NO-TILL ORGANIC MARKET GARDEN

Producer Case Study

Building a Living System

The Story of Samantha Starkey, Steven Starkey, and Starkey Farmstead

St. Helena Parish, Louisiana



USDA United States Department of Agriculture
Natural Resources Conservation Service

NO-TILL OMG! Organically Managed Gardening

CAMP 1 Field of DREAMS

Producer Profile

Building a Living System

When Samantha and Steven Starkey purchased their two-acre property in rural St. Helena Parish, they weren't looking to build a conventional farm—they were looking to build a life.

Like many families during the uncertainty of the COVID-19 pandemic, they began thinking differently about food, health, and self-sufficiency. What started as a desire to produce food for their family quickly evolved into a larger vision rooted in stewardship, resilience, and community.
"We wanted something that could sustain not only our family, but our community," Samantha explained.

With no formal farming background, Samantha immersed herself in books, online classes, and hands-on experimentation. Her passion for learning and sharing knowledge eventually led her to co-author Growing Under a Poisoned Sky alongside Leslie Brandt Olsen. When she learned about the No-Till Organic Market Garden project, she recognized an opportunity to deepen that knowledge while connecting with a broader community of regenerative growers.

The project provided technical assistance, soil health education, and farmer-to-farmer learning opportunities that helped turn their vision into reality.

At Starkey Farmstead, farming quickly became about more than growing vegetables. The family began building what Samantha describes as a "sustainable loop system" where animals, plants, microbes, and people all contribute to the health of the larger ecosystem. Rabbits, chickens, quail, compost, worm castings, biochar, cover crops, and mulch became interconnected parts of a living system designed to reduce waste, improve soil health, and produce nutrient-dense food.

Today, the farm is recognized as a Louisiana Agritourism Certified destination, creating opportunities to share regenerative agriculture, homesteading skills, and ecological stewardship with visitors from across the region.

The approach reflected a simple but powerful philosophy:

Healthy soil creates healthy plants.

Healthy plants create healthy animals.

Healthy animals help build healthy soil.

The result was a regenerative system that steadily reduced dependence on outside inputs while increasing productivity and ecological function.

"The animals feed the soil, the soil feeds the plants, and the plants feed the animals. Everything works together."

Learning Through Innovation

From Curiosity to Expertise

Like many participants, Samantha entered the project eager to learn.

What set her apart was the depth of curiosity she brought to every workshop, field day, and technical assistance visit.

Among all the topics explored through the project, one captured her attention more than any other: soil biology. Samantha became particularly interested in vermicomposting—the use of worms and microorganisms to transform organic matter into biologically active compost capable of improving soil structure, nutrient cycling, and plant health.

Her interest was influenced in part by her father, affectionately known as "Pawpaw Sammy," whose educational efforts through the Vermiculture & Family YouTube channel had already introduced thousands of gardeners and farmers to the benefits of worm-based composting systems.

The project gave Samantha an opportunity to deepen that knowledge through hands-on experimentation and collaboration with other producers.

Over time, she developed systems that integrated worm castings, compost, biochar, animal manure, cover crops, and heavy mulch into a comprehensive soil-building strategy.

Rather than purchasing fertilizers and soil amendments, the Starkeys focused on producing many of their own inputs directly on the farm.

As Samantha often explained, the goal was not simply to grow crops. The goal was to create a self-supporting ecosystem.

Lessons from Observation

- One of the most important lessons Samantha learned through the project was the value of careful observation.
- As soil health improved, she began noticing changes throughout the farm ecosystem.
- Bird populations increased.
- Butterflies became more abundant.
- Native plants began returning to areas previously dominated by conventional turf grass.
- The property became increasingly diverse and biologically active.
- For Samantha, these observations reinforced a principle that guides her approach to farming today:
- When soil health improves, the entire ecosystem responds.

Key Findings

- Developed integrated soil-building systems using compost, biochar, worm castings, and livestock manure
- Reduced dependence on purchased fertility inputs through closed-loop nutrient cycling
- Improved soil biological activity through continuous organic matter additions
- Demonstrated how small-acreage farms can become productive and economically efficient
- Became a resource for other producers seeking practical vermicomposting solutions

Building Healthy Soil

Letting Nature Lead

For Samantha Starkey, soil health is not a separate part of farming.

It is farming!

Every major decision at Starkey Farmstead begins with a simple question: What will improve the health of the soil?

Through the No-Till Organic Market Garden project, Samantha focused on practices that mimicked natural ecosystems rather than conventional agricultural systems. Compost, biochar, worm castings, cover crops, animal manure, and heavy mulch all became tools for rebuilding biological activity while reducing the need for purchased inputs.

The results extended far beyond the garden beds.

As soil health improved, the farm became increasingly diverse. Earthworms multiplied. Pollinators became more abundant. Native plants began returning to areas previously dominated by turf grass. Birds, butterflies, and beneficial insects became a daily presence throughout the property.

One of Samantha's favorite observations came from her father, who frequently visited the farm. At 83 years old, he often remarked that walking the property reminded him of his childhood in Louisiana. Unlike neighboring lawns managed as monocultures, Starkey Farmstead had become a thriving ecosystem filled with wildlife and biological activity. The improvements also affected crop health.

Samantha observed that healthy plants appeared more resilient to insect pressure and environmental stress. Rather than focusing on pest control, she increasingly focused on building healthy soil and allowing ecological balance to do much of the work.

Over time, the farm became living proof that small properties can support productive food systems while simultaneously restoring biodiversity and ecological function.

"If you'll get your soil healthy, you'll produce healthy plants and then you don't have to worry about pests."



Growing a Farm and a Community

Sharing Knowledge and Building Confidence

One of the most significant outcomes of Samantha's participation in the project was her willingness to share what she learned with others.

As her understanding of vermicomposting, soil biology, and regenerative production systems grew, she became an important resource for fellow participants navigating similar challenges.

During a period of extreme summer heat, many gardeners and farmers experienced difficulties maintaining healthy worm populations. Rather than keeping her knowledge to herself, Samantha hosted hands-on vermicomposting workshops at Starkey Farmstead, sharing practical solutions for managing worm systems under Louisiana conditions. Several project participants attended these workshops, while others benefited from a virtual presentation Samantha delivered as part of the No-Till Organic Market Garden educational program. Together, these efforts helped strengthen the farmer-to-farmer learning network that became one of the project's defining strengths.

Education quickly became one of Samantha's greatest contributions. Through social media, videos, demonstrations, and conversations with fellow growers, she helped make regenerative agriculture more accessible and understandable to beginning farmers. Her ability to explain complex biological processes in practical terms encouraged others to experiment, observe, and adapt their own systems.

While self-sufficiency remained the primary goal of Starkey Farmstead, surplus production occasionally generated income opportunities while increasing access to locally grown food within the community. Surplus vegetables were sold through local outlets, providing modest supplemental revenue for the farm.

Throughout the journey, Steven remained a steady partner behind the scenes. Whether constructing infrastructure, moving materials, caring for livestock, or helping tackle physically demanding projects, his support helped transform Samantha's vision into a functioning reality.



Samantha hosted hands-on vermicomposting workshops at Starkey Farmstead, sharing practical techniques for maintaining healthy worm populations during Louisiana's extreme summer heat. Several No-Till Organic Market Garden participants attended these educational events.

"One of the most rewarding parts of farming is sharing what you've learned with others."



Looking Forward

Growing a More Resilient Future

Today, Samantha and Steven continue refining the systems they have built at Starkey Farmstead.

Future goals focus on increasing self-sufficiency, further reducing purchased inputs, expanding educational outreach, and continuing to improve soil health through biological management practices.

One area of particular interest is eliminating the farm's final remaining external input: mulch. Through expanded cover cropping and on-farm biomass production, Samantha hopes to produce enough organic material to meet the farm's mulching needs without relying on outside sources.

The vision remains simple but ambitious: to demonstrate that even a small property can provide healthy food, healthy ecosystems, and meaningful opportunities for learning.

For Samantha, success is measured not only by harvests but by the health of the land, the quality of the food produced, and the knowledge shared with others.

"You don't have to keep up with the Joneses. You only have to be better than yourself. You only have to be better tomorrow than you were today."

Key Lessons Learned

- Healthy soil reduces dependence on purchased inputs.
- Observation is one of a farmer's most valuable tools.
- Small farms can be both productive and ecologically diverse.
- Closed-loop systems increase resilience and efficiency.
- Knowledge becomes more valuable when it is shared.

Key Themes from Samantha and Steven's Journey

- Self-Sufficiency
- Soil Biology
- Regenerative Agriculture
- Closed-Loop Systems
- Biodiversity
- Community Education
- Farmer-to-Farmer Learning
- Adaptive Stewardship
- Beginning Farmer Success

Closing Reflection

The story of Samantha and Steven Starkey demonstrates that regenerative agriculture is not defined by acreage. Through careful observation, continual learning, and a commitment to working with natural systems, they transformed a small two-acre property into a thriving example of ecological stewardship and self-reliance. Their journey illustrates how healthy soil can support not only productive farms, but healthier ecosystems, stronger communities, and a more resilient future.