

WEEKLY DIGEST

RECENT INNOVATIONS IN THE MICROGREENS SECTOR: EMERGING TRENDS AND SOME PREDICTIONS FOR 2025

PARSLEY MICROGREENS: NATURE'S FAST-FORWARD SUCCESS STORY

CREATIVE RECIPES: Japanese-Inspired Raw Kanpachi with Citrus-Chipotle Sauce

CULTIVATION TECHNIQUES: Growers Revolutionize Microgreens with Smart Tech

EMERGIN INDUSTRY NEWS: FDA Releases New Guidance on Food Labeling Regulations

“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.



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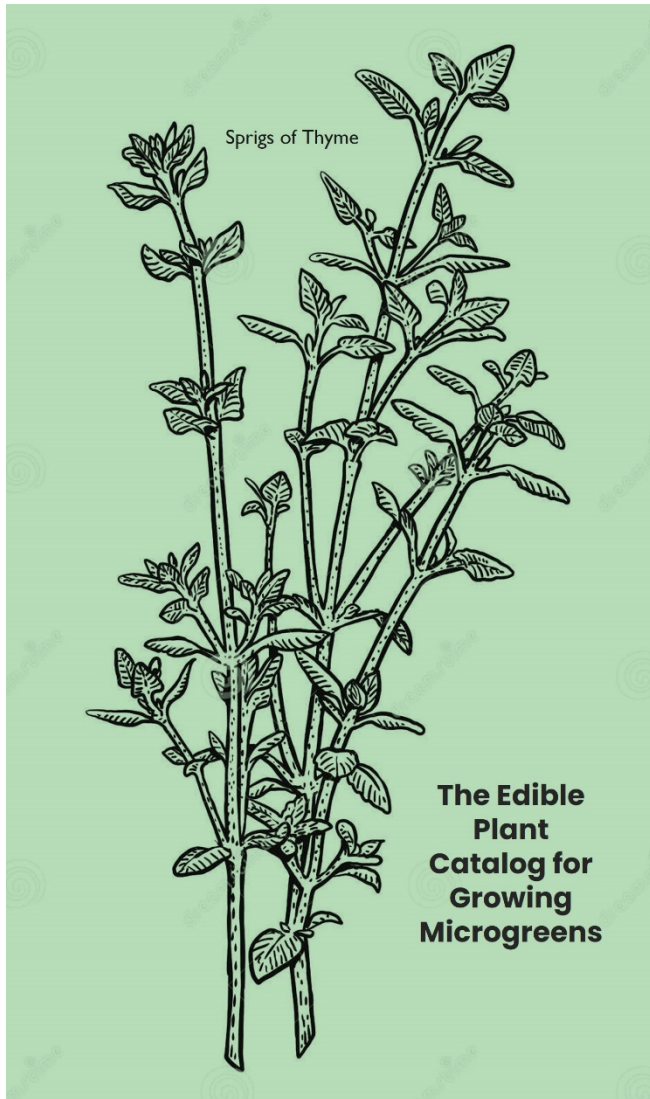
Recent Innovations in the Microgreens Sector: A Patent-Based Perspective

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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

Nutrition Science

Primed Parsley Microgreens: Nature's Fast- Forward Success Story



NOTE: Microgreens can be harvested when the cotyledon leaves are fully grown or when the plant has its

first two true leaves (Gerovac et al., 2016; Waterland et al., 2017; Li et al., 2021). Di Gioia et al. (2023) defined the commercial harvesting stage of microgreens as the time when the cotyledons are fully developed, and the first true leaves begin to grow. In this study, microgreens were harvested at the stage when the cotyledons were fully grown, and the first true leaves began to grow (Di Gioia et al., 2023).

Recent research has revealed compelling findings about parsley microgreens.

With the microgreens market projected to reach \$3.4 billion by 2030, understanding their qualities compared to mature parsley plants has become increasingly important.

The study focused on comparing regular parsley microgreens, primed parsley microgreens (seeds pre-treated with water soaking), and mature parsley plants.

The results demonstrated several key advantages of microgreens, particularly when using primed seeds:

- **Yield and Growth Speed:** Primed microgreens produced the highest yield at 886.4 g/m², surpassing both unprimed microgreens (765.6

g/m²) and mature parsley (667.7 g/m²).

They achieved this in just 25 days, compared to 50 days for mature parsley.

- **Nutritional Content:** While mature parsley led in Vitamin C content (234.94 mg/100g), primed microgreens came close at 214.07 mg/100g.

Most notably, primed microgreens showed remarkably higher apigenin content (97.776 mg/kg) compared to both mature parsley and unprimed microgreens (around 20 mg/kg).

The research also found that priming seeds increased germination rates from 70% to 80%, contributing to higher yields.

While mature parsley showed higher levels of titratable acidity and water-soluble dry matter, microgreens demonstrated

enough advantages to make them a viable alternative.

SUMMARY

This research article investigates the quality characteristics of mature parsley plants compared to parsley microgreens, with and without seed priming.

The study, conducted in a greenhouse setting, analyzed yield, ascorbic acid content, pH, titratable acidity, water-soluble dry matter, and apigenin levels.

Priming significantly increased microgreen yield, while mature plants had higher ascorbic acid.

Mature plants also exhibited greater titratable acidity and water-soluble dry matter, whereas microgreens showed a higher pH.

Interestingly, primed microgreens contained the highest apigenin concentration.

These findings suggest that parsley microgreens, especially when grown from primed seeds, offer an efficient and nutritious option for growers looking to maximize yield and certain beneficial compounds in a shorter time frame.

Source: Çakır, Ali, et al. "Determination of Quality Characteristics in Mature Parsley (*Petroselinum Hortense*) Plants, Parsley Microgreens, and Primed Parsley Microgreens." *Black Sea Journal of Agriculture*, vol. 8, no. 1, 9 Jan. 2025, pp. 96–102, <https://doi.org/10.47115/bsagriculture.1595301>.

Creative Recipes

Japanese-Inspired Raw Kanpachi with Citrus-Chipotle Sauce

The delicate, buttery flesh of fresh kanpachi (**amberjack**) meets the **peppery bite** of microgreens in this vibrant dish.

The combination of [yuzu's bright citrus notes](#) with smoky chipotle creates an unexpected yet harmonious **fusion** that elevates this simple crudo to new heights.

Recipe Information

- Prep Time: *20 minutes*
- Cook Time: *None* (Raw preparation)
- Category: *Appetizer*
- Method: *Raw/Assembly*
- Cuisine: *Japanese Fusion*
- Yield: *4 servings*

Ingredients

- 300g sashimi-grade kanpachi, thinly sliced

- 50g mixed microgreens (radish, mustard, shiso)
- 200g daikon, finely [julienned](#)
- 2 tablespoons togarashi seasoning
- 60ml yuzu juice
- 2 teaspoons chipotle paste
- 30ml light soy sauce
- 15ml rice vinegar
- 2 tablespoons neutral oil



Preparation:

1. Slice kanpachi against the grain into 3mm-thick pieces
2. Julienne daikon into fine matchsticks, soak in ice water
3. Whisk yuzu juice, chipotle paste, soy sauce, rice vinegar, and oil
4. Drain daikon and pat dry

Plating

Arrange kanpachi slices in a circular pattern on chilled plates. Mound daikon in the center. Scatter microgreens over the fish. Drizzle with yuzu-chipotle sauce. Finish with a sprinkle of [togarashi](#).

Microgreen Benefits

The radish and mustard microgreens contain high levels of antioxidants and sulforaphane, which help regulate blood sugar levels.

These compounds have been shown to improve insulin sensitivity and reduce inflammation associated with Type 2 diabetes.

Community News

Microgreens: Tiny Powerhouses for Health



Founded by Gisborne locals Gabrielle and Rohan Draper, ['That Leaf'](#) promotes microgreens' easy cultivation and health benefits.

Gabrielle's personal experience with her mother's battle with bowel cancer drives her mission to improve diets through microgreens.

Despite modern challenges in encouraging healthy eating in children, the Drapers successfully incorporate microgreens into family meals.

Microgreens, young vegetable greens, are nutrient powerhouses with up to 40 times more antioxidants than mature vegetables, offering health benefits such as reducing risks of Alzheimer's, diabetes, and heart disease.

Sustainability is a core ethos for 'That Leaf', utilizing biodegradable packaging and non-GMO seeds.

Their products, available at local markets and health food stores, provide an accessible superfood solution.

Emphasizing microgreens' ease of growth and potent health benefits, 'That Leaf' represents a shift towards more sustainable, nutritious dietary choices.

Their impact demonstrates a creative approach to tackling contemporary health and sustainability issues.

Source: Midland Express. (2025, January 14). That leaf is a vegetable | Midland Express. *Midland Express*. <https://midlandexpress.com.au/latest-news/2025/01/14/microgreens-can-provide-up-to-40-times-more-antioxidants-than-fully-grown-vegetables/>

Farm Tours by UNS: Sustainability Meets Community



UNS Farms has launched educational farm tours at their vertical farming facility in Dubai to educate the community on sustainable food choices and farming practices.

Aimed at raising awareness about sustainable agriculture

and aligning with the UAE's National Food Security Strategy, these tours offer insights into the environmental benefits of local produce.

Participants, including students and community groups, engage in interactive experiences to understand the farm-to-table journey.

Visitors learn about the vertical farming methods employed by UNS Farms, such as the use of hydroponics, which reduces water usage by 90% compared to traditional farming while doubling productivity per square meter.

The tours consist of exploring various crop sections like microgreens, salads, and edible flowers, witnessing hydroponic systems, and observing harvesting and packaging processes that minimize waste.

The initiative hopes to inspire visitors to adopt sustainable practices, thereby supporting local food security and climate action.

According to UNS Farms' Executive Director Mehram Murtaza, the tours are designed to connect people with food sources and stress the importance of sustainable farming, aligning with Dubai's goals of food security and environmental resilience.

Participants also receive growkits to encourage them to start their gardens and further promote sustainable food practices.

Source: Hurtado, M. (2025, January 14). UNS Farms Launches Educational Farm Tours to Inspire Sustainable Food Choices. *Perishable News*.
<https://www.perishablenews.com/floral/uns-farms-launches-educational-farm-tours-to-inspire-sustainable-food-choices-in-dubai/>

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-grows-list-of-winter-conferences/>

After years of cultivating microgreens, I compiled my knowledge into a comprehensive beginners' guide titled “**CHILDREN OF THE SOIL.**”



**Transform Your Home into
a Nutrient-Packed
Superfood Haven**

Your 9-Day Blueprint to Microgreen Mastery

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FEATURED ARTICLE

Recent Innovations in the Microgreens Sector: A Patent-Based Perspective



You'll find that the **microgreens sector** has transformed dramatically in recent years, with **patent filings** revealing an unprecedented wave of innovation.

From **AI-driven harvesting systems** to **breakthrough packaging solutions**, these developments aren't just incremental

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improvements—they're reshaping how we grow, distribute, and consume these nutrient-dense crops.

While established players have doubled down on traditional methods, newcomers are altering the market with unconventional approaches that challenge long-held assumptions about microgreen cultivation.

What's particularly intriguing is how these innovations intersect with broader trends in **sustainability and food security**, setting the stage for what comes next.

Microgreens Market: Current Outlook



The microgreens sector exemplifies how technological innovation drives market transformation, with patent filings increasing fourfold since 2018, reflecting an intensification of research and development across multiple domains.

This surge in innovation correlates directly with the market’s projected expansion from \$2.5 billion in 2021 to \$4.5 billion by 2031, demonstrating the sector’s remarkable maturation.

The comprehensive analysis of patent activities reveals systematic advancement across critical operational areas, as evidenced by the following integrated innovation metrics:

Innovation Category	Key Patents (2023-2024)	Market Impact	Growth Impact
Growing Systems	Vertical Farming Solutions	Improved Yield	32% (LED Innovation)
Harvesting	Mechanized Cutting Systems	Labor Efficiency	28% (Smart Systems)
Packaging	Modified Atmosphere Tech	Extended Shelf Life	25% (AI Integration)
Substrate Design	Smart Growing Media	Quality Control	-
Lighting Solutions	Precision LED Arrays	Energy Savings	-

This technological progression, particularly evident in vertical farming and mechanized harvesting systems, addresses fundamental industry challenges while simultaneously advancing sustainability objectives through resource-efficient designs and intelligent monitoring systems, thereby positioning microgreens as a pivotal sector in modern agriculture’s evolution.

The Importance of Innovation in the Microgreens Industry

The microgreens industry demonstrates a paradigmatic shift in agricultural innovation, evidenced by a dramatic 400% increase in patent filings from 51 to 196 between 2018 and 2022.



This surge reflects systematic responses to mounting market pressures for enhanced yields, reduced costs, and sustainable production methodologies.

The comprehensive analysis of innovation drivers and their corresponding market impacts reveals the following integrated metrics:

Innovation Area	Key Development	Market Driver	Industry Response	Impact
Cultivation	Vertical integration systems	Health Focus	Improved Growing Systems	40% space optimization
Packaging	Modified atmosphere technology	Sustainability	Biodegradable Solutions	3x shelf life extension
Mechanization	AI-driven harvesting	Convenience	Direct-to-Consumer Models	85% labor reduction

This technological evolution, particularly evident in mechanized growing systems and sustainable packaging solutions, demonstrates the industry's transformation toward precision agriculture, where production processes are meticulously controlled through sophisticated monitoring systems.

The integration of AI-driven harvesting and modified atmosphere technologies further exemplifies the sector's commitment to efficiency optimization while addressing fundamental sustainability concerns.

Recent Patent Innovations in Microgreens Cultivation



Recent patent innovations in microgreens cultivation demonstrate a fundamental transformation of traditional agricultural methodologies through integrated technological advancement.

The exemplary patent US20240016106A1 illustrates this evolution, introducing a revolutionary aeroponic system that seamlessly transitions from horizontal seeding to vertical growth configurations.

This technological progression manifests across multiple operational dimensions, as evidenced by the following comprehensive analysis:

Feature	Benefit	Technology Component	Performance Impact
Vertical Orientation	Maximizes space utilization	Aeroponic Delivery	400% yield increase
Gellan Substrate	Guarantees seed stability	IoT Sensors	30% cycle reduction
Smart Monitoring	Real-time adjustment	AI Algorithms	95% water reduction
Mechanized Transitions	Reduces labor requirements	Precision Dosing	Optimal nutrient delivery

The integration of IoT sensors and artificial intelligence has particularly revolutionized cultivation processes, enabling real-time environmental monitoring and automated adjustments of critical growth parameters.

These innovations, coupled with breakthrough developments in substrate technology incorporating biodegradable polymers and specialized gelling agents, represent a significant advancement in sustainable agriculture practices.

The cumulative impact of these technological integrations manifests in dramatically improved resource efficiency, consistently enhanced yield quality, and substantially reduced operational costs, positioning microgreens cultivation at the forefront of agricultural innovation.

Innovations in Microgreens Packaging

Recent innovations in microgreens packaging technology demonstrate a paradigmatic shift toward multifunctional, sustainable solutions that

fundamentally transform both distribution and cultivation methodologies.



Patent WO2024182870A1, featuring divisible packaging that converts from shipping containers to growing trays, exemplifies this evolutionary trajectory in agricultural technology integration.

The convergence of smart technology and sustainable materials has produced significant advancements across multiple operational dimensions:

Feature	Primary Benefit	Technology Component	Environmental Impact	Consumer Value
Divisible Design	Dual-purpose functionality	Strategic folding patterns	75% plastic reduction	Immediate cultivation capability
Smart Monitoring	Real-time freshness tracking	QR-enabled sensors	Waste reduction	Extended shelf life

Feature	Primary Benefit	Technology Component	Environmental Impact	Consumer Value
Biodegradable Materials	Environmental sustainability	Plant-based polymers	90-180 day decomposition	Optimal moisture retention
Integrated Systems	Supply chain optimization	RFID/ethylene sensors	Reduced packaging waste	Enhanced product quality

These innovations reflect a systematic response to escalating consumer demands for sustainable solutions while simultaneously addressing critical industry challenges in product preservation and distribution.

The integration of micro-sensors for ethylene detection and bacterial growth monitoring, coupled with color-changing freshness indicators and QR code systems, represents a comprehensive approach to extending product viability while enhancing consumer engagement through technological integration.

Technological Advancements in Growing Systems

Modern microgreens cultivation exemplifies the convergence of advanced automation and precision agriculture, as evidenced by breakthrough patents like KR20240114595A, which introduces sophisticated monitoring systems that fundamentally transform traditional growing methodologies.

This technological integration manifests across multiple operational dimensions, enabling unprecedented control over cultivation parameters while significantly reducing resource consumption.



The systematic analysis of technological components and their operational impacts reveals the following comprehensive metrics:

Component	Primary Function	Key Benefit	Resource Impact	Efficiency Gain
Smart Seeders	Precise seed spacing	30% higher yield	90% water reduction	Optimal spacing
IoT Sensors	Environmental control	Real-time monitoring	40% energy savings	Growth optimization
AI Controllers	Resource management	40% cost reduction	Automated adjustments	Labor efficiency
LED Arrays	Spectrum optimization	Enhanced growth	Precise wavelengths	40% energy reduction
Harvesting Robots	Quality control	70% labor reduction	Consistent output	Automated processing

These innovations, particularly in spectrum-tuning capabilities and robotic harvesting systems, demonstrate remarkable advancement in controlled environment agriculture.

The integration of machine learning algorithms with precision hardware enables automated adjustment of critical parameters, from light spectrums (400-700nm) to cutting heights, while maintaining product quality and significantly enhancing operational efficiency through sophisticated mechanization protocols.

Market Implications of These Innovations



Recent innovations in microgreens technology present both unprecedented opportunities and significant implementation challenges for market participants, fundamentally transforming operational paradigms while requiring substantial capital investment.

The integration of these technological advances demands careful strategic analysis, particularly regarding return on investment and operational scalability.

A comprehensive analysis of investment requirements and expected outcomes reveals the following metrics:

Investment Category	Initial Cost Range (\$)	ROI Timeline	Efficiency Gain	Market Impact
Vertical Systems	15,000 - 45,000	18-24 months	Space optimization	25-30% yield increase
Mechanized Harvesting	25,000 - 75,000	12-36 months	40% labor reduction	Consistent quality
Smart Packaging	8,000 - 20,000	6-12 months	Extended shelf life	Market expansion
Climate Controls	12,000 - 30,000	24-36 months	Resource efficiency	Optimal conditions
Monitoring Software	5,000 - 15,000	3-9 months	Real-time control	Data-driven decisions

While these technological innovations offer compelling advantages in operational efficiency and market differentiation, successful implementation requires careful consideration of scale-appropriate solutions.

The learning curve typically spans 6-12 months, necessitating dedicated operational focus and systematic training protocols, particularly for operations transitioning from traditional cultivation methods.

2025 and Beyond in Microgreens Innovation

The future trajectory of microgreens innovation demonstrates a profound convergence of biotechnology, artificial intelligence, and sustainability principles, fundamentally transforming traditional cultivation methodologies.



This evolution manifests through strategic partnerships between agricultural technology companies and established growers, catalyzing unprecedented advancements in precision farming and nutrient optimization.

The comprehensive analysis of emerging innovations and their projected impacts reveals the following integrated metrics:

Innovation Area	Timeline	Impact	Sustainability Gain	Enhancement Level
AI Growing Systems	2024-2025	40% yield improvement	90% carbon reduction	Precision control
Nano-sensors	2025-2026	30% water savings	Zero runoff design	Real-time monitoring
Quantum Computing	2026-2027	50% energy reduction	Resource optimization	Predictive analytics
Bioengineering	2027-2028	35% nutrient enhancement	Biodegradable substrates	CRISPR enhancement

Innovation Area	Timeline	Impact	Sustainability Gain	Enhancement Level
Smart Packaging	2028-2029	60% shelf life extension	Reusable containers	Waste elimination

These technological advancements, particularly in CRISPR gene editing and biofortification techniques, enable precise modification of nutritional profiles, demonstrating up to 47% increase in vitamin C content for selected brassica varieties.

The integration of artificial intelligence with precision sensors creates self-adjusting growing environments.

At the same time, partnerships between companies like AeroFarms and traditional agricultural firms accelerate innovation in mechanized harvesting systems and AI-driven climate management solutions, fundamentally transforming resource utilization efficiency.

Wrap-up: Microgreens Innovation

The microgreens industry demonstrates unprecedented technological evolution, evidenced by a 400% increase in patent filings between 2018 and 2022, with innovations transforming traditional cultivation methodologies.

Patents like US20240016106A1 and WO2024182870A1 exemplify breakthrough developments across multiple operational dimensions.

Key Innovation Areas	Primary Impact	Market Response	Implementation Focus
Vertical Farming Systems	Enhanced Yield	Space Optimization	Commercial Scale
Mechanized Harvesting	Labor Reduction	Cost Efficiency	Production Volume

Key Innovation Areas	Primary Impact	Market Response	Implementation Focus
Smart Packaging	Extended Shelf Life	Market Expansion	Consumer Access
Automated Controls	Resource Management	Sustainability	Operational Excellence



These technological advancements, particularly in vertical farming solutions and mechanized harvesting systems, fundamentally reshape industry dynamics while addressing critical challenges in production efficiency and sustainability.

The surge in patent activity signals robust innovation potential, suggesting continued advancement in cultivation methodologies and market opportunities.

Research

The references listed below represent a selection of key recent patents consulted in the creation of this article on **innovation** and **microgreens market growth**.

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

Neves, A. (2024, June 18). Innovative Irrigation Systems for Urban Microgreen Farms. *Microgreens World*.
<https://microgreensworld.com/automated-microgreens-watering-systems/>

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US20240016106A1 - Wall structure adapted for aqueously grown microgreens - Google Patents. (2023, May 24). Google.com. <https://patents.google.com/patent/US20240016106A1/>

US20220046874A1 - Microgreens Grow Tray and Kit - Google Patents. Google.com, 11 Aug. 2021, patents.google.com/patent/US20220046874A1/.

US11304391B1 - Microgreens grower - Google Patents. (2021, June 4). Google.com.
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<https://patents.google.com/patent/CN118415353A/>

US20240361742A1 - Artificially Intelligent Control System Agent - Google Patents. Google.com, 25 Apr. 2024, patents.google.com/patent/US20240361742A1/.

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Evidence-based Expertise

Microgreens in 2025: Emerging Trends and How Growers Can Stay Ahead



The microgreens industry is poised for significant expansion, with the market expected to reach \$4.5 billion by 2031.

As health-conscious consumers demand nutrient-dense, sustainable foods, microgreens are becoming an essential part of modern diets.

Looking ahead to 2025, I see several trends and innovations that are set to reshape the landscape for growers and new entrants alike.

Key Trends and Innovations

1. Technology-Driven

Farming: Advances in vertical farming, hydroponics, and automation will drive efficiency and scalability.

AI-powered climate control and smart monitoring systems will help growers optimize yield, minimize waste, and maintain consistent quality.

2. Diversification of Products:

Beyond traditional varieties like

broccoli and radish, expect to see a surge in exotic microgreens such as fenugreek, amaranth, and even bioengineered varieties offering enhanced nutritional profiles.

Functional microgreens infused with additional health benefits, such as higher antioxidants or specific micronutrients, will gain traction.

3. **Sustainability Initiatives:**

Consumers are increasingly eco-conscious, pushing for more sustainable packaging solutions, waste reduction techniques, and regenerative farming practices.

Growers who adopt biodegradable clamshells and water-efficient growing methods will have a competitive edge.

4. **Direct-to-Consumer**

Growth: The rise of online grocery platforms and farm-to-table services presents an

opportunity for microgreens growers to sell directly to health-conscious buyers, meal kit providers, and subscription-based models.

5. **Regulatory Compliance**

and Certifications: As the industry matures, adhering to food safety standards and obtaining organic or non-GMO certifications will become a necessity for market credibility and consumer trust.

How Microgreens Growers Can Respond

To stay competitive, existing growers should invest in smart agriculture technologies, diversify their product lines, and build strong brand identities through storytelling and transparency.

Partnerships with local chefs, health influencers, and meal kit companies can further boost visibility.

Preparing for Market Entry

New entrants should focus on market research, selecting high-demand varieties, and developing a strong online presence.

Starting with smaller, low-investment hydroponic systems can allow for scalability as demand increases.

Networking within the industry and learning from established growers will also be invaluable.

By staying informed and adaptable, both seasoned and new microgreens growers can thrive in the rapidly evolving landscape of 2025.

Sources:

DataM Intelligence 4Market Research. (2025, January 17). Microgreens Market Expected to Reach USD 4.5 Billion by 2031 | Fresh Origins, SAKATA, Farmbox Greens. *OpenPR.com*; openPR. <https://www.openpr.com/news/3819532/microgreen-s-market-expected-to-reach-usd-4-5-billion-by-2031>

The “The Global Microgreens Market: Rapid Growth, Key Drivers, and Major Trends Driving the Industry to 2025 and Be.” OpenPR.com, *openPR*, 16 Jan. 2025, www.openpr.com/news/3818163/the-global-microgreens-market-rapid-growth-key-drivers.

Cultivation Techniques

Conscious Cultivators Revolutionize Microgreens with Smart Techniques

Conscious Cultivators, a microgreen farming operation, shared their approach to planting over 70 trays, focusing on workflow efficiency and soil preparation.

They use durable trays and explore tools like a paint mixer to improve soil consistency.

Emphasizing optimal soil depth and planting ergonomics, they plan to collaborate with chefs on growing specific varieties.

Techniques such as even germination, precise watering, and seed handling are prioritized.

They employ a tray-stacking strategy with garden bricks to ensure uniform growth.

Daily tasks include planting, harvesting, and cleaning, highlighting operational efficiency.

Source: VerticalFarmDaily.com. (2025, January 17).
US (NC): Planting over 70 trays of microgreens.
Verticalfarmdaily.com.

<https://www.verticalfarmdaily.com/article/9696029/us-nc-planting-over-70-trays-of-microgreens/> |
<https://youtu.be/2IpgjITu2YY>

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.



Preregistration is available until Feb. 15

PRE-REGISTER!

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.

Emerging Industry News

Why 2025 is the Right Time to Start Your Microgreens Business

Are you ready to enter the world of entrepreneurship?

With the world overflowing with innovation and new opportunities, one might assume that 2025 is the right year to delve into entrepreneurship.

\$500 startup cost. \$5,000 monthly revenue potential. 70% profit margins.

These numbers reflect the current microgreens market reality, not just projections.



Small-scale farmers like Donny Greens prove these figures aren't just statistics - they're achievable targets.

2025 brings unique market conditions that make microgreens particularly

attractive. Restaurant owners seek local, sustainable produce suppliers.

Health-conscious consumers demand nutrient-dense foods.

Grocery stores need reliable microgreens providers to meet growing customer requests.

Starting a microgreens business requires minimal space - a spare room, garage, or basement works perfectly.

The quick growth cycle, typically 7-14 days from seed to harvest, means rapid cash flow.

You'll harvest your first crop before most traditional farmers plant their seeds.

Market research shows microgreens commanding premium prices: **\$25-50 per pound wholesale, \$40-80 retail.**

Your primary costs?

Seeds, growing medium, and basic equipment.

No expensive machinery, no large land investments, no complex distribution networks.

The timing aligns with shifting consumer preferences. People want transparency in their food sources.

They value locally grown produce.

They understand nutritional benefits. Microgreens deliver on all these points - containing up to 40 times more nutrients than mature plants.

Your competition? Limited.

Despite growing demand, most regions lack dedicated microgreens farmers.

This gap creates opportunities for new entrepreneurs to establish strong market positions and build lasting relationships with buyers.

- Start small.
- Focus on 2-3 varieties.
- Master your growing technique.

- Build a loyal customer base.
- Scale gradually.

The beauty of microgreens lies in their flexibility - *expand production based on demand without major additional investments.*

The math speaks clearly: Low startup costs + high margins + strong demand = solid business opportunity.

2025's market conditions create an ideal launch window for your microgreens venture.

The question isn't whether to start - it's how soon you'll begin.

FDA Releases New Guidance on Food Labeling Regulations

Recent FDA guidance has significant implications for **microgreens businesses**, particularly regarding food labeling and allergen considerations.

This is good news for microgreens growers!

Under the new rule, which shoppers could see **as early as 2028**, food manufacturers will be required to display levels of saturated fat, sodium, and added sugar on the front of the packaging, in addition to the **standard nutrition labels** on the back.



The idea is that by placing certain nutrition information directly in front of consumers,

they'll be more likely to make health-conscious decisions.

We believe that food should be a vehicle for wellness, not a contributor to chronic disease,
Rebecca Buckner,
the FDA's associate
deputy director for
human food policy,
said on a call with
reporters.

The regulations emphasize the importance of accurate ingredient disclosure, proper allergen statements, and compliance with nutrition labeling standards.

Microgreens producers must now focus on transparent labeling practices, especially concerning **organic claims**, **nutrient content**, and **packaging safety**.

Of particular concern are **specific microgreens varieties** that may fall under allergen guidelines.

Notable examples include mustard, radish, and arugula microgreens from the **Brassicaceae family**, which contain potentially allergenic compounds.

Additionally, microgreens derived from legumes like **pea shoots** and certain grains such as **wheatgrass** require special attention due to their potential allergenic properties.

The guidance extends beyond the major allergens defined by the Federal Food, Drug, and Cosmetic Act, requiring growers to be vigilant about emerging allergens in their products, especially when marketing novel varieties.

To maintain compliance and consumer trust, microgreens businesses must implement proper labeling protocols, safe processing practices, and clear allergen declarations.

These regulations serve multiple purposes: preventing legal issues, enhancing brand

credibility, and ensuring consumer safety.

For microgreens producers, **staying informed** about allergen developments and maintaining transparent labeling practices is crucial for successful business operations within regulatory frameworks.

Source: Human Foods Program. (2025). Guidance on Importance of Non-listed Food Allergens. U.S. Food and Drug Administration.
<https://www.fda.gov/regulatory-information/search-fda-guidance-documents/guidance-fda-staff-and-interested-parties-evaluating-public-health-importance-food-allergens-other>

Commercial Best Practices

Growing microgreens in the cold Minnesota climate

Even in the winter months, you may be surprised by the amount of produce that can be grown in Minnesota.

Garden Guy Dale K. takes a trip to [Urbanize LLC in Edina](#) to see how they're churning out large batches of fresh microgreens.

Source: Growing microgreens in the cold Minnesota climate. (2025). FOX 9 Minneapolis-St. Paul.
<https://www.fox9.com/video/1576454>

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Join Certified Naturally Grown for [Practical Marketing for Busy Farmers](#), a three-week deep-dive into the most common avenues

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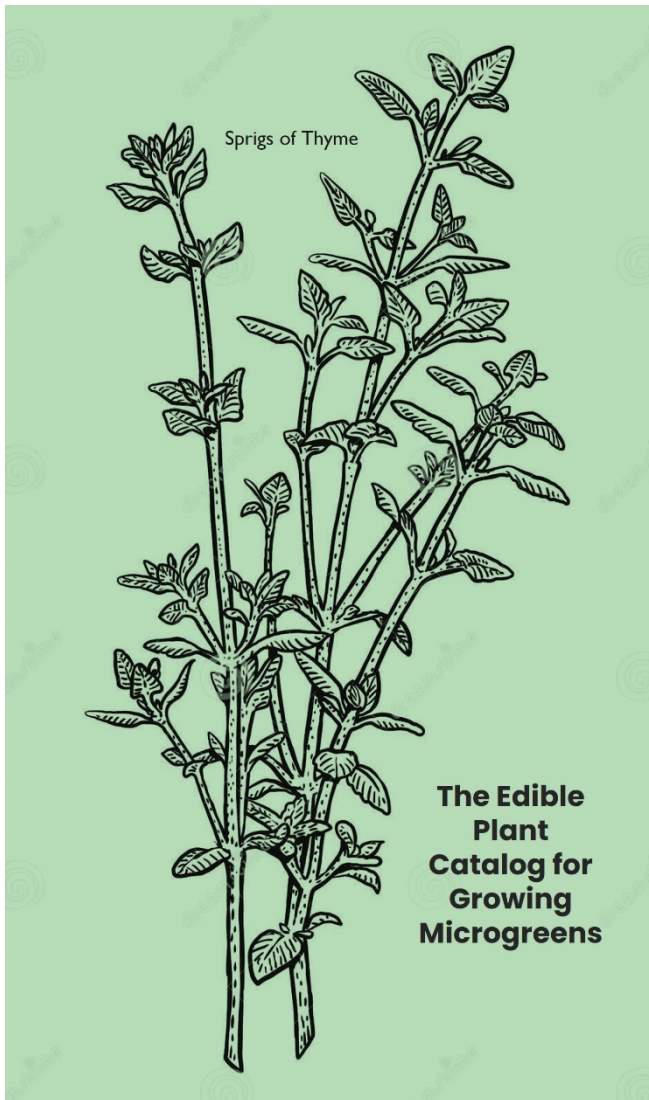
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The Edible Plant Catalog for Growing Microgreens



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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