Volume 2025 Number 2 MICROGREENS WORLD Monday January 13 2025

WEEKLY DIGEST

MICROGREENS AT THE INTERSECTION: WHERE SCIENTIFIC INNOVATION MEETS MARKET EVOLUTION

IT'S NOT JUST BROCCOLI! ETHIOPIAN KALE MICROGREENS (BRASSICA CARINATA) SHOW PROMISE FOR DIABETES

CREATIVE RECIPES: Spiced Lamb Kofte with Ethiopian Kale Microgreens and Lemony Tahini
COMMERCIAL BEST PRACTICES: From Market Stalls to Wholesale: My Microgreens Journey
EMERGIN INDUSTRY NEWS: Decade of Growth: From Empty Space to Dreams

"Delivered to Your Inbox Every Monday," your summary digest of the latest microgreens, urban, vertical farming, and new trends and exciting startup stories from around the world.

Microgreens at the Intersection: Where Scientific Innovation Meets Market Evolution

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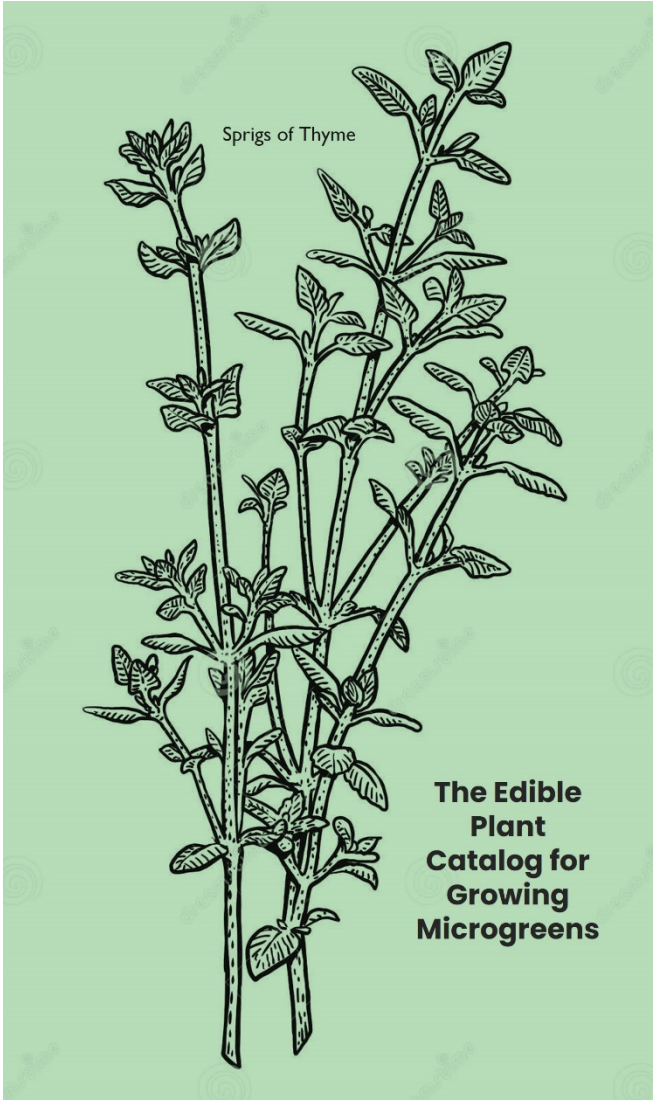


Discover a wealth of possibilities in microgreen cultivation with our meticulously curated guide featuring **over 200 edible plant species**.

Each entry outlines specific growing requirements to jumpstart your microgreens growing journey, offering insights into optimal light, temperature, and watering conditions.

This invaluable resource caters to commercial growers, researchers, and home gardeners seeking to broaden their horizons beyond traditional crops.

Embrace this opportunity to innovate and contribute to the expanding field of microgreens, enhancing your expertise while enjoying the unique flavors and nutritional benefits of diverse plant varieties.

LEARN MORE

Nutrition Science

Ethiopian Kale Microgreens (Brassica carinata) Show Promise for Diabetes

A groundbreaking study reveals the potential of Ethiopian kale (Brassica carinata) microgreens in managing Type 2 diabetes mellitus (T2DM).

Researchers investigated the effects of **Brassica carinata Microgreens Ethanolic Extract (BMEE)** on diabetic Wistar rats, discovering promising therapeutic properties without adverse effects on normal blood glucose levels.

The study demonstrated that BMEE significantly improved several key diabetes indicators.

When administered to diabetic rats, the extract reduced fasting blood glucose levels and enhanced glucose tolerance.

Importantly, BMEE showed effectiveness in improving insulin sensitivity and reducing insulin resistance, which are crucial factors in diabetes management.

The research examined molecular mechanisms, revealing that BMEE positively influenced important genetic markers.

The extract increased the expression of genes responsible for insulin signaling (IRS-1) and glucose transport (GLUT-2) while reducing inflammatory markers (NFKβ) in liver tissue. This suggests that BMEE may help regulate glucose

metabolism at the molecular level.

Additionally, BMEE demonstrated beneficial effects on lipid metabolism, reducing total cholesterol, triglycerides, and low-density lipoprotein while increasing high-density lipoprotein levels.

These improvements in lipid profiles indicate potential broader cardiovascular benefits for diabetic patients.

SUMMARY

This research article investigates the antidiabetic effects of an ethanolic extract from Brassica carinata microgreens in type-2 diabetic rats.

The study demonstrates that the extract significantly lowers fasting blood glucose levels, improves glucose tolerance, enhances insulin sensitivity, and improves lipid profiles.

These effects are linked to the upregulation of genes related to glucose uptake and insulin signaling, as well as the downregulation of pro-inflammatory genes.

The findings suggest the microgreen extract has potential as a nutraceutical for managing type-2 diabetes, although further research is needed.

The methodology involved inducing diabetes in rats, administering the extract, and then analyzing various blood and tissue parameters.

The study's findings are particularly significant given the growing global prevalence of T2DM and the need for alternative therapeutic approaches with fewer side effects than traditional medications.

While further research is needed to fully understand the extract's mechanisms and potential applications, this study suggests that Ethiopian kale microgreens could offer a promising natural supplement for diabetes management.

Source: Nakakaawa, L., Gbala, I. D., Bargul, J. L., Cheseto, X., & Wesonga, J. M. (2025). Therapeutic potential of Brassica carinata microgreens extract in alleviating symptoms of type 2 diabetes in Wistar rats. Food Science & Nutrition. https://doi.org/10.1002/fsn3.4635

Creative Recipes

Spiced Lamb Kofte with Ethiopian Kale Microgreens and Lemony Tahini

There's something magical about the way this tender lamb

kofte, fragrant with warm spices and fresh herbs, nestles into a bed of nutty quinoa and gets crowned with vibrant Ethiopian kale microgreens.

The microgreens add not just a pop of color but a subtle peppery kick that cuts through the richness of the lamb.

I discovered this combination while experimenting with diabetes-friendly recipes, and it's become a favorite among my health-conscious friends and clients who refuse to compromise on flavor.

Recipe Information

- Prep Time: 30 minutes
- Cook Time: 25 minutes
- Category: Main Course
- Method: Stovetop/Broiling
- Cuisine: Middle Eastern-Ethiopian Fusion
- Yield: 4 servings

Ingredients

For the Kofte:

- 500g lean ground lamb
- 2 small onions, very finely chopped
- 3 cloves garlic, minced
- 2 tbsp fresh mint, finely chopped
- 2 tbsp fresh parsley, finely chopped
- 1 tsp ground cumin
- 1 tsp ground coriander
- ½ tsp cinnamon
- ¼ tsp allspice

- Sea salt and black pepper to taste

For the Base:

- 1 cup quinoa, rinsed
- 2 cups vegetable stock (low sodium)
- 1 cup Ethiopian kale microgreens
- 2 Lebanese cucumbers, diced
- 200g cherry tomatoes, halved

For the Sauce:

- 3 tbsp tahini
- Juice of 1 lemon
- 1 small garlic clove, crushed
- 2-3 tbsp water to thin
- Pinch of sea salt

Preparation

1. Mix all kofte ingredients by hand until well combined. Form into 12 oval patties. Refrigerate for 30 minutes.
2. Cook quinoa in stock until fluffy and liquid is absorbed (about 15 minutes).
3. Whisk tahini sauce ingredients until smooth and creamy.
4. Broil kofte for 4-5 minutes on each side until charred outside but still juicy inside.
5. Fluff quinoa and fold it in diced cucumber and tomatoes.

Plating

Layer the quinoa mixture in shallow bowls. Place three kofte on each serving. Drizzle with tahini sauce and crown generously with Ethiopian kale microgreens. A final drizzle of extra virgin olive oil and a scatter of black sesame seeds completes the dish.

Benefits

Ethiopian kale microgreens are particularly rich in compounds that may help regulate blood glucose levels and improve insulin sensitivity. They're packed with antioxidants and nutrients that support overall metabolic health, making them an excellent addition to a diabetes-friendly diet.

Remember to handle the microgreens gently and add them just before shooting to maintain their perky freshness.

Community News

The Hockaday School Teaches Science With a Purpose

At The Hockaday School in Dallas, Texas, science education meets community impact through an innovative microgreens project.

Seventh-grade students begin by testing soil and water at Joppa neighborhood's Joppy Momma's Farm.

In eighth grade, students grow microgreens while studying germination, scientific inquiry, and plant biology.

Through the Dr. William B. Dean Institute for Social Impact, students donate their microgreens to Joppy Momma's Farm, which sells them to local restaurants, including Cafe Momentum and Asian Mint.

The proceeds help expand the farm's fresh food production for the neighborhood.

This initiative combines hands-on science learning with real-world impact, allowing students to see how their classroom knowledge benefits the community while developing critical scientific skills.

Source: Carson-Habeeb, C. (2025, January 8). The Hockaday School teaches science with a purpose. https://www.peoplenewspapers.com/2025/01/08/the-hockaday-school-teaches-science-with-a-purpose/

HUA MOMONA FARMS

Hua Momona Farms emerged from a simple vacation moment when the Grube family, Chicago natives, and longtime Maui visitors discovered their next adventure during a farm-to-table dinner in Hana.

What started as Gary Grube's spontaneous dinner declaration - "Wouldn't a farm be a great adventure" - transformed into a state-of-the-art 4,000-square-foot greenhouse operation growing 30 varieties of microgreens.

The journey from 25 acres of undeveloped land to a thriving farm brought together an unexpected dream team: *PJ Sabatino*, a skilled farmer from New Jersey who never seems to sleep, and *Chef Zach Laidlaw*, who left his position as Chef de Cuisine at Fleetwood's to become the farm's Executive Chef.

Their unique approach of having a chef determine which microgreens to grow reflects their mission to elevate Maui's culinary scene for both visitors and residents alike.

Source: Quinn, A. (2019, April 12). Let the greens grow. [Newsletter]. Hua Momona Farms. https://hawaiirestaurant.org/2019/11/hua-momona-farms-story/

Certified Naturally Grown's List of Winter Conferences

Certified Naturally Grown

Conference season is about to be in full swing!

Farm conferences are a wonderful way to learn and connect with growers in a vibrant regional context.

Below is a short list of conferences aligned with CNG's sustainable farming ethos.

Make sure to tag us in your conference photos @cngfarming!

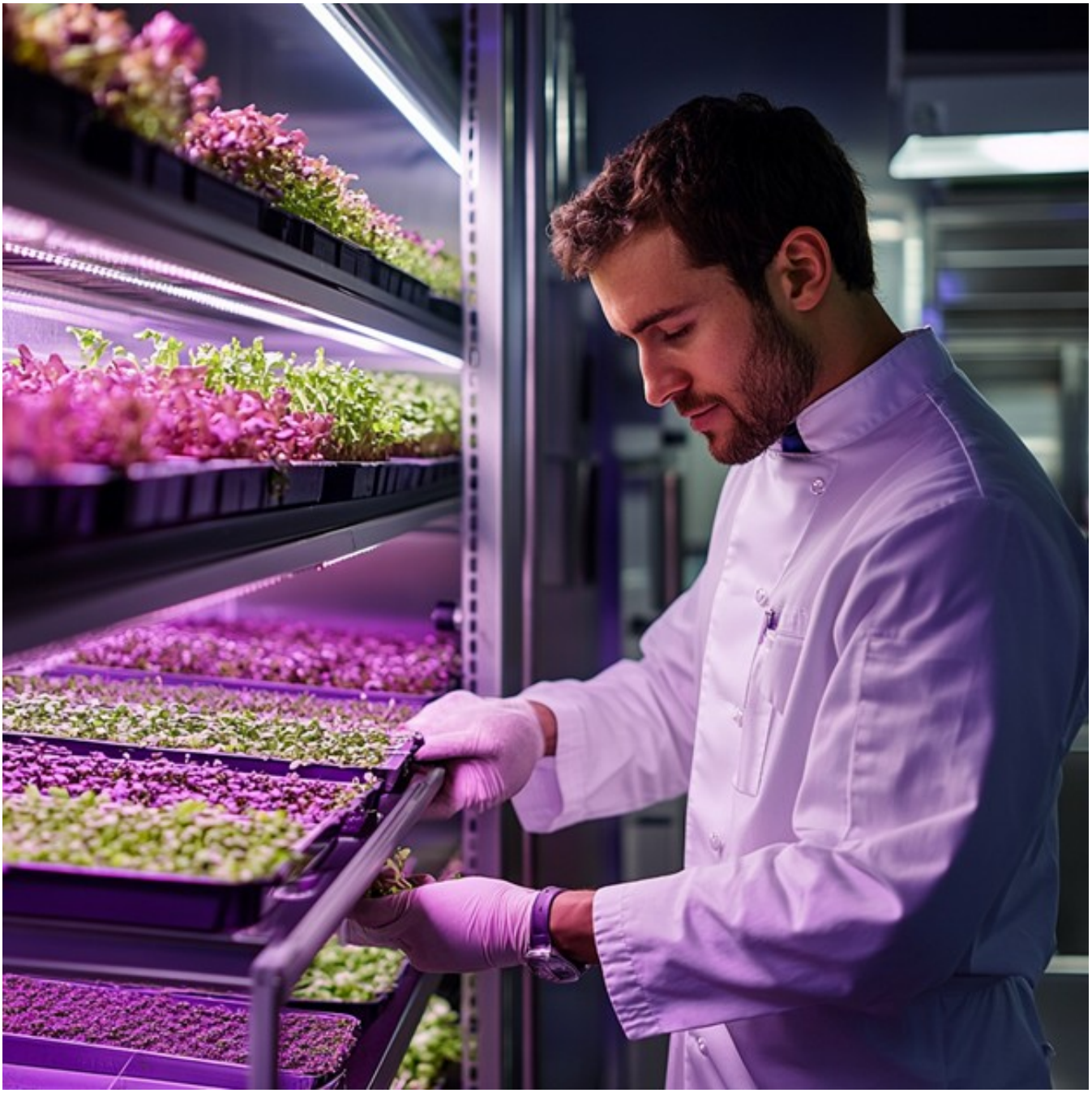
January 17-18, 2025 – Silver Spring, MD	Future Harvest

January 23-25, 2025 – Frankfort, KY	Organic Association of Kentucky Annual Farming Conference (OAK)
January 24-25, 2025 – Montrose, CO	Western Co. Health, Food & Farm Forum
January 27, 2025, Carbondale, Illinois	Food Works' Southern Illinois Farming Alliance Conference
January 29th-February 1st, 2025 – Hot Springs, AR	Arkansas Grown Conference & Expo
February 4-6, 2025 – Atlanta, Georgia	SOWTH
February 5-7, 2025 – Lancaster, PA	PASA Sustainable Agriculture Conference
February 13-15, 2025 – Newark, Ohio	Ohio Ecological Food and Farming Association Conference
February 15, 2025 – Burlington, Vermont	Northeast Organic Farming Association of Vermont (NOFAVT)
March 4-5, 2025 – Danville, Indiana	Indiana Small Farm Conference

Source: *Certified Naturally Grown*. (2024, October 2). Certified Naturally Grown's List of Winter Conferences. https://www.naturallygrown.org/certified-naturally-growns-list-of-winter-conferences/

FEATURED ARTICLE

Microgreens at the Intersection: Where Scientific Innovation Meets Market Evolution



When I first encountered **microgreens** at dinner with my friend and business partner Stephen, I couldn't have imagined how these tiny seedlings would transform both my career and our understanding of food's potential.

I've watched microgreens evolve from mere garnishes in high-end restaurants to becoming recognized powerhouses of **nutrition**, backed by **groundbreaking studies** showing they can pack up to 40 times the nutrients of their full-grown counterparts.

Now, as both a researcher, writer, and market observer, I'm convinced we're at a fascinating turning point where rigorous research meets real **consumer demand**, creating opportunities that would have seemed impossible during those early days in the lab.

My path from **scientist to grower** has given me a unique perspective on the remarkable evolution of **microgreens**. What began as curious experiments in **our basement** has blossomed into a deeper understanding of these **nutritional powerhouses**.

I've witnessed the fascinating transformation of microgreens from simple **garnishes** to recognized **superfoods**. All those years in the greenhouse, we knew these shoots were special. Now science proves it - they concentrate **up to 40 times** more nutrients than mature plants.

What excites me most is the current convergence of **scientific understanding** and **market opportunity**. These delicate greens now bridge two worlds - the refined realm of **fine dining** and the practical space of everyday **nutrition**. As **consumer awareness** grows and **growing techniques** evolve, we're seeing unprecedented market expansion.

But what truly amazes me? The way these tiny greens continue to surprise us, revealing new potential with each scientific breakthrough and market shift.

The Scientific Renaissance in Microgreens Research

When I first stumbled into **microgreens research**, I had no idea I was witnessing a scientific renaissance.

That landmark 2012 **USDA study** (*Xiao et al., 2012*) - showing these tiny plants pack **40 times more nutrients** than their mature versions - was just the beginning of my fascination.

What really transformed my understanding was watching **controlled environment agriculture** evolve. It's like having a scientist's playground where we can fine-tune everything from **LED spectra** to **growing media**. I've spent countless hours adjusting parameters, sometimes failing spectacularly but always learning.

The explosion in **analytical techniques** has been mind-blowing. We're now using **immersible photonic sensors** (*Christofi et al., 2023*) that analyze nutrients in real time - something I couldn't have imagined when I started. Every day brings new discoveries about these **nutritional powerhouses**.

What excites me most? Seeing research clusters form around issues I deeply care about - from **fighting hunger** to **addressing climate change**. We're not just studying tiny plants; we're part of a movement reshaping how we think about **sustainable nutrition**.

Breaking Down the Barriers: From Lab to Table

I remember the day I tried implementing my first **LED lighting protocol** in a commercial setup. The perfect wavelengths that worked brilliantly in my lab looked completely different and scaled up. Talk about a humbling experience!

What I've learned in bridging the gap between **scientific research** and **real-world growing** is that success lies in adaptation, not just

replication. Every growing environment tells its own story - from the way **humidity patterns** shift throughout the day to how different **microgreen varieties** respond to light stress.

Impact Area	For Growers	For Consumers
Sustainability	LED lighting systems	Reduced food miles
Innovation	Smart monitoring tools	Custom nutrient profiles
Education	Training programs	Cooking workshops
Economics	Reduced waste	Better value proposition

The most exciting breakthrough? Watching new **growing media** revolutionizes how we think about cultivation. Moving beyond traditional soil has opened doors I never imagined possible.

Pros:

- Multiple substrate options enable customized growing strategies
- New materials offer superior aeration and moisture control
- Alternative substrates can be more sustainable and reusable

Cons:

- Significant initial investment and learning curve
- Variable performance across different microgreen varieties
- Some materials lack natural nutrient content

The marriage of **technical innovation** and practical experience has transformed what's possible in both small and large-scale operations.

The Microgreens Nutrition Story: More Than Just Small Greens

I remember dismissing the study as a typo - how could microgreens contain **up to 40 times more nutrients** than full-grown plants? I thought there must be a mistake. But that revelation changed everything about how I view these tiny powerhouses.

Through years of hands-on research, I've watched in amazement as **biofortification techniques** transformed these plants into even more potent nutritional engines. I remember my skepticism when colleagues suggested we could naturally enhance their **selenium content** - until I saw the results myself.

The most fascinating discovery? Each variety brings its own unique gift. **Red cabbage microgreens** deliver an astounding 200mg of **glucosinolates** per 100g. In contrast, others concentrate different **antioxidants** and minerals based on how we nurture them.

What truly excites me is how we're moving beyond just saying "they're healthy" to understanding exactly how these **nutrient profiles** support specific aspects of wellness.

Through targeted growing techniques, we're literally cultivating better nutrition, one tray at a time. It's like having a tiny pharmaceutical garden at our fingertips!

Microgreens Market Implications and Opportunities

My journey through the **microgreens market** has been a rollercoaster of surprises and revelations. Back when I started, these tiny greens were strictly the domain of **high-end restaurants**, commanding premium prices that made them inaccessible to most consumers.

What fascinates me now is watching how **scientific breakthroughs** are democratizing access. I remember my skepticism when a

researcher first showed me their **automated growing system** - could this really bring down costs while maintaining quality? The results amazed me.

Factor	Old Method	New Approach
Lighting	Natural/Basic LED	Spectrum-Optimized LED
Growing Media	Soil Only	Hybrid Substrates
Nutrients	Standard Solution	Biofortified Formula
Yield	Control Manual	Mechanized Systems

What thrills me most is watching chefs transform these insights into culinary magic. They're not just creating beautiful dishes; they're crafting **nutrient-optimized experiences**. Every week, I see new ways that **production innovations** are reshaping what's possible - from **hydroponic systems** that slash costs to **targeted growing techniques** that enhance specific nutrients.

The disconnect between **scientific understanding** and **consumer awareness** still keeps me up at night. In our recent survey, only 100 out of 150 consumers even knew what microgreens were! But here's what gets me excited: once people try them, especially **beetroot and carrot varieties**, the adoption rate hits 64.6%.

Aspect	Impact on Culinary Applications
Nutritional Trends	Improved menu descriptions
Flavor Profiles	Targeted taste combinations
Market Dynamics	Premium pricing potential
Growing Methods	Seasonal availability
Scientific Research	Health benefit messaging

We're standing at a fascinating tipping point where science meets sustainability, and I can't wait to see what comes next.

Microgreens: Future Directions and Recommendations

When I started researching **microgreens**, I never imagined I'd become so passionate about their future. After years of watching them evolve from simple **restaurant garnishes** to recognized **nutritional powerhouses**, I'm convinced we've barely touched their potential.

My biggest "aha" moment? Realizing that standardization isn't just about paperwork - it's about democratizing access. I remember my early disasters trying to maintain consistent quality across different growing environments. Those failures taught me why we desperately need **universal standards**.

What keeps me up at night is the gap in our understanding of **nutrient bioavailability**. We know these tiny greens pack incredible nutrients, but how does cooking affect them? And don't get

me started on the sustainability question - I've seen too many operations struggle with balancing **resource efficiency** against quality.

The most exciting part? Watching three distinct markets emerge: **health-conscious consumers**, **culinary innovators**, and **environmental advocates**. Each group brings unique demands, pushing us to innovate in different ways.

I believe we're on the cusp of something revolutionary - where **customized nutrition** meets **sustainable production**, making these powerful plants accessible to everyone.

Wrap-up: Microgreens and The Path Forward

After a decade in the **microgreens industry**, I've had my share of "what was I thinking?" moments. Remember when we thought LED lighting was just about saving energy? Those early experiments taught me more through failure than any textbook could have.

Today, standing at the intersection of **scientific innovation** and **market opportunity**, I'm both humbled and excited. I've watched skeptical chefs become passionate advocates after discovering how **biofortification** can enhance both nutrition and flavor. Those moments of conversion never get old.

Aspect	Scientific Innovation	Market Evolution
Growth Methods	LED-optimized systems	Home growing kits
Nutrition	Biofortification studies	Health-focused marketing
Distribution	Shelf-life improvement	Direct-to-consumer models

What keeps me up at night isn't just the science - it's bridging the gap between complex research and real-world applications. I've seen brilliant innovations fail because we couldn't translate their value to consumers. But I've also witnessed simple **home-growing kits** transform skeptics into enthusiasts.

The future? It's not just about growing better greens; it's about growing a better food system. And that journey, with all its messy, beautiful challenges, is just beginning.

Research

The references listed below represent the key scientific literature consulted in the creation of this article on **the evolution of microgreens in the market.**

The comprehensive reference list allows readers to investigate specific aspects of the research in greater detail and verify the scientific foundations of the information presented.

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Medical Disclaimer

The information provided in this article by Microgreens World and related materials is for educational purposes only and should not be considered medical advice. Always consult with a qualified healthcare professional before making any changes to your diet, lifestyle, or health regimen. The author and publisher are not responsible for any consequences resulting from the use of this information, and readers assume full responsibility for their actions based on it.

Evidence-based Expertise

Space Microgreens: Tough Little Plants Fight Radiation

Picture this: astronauts growing fresh, nutrient-packed microgreens aboard spacecraft, replacing those chemical supplements they've relied on for years.

Sounds amazing, right?

Well, there's just one tiny challenge - space radiation.

But here's where things get interesting. Scientists tested four microgreen species (basil, rocket, radish, and cress) by blasting their seeds with heavy ions, mimicking the harsh radiation environment of space.

The results were fascinating. Instead of wilting under pressure, these tiny plants often treated the radiation like just another mild stress - kind of like how they handle other environmental challenges on Earth.

Even more intriguing?

Each species had its own unique way of dealing with the radiation. Some even showed signs of "eustress" - that's when a little stress actually makes something stronger.

This research suggests that over time, these resilient little plants might actually adapt to thrive in space.

Source: Cowing, K. (2025, January 10). Morphological and photosynthetic pigment screening of four microgreens species exposed to heavy ions. Astrobiology. https://www.astrobiology.com/2025/01/morphological-and-photosynthetic-pigment-screening.html

Cultivation Techniques

Short Course: Vertical Farming Systems – LIVE

From hydroponic growing system selection to the use of artificial lighting and environmental control of all key variables in vertical farming systems, this is your time to master the use of artificial lighting!

Instructor: M.S. Karla Garcia

- Hort Americas Technical Service
- Master in Plant Sciences from The University of Arizona
- Editor: Book Roadmap to Growing Leafy Greens and Herbs

Saturday, January 18th, 2025

- Schedule: 10:00 AM TO 12:00 PM (Central Time)
- Platform: ZOOM US
- Price: $50 US

REGISTER

MSU vegetable short course set for Feb. 25-26

VERONA, Miss. -- Current and prospective commercial vegetable growers can learn about specialized production methods during Mississippi State University's **2025 Vegetable Short Course Feb. 25-26.**

The course will be held at the North Mississippi Research and Extension Center's Magnolia Building in Verona from 8 a.m. to 5 p.m. each day.

It is open to greenhouse, high-tunnel, and field vegetable producers throughout the Southeast.

Attendees will learn about vegetable management practices for growing tomatoes, lettuce, and other crops via greenhouse, high-tunnel, and field production.

Participants will attend educational sessions and participate in hands-on activities.

Topics include microgreens, nutrient management, pesticide safety, floating growing systems, and insect and disease issues.

Speakers will also present information on current tomato, strawberry, and lettuce research.

Vendors will offer various goods and services.

Preregistration is available until Feb. 15

PRE-REGISTER!

Preregistration is $40 per person. On-site registration is $50 for both days or $25 for one day per person.

The fee covers conference materials, lunch, and refreshments.

The Magnolia Building is located at 5395 Mississippi Highway 145 South.

The event is organized by personnel with the MSU Extension Service and

Mississippi Agricultural and Forestry Experiment Station.

Emerging Industry News

One Year In: AeroFarms' Costco Success Story

Who would've thought microgreens would become Costco's latest success story?

AeroFarms, America's leading microgreens supplier, is marking a pretty remarkable milestone - their first year partnering with retail giant Costco. And what a year it's been.

Starting from their innovative 6oz. Micro Rainbow Mix, AeroFarms has expanded its reach to roughly 250 Costco warehouses across the nation.

But here's what makes this story particularly interesting: they're not just another supplier.

As a Certified B Corporation, they're proving that sustainable farming and large-scale retail can work together beautifully.

Now, they're taking things up a notch with their new seasonal Micro Broccoli product, which will be strategically launched during January's Healthy Habits month.

It's a smart move that shows they understand both their market and their mission - making sustainable, nutrient-rich food more accessible to everyday shoppers.

Source: AeroFarms. (2025, January 9). AeroFarms celebrates first year of successful partnership with

Costco [Press release]. CNHINews. https://www.cnhinews.com/news/article_e0c9e979-14f8-5930-892c-2eddfc53cfeb.html

Decade of Growth: From Empty Space to Dreams

A commercial space can feel pretty daunting when you're just starting out.

That's exactly what Microgreens Ottawa faced ten years ago when they took their first big leap into a commercial location.

Looking back now, those empty rooms represented more than just square footage - they were the blank canvas for a decade of dreams, sweat, and determination.

Sure, there were those nights when exhaustion crept in, and doubts whispered, "Is this worth it?"

But that's the thing about passion - it keeps you going when logic says quit.

Through late-night planning sessions and early-morning harvests, they built something special.

It is not just a business but a community of dedicated team members who share their vision.

Now, celebrating their tenth anniversary, they're not just marking time - they're celebrating every challenge overcome, every lesson learned, and every person who helped turn those empty rooms into a thriving reality.

Source: Microgreens Ottawa. (2025, January 5). Celebrating 10 years of growth, dedication, and hard work! [LinkedIn post]. LinkedIn. https://www.linkedin.com/posts/microgreensottawa_celebrating-10-years-of-growth-dedication-activity-7282022131826135041-AjUF/

Tech Dreams Wilt: Vertical Farm's Reality Check

Sometimes, the future arrives a bit too early.

That's the hard lesson learned at Greenleaf Fresh, New Zealand's ambitious first large-scale vertical farming venture.

Despite wielding impressive technology that slashed water usage by 95% and eliminated the need for pesticides, this Hamilton-based operation couldn't escape the harsh realities of economics.

Picture a massive 5,662-square-meter facility, humming with potential, growing everything from lettuce to **microgreens** year-round.

The dream?

Revolutionary farming for a sustainable future.

The reality?

A company struggling to reach the scale needed for profitability, even with $3.5 million in public funding behind it.

By December's end, those dreams withered.

Now, 55 employees are owed vacation pay, millions are due to creditors, and administrators face the sobering task of selling off what remains.

It's a stark reminder that innovation, however promising, must still navigate the unforgiving path to profitability.

Source: Edmunds, S. (2025, January 8). The first large-scale vertical farm, Greenleaf Fresh, failed and owes millions. RNZ News. https://www.rnz.co.nz/news/national/business/greenleaf-fresh-failure

Commercial Best Practices

Welsh Mine Transforms into Microgreens Marvel

Sometimes, life's unexpected turns lead to the most amazing journeys. Just ask Chris and Donna Graves, who turned Chris's health challenge into an opportunity for innovation.

Their story? A small lockdown hobby that bloomed into Micro Acres Wales is now thriving in what used to be - get this - a mine explosives storage facility.

Thanks to Project HELIX and the ZERO2FIVE Food Industry Centre, this family venture has transformed from a single windowsill tray into a sophisticated vertical farm.

The Welsh Government-funded support helped them nail down everything from food safety plans to optimal production flow, earning them a perfect food hygiene rating of five.

Now, they're not just growing more - they've expanded their product range from microgreens to include mushrooms and edible flowers.

Talk about turning a former explosives facility into a garden of innovation!

Source: Gregory, R. (2025, January 9). Micro Acres Wales doubles production with Welsh Government support. Wales247. https://www.wales247.co.uk/micro-acres-wales-doubles-production-with-welsh-government-support

Robot Farmers: Australia's Answer to Microgreens Crisis

Remember when vertical farming was the darling of Silicon Valley?

Well, while those billion-dollar American dreams were wilting under unsustainable costs, a

scrappy Australian startup was taking notes. Stacked Farm has emerged with a fascinating twist - they're letting robots do the heavy lifting.

Starting from a modest 400-square-meter R&D space in 2017, they've crafted something remarkable: a fully automated system where robots plant, harvest, and package herbs and microgreens without human hands.

No army of scientists, no sky-high operating costs - just smart technology doing what it does best.

Now, with $150 million in fresh funding, they're scaling up to a 10,000-square-meter facility in Melbourne.

The secret to their success? Patience.

While others rushed to grow, Stacked Farm took time to learn from competitors' mistakes, developing their own robotics and keeping their team lean.

Sometimes, being the tortoise in a race of hares pays off.

Source: Stacked Farm gets new $150M automated vegetable patch. (2025, January). Vertical Farm Daily. https://www.verticalfarmdaily.com/article/9692630/australia-stacked-farms-gets-new-150m-automated-vegetable-patch/

From Market Stalls to Wholesale: Our Microgreens Journey

From the moment Stephen and I started JPure Farms in 2017, we knew we had to figure out where our microgreens would end up.

Like most people, we got drawn in by the growing part - watching those tiny seeds transform into vibrant, nutrient-packed greens.

Nobody really starts by saying, "I love selling microgreens. Maybe I should grow them too."

Looking back, we were lucky that both of us had some sales experience, though selling microgreens turned out to be a whole different game.

We learned pretty quickly that we needed to nail down our market before ordering those first seed trays.

The Atlanta metro area was practically untapped for microgreens back then - both a blessing and a challenge.

The Farmers Market

We started at the Peachtree Road Farmers Market with just a 10x10 booth. Half our space was microgreens, and half was regular vegetables we were experimenting with.

The microgreens consistently sold out, and the vegetables... well, let's just say we ate a lot of kale that summer.

The writing was on the wall - we gradually shifted to bringing more varieties of microgreens.

Our farmers market setup was simple: a table, tent, clean tablecloth, and a cash box.

We displayed our microgreens in clear clamshells, making sure people could see the vibrant colors.

The rainbow mix was always eye-catching - the deep purple of red cabbage microgreens next to the bright green of pea shoots and the golden yellow of sunflower shoots.

What really drove our sales was abundance.

We learned that if you only put out three containers of sunflower microgreens, they'd sit there all day.

But if you filled the table with fifteen or twenty containers, they'd sell out by noon.

People want to feel like they're getting the best pick, not the leftover scraps.

We offered different size options - from small 2oz containers perfect for garnishing to larger 4oz ones for salad enthusiasts.

Price points ranged from $5 to $12, which felt steep at first, but we quickly learned that quality products command quality prices. Some customers balked at first, but once we shared the growing process and nutritional benefits with them, they understood, and they became regulars.

The Restaurant Game

The game-changer came when local chefs started showing up at our market stand. They'd buy multiple containers, asking about bulk pricing and delivery options. That's when we realized there might be a bigger opportunity in wholesale. The farmers market was great for building our brand, but the real potential lay in supplying restaurants and grocery stores.

Making the transition wasn't easy. We had to completely revamp our growing schedule to ensure consistent supply. No chef wants to hear, "Sorry, we're out this week." We invested in better climate control systems and automated some of our processes. The learning curve was steep - there were definitely some sleepless nights worrying about crop failures.

But, the wholesale market proved more stable than retail. Instead of wondering if it might rain on market day and kill our

sales, we had standing orders from restaurants. We could plan our production better, minimize waste, and actually predict our income.

We still did farmers markets occasionally, mainly to maintain connections with our original customers and get direct feedback on new varieties. But, our focus shifted to building relationships with chefs and food service managers. The Atlanta restaurant scene was really starting to boom, and chefs were looking for ways to make their dishes stand out. Our microgreens fit perfectly into that trend.

One lesson we learned the hard way: never do consignment. A few cafes suggested it early on, but microgreens are too perishable for that model.

We'd rather sell wholesale at a lower margin and know exactly where we stand.

Consumer Education

The Georgia market wasn't as developed as some other regions, which meant we had to do a lot of education.

But it also meant we had room to grow and establish ourselves as leaders in the space. We spent countless hours doing demos, creating recipe cards, and teaching people how to use microgreens beyond just garnish.

Looking back, starting with retail before moving to wholesale was the right path for us.

It helped us understand our product better, refine our growing techniques, and build a reputation for quality.

The farmers market taught us what customers value and how to tell our story effectively - skills that proved invaluable when pitching to wholesale clients.

These days, JPure Farms looks very different from that first 10x10 booth.

But, the lessons we learned selling directly to customers still influence how we run our wholesale operation.

Every tray of microgreens we grow still gets the same attention to detail that we gave those first market batches.

Practical Marketing for Busy Farmers

Join Certified Naturally Grown for *Practical Marketing for Busy Farmers*, a three-week deep-dive into the most common avenues for building and strengthening your customer base.

The courses cover social media (that doesn't make you miserable!), effective newsletter communications, and strategic design of your point of sales experience.

Learn which media are most effective for your business goals and how to harness each for maximum impact – all from a farm-centric perspective.

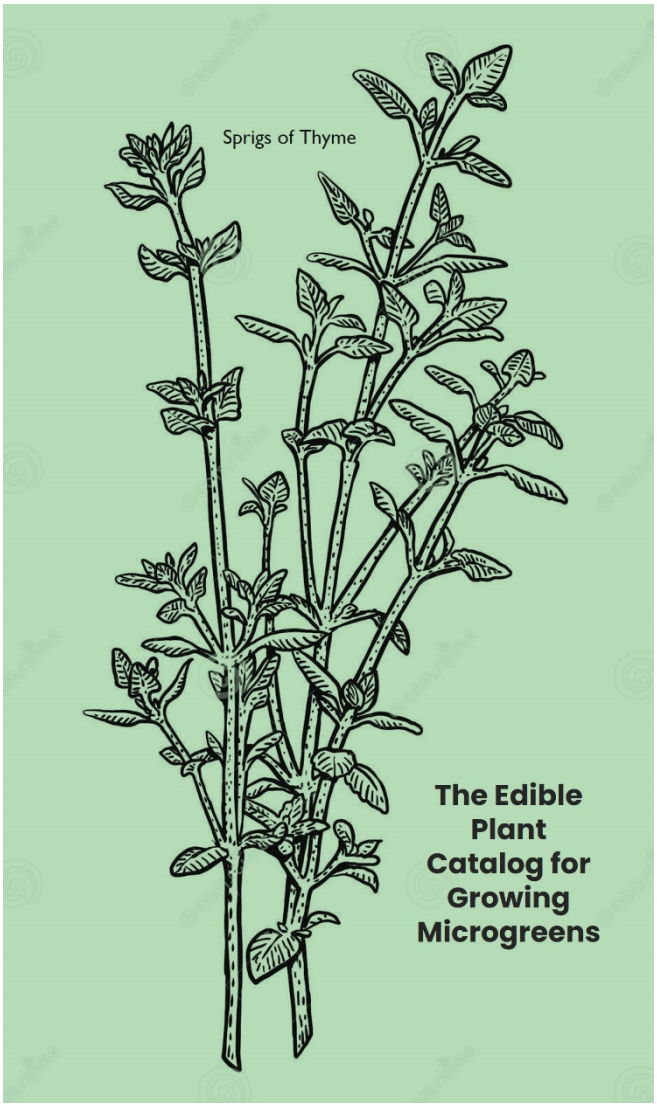
Enrollment includes:

- 90 minutes of live instruction each week
- Lifelong access to all resources provided

Learn more about the instructors and key learning objectives for each session below:

REGISTER

The Edible Plant Catalog for Growing Microgreens



Discover a wealth of possibilities in microgreen cultivation with our meticulously curated guide featuring **over 200 edible plant species**.

Each entry outlines specific growing requirements to jumpstart your microgreens growing journey, offering insights into optimal light, temperature, and watering conditions.

This invaluable resource caters to commercial growers, researchers, and home gardeners seeking to broaden their horizons beyond traditional crops.

Embrace this opportunity to innovate and contribute to the expanding field of microgreens, enhancing your expertise while enjoying the unique flavors and nutritional benefits of diverse plant varieties.

LEARN MORE

Brought to you by **Doc Green**, Andrew Neves' personally trained AI assistant. "You may ask me anything about microgreens."

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