soil health and distinguish the garden aesthetically as a separate but interconnected piece of the church grounds.

Recognizing that agriculture can look very different on small-scale garden plots and large-scale farmscapes, NRCS practice standards and resources support a variety of practices, some with financial assistance based on per-acre or square-foot benefits. To determine which practices fit your land or farm needs, reach out to [OAK's Conservation Outreach Coordinator](#), Mad Marchal at [mad@oak-ky.org](mailto:mad@oak-ky.org), or [contact a local NRCS office](#).

## Gratitude

OAK is grateful to Jackson Rolett, his family and the crew at Apostles Garden for their time and efforts for this Field Day, to USDA's Natural Resources Conservation Service (NRCS) for providing essential participant support and conservation guidance, to KDA's Organic Program and to all the farmers and ag professionals who took time out of their busy schedules to share in the learning and conversation.

*This event was supported by a cooperative agreement with the U.S. Department of Agriculture (USDA)'s Natural Resources Conservation Service (NRCS).*

## Related Resource Links:

OAK Resources:

- [Annual Organic Farming Conference](#) - Save the date for OAK's 14th Annual Organic Farming Conference, *Grounded In Organics: From Soil To Market*, January 23-25, 2025, at Kentucky State University's Harold R. Benson Research and Demonstration Farm in Frankfort, Kentucky.
- [Conservation Outreach](#) - This program provides one-on-one assistance for Kentuckians interested in adding conservation practices to their land or farm management. From urban gardens to rural farmscapes, woodland owners to tenant farmers, OAK's Conservation Outreach Coordinator can assist Kentuckians in creating an individualized conservation plan and navigating the process for technical or financial assistance from the Natural Resources Conservation Service (NRCS).
- [Soil Health and Climate-Smart Project](#) - Build soil health and improve on-farm resilience. Enrolled farms have access to direct technical and educational resources and receive incentive payments from implemented climate-smart practices. Learn more; stay tuned for future enrollment opportunities!
- [OAK Farmer Field Day Resources](#) - Hosted on working farms, these events highlight organic practices used in crop and livestock systems and best practices in production, marketing, business and resilience on Kentucky farms. Learn from past event resources, and watch for 2025 events.
- [Organic Production Assistance Program](#) - The organic production consultation services provide dedicated organic technical assistance to Kentucky commercial farmers who are currently using or interested in adopting or expanding organic practices.

- [OAK Transition Program](#) - Organic Transition specialists assist farmers who are interested in transitioning to USDA-certified organic production. Organic Specialists are available for one-on-one consultations, providing a personal level of service and technical assistance on-site, at the farmer's convenience.
- [Join OAK today!](#) The sustainable food and farming network in Kentucky is growing, and together, we can create a thriving local food system. Your support and participation helps OAK deliver educational programming, provide community outreach and enhance market opportunities for growers across Kentucky! Receive discounts on OAK events and other member benefits!
- [Sign up for OAK newsletters](#) - For farmers and consumers, OAK offers a variety of regular communications to stay connected to Kentucky food and farming news, research and events.
- [OAK YouTube](#) - View recordings, snapshots and lessons learned from host farmers in past conference and field day playlists.
- [Suppliers and Farm Resources](#) on OAK's Find-A-Farm Directory.

#### Climate-Smart Agriculture Resources:

- [Soil Health and Climate-Smart Project](#)
- [Climate-Smart Practices](#)

#### Soil Health Resources:

- Soul Fire Farm's [How Alive Is My Soil?](#)
- [Cornell Soil Health Manual](#) - Cornell University's College of Ag and Life Sciences
- [Building Soil Health in the South](#) - Organic Farming Research Foundation (OFRF)
- Cover Crops
  - [Cover Crops for Sustainable Crop Production](#) - Sustainable Agriculture Research and Education (SARE)
  - [Managing Cover Crops Profitably](#) and [Building Soils for Better Crops](#) - SARE
  - [Covers Under Cover: Managing Cover Crops in High Tunnels](#) - University of Kentucky et al
    - [Cool-Season Cover Crops for High Tunnels in the Southeast](#)
    - [Warm-Season Cover Crops for High Tunnels in the Southeast](#)

#### Crop Production Resources:

- [General Production Resources | Center for Crop Diversification](#)
- [Organic Agriculture | Center for Crop Diversification](#)
- [Crop Rotation on Organic Farms | SARE](#)
- [Community Supported Agriculture \(CSA\) Production Manual](#) of the Organic Farming Unit at the University of Kentucky
- Some of Jackson Rolett's favorite tools and suppliers:
  - Hoss [Wheel Hoe](#)
  - Farmer's Friend
    - [Caterpillar Tunnel](#)
    - [Silage Tarps](#)
  - Meadow Creature [Broakfork](#)
  - Johnny's [Tilther](#)

## Funding /Technical Assistance Resources and Service Providers:

- Kentucky Center for Agriculture and Rural Development ([KCARD](#))
  - Free [business planning](#) for Kentucky farms and agribusinesses
  - [Funding assistance and grant information](#) (Kentucky and beyond)
  - Sign up under “GET UPDATES” on [KCARD website](#) to receive e-newsletters
- U.S. Department of Agriculture (USDA)
  - Read this first! [A Guide to USDA Resources for Historically Underserved Farmers](#)
  - USDA [Farm Service Agency \(FSA\)-Kentucky](#)
    - [How to Start a Farm: Beginning Farmers and Ranchers](#)
    - Find your county’s office in [West Kentucky](#) or [East Kentucky](#)
  - [USDA Natural Resources Conservation Service \(NRCS\)-Kentucky](#)
  - [USDA’s Rural Energy for America Program \(REAP\)](#)
- Kentucky Department of Agriculture (KDA)
  - [Organic Marketing Program](#)
  - [Grants and Funding Opportunities](#)
- Grants:
  - Kentucky Horticulture Council
    - [Small-scale On-Farm Water Management Grant](#)
    - [GAP \(Good Agricultural Practices\) Cost-Share Program](#)
  - [SOAR loan](#) - southern and eastern KY
  - [KSU Small-Scale Farm Grant](#)
  - [County Ag Investment Program \(CAIP\)](#) grant: county-specific! Ask your County Cooperative Extension Agent