MICROGREENS WEEKLY DIGEST

11 AUGUST 2025

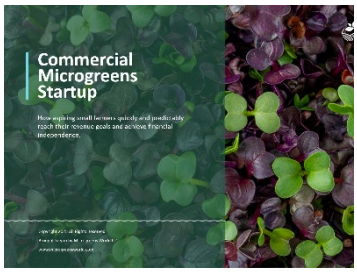
VOL 2025 No.27

THE HIGHLIGHTS

- Flax and broccoli microgreens show prostate cancer-fighting properties
- AeroFarms expands operations, signals industry consolidation trends
- Microgreens market projected to reach $3.88 billion by 2029
- Body aging accelerates dramatically around age 50, needs nutrition

UPCOMING EVENTS

- Next cohort of the **Commercial Microgreens Startup** course is now open! SIGNUP HERE



- Twin Cities Veg Fest 2025 Saint Paul, USA

21.09.2025 - 21.09.2025

Twin Cities Veg Fest is now the biggest plant-based festival in the Midwest

WHAT YOU MISSED THIS WEEK

Science delivered groundbreaking news about microgreens and prostate health. Three new studies revealed that flax and broccoli microgreens contain powerful compounds showing remarkable promise against prostate cancer—the second leading cause of cancer deaths in men. Flax microgreens demonstrated exceptional binding strength to cancer target proteins, while broccoli varieties enhanced tumor suppressor genes through different pathways.

The industry received a massive confidence boost as AeroFarms, controlling 70% of America's retail microgreens market, secured significant financing for expansion. This signals rapid consolidation happening across the sector, with proven profitability driving investment decisions.

Market projections paint an explosive picture: the microgreens industry jumped from $2.14 billion in 2024 to an expected $2.39 billion this year. By 2029, analysts predict $3.88 billion—representing a 12.9% compound annual growth rate.

Meanwhile, aging research revealed your body hits a "molecular cascade storm" around age 50. Without proper nutrition during this critical window, organs begin rapid deterioration. Microgreens pack concentrated nutrients precisely when your body needs them most.

NUTRITION SCIENCE

Microgreens: Nature's Prostate Cancer Shield

Recent research has uncovered something extraordinary about microgreens that could change how we think about prostate health. Three studies reveal that flax and broccoli microgreens contain powerful compounds showing remarkable promise in fighting prostate cancer—the second leading cause of cancer deaths in men.

Scientists discovered that microgreens contain concentrated bioactive compounds that target cancer cells with precision rivaling pharmaceutical approaches.

The Flax Microgreens Discovery

Two studies on flax microgreens revealed cancer-fighting properties. Researchers identified 58 beneficial compounds, focusing on lignans, particularly 4,4'-methylenebis(2,6-di-tert-butylphenol). These compounds demonstrated exceptional binding strength to prostate cancer target proteins.

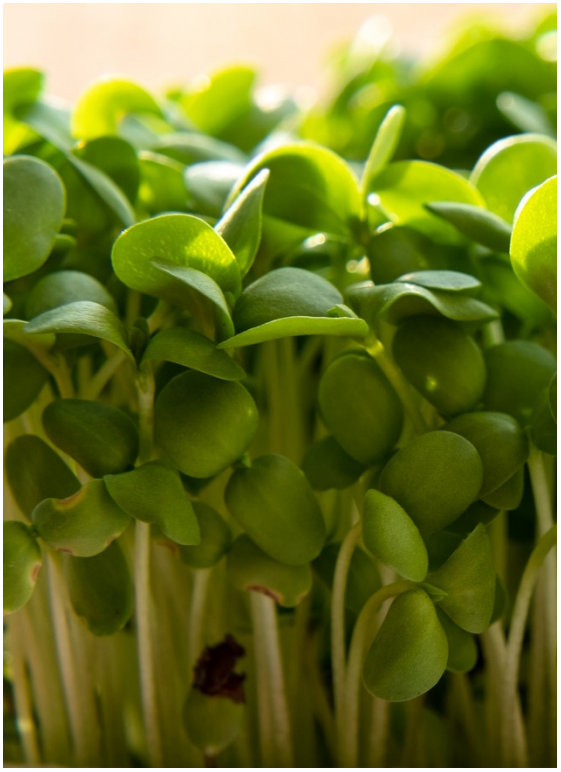
When tested against PC-3 prostate cancer cells, flax microgreen extracts showed potent growth inhibition. The lignans worked by enhancing apoptosis—programming cancer cells to self-destruct. Laboratory tests showed flax compounds increased cancer cell death to over 40%, with most occurring in early apoptotic stages where intervention is most effective.

Molecular modeling studies revealed flax lignans showed binding affinities from *-5.3 to -10.6 kcal/mol against eight prostate cancer target proteins*. These numbers rival FDA-approved cancer medications.

Broccoli Microgreens: The Complementary Partner

The third study focused on broccoli microgreens and uncovered a different but equally promising approach. Researchers identified 232 natural compounds, with 159 showing potential as TP53 expression enhancers—a crucial tumor suppressor gene preventing cancer development.

Key compounds like kaempferol and polydatin demonstrated ability to target 528 proteins involved in prostate cancer progression. Broccoli microgreens work through different pathways than flax, targeting SRC and EGFR proteins that control cell proliferation.



Network pharmacology analysis revealed broccoli compounds can modulate critical pathways including PI3K-Akt signaling and resistance to EGFR tyrosine kinase inhibitors.

How They Work Together

What makes this research compelling is how flax and broccoli microgreens complement each other. Flax microgreens excel at delivering lignans that directly inhibit cancer cell growth. Meanwhile, broccoli microgreens provide compounds that enhance tumor suppressor genes.

Think of it as a two-pronged approach: flax microgreens attack existing cancer processes while broccoli microgreens strengthen the body's natural defense systems.

Safety and Practical Application

Both studies revealed encouraging safety profiles. The compounds showed low toxicity classifications, meaning they're likely safe for regular consumption. Unlike synthetic drugs with harsh side effects, these natural compounds target cancer cells while leaving healthy tissue undisturbed.

Incorporating microgreens is straightforward. Start with small amounts—a handful added to smoothies, salads, or as garnishes. Their mild flavors complement rather than overwhelm dishes.

You can easily cultivate both varieties year-round. Flax microgreens germinate in about 8 days, while broccoli microgreens are ready in 7-10 days.

Important Considerations

While these findings are promising, this represents early-stage laboratory research. The compounds haven't been tested in human clinical trials, so we can't make definitive claims about preventing or treating prostate cancer. However, consistent results suggest significant potential.

The Broader Story

This research suggests microgreens may represent a new frontier in nutritional medicine.

The concentration of bioactive compounds appears to offer therapeutic potential that mature vegetables can't match. Adding flax and broccoli microgreens to your diet represents a low-risk strategy. They're worth considering for comprehensive prostate health maintenance.

Sources: Lawal, M., Sharma, N. R., Verma, A. K., Kankia, I. H., Subramaniyan, V., & Rakhra, G. (2025). HPTLC quantification of 4, 4'-methylene bis (2,6-di-tert-butyl phenol) in flax microgreen extracts and its anticancer potential against prostate cancer. International Journal of Applied Pharmaceutics, 17(4), 511-520.

Lawal, M., Sharma, N. R., Verma, A. K., & Rakhra, G. (2025). Molecular modeling and identification of flax microgreens lignans as novel prostate cancer target inhibitors. Journal of Applied Biology & Biotechnology, 13(2), 242-257.

Wijaya, P., Tallei, T. E., Tendean, L. E. N., Fatimawali, F., Turalaki, G. L. A., & Purwanto, D. S. (2025). Network pharmacology insights into broccoli microgreens for prostate cancer. Heca Journal of Applied Sciences, 3(1), 1-16.

FUN FACTS

Ancient Growth Secrets

Your microgreens use a 500-million-year-old growth trick that's older than dinosaurs. This ancient system bypasses modern plant hormones entirely, giving your tiny plants the same exact superpower that helped the first land plants colonize Earth successfully.

Aerobic Fermentation Mystery

Here's something wild: your microgreens actually make alcohol while they're growing, even with plenty of oxygen around. They use this weird fermentation trick to fuel their explosive growth when normal energy production simply can't keep up.

Light-Activated Nutrition Switches

Microgreens have built-in light sensors that create special nutrition compounds you can't get from full-grown plants. These unique compounds only exist during that sweet spot harvest window, making microgreens nature's temporary nutritional powerhouses for your health.

WELCOME NEW MEMBERS

NAME	CITY	COUNTRY
Colleen W	Port Coquitlam	Canada
Lynn N	Shanghai	China
Amanda Banks	Newcastle-under-Lyme	England
David Mottram	Solihull	England
Komal Jagtap	Mumbai	India
D Hunjan	Jabalpur	India
Ravindra S	Pune	India
Hanumant Kumar	Kanpur	India
Andrew Mckenzie	Clydebank	Scotland
Melony Cryhoefer	Santa Fe	USA
Sandy Ozier	Chicago	USA
Andrew A	Jacksonville	USA
Dawn Marie Bennett	San Jose	USA
Rochelle Foret Lofton	Lockport	USA
Jennifer Fulton	Massillon	USA
Lynn Holder	Miami	USA
Kay C	Cincinnati	USA

MICROGREENS WORLD
NUTRITION | SCIENCE | BUSINESS

COMMUNITY CORNER

AeroFarms Expansion Signals Microgreens Industry Consolidation

The microgreens industry just received a massive vote of confidence. AeroFarms, the company that controls 70% of America's retail microgreens market, secured significant financing to build its second farm and refinanced existing debt with better terms. This isn't just corporate news – it's a clear signal that industry consolidation is happening fast.

AeroFarms closed its refinancing deal in May 2025 through Siguler Guff, paying off its previous debt facility from Horizon Technology Finance. The new loan came with a more favorable interest rate and interest-only terms. Multiple investors, including Grosvenor Food & AgTech, Ingka Investments, Cibus Capital, and ACEG, provided equity financing for the expansion in Danville, Virginia.

CEO Molly Montgomery made a bold statement: "We have recently demonstrated that vertical farming can indeed be sustainable, profitable, and produce fresh greens at scale." That's industry-changing language. When the market leader publicly declares profitability, smaller players take notice.

The numbers behind AeroFarms tell the real story. They use 230 times less land and 90% less water than traditional farming. Their operations run on 100% renewable energy year-round, regardless of weather conditions or geographical location. As a Certified B Corporation, they meet strict social and environmental performance standards. These aren't just feel-good metrics – they represent operational efficiency that translates to consistent supply and competitive pricing.

Stephan Dolezalek from Grosvenor Food & AgTech explained their confidence: "AeroFarms has now proven the ability to deliver the transformative benefits of vertical farming through a viable, profitable business." Financial partners don't commit funding to unproven concepts. They're betting on demonstrated results.

What does this consolidation mean for everyone involved with microgreens? Supply chain improvements are coming. When market leaders expand with proven technology, product consistency increases. AeroFarms uses patented aeroponics technology, automated conveyance systems, robotics, and AI to cultivate its crops. That level of control means fewer quality variations and more reliable harvests.

This consolidation brings better access to nutrient-dense foods. AeroFarms already supplies major retailers nationwide. Their expansion means that more locations will stock fresh, locally grown microgreens with minimal transportation time. Shorter supply chains preserve nutritional content and extend shelf life.

The methods that prove profitable at a commercial scale often filter down to consumer-level growing systems. AeroFarms' success with aeroponics and climate control validates these approaches for smaller operations.

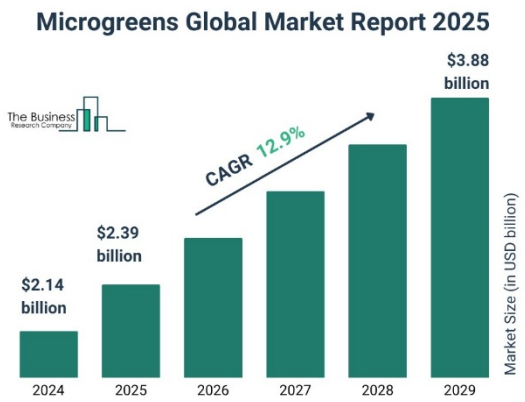
Commercial growers face both opportunity and pressure. Industry consolidation creates space for specialized operations serving local markets while major players focus on national distribution. However, the window for establishing market position narrows as dominant companies expand.

When 70% of retail microgreens come from operations with this level of technological control, menu planning becomes more predictable. Quality standards rise across the board.

The USDA-guaranteed loan expected later this year adds another layer of validation. Government backing signals long-term industry stability and growth potential.

As major players secure financing and expand operations, market positions solidify. The proven business model shows microgreens are here to stay, but early movers gain lasting advantages. Whether you're eating, growing, buying, or selling microgreens, the landscape is shifting toward larger, more efficient operations with demonstrated profitability.

Produce Grower. (2025, August 7). AeroFarms raises equity financing for expansion and refinances debt to support operations in Danville, Virginia. Produce Grower. https://www.producegrower.com/news/aerofarms-raises-equity-construction-farm-refinances-debt-support-operations-danville-virginia-indoor-agriculture-microgreens/



Microgreens Boom: $3.88 Billion Market Explosion

The microgreens industry is experiencing a growth spurt that's catching everyone's attention. We're talking about a market that jumped from $2.14 billion in 2024 to an expected $2.39 billion in 2025. That's an 11.3% growth rate in just one year.

But here's where it gets fascinating. Projections indicate that this tiny yet mighty industry will reach $3.88 billion by 2029. That's a compound annual growth rate of 12.9%. These aren't just numbers on a spreadsheet – they represent a fundamental shift in how we think about food, nutrition, and farming.

What's driving this explosion? Consumer awareness has reached a tipping point. People finally understand that microgreens pack a serious nutritional punch in a small package. Restaurants and foodservice providers have caught on, too, adding these nutrient-dense greens to their menus faster than you can say "farm-to-table."

Urban farming has become the secret weapon behind this growth. Indoor vertical farming allows growers to stack crops in controlled environments, using significantly less space than traditional methods. Perfect for cities where every square foot is expensive. England's farming income increased by 15% in 2021, with total revenue reaching $7.46 billion by April 2022. That kind of money talks.

The technological angle continues to impress. Companies like AeroFarms, Gotham Greens, and Bowery Farming are leading the charge with AI-controlled growing systems. These smart setups monitor growth through chips in growing cabinets, send alerts for problems, and recommend optimal harvest times.

Ro-Gro in the UK just introduced biofortified microgreens – pea shoots enriched with vitamin B12, grown using ultrasonic aeroponic technology. This isn't science fiction. It's happening right now in vertical farms across Kent.

The variety explosion tells its own story. Broccoli microgreens are available in two varieties: sprouting and green. Cabbage offers red and green options. You've got cauliflower in white and purple, arugula in wild and cultivated types, plus pea shoots and snow pea microgreens. Basil enthusiasts can choose between Genovese and Thai varieties. Radish lovers get red and daikon options.

Don't forget the specialty varieties either – beet, sunflower, mustard, and chard microgreens are all carving out their own market niches. Garden cress and watercress round out the growing list.

North America currently dominates this market, but Asia-Pacific, Western Europe, and other regions are catching up fast. The geographic spread means that opportunities exist everywhere.

Three major trends are shaping the future. First, sustainable agriculture practices and local food sourcing have become non-negotiable for many consumers. Second, people want alternative protein sources and premium ingredients. Third, environmentally friendly food packaging has transitioned from a nice-to-have to a must-have status.

Investment in research and development for new microgreen variants continues to accelerate. The food service industry can't get enough, and even cosmetic companies are jumping in. Product innovation focuses on novel varieties and eco-friendly packaging solutions.

Here's the bottom line: this market isn't just growing – it's exploding. Whether you're someone who cares about nutrition, grows food at home, runs a commercial operation, works in a professional kitchen, supplies retailers, or researches agriculture, the microgreens boom represents real opportunity.

The numbers don't lie. The growth trajectory looks unstoppable. The question isn't whether microgreens will continue their rapid expansion – it's whether you'll be part of this agricultural revolution while it's still gaining momentum.

Source: The Business Research Company. (2025, August 6). Microgreens market size worth $3.88 billion by 2029 - Exclusive report by The Business Research Company. EIN Presswire. https://www.einpresswire.com/article/837170482/microgreens-market-size-worth-3-88-billion-by-2029-exclusive-report-by-the-business-research-company

CREATIVE RECIPES

Flax Throughout Time

You may be surprised to learn that flax has been a staple food for people for over 9,000 years.

Ancient Egyptians and Greeks valued flax seeds for their ability to provide energy during long journeys. They'd grind the seeds into meal or press them for oil.

For centuries, Europeans added flax to bread during harsh winters when grain supplies were scarce. The seeds provided crucial nutrition when other foods were scarce.

Everything changed in the 1990s when scientists discovered omega-3 fatty acids. Suddenly, this ancient food became a modern superfood. People started sprinkling whole seeds on yogurt and cereals. Cold-pressed flax oil appeared in health stores.

Today, you'll find flax in everything from crackers to smoothies. Food makers love its nutty flavor and reputation. What sustained our ancestors now powers today's wellness movement.

Mediterranean Flax Power Bowl

Picture this: you're rushing home from work, starving, and your body is practically screaming for something nourishing.

What if I told you that in just 10 minutes, you could create a meal that not only satisfies your hunger but also delivers a powerhouse of nutrition that your ancient ancestors would recognize?

This *Mediterranean Flax Power Bowl* isn't just dinner—it's your daily dose of omega-3 brilliance wrapped in Mediterranean sunshine.

The dish draws inspiration from the Greek tradition of combining fresh herbs, quality olive oil, and nutrient-dense seeds. Ancient Greek athletes consumed flax before competitions, understanding something we're only now rediscovering. This humble seed can transform both energy levels and long-term health.

Think of it as your personal time machine to optimal nutrition, but with the convenience of modern life.

1

Recipe Information

Prep Time: *10 minutes*
Cook Time: *0 minutes*
Category: *Main Course*
Method: *Assembly/Raw*
Cuisine: *Mediterranean*
Yield: *4 servings*

2 Ingredients

Base:

- 2 cups cooked quinoa (preferably day-old and chilled)
- 1 cup flax microgreens, gently washed and dried
- 1 English cucumber, diced
- 2 large ripe tomatoes, chopped
- ½ red onion, thinly sliced
- ½ cup Kalamata olives, pitted and halved
- 6 oz feta cheese, crumbled
- ¼ cup fresh mint leaves, roughly chopped
- ¼ cup fresh parsley, chopped

Flax-Forward Dressing

- 3 tablespoons cold-pressed flax oil
- 2 tablespoons extra virgin olive oil
- 2 tablespoons fresh lemon juice
- 1 tablespoon ground flax seeds
- 1 clove garlic, minced
- 1 teaspoon dried oregano
- ½ teaspoon sea salt

Finishing Touch

- 1 tablespoon whole flax seeds for texture

3 Preparation

Step One: Prepare the Dressing

1. Place the flax seed oil, the olive oil, lemon juice, flax seeds, garlic, oregano, and sea salt in a small bowl.
2. Whisk together to create your flax-forward dressing in a small bowl. The ground flax will create a slightly thickened, creamy consistency—precisely what you want.
3. Let it sit for 2-3 minutes to allow the flax to work its magic.
4. In a large serving bowl, layer your chilled quinoa as the foundation. Think of quinoa as the perfect canvas—neutral enough to let other flavors shine, yet substantial enough to keep you satisfied for hours.

3 Preparation (continued)

Step Two: Layer the Base

7. Gently throw the cucumber, tomatoes, and red onion over the quinoa.
8. Scatter the Kalamata olives and crumbled feta throughout, creating little pockets of Mediterranean flavor in every bite.
9. Here's where the magic happens: Place the microgreens on top.
10. Then gently fold in your flax microgreens, treating them like the nutritional gems they are. Their delicate, slightly nutty flavor should complement, not compete with, the other ingredients.
11. Drizzle the flax dressing evenly over everything
12. Then sprinkle with fresh herbs and those final whole flax seeds for a satisfying crunch.

4 Plating

Serve immediately in wide, shallow bowls that showcase the vibrant colors. Each serving should look like a small garden—green microgreens nestled among ruby tomatoes, creamy white feta, and the deep purple of olives. The key is contrast: let each ingredient maintain its distinct identity while contributing to the harmonious whole.

Provide small spoons for mixing, encouraging diners to create their perfect bite with each forkful.

5 Benefits of Kale Microgreens for Health

Flax microgreens deliver concentrated nutrition in an easily digestible form, offering many benefits of mature flax seeds with improved bioavailability. They provide notable amounts of *plant derived omega 3 fatty acids* that support cognitive function, cardiovascular health, and joint comfort. Because their tissues are tender, the body accesses *lignans and dietary fiber* more readily than from whole seeds, aiding hormone modulation and digestive regularity.

Their fiber helps slow glucose absorption, promoting steadier blood sugar and longer lasting satiety. Antioxidants in these seedlings contribute to cellular defense, tempering inflammatory processes. In short, flax microgreens condense seed nutrition into a form that people may utilize more efficiently within everyday meals and wellness routines without extra processing.

IN THE NEWS

Rapid Aging Hits At Age 50

Your body's aging process isn't gradual - *it hits like a freight train around age 50*. New research tracking protein changes across 13 tissue types reveals that a "molecular cascade storm" occurs between the ages of 45 and 55, when organs begin to rapidly deteriorate.

Scientists found expressions of 48 disease-linked proteins surge during this critical window, increasing risks for cardiovascular disease, fatty liver disease, and tissue damage. Your aorta reshapes most dramatically, sending aging signals throughout your system.

Without proper nutrition during this transition, you're losing precious time to slow this cascade. Your body needs concentrated nutrients when it matters most. Microgreens pack more vitamins, minerals, and antioxidants per bite than mature vegetables.

While others wait for symptoms to appear, you can start growing nutrient-dense protection today. Every microgreen you cultivate builds defense against accelerated aging.

Source: Coelho, S. (2025, August 8). Scientists pinpoint age when body and tissues start aging rapidly. Medical News Today. https://www.medicalnewstoday.com/articles/study-finds-turning-point-when-body-starts-aging-rapidly

Join Microgreens World for a four-week deep-dive into the most common avenues for building and strengthening your microgreens customer base. Unlike most programs, you're watching a bunch of long and boring theoretical videos that leave you more confused than when you started. The goal of the Commercial Microgreens Startup program is to do this together, one step at a time - so you can finally have financial independence!

REGISTER

GET IN TOUCH

PHONE :
+1 256.269.4205

EMAIL :
marketing@microgreensworld.com

WEBSITE :
www.microgreensworld.com

INSTAGRAM :
@microgreens.world

ADDRESS :
P. O. BOX 580
DECATUR, GEORGIA 30031
MBS Publishing Designs