WEEKLY DIGEST

THE SECRET MICROGREENS FOR BETTER MENTAL HEALTH

EX-CHEMISTRY TEACHER GROWS MIRACLE MOOD-BOOSTING MICROGREENS

CREATIVE RECIPES: Rainbow Microgreen Buddha Bowl with Tahini-Miso Dressing NUTRITION SCIENCE: Podcast - Vladi Delsoglio, CEO of Ederra [Video Edition] CULTIVATION TECHNIQUES: Grow one of the healthiest microgreens you can eat

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The Secret Microgreens for Better Mental Health

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Nutrition Science

Podcast: Vladi Delsoglio, CEO of Ederra



This is the latest episode of The Bell2Bell Podcast featuring Vladi Delsoglio, CEO of Ederra.

The company's flagship product, EMPWR+, contains broccoli microgreens and Lion's Mane mushrooms to support body and brain health.

The podcast highlights Ederra's innovative approach to supplements and its focus on sustainability. It also mentions IBN's role in distributing content and connecting companies to investors.

Source: InvestorBrandNetwork. (2024, September 24). Bell2Bell Podcast featuring Vladi Delsoglio, CEO of Ederra [Video Edition]. The Bell2Bell Podcast. https://podcast.bell2bell.com/e/bell2bell-podcast-featuring-vladi-delsoglio-ceo-of-ederra-video-edition/

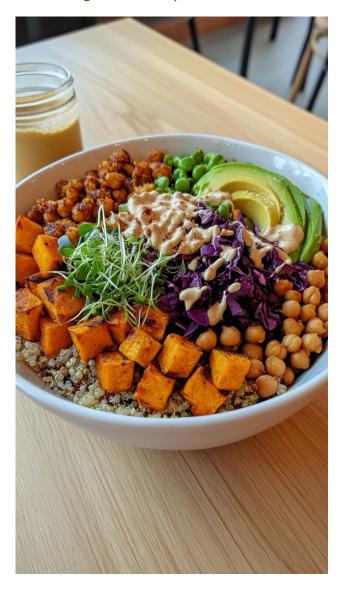
Ederra is a farm-to-body wellness brand that creates functional supplements for brain and body longevity.

Delsoglio founded Ederra after being diagnosed with fatty liver disease and discovering the benefits of broccoli microgreens.

Creative Recipes

Rainbow Microgreen Buddha Bowl with TahiniMiso Dressing

This vibrant Buddha bowl is a celebration of colors, textures, and brain-boosting nutrients.



It's a harmonious blend of roasted sweet potatoes, crisp chickpeas, creamy avocado, and a medley of microgreens, all brought together with a velvety tahini-miso dressing.

Each ingredient has been chosen not just for its flavor but for its potential to support mental well-being.

Recipe Information:

Prep Time: 20 minutes Cook Time: 25 minutes Total Time: 45 minutes Category: Main Course

Method: Roasting, Assembling

Cuisine: Fusion Yield: 2 servings

Ingredients:

- I medium sweet potato, diced
- I can chickpeas, drained and rinsed
- 2 tbsp olive oil
- . I tsp smoked paprika
- Salt and pepper to taste
- I ripe avocado, sliced
- · I cup cooked quinoa
- I/4 cup broccoli microgreens
- 1/4 cup sunflower microgreens
- I/4 cup pea shoot microgreens
- I/4 cup red cabbage microgreens
- . I/4 cup radish microgreens
- · 2 tbsp pumpkin seeds

For the dressing:

- 3 tbsp tahini
- I tbsp white miso paste
- Juice of I lemon
- I garlic clove, minced
- · 2-3 tbsp water

Preparation:

- I. Preheat the oven to 200°C (400°F).
- 2. Toss the diced sweet potato and chickpeas with olive oil, smoked paprika, salt, and pepper. Spread on a baking sheet and roast for 20-25 minutes, until the sweet potato is tender and the chickpeas are crispy.
- 3. While the vegetables are roasting, prepare the dressing. Whisk together tahini, miso paste, lemon juice, and minced garlic. Add water gradually until you reach a pourable consistency. Set aside.
- 4. Cook the quinoa according to package instructions if not already prepared.

- 5. In two large bowls, arrange the quinoa as a base. Top with the roasted sweet potato and chickpeas.
- 6. Add sliced avocado and sprinkle the various microgreens over the bowl, creating a rainbow effect.
- 7. Drizzle the tahini-miso dressing over the bowl and garnish with pumpkin seeds.

Plating:

Serve the Buddha bowls immediately, encouraging diners to mix the ingredients together before eating to combine all the flavors and textures.

Benefits of the specific microgreens

- Broccoli microgreens: Rich in sulforaphane, which helps protect brain cells from oxidative stress.
- Sunflower microgreens: High in vitamin E for brain protection and B vitamins for mood regulation.
- Pea shoot microgreens: Packed with folate, essential

for producing neurotransmitters that regulate mood.

- Red cabbage microgreens Contain anthocyanins that may improve memory and cognitive function.
- Radish microgreens are high in vitamin C and crucial for producing mood-regulating neurotransmitters.

Community News

Rumson's Forrestdale School Named a 2024 National Blue Ribbon School



Forrestdale School in Rumson, New Jersey, recognized as a 2024 National Blue Ribbon School, engages students in a hands-on STEM/Agriculture class where they harvest microgreens.

The school's STEAM curriculum, which includes science, technology, engineering, arts, and mathematics, integrates practical learning experiences to deepen students' understanding of agriculture.

The students learn about sustainability through cultivating microgreens, which are young vegetables packed with nutrients.

Microgreens are grown in a controlled environment within the school's innovative outdoor learning center.

This initiative not only teaches agricultural practices but also emphasizes the importance of sustainability and healthy eating.

By participating in these activities, students gain a comprehensive education that

links classroom knowledge to real-world applications, fostering critical thinking and problem-solving skills.

The cultivation of microgreens is part of an inclusive educational program aimed at personalized learning, encouraging students to actively engage and take control of their educational journey.

The focus on microgreens aligns with the school's broader mission to combine academic excellence with social-emotional growth, ensuring students are prepared for future challenges as well-rounded individuals.

Source: Van Develde, E. (2024, September 24). Forrestdale earns National Blue Ribbon School distinction. Rumson-Fair Haven Retrospect. https://rumsonfairhavenretrospect.com/forrestdale-earns-national-blue-ribbon-school-distinction/

Microgreen Farmer's Shocking \$150k Loss: Secret Cannabis Empire Exposed!

Michael Heron previously ran an illegal cannabis cultivation operation that was uncovered by police in 2020.



After serving a home detention sentence, he transitioned to running a legitimate microgreen farm called <u>Fernside Microfarm</u>.

The New Zealand court ordered Heron to forfeit \$153,860 in cash and two properties valued at \$1.7 million before mortgages and relief to recover proceeds from his criminal activity.

However, he was allowed to keep his growing equipment to continue his new legitimate business.

Heron's partner, Hayley Lewis, claimed limited knowledge of

the cannabis operation but was granted \$147,000 in relief due to personal circumstances.

The couple had previously run a lawn mowing business, and they claimed to have other cash income sources, but the judge found their explanations unconvincing.

The cannabis operation was described as "extensive and sophisticated," with four grow rooms housing 331 plants in various growth stages. It utilized advanced equipment like air conditioning and carbon dioxide pumps.

Police estimated the operation generated \$1.27 million in unlawful benefits.

After his conviction, Heron started the microgreen farm using the same hydroponic equipment from his cannabis operation, positioning it as part of his rehabilitation and new legitimate business venture.

Source: The Press. (2024, September 30). Microgreen farmer loses \$150k, two homes over sophisticated cannabis operation. https://www.thepress.co.nz/nz-

news/350428675/microgreen-farmer-loses-150k-two-homes-over-sophisticated-cannabis-operation

Evidence-based Expertise

Ex-Chemistry Teacher Grows Miracle Mood-Boosting Microgreens



Phyllis Hanson is a former chemistry teacher who became passionate about educating students on the connection between diet and mental health.

After observing increasing rates of depression and anxiety among her students, Hanson began researching the impact of

nutrition on mood and cognition.

She discovered the health benefits of microgreens, particularly those from cruciferous vegetables, which contain powerful antioxidants.

Hanson started growing microgreens in her basement and sharing them with friends and family.

As demand grew, she expanded her operation and founded Solrig Farm, a vertical farming business specializing in microgreens.

The farm now offers subscriptions, grow-your-own kits, and freeze-dried microgreen powders.

In addition to farming, Hanson obtained certification in Functional Nutrition Counseling, allowing her to provide nutrition advice to people with various health concerns.

She continues to educate others about the importance of diet on overall health and well-being, particularly through her presence at the Doylestown Farmers Market.

Source: DeAngelis, L. (2024, September 26). Teacher tells students you are what you eat – long before "Lessons in Chemistry."

BucksCountyHerald.com.



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FEATURED ARTICLE

The Secret Microgreens for Better Mental Health



Mental health hits close to home for me. My grandmother battled postpartum depression, and we lost my brother-in-law to suicide while he was on depression medication.

These experiences opened my eyes to how fragile our minds can be.

Did you know nearly I in 6 people worldwide live with a mental disorder? It's a staggering figure.

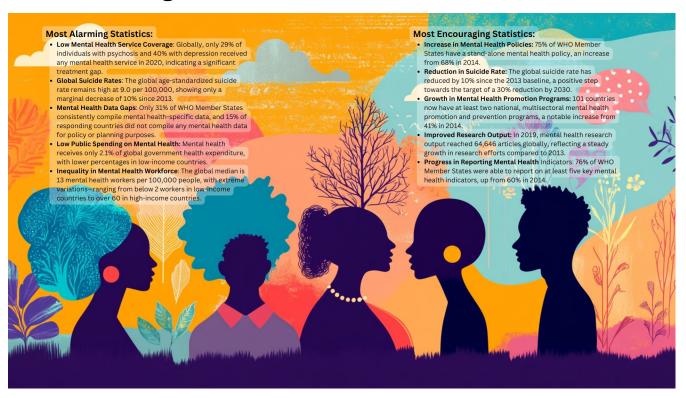
But here's some good news - what we eat plays a huge role in how we feel mentally.

And I've rediscovered an often overlooked nutritional ally that's gaining attention: microgreens.

These nutrient-dense seedlings are making waves in the world of brain health.

Let's explore how these familiar mini-veggies might play a bigger role in supporting our mental well-being than we've previously thought.

Understanding Mental Health



Let's break down what we mean by "mental health."

The World Health Organization puts it nicely - it's not just the absence of mental illness, but a state where we can handle life's stresses, work productively, and chip into our communities.

But for many of us, that's easier said than done.

Anxiety and depression are the troublemakers-in-chief, affecting millions worldwide.

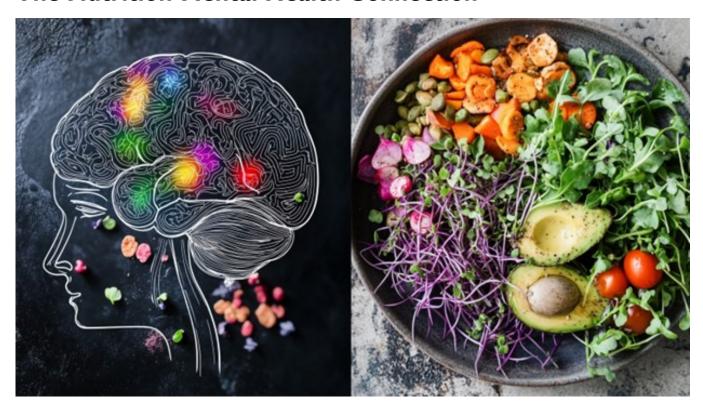
These conditions don't just live in our heads - they seep into every corner of our lives, from work to relationships.

And the ripple effects? Massive. People with severe mental health issues often die 10 to 20 years earlier than others.

Now, I'm not trying to scare you, but we need to face facts.

Mental health problems hit our wallets hard, too. The productivity losses alone dwarf the costs of treatment. We need to tackle this head-on. But here's the million-dollar question: could the answer be hiding in our salad bowls?

The Nutrition-Mental Health Connection



You've heard the saying, "You are what you eat," right?

Well, it turns out your brain is listening to your stomach more than you might think.

The food on your plate plays a huge role in how your brain functions.

Think of your brain as a high-performance engine. It needs the right fuel to run smoothly.

Certain nutrients act like premium gasoline for your mind. Omega-3 fatty acids, for instance, help build brain cell membranes (*UCLA Health Sciences*, 2023).

B vitamins are key players in producing feel-good chemicals like serotonin (Derbyshire et al., 2024).

But it's not just about adding good stuff. It's also about fighting the bad.

Antioxidants and anti-inflammatory compounds help protect your brain from damage and keep inflammation at bay (*Chiang et al., 2023*). This is crucial because inflammation has been linked to depression and other mental health issues.

The bottom line? A balanced diet isn't just good for your waistline - it's essential for a happy, healthy mind.

And this is where our tiny heroes, microgreens, enter the picture.

Top Microgreens for Mental Health

These young greens (plants, vegetables, herbs, even flowers) pack a punch, often containing more vitamins, minerals, and antioxidants than their fully-grown counterparts (Dubey et al., 2024).

For mental health, specific microgreens provide key nutrients that support brain function.

First up, <u>broccoli microgreens</u>. These tiny plants are loaded with sulforaphane, a compound that's like a shield for your brain cells. It fights inflammation and oxidative stress, two big troublemakers for mental health (*Bouranis et al.*, 2023).

Next, we've got <u>sunflower microgreens</u>. They're packed with vitamin E, which helps protect your brain as you age. They're also rich in B vitamins, the unsung heroes of mood regulation (*Bhaswant et al., 2023*). Additionally, sunflower microgreens are packed with magnesium and zinc, both crucial for stress management.



<u>Pea shoots</u> might remind you of your grandma's garden, but they're more than just cute. They're brimming with folate, a B vitamin that's crucial for making those feel-good brain chemicals (*Poudel et al., 2023*).

Red cabbage microgreens are the colorful rebels of the bunch. Their vibrant hue comes from anthocyanins, antioxidants that may boost memory and cognitive function. Who knew purple could be so powerful (*Podsędek et al., 2023*)?

Last but not least, <u>radish microgreens</u>. These spicy little leaves are vitamin C superstars. And guess what? Vitamin C isn't just for fighting colds. It's also a key player in making neurotransmitters, the

messengers in your brain that affect mood and stress levels (Mlinarić et al., 2023).

Remember, variety is key. Mix and match these microgreens to give your brain a full spectrum of nutrients. It's like a colorful, tasty insurance policy for your mental health.

Incorporating these nutrient powerhouses into your diet is a simple yet effective way to support both mental and physical health.

Practical Tips for Incorporating Microgreens



Ready to give your meals a mental health boost? Here's how to make microgreens a regular part of your diet:

	Sprinkle a handful over your morning eggs or avocado toast. They'll add a fresh crunch and a nutritional kick to
	start your day right.

Lunch	Toss them into your salads or layer them in sandwiches. They'll bring a pop of color and flavor to your midday meal.
Dinner	Use them as a garnish for soups, stir-fries, or pasta dishes. A little goes a long way in boosting both nutrition and presentation.

To keep your microgreens fresh, store them in the fridge in a container lined with slightly damp paper towels. They'll stay crisp for about a week.

Want to grow your own? Start with a shallow tray, some potting soil, and your choice of seeds. Keep them moist and in a sunny spot. In just 7-14 days, you'll have your own homegrown brain food!

Wrap-up: Microgreens and Mental Health



Microgreens offer a simple, tasty way to support your mental health through nutrition. Small changes in our diet can make a big difference in mental health.

Whether it's adding them to salads, smoothies, or sandwiches, these greens offer a natural approach to nourishing the mind.

As someone who has seen the effects of mental illness in my family, I encourage small, manageable changes—like eating microgreens—to promote both mental and physical well-being in everyday life.

Why not give these tiny powerhouses a try? Your mind might just thank you.

Research

Bhaswant, M., Shanmugam, D. K., Miyazawa, T., Abe, C., & Miyazawa, T. (2023). Microgreens-A Comprehensive Review of Bioactive Molecules and Health Benefits. Molecules (Basel, Switzerland), 28(2), 867. https://doi.org/10.3390/molecules28020867

Bouranis, J. A., Wong, C. P., Beaver, L. M., Uesugi, S. L., Papenhausen, E. M., Choi, J., Davis, E. W., Da Silva, A. N., Kalengamaliro, N., Chaudhary, R., Kharofa, J., Takiar, V., Herzog, T. J., Barrett, W., & Ho, E. (2023). Sulforaphane Bioavailability in Healthy Subjects Fed a Single Serving of Fresh Broccoli Microgreens. *Foods*, *12*(20), 3784. https://doi.org/10.3390/foods12203784

Chiang, Ming-Chang, et al. "The Potential Benefits of Quercetin for Brain Health: A Review of Anti-Inflammatory and Neuroprotective Mechanisms." International Journal of Molecular Sciences, vol. 24, no. 7, I Jan. 2023, p. 6328, www.mdpi.com/1422-0067/24/7/6328/html#B77-ijms-24-06328, https://doi.org/10.3390/ijms24076328.

Derbyshire, E. J., Birch, C. S., Bonwick, G. A., English, A., Metcalfe, P., & Li, W. (2024). Optimal omegas – barriers and novel methods to narrow omega-3 gaps. A narrative review. *Frontiers in Nutrition, 11*. https://doi.org/10.3389/fnut.2024.1325099

B vitamins are crucial for the production of neurotransmitters like serotonin, which regulate mood. Deficiencies in B vitamins can lead to impaired brain function and mood disorders. The research highlights the importance of B vitamins in neurotransmitter synthesis, making them vital for emotional and cognitive stability.

Dubey, S., Harbourne, N., Harty, M., Hurley, D., & Elliott-Kingston, C. (2024). Microgreens Production: Exploiting Environmental and Cultural Factors for Enhanced Agronomical Benefits. Plants, 13(18), 2631. https://doi.org/10.3390/plants13182631

Mlinarić, S., Antonija Piškor, Melnjak, A., Mikuška, A., Martina Šrajer Gajdošik, & Lidija Begović. (2023). Antioxidant Capacity and Shelf Life of Radish Microgreens Affected by Growth Light and Cultivars. Horticulturae, 9(1), 76–76. https://doi.org/10.3390/horticulturae9010076

Podsędek, A., Frąszczak, B., Sosnowska, D., Kajszczak, D., Szymczak, K., & Bonikowski, R. (2023). LED Light Quality Affected Bioactive Compounds, Antioxidant Potential, and Nutritional Value of Red and White Cabbage Microgreens. Applied Sciences, 13(9), 5435. https://doi.org/10.3390/app13095435

Poudel, P., Di Gioia, F., Lambert, J. D., & Connolly, E. L. (2023). Zinc biofortification through seed nutri-priming using alternative zinc sources and concentration levels in pea and sunflower microgreens. Frontiers in Plant Science, 14. https://doi.org/10.3389/fpls.2023.1177844

University of California - Los Angeles Health Sciences. (2023, May 8). Researchers develop model for how the brain acquires essential omega-3 fatty acids. *ScienceDaily*. https://www.sciencedaily.com/releases/2023/05/230508114000.htm

This study found that omega-3 fatty acids, particularly DHA, are essential for building brain cell membranes and supporting overall brain function. The research emphasized the role of omega-3s in promoting brain health through their neuroprotective properties, showing how crucial these fatty acids are for maintaining mental well-being.

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.

After years of cultivating microgreens, I compiled my knowledge into a comprehensive beginner's guide titled "Children of the Soil."



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Cultivation Techniques

Grow one of the healthiest microgreens you can eat



Growing microgreens from chia seeds is a healthy and cost-effective alternative to buying them from supermarkets.

It outlines the simple process shared by gardening expert Simon Akeroyd, which involves sprinkling chia seeds on damp kitchen paper, watering daily, and harvesting after 7-10 days.

Mr. Akeroyd also provides tips for successfully growing vegetables indoors, including choosing a well-lit area, using containers with drainage holes, and regular watering.

Additionally, it lists several vegetables suitable for indoor growing, such as lettuce, tomatoes, peppers, and chives, along with their specific growing requirements.

Source: Saleem, Z. (2024, September 25). Grow one of the healthiest foods you can eat - you'll harvest them in days. Mirror. https://www.mirror.co.uk/lifestyle/food-drink/grow-one-healthiest-foods-you-33721239

Emerging Industry News

The US Microgreens Market Expected to Reach \$3B by 203 I



The United States Microgreens market is anticipated to achieve significant growth, driven by rapid technological advancements and increasing consumer demand across sectors like restaurants, food service, and retail.

The market is forecasted to grow consistently from 2024 to 2031, with North America remaining a key region due to its strong industrial base and notable technological investments.

Specific applications enhancing user experience and efficiency are pivotal to the market's evolution.

Key industry players include Gotham Greens, BrightFarms, Inc., and Plenty Unlimited, among others.

The market also presents diverse segments like vegetable and herb microgreens, reflecting robust dynamics spurred by healthcare and tech sectors.

Additionally, the competitive landscape showcases strategies from major participants, analyzing market share and positioning.

While the U.S. leads with its tech ecosystem and R&D investments, Canada's growth in energy and IT sectors complements the regional expansion.

This comprehensive outlook highlights the market's future potential and strategic importance.

Source: United States Microgreens Market by Application | Value - news. (2024, September 22).

Meramandsaur.in.

https://meramandsaur.in/news/united-statesmicrogreens-market-by-application-value/402195/

New Law Targets Toxic Pesticides in School Lunches!



The <u>Safe School Meals Act</u> addresses the need to limit harmful substances like pesticides, PFAS, and food dyes in school lunches.

Introduced by U.S. Senator Cory Booker, it mandates setting maximum limits for toxic heavy metals, banning harmful pesticide residues, and reevaluating food additives.

For microgreens growers, this legislation could increase demand for cleaner, pesticide-free produce as schools seek to comply with stricter safety standards.

Growers focused on organic or naturally cultivated microgreens may find new opportunities to supply schools with healthier, contaminant-free options.

Source: Food Safety Magazine. (2023, September 28). 'Safe School Meals Act' addresses pesticides, PFAS, food dyes, and more in school lunches. https://www.food-safety.com/articles/9756-safe-school-meals-act-addresses-pesticides-pfas-food-dyes-and-more-in-school-lunches

Commercial Best Practices

Farmers Turn to Indoor Farming Out of Necessity



The article discusses the disconnect between consumers and food production methods, particularly regarding hydroponics and indoor farming.

Anneke Stolk, co-founder of InstaGreen, highlights the lack of awareness among consumers about how their food is grown.

While there's a gradual shift towards sustainable farming, demand for hydroponic products remains limited.

InstaGreen is working to bridge this gap through education initiatives.

The article also touches on the growing popularity of microgreens and their diverse uses in restaurants.

Climate change is forcing traditional farmers to consider indoor vertical farming and hydroponics as necessary alternatives.

The piece emphasizes the need for greater consumer education about sustainable farming practices and the benefits of hydroponically grown produce.

Source: Di Pastena, A. (2024, September 24). "More and more farmers are turning to indoor farming and hydroponics, not necessarily out of choice, but out of necessity." HortiDaily.com.

https://www.hortidaily.com/article/9661839/more-and-more-farmers-are-turning-to-indoor-farming-and-hydroponics-not-necessarily-out-of-choice-but-out-of-necessity/





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