

Introduction: A Few Words About My Background

Drawing on principles from agroecology, permaculture, and entrepreneurship, I champion a modern form of nonmechanized farming, carried out on a human scale.

On a human scale means feeding many local families, while respecting the human and natural ecosystems in which we operate.

On a human scale means allowing market gardeners to make a decent living from their work, to run their businesses as they see fit, and to give themselves more time off than conventional farmers.

On a human scale means evolving through the use of technology but especially by relying on people and their skills and knowledge.

From Organic Farms...

I studied agroecology at McGill University's School of Environment in Montréal, where I met my wife and business partner, Maude-Hélène Desroches. At the time, we were both looking to create a new model for farming, one that would have a positive environmental impact. After graduation, we spent two years in New Mexico, USA, working on an organic farm and learning to be market gardeners.

Our microfarming aspirations were later fueled by a trip to Cuba where we spent time on *organopónicos*, fascinating urban farms that were established during the American embargo. During that era, after the fall of the USSR, the country developed a biointensive and urban agricultural model to ensure food security for the island's residents.

...to a Family-Run Microfarm

Back in Quebec in 2004, we acquired a small plot of 10 acres in Saint-Armand, in the scenic Eastern Townships. On this land, we experimented with our innovative approach to market gardening, which especially drew from the work of Eliot Coleman, an American market gardener who has been highly influential in the world of organic microfarming.

We built a 2-acre market garden, Les Jardins de la Grelinette, where we were able to test the first iterations of my method, now called the Market Gardener Method. It consists of crop rotation, the near-exclusive use of hand tools, organic growing practices, and shorter marketing channels, with direct sales made through CSA boxes and farmers' markets. At Les Jardins de la Grelinette, Maude-Hélène and I both worked full-time, and hired two farm workers (one full-time and the other part-time) to help with harvests.

Making 2 Acres Profitable

Success came quickly, both in terms of harvests and direct sales. After bringing in \$33,000 in our first year, we earned twice that in the following year, and more than \$110,000 in our third year of operation.

We were thus able to earn a living as market gardeners from almost the very beginning. Since then, our farm has continued to feed more than 200 families every year, offering roughly 40 types of vegetables, all grown on just 2 acres. Over the years, our harvests expanded and sales continued to increase. Eight years after starting the farm, I presented this farming model in a practical guide called *The Market Gardener* in 2014. The book was an instant success—over 250,000 copies have now been sold, and it has been translated into nine languages.

In 2015, with the support of a generous patron, I founded Ferme des Quatre-Temps in Hemmingford, Québec, with the vision of creating a model for the future of ecological agriculture. On this 160-acre farm, we established a polyculture system in a closed-loop cycle, raising pasture-fed cattle, pigs, and hens, alongside a culinary laboratory. At the heart of the farm, 7.5 acres were

dedicated to a market garden, where we applied the growing methods developed at Les Jardins de la Grélinette. It is here that I teach my apprentices the principles of productive and profitable market gardening.

The project was featured in a TV show called *Les fermiers*, which follows the evolution of Ferme des Quatre-Temps and its apprentices, who later start their own farms in front of the cameras. The show was a hit in Quebec and is now available on TV5 Monde and Apple TV.

In parallel, I worked to expand my methods to reach a broader, global audience. In 2018, we launched the Market Gardener Masterclass, a fully online course now available in over 90 countries. To further support this initiative, I founded the Market Gardener Institute with a clear mission: to educate the next generation of growers by equipping them with the knowledge, skills, and resources needed to become leaders in the organic farming movement.

The Institute has two key objectives: to teach best practices in market gardening techniques and growing methods, and to demonstrate that small-scale farming worldwide can not only be ecological but also productive and profitable. On a global scale, it's the number of farms, not their size, that holds the key to feeding the world.

Inspiring Change

My ambition is to drive meaningful change in society by promoting a way of farming that honors nature, supports communities, and empowers local farmers. I believe in a decentralized farming model, built farm by farm, as the foundation for a truly sustainable and resilient food system.

Since 2020, I have proudly served as an ambassador for the prestigious Rodale Institute, which researches regenerative organic farming practices in the United States and beyond. I am also honored to be the ambassador for Growers and Co., a company that develops tools and apparel for new organic growers.

What Is the Market Gardener Method?

While my approach may seem innovative, it is founded on practices that were first developed by nineteenth-century Parisian gardeners, who fed more than two million people through a network of thousands of market gardens—precursors to our modern-day microfarms—within the city of Paris.

These market gardeners applied remarkable ingenuity, skills, and knowledge to meet the increasing food demands of a city in the midst of urbanization and demographic expansion. They achieved this through organic, nonmechanized agriculture. From the mid-eighteenth century to the twentieth century, many books were written about the innovative practices of these market gardeners, whose technical feats were admired throughout Europe. But with the advent of modern practices, much of this know-how was relegated to the past.

As a result of mechanization, the advent of agronomic science, and improved refrigeration and transport that brought in fresh and inexpensive food grown abroad, farms grew in size, became less diversified, and took on a more technological focus—a trend that continues today.

Fortunately, these inspiring models led to the development of horticultural methods that have endured, and with the same objective: to grow sustainably, by maximizing vegetable yields without degrading soil quality. We now use the term “biointensive” to describe these methods. Unlike extensive agricultural operations, they continue to work on a human scale and offer farmers the opportunity to use little mechanization. Despite what some may believe, this approach is also profitable.





By working on only small plots of land, market gardeners can keep start-up investments to a minimum, compared to the funds needed for a conventional farm. Biointensive farmers also require a smaller workforce, doing the work themselves with the help of just a few employees. They also sell their produce directly to customers, avoiding commissions to intermediaries. These three factors allow market gardeners to start generating profits quickly.

Still, it's important to remember that working the land is never easy. While market gardeners can make a good living with this method, the first seasons are time-consuming and require a significant workload and financial investment. In this profession, nothing comes easy, and every dollar you earn is the fruit of your labor, the result of your organizational skills. That's why I always tell my apprentices to learn how to work smarter, not harder.

From a financial perspective, market gardeners should plan to start with an investment of \$50,000 to \$150,000, depending on whether certain assets are already available—such as a building that can be converted, access to abundant water, electricity, natural gas, or a vehicle. This amount does not include the cost of purchasing land, which can be amortized over 20 years, if needed. Renting is also an option that can prove very profitable, especially when the farm is located near a city or an affluent municipality, where land is expensive.

Regardless of experience and preparation, the first years of market gardening will be intense. Opening new ground, constructing greenhouses and tunnels, and setting up infrastructure (irrigation, washing and packing stations, nurseries, etc.) all take extra time and effort. However, once this phase is complete, market gardeners who have mastered their craft can do more than just make a living off a few acres—they can earn a very decent living.

This leads to another key principle I teach: your farm should work for you, not the other way around. Profitable and productive farming is possible, but you need to set it up for success.

Preface: My Market Gardening Toolbox

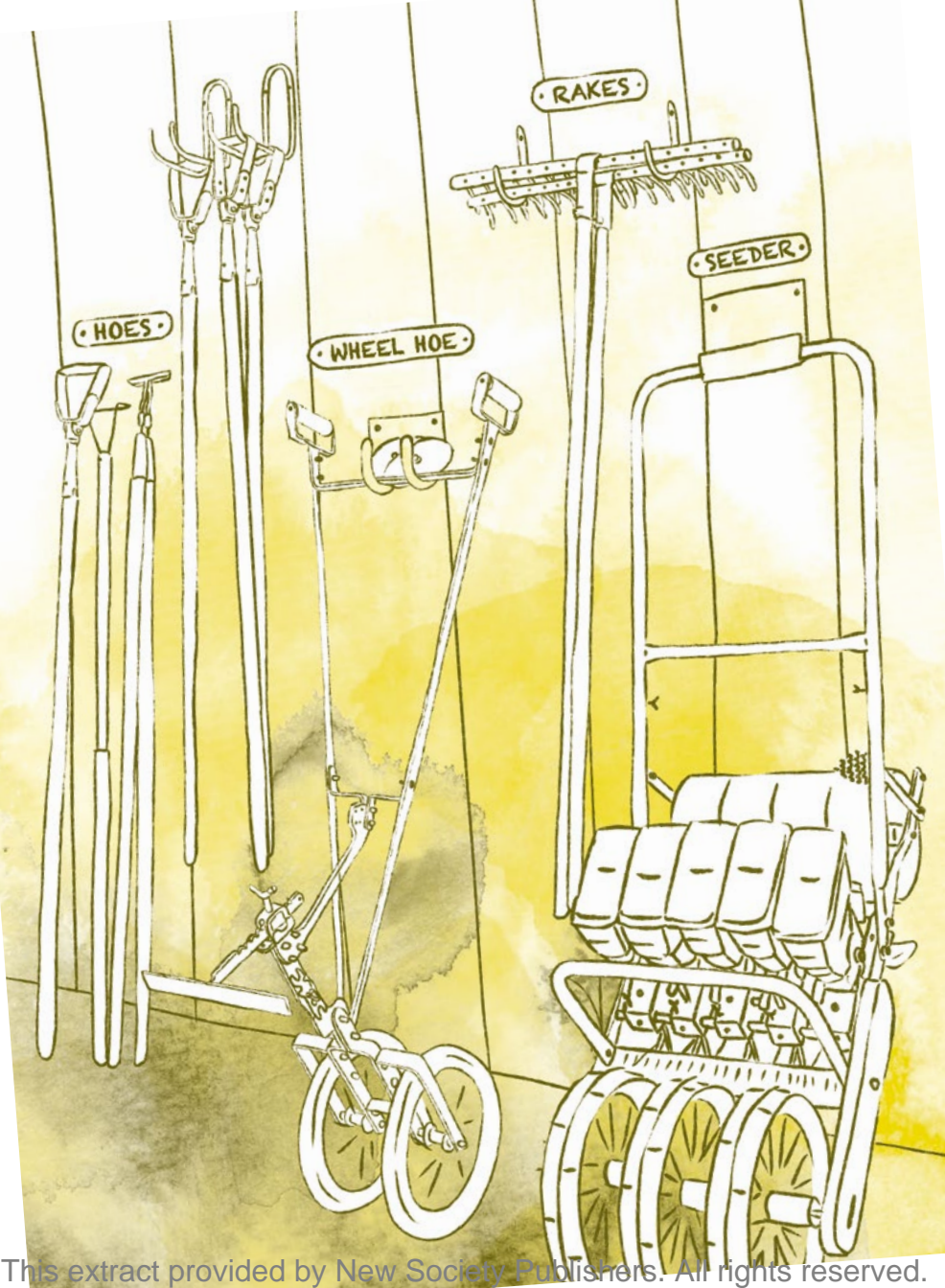
Using the “right” tools can make a huge difference in the success of a crop and, more broadly, in the success of a vegetable micro-farm. I put the word “right” in quotation marks here, because not all tools and equipment are equal when it comes to quality and function.

For more than two decades, I have been testing and using an array of small tools that have worked wonders in my gardens and in those of thousands of other market gardeners who have followed my lead. Many of the tools I use came from my mentors who, in my early days, encouraged me to discover the true value of using the right equipment.

In this little guide, I want to share some of my favorite tools with you, or at least the ones I think are a must-have for small-scale vegetable growers. They are used for soil preparation, seeding, planting, crop maintenance, harvests, etc.

These tool recommendations are specially aimed at small diversified vegetable farms, and, for the most part, they are perfectly suited to home gardeners and vegetable growers.

Whether you’re a professional or a home gardener, the market gardening tools presented here will save you a lot of time, increase your productivity, and, above all, improve your ergonomics at work. In French, there is an old saying that goes, *les bons outils font le bon ouvrier*. It means “good tools make for a good worker,” and I couldn’t agree more! So, without further ado, here’s a quick tour of my shed. I hope that some of these tools will become your best allies in your farming adventures.



In biointensive market gardening, vegetable crops are seeded more densely and in a steady rhythm of crop successions. In practical terms, this means that beds are never left fallow; as soon as a crop reaches maturity, it is harvested and the soil is immediately prepared for the next seeding or planting. Working at this pace means that the soil is cultivated several times a year. To protect the balance of the soil and the microorganisms living within it, we avoid working the soil too deep, which would mix up various layers, as is the case with rototillers. Although this equipment is in the market gardener's toolbox, it is used sparingly. The soil is therefore worked only at the surface, using manual or battery-powered tools that loosen it to a depth of roughly 2 inches (5 cm). Once or twice a year, beds can be loosened at a greater depth—but this must be done without turning over the soil. To avoid disturbing soil life, you can employ the famous broadfork!

Preparing the Soil

Hand Tools

The permanent beds recommended in the Market Gardener Method are characterized by very precise dimensions, which are especially suited to the use of hand tools, operated by market gardeners leveraging their strength. Unlike tractor-mounted equipment that requires a bed width of at least 47 inches (120 cm), the hand tools recommended by Jean-Martin Fortier are perfectly suited to beds no wider than 30 inches (75 cm). With these tools, growers can loosen the soil before planting or seeding and then carry out various crop maintenance operations, such as weeding. All these operations take a gentle approach without compacting the soil, with the utmost respect for the microorganisms thriving underground, and with one of the fundamental principles of the Market Gardener Method—minimum tillage.