



RODALE
INSTITUTE™

ORGANIC **CONSULTING**

CASE STUDY

REALITIES OF ORGANIC TRANSITION: CASE STUDY OF JUST SQUEEZE CITRUS LLC

De'Anthony Price
Organic Consultant, Rodale Institute

TABLE OF CONTENTS



SECTIONS

- 1 Acknowledgement
- 2 Summary
- 3 Farm Description & History
 - a Choosing Crop
- 4 Decision to Transition
 - a Considerations for Transition
- 5 Organic Practices Used
- 6 Experience in Transition
 - a Benefits
 - b Challenges
 - c Resources
- 7 USDA Organic Certification
 - a Status of Organic Certification
 - b Process of Organic Certification
 - c Advice
- 8 Markets
- 9 Conclusion

ACKNOWLEDGEMENT

This case study was funded by the generous support of the Southeast Transition to Organic Partnership Program (SE TOPP) from the US Department of Agriculture (USDA). The SE TOPP program is administered by Florida Organic Growers (FOG) and numerous partners across the region including Rodale Institute in Georgia.

SUMMARY

Herb Young is the owner and farmer of Just Squeeze Citrus, a six-acre farm in Coolidge, Georgia, where he grows ten varieties of citrus, totaling 1,350 fruit trees in a high-density planting. With a background in conventional agriculture, Herb discusses his transition to organic farming.

He emphasizes the importance of creating healthy soil systems to support the growth of nutritious food. Although farming organically in the Southeast presents unique challenges, Herb has remained committed to his mission throughout the process. This case study offers a firsthand account of Herb's journey to becoming a certified organic citrus farmer. It covers his background, decision to transition, organic practices used, and the benefits and challenges of the process. The study also highlights the resources Herb accessed, his current certification status, and advice he has for future organic farmers in the Southeast.

Herb Young was interviewed for this case study by De'Anthony Price and Jen Rose Silverman of Rodale Institute Consulting in September 2024, to discuss the impacts and realities of transitioning to organic farming in the Southeast.



A picture of Herb Young, Owner and Farmer of Just Squeeze Citrus LLC, showing his harvest on his organic citrus farm in South Georgia.

HISTORY & DESCRIPTION

ABOUT HERB YOUNG

Herb has been involved in the agricultural industry for over four decades. Although he did not grow up on a farm, he has developed strong connections within the farming community. While in college, Herb developed an interest in agricultural ecology, which led him to transfer to the University of Georgia's Agronomy Department. After gaining research experience and earning a master's degree in plant pathology, he entered the chemical agriculture industry. Herb spent nearly 25 years in field research roles, where agricultural research and crop production became second nature to him. Now in retirement from the industry, Herb is applying the knowledge he gained throughout his career to a new venture: growing organic citrus. After years spent developing pesticides in the conventional agricultural industry, Herb's dream of becoming an organic farmer has come to life. "I went out and bought a small farm that is surrounded by [a] cotton and peanut farm. [It is a] very small farm, about six acres [and] 1,300 trees, about ten different varieties."

CROP SELECTION

When deciding what crop to grow, Herb chose citrus. He explained, "Several changes in production practices have allowed growers in south Georgia to successfully grow citrus: microjet irrigation under every tree, more cold-hardy rootstocks, and slightly warmer weather. There are 150 growers in Georgia, and we're able to produce beautiful fresh fruit that Florida struggles to grow due to the infestation of HLB or Greening." Historically, south Georgia has been known for crops like cotton, peanuts, pecans, and vegetables. However, the citrus industry in Georgia has seen significant growth since the introduction of Satsuma mandarin trees in 2013. "With the fresh fruit market rapidly expanding due to Satsumas, I decided to grow a variety of citrus, including Cara Cara navels, Page mandarins, Honeybells, four varieties of grapefruit, blood oranges, and Shiranui."

Satsumas, which are smaller than Navel oranges, are cold-tolerant down to 15 degrees Fahrenheit. They are also easy to peel and seedless, making them very popular. In 2013, Georgia had around 4,500 commercial citrus trees. Today, that number has grown to more than 390,000 trees, covering about 2,700 acres across 45 counties. Satsumas now account for approximately 85% of the state's citrus production.



A picture of Page mandarin variety growing on Herb Young's farm, Just Squeeze Citrus LLC, in South Georgia.

DECISION TO TRANSITION

Deciding to farm organically is a significant commitment, and it's not a decision everyone chooses to make. For Herb, however, becoming an organic farmer was a no-brainer.

He explained, “So I started my grove completely, regeneratively, and organically from the start. I decided that organic was really an option when I started exploring it and looking into the research. With my research background, I was absolutely floored by the amount of research that had gone into not only organic practices but regenerative practices as well. And I really decided that’s what I wanted to do.”

When deciding to own a farm, Herb knew he wanted to focus on soil health. With the intention of avoiding synthetic inputs, his goal was to become a regenerative organic farmer. As he put it, “So becoming a regenerative organic farmer was my goal.” Regenerative organic farming is a holistic approach that goes beyond simply avoiding synthetic chemicals and fertilizers. It focuses on regenerating and enhancing soil health, biodiversity, and ecosystem services, while promoting social equity and sustainable economic practices. Through the use of regenerative organic methods, Herb has seen significant results over the years. He explained, “It’s been the last three and a half years of restoring the soil, bringing it back to a stable life in the soil.”



A picture of Squeeze Citrus farm, showcasing rows of citrus trees spread across the six-acre property in Coolidge, Georgia .

Herb spent his career promoting the use of synthetic chemicals in the agriculture industry, with a focus on supporting farmers. However, over time, he began to question whether the products he was promoting were truly helping farmers and fostering environmentally sound practices. He reflected, “We sincerely felt in the pesticide industry that we were helping farmers and trying to feed the world. Farmers had severe pest problems, and that’s what we were trying to solve—without realizing that these pest problems were actually a result of the very agricultural practices they were using, such as tillage and synthetic fertilizers destroying life in the soil. In reality, all those pesticides were just compounding the pest issues.”

While pesticides are effective at controlling pests in agriculture, they have significantly negative effects on the environment and our food system. According to the Food and Agriculture Organization, “Pesticides are a critical factor in modern farming systems, but their overuse and reliance have caused significant long-term environmental and health impacts. They degrade soil health, harm beneficial organisms, and disrupt food webs, all of which undermine the sustainability of farming systems and threaten food security.” (FAO, 2021)

ORGANIC PRACTICES USED

Growing organically in the Southeast is challenging due to a warm climate, high humidity, and increased pest pressure, which make it difficult to manage pests and diseases without synthetic chemicals. Success in the region depends on adopting farming practices that focus on crop selection, soil management, biodiversity, pest management, and resource access. By focusing on these factors, organic produce can be successfully grown.

Herb truly understands that the key to organic farming is creating a system focused on soil health practices. He mentions several practices that emphasize soil health. “The key is creating an environment where microbes can thrive and regenerate the soil. This means having cover crops year-round and avoiding tillage.”

COVER CROPS

One method to improve soil health is by using cover crops. These crops are grown to prevent soil from being bare and offer multiple benefits, including improving soil structure and providing nutrients. Herb uses cover crops in his farming practices to promote healthy soils. He explained, “One of the big ways of restoring the soil is with cover crops. I use cover crops year-round—ten different species in the spring and then a different ten species in the fall. The cover crops are mowed into the tree row for mulch.”

BIODIVERSITY

Another major practice in organic farming systems is creating biodiversity. This includes planting a diverse crop selection, increasing living soil biology, and increasing organic matter—key practices for growing successfully in the region. As a regenerative organic farmer, Herb emphasizes nurturing soil biology and creating a living soil ecosystem. “Now I add microbes—commercial inoculants, compost, and compost tea. I regularly feed the microbes. I’m almost on a schedule of alternating between foliar and soil treatments. My foliar program is pretty much just for the trees. I monitor that through SAP analysis.”



A picture of cold-sensitive limes growing under hoop houses for freeze protection, ensuring the plants are shielded from the cold.

EXPERIENCE IN TRANSITION

BENEFITS

Herb discusses the visible benefits of soil health practices on his farm. He explains, “You can see it dramatically in the permeability of the soil. With ten species of cover crops year-round, plus inoculating and feeding microbes, the soil in the tree rows has become ‘spongy’ due to the root and microbe interaction. A penetrometer now sinks 36 inches to the handle, compared to just 4-5 inches in the row middles. The DNA results are the ultimate proof, but you can also see and feel the differences—just walk between the trees.”

Not only have these practices improved Herb's soil, but they have also helped decrease pest and disease issues. Herb shared how his integrated pest management plan has contributed to this success. “Low insect and disease pressure was a goal. And I've really seen that. I sort of alluded to my organic and regenerative practices. I really feel like the tree is so healthy, I don't have any disease problems. Growers around me are spraying fungicides and copper for bacteria constantly. I don't have any diseases; the tree is healthy.”



A picture of cold-sensitive limes growing under hoop houses for freeze protection, ensuring the plants are shielded from the cold.

CHALLENGES

While transitioning to organic farming, there are many challenges that farmers face throughout the process. One challenge is organic seed sourcing. According to the NOP, organic seed sourcing is a major factor when obtaining USDA organic certification. The general rule for organic seeding sources is that organic seeds are the preferred option, and non-organic seeds can only be used if organic seeds are not available. Documentation and record-keeping are essential to ensure compliance with organic certification requirements. Herb explained some of the challenges he faced while sourcing organic cover crop seed: “There are a lot of challenges, and the first one was cover crops in a perennial crop system. There wasn't a lot of information about how to manage it. Cover crop seeds were complicated to source and find. No organic seed was available in the mix I needed, so I had to document three providers and then confirm that the seed I used was untreated. That's the process I followed, and the seed supplier was glad to help and provide the necessary documentation.”

EXPERIENCE IN TRANSITION CONTINUED

Having an Integrated Pest Management (IPM) system is crucial for organic farming in the Southeast. Organic pest management in this region has unique challenges due to its warm climate, high humidity, and biodiversity, which creates an ideal condition for pests and diseases. "The other big challenge that I had was insect control," Herb mentioned. Successful organic farming in the Southeast relies on effective pest management strategies that avoid synthetic chemicals and focus on systematic practices. Herb explains some of the issues he has faced with pest management in organic citrus farming: "Citrus leaf miner is a major problem. You can see the tunneling it causes on the leaf, and it will eventually destroy the entire leaf. The issue is not being impacted by a healthy tree; it's an invasive insect. We don't have any natural enemies, so there's no backup system of natural predators. It's really hard to control."

One effective method of controlling organic pests is the use of horticultural oils. These oils provide a safe and efficient way to manage a variety of pests while minimizing harm to the environment. By selecting the appropriate oil, timing applications properly, and following best practices, farmers can successfully manage pest populations and maintain crop health while farming organically in the Southeast. Herb uses horticultural oils to control leaf miners in his organic citrus system. He explained, "I've used organic treatments like thyme oil, neem oil, and Spinosad. Spinosad is probably the most effective organic insecticide, but it's hard on beneficials, so I try to use it as little as possible."



A picture of Herb measuring the girth of his citrus trees for USDA sponsor SARE research trial evaluating different composts.

Another way to improve soil health is by increasing organic matter. Organic matter plays a major role in enhancing soil condition and promoting soil biology. One of the most well-known methods of increasing organic matter is applying compost. Compost is a cornerstone of organic farming systems due to its multiple benefits for soil health, plant growth, and sustainability. In organic agriculture, compost serves not only as a soil amendment but also as a key component in nutrient cycling and pest management. Herb discussed some of the challenges he faced sourcing compost. He explained, "Compost – huge issue! Most compost suppliers I could find didn't do the record-keeping required for Organic compliance. The solution suggested by Rodale consultants was to break down the components (manure, wood chips, + biochar) and just not use within 90 or 120 days of harvest (manure requirement)."

Composting in organic farming must follow specific guidelines set by the National Organic Program (NOP) to meet organic standards and maintain system integrity. The NOP ensures composting practices enhance soil fertility, plant health, and environmental protection, while preventing contamination from prohibited substances. By adhering to these guidelines, organic farmers can ensure compliance with USDA organic certification and promote sustainable farming practices.

EXPERIENCE IN TRANSITION CONTINUED

RESOURCES USED

Throughout Herb's journey, there were numerous resources available to support him as an organic farmer. In today's society, there are several ways farmers can be educated on organic farming and certification. Herb shared, "A lot of the things I have learned is through all that you all (Rodale Institute) are finding out. The tremendous amount of podcasts that are being created. I was just floored with the amount of information that is now available to teach us how to do this. And what surprised me so much is that this information was not available during my 40-year career in agriculture; it just wasn't."

Herb also spoke about specific resources that supported him, including the Rodale Institute. He explained, "Rodale has been great. Besides a rep visiting my farm, they've organized their marketing group to advise me through several conference calls. They evaluated my website and marketing strategy and identified weaknesses and opportunities." Herb received additional support from Rodale Institute, backed by USDA's Southeast Transition to Organic Partnership Program (SE TOPP). SE TOPP is a program that aims to increase the number of certified organic farmers by providing mentorship and technical assistance in the Southeast.



A picture of freshly harvested citrus from Just Squeeze Citrus LLC Farm, showcasing the fruits ready for market.

USDA ORGANIC CERTIFICATION CONTINUED

STATUS OF USDA ORGANIC CERTIFICATION

Through Herb's process of starting an organic citrus farm, he knew his goal was to achieve USDA Organic certification. He shared his current status in the certification process, saying, "So I'm finally done with the process. I started committed right from the beginning, when I planted the grove, to be organically certified and went through my understanding of the regulations, which I now realize wasn't a complete understanding. I've done my Organic Systems Plan, submitted it to a certifier, and answered a lot of questions. It has taken a long time. Receiving the certification feels like quite a reward. It feels good to put that USDA Organic sticker on every box I ship."

ORGANIC CERTIFICATION PROCESS

Starting the certification process can be daunting, especially for farmers. There are multiple stages involved, including implementing organic practices, maintaining proper records, managing those records, and undergoing inspection. However, the most critical stage is the beginning phase. Knowing where to start and where to access resources is a crucial step for new organic farmers. Herb shared how he began the certification process, explaining, "I've been in contact with the certifier for over a year. But it all started with meeting them at an organic conference, having some good phone conversations, and then bringing Rodale Institute into the conversation. When I had a question I wasn't sure how to approach with the certifier, I directed it to you and your team [Rodale Institute], and you helped me find great solutions—especially regarding compost. I had a few questions about sourcing organically certified compost."

A key stage in the certification process is working with a certifier and undergoing the inspection. For some farmers, the inspection process can feel intimidating, but Herb was able to relate to this experience. He shared his thoughts on the process: "The whole thing seemed very intimidating, so I delayed and hesitated, taking about three months to put my package together. But once they received it, they've been awesome to work with. I think we all fear that an inspection will be a negative experience, but ever since my certifiers received my packet, they've been nothing but helpful. It's been amazing—they've answered questions and guided me in making necessary changes."

When choosing a certifier, farmers should select one that aligns well with their operation. There are various certifiers that specialize in different areas, so it's important for farmers to find one that best fits their goals and operational needs.

USDA ORGANIC CERTIFICATION CONTINUED

ADVICE FOR CURRENT AND TRANSITIONING GROWERS

When asked what advice he would give to upcoming organic farmers, Herb talked about the importance of networking and seeking guidance. He acknowledged that it can sometimes be challenging to ask for help but encouraged new farmers to reach out. "I would say, don't be afraid to ask for advice. There are knowledgeable people out there."

Throughout his journey, Herb recognized how crucial support from others can be. He highlighted the impact of meeting other organic farmers and having a mentor to help guide the way toward success. Herb shared his experience meeting a citrus grower from Florida, who offered valuable advice. "I did meet another organic grower, a citrus grower from down in Florida. I just threw myself at his mercy, and I said, 'How do you do it? How do you handle this?' He said, 'Oh, we just call our certifier,' and he recommended a certifier. He gave me some hints, showed me their notebooks, and I realized, 'Okay, you know, it's not as painful as I thought it was going to be.' So, yeah, finding somebody and asking for advice would be probably my biggest recommendation." As just one example of connecting to a mentorship network, Florida Organic Growers (FOG) offers free mentorship opportunities across the Southeast through funding from SE TOPP, as well as paid opportunities for experienced farmers to mentor new organic and transitioning farmers.



Herb Young conversing with a local chef who buys his Rangpur limes.

MARKETS

With the goal of becoming USDA certified organic, Herb recognized the potential for increased profits. Having spent much of his career in the pesticide industry, he was familiar with the financial benefits of organic certification. As Herb explained, "After spending my entire career developing pesticides, I began to explore the idea of growing organically as a potential financial incentive." According to the USDA, organic products typically fetch 20-50% higher prices compared to conventional products, providing farmers with a price premium that can boost profitability.

USDA ORGANIC CERTIFICATION CONTINUED

This will be Herb's first year receiving a harvest, as it takes around four to five years for the first crop of citrus to bare from new trees. Herb shared many ways he plans to sell his produce to consumers. As an organic farmer, Herb will have the advantage of being able to command a premium for his produce. He discussed his plans for his first profitable crop, saying, "In my first year of commercial sales, I'm attempting to go direct-to-consumer online. It will be a zero-profit year as I absorb the costs of branding, website development, social media, setting up a mini-packing house, and obtaining certifications. My yields are a fraction of what they should be in a couple of years. Perennial crops are tough because it takes four or five years before seeing any financial return. But I'm optimistic, even excited, because as the market wakes up to the health benefits of organic and fully regenerative farming, I believe we'll have a great market position." At the conclusion of his season Herb shared, "I was able to sell my entire crop! While the Georgia satsuma market was depressed from over production, I had the advantage of unique regenerative organic citrus varieties and had proven (analyzed) the nutrient density. Social media promotion worked and I eventually sold out (2/3 retail on-line and 1/3 wholesale to resellers.) Very gratifying."

With growing consumer demand, healthier product perceptions, environmental concerns, and certification opportunities, organic farming has become financially rewarding. By entering premium markets, organic farmers can increase profits while contributing to a more sustainable food system. It's important for farmers to understand where and how to sell effectively. The organic market offers various options, and farmers must choose the right outlets based on their production capabilities, goals, and values. Whether through direct-to-consumer channels like farmers' markets, on-line sales or community-supported agriculture (CSA) programs, larger retail partnerships, or wholesale distribution, finding the right market fit and building strong relationships with buyers is key.



Herb's citrus packaged and ready for a direct-to-consumer sale.

CONCLUSION

Herb Young's journey to becoming a certified organic citrus farmer is a strong example of the challenges and rewards of transitioning to organic farming in the Southeast. Despite facing unique environmental and logistical obstacles, Herb's commitment to building healthy soil and producing nutritious, sustainable food has driven his success. His experiences and background offer valuable lessons for other farmers considering the shift to organic practices. Through perseverance, resourcefulness, and a deep understanding of organic principles, Herb is not only cultivating a thriving citrus farm but also contributing to a more sustainable agricultural future in the Southeast.