



## WHY MICROGREENS ARE THE FUTURE OF FRESH, HEALTHY AND SUSTAINABLE EATING

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### Abstract

Imagine a fresh burst of flavour, colour, and nutrition all packed into a bite-sized plant. That's the magic of microgreens - tiny, young vegetables that are quickly becoming the stars of kitchens, health food stores, and even urban gardens. Though small in size, microgreens boast a big impact when it comes to boosting flavour and nutrition. From their rich array of vitamins and antioxidants to their impressive versatility in dishes, these miniature greens offer a simple yet powerful way to enhance our meals and health. But there's more to these tiny powerhouses than meets the eye - microgreens are also eco-friendly, easy to grow, and packed with potential for anyone looking to eat smarter and live healthier. In this article, we will explore why these small plants are getting so much attention and how they can transform your meals and your health.

**Keywords:** Beta-carotene; Microgreens; Nutritional benefits and Tiny greens

### Introduction

#### What Are Microgreens?

Microgreens are young plants harvested at an early stage, just after the first set of true leaves, known as cotyledons, appear. These little greens are usually between 7 and 21 days old when harvested, depending on the variety. Unlike full-grown vegetables, microgreens are packed with concentrated flavours and nutrients, making them a healthy and tasty addition to almost any dish. You may have already seen them in gourmet restaurants or your local farmer's market, often adorning salads, sandwiches, and soups with their bright colours and delicate textures.

Despite their size, microgreens are not just garnishes. They're nutritional powerhouses, often containing up to 40 times more vitamins, minerals, and antioxidants than their mature counterparts.

Common varieties of microgreens include:

- ✦ **Radish:** With a spicy kick, radish microgreens add bold flavour and vibrant colour to dishes.
- ✦ **Basil:** Aromatic and flavourful, basil microgreens are perfect for garnishing pasta, pizza, or salads.
- ✦ **Sunflower:** These microgreens have a mild, nutty flavour and a crunchy texture, making them a favourite for snacking.
- ✦ **Mustard:** Known for their zesty and sharp taste, mustard microgreens elevate sandwiches and salads.
- ✦ **Pea Shoots:** Sweet and tender, pea shoots are excellent in stir-fries, soups, or as a standalone salad base.
- ✦ **Arugula:** With a peppery flavour, add a sophisticated touch to any dish.

Other Popular Crops for Microgreens

- ✦ **Cilantro:** Adds a burst of citrusy, fresh flavour to tacos, rice bowls, and soups.
- ✦ **Beet Greens:** Known for their earthy and slightly sweet taste, beet microgreens are visually stunning with their red stems and green leaves.
- ✦ **Chard:** A colourful option with a mild and slightly bitter flavour.
- ✦ **Broccoli:** Packed with sulforaphane, a compound known for its cancer-fighting properties, broccoli microgreens are a nutritional powerhouse.

- ✦ **Fenugreek:** Popular in Indian cuisine, fenugreek microgreens add a distinct, slightly bitter flavour to curries and salads.
- ✦ **Spinach:** Tender and mild, spinach microgreens work well in smoothies, wraps, or as a topping.
- ✦ **Kale:** A nutrient-dense choice with a mild, slightly sweet taste, perfect for smoothies and salads.



### The Nutritional Superpower of Microgreens

Microgreens are not just another trendy food - these tiny plants are packed with nutrients that can significantly enhance your health. Research has shown that microgreens contain higher concentrations of essential vitamins and minerals compared to their mature counterparts.

For example, microgreens like cabbage and broccoli have up to 40 times more vitamins and antioxidants, such as vitamin C, E, and beta-carotene, than mature vegetables (Xia et al., 2012).

Why is this important? Well, these nutrients play a vital role in supporting immune system, protecting against inflammation, and promoting healthy skin and eyes. The high levels of antioxidants in microgreens also help to neutralize free radicals in the body, which can lead to oxidative stress and the development of chronic diseases like heart disease and cancer (Wang et al., 2020). For instance, cilantro microgreens are known for their high levels of vitamin K, which supports bone health, while radish microgreens are rich in vitamin C, which boosts your immune system. These are just a few examples of how microgreens can help you meet your daily nutritional needs.

### Flavour Explosion in Every Bite

Microgreens are not only healthy - they're also incredibly flavourful. Despite their small size, they bring an intense burst of taste to any dish. Whether it's the peppery zing of mustard greens, the mild sweetness of sunflower shoots, or the refreshing bite of arugula, microgreens offer a range of flavours that can elevate your meals. They're versatile too, fitting easily into salads, sandwiches, wraps, soups, or even as a topping for smoothies or juices. Their strong flavour comes from the fact that they are harvested at the peak of their growth when their cells are packed with the most flavour compounds. This makes them a perfect choice for anyone looking to add more flavour without the need for excess salt, sugar, or heavy sauces.



### Easy to Grow, Even for Beginners

One of the best things about microgreens is how easy they are to grow. Even if we don't

have a garden or experience with plants, microgreens can be grown right on your windowsill, balcony, or kitchen counter. All we need is a shallow container, some soil, and a few packets of seeds. The process of growing microgreens:

- ❖ **Choose the seeds:** There are plenty of microgreens to choose from - radish, basil, mustard, and pea shoots are just a few.
- ❖ **Prepare the container:** Use any shallow container with drainage holes (an old baking tray or a small box works perfectly).
- ❖ **Plant the seeds:** Spread the seeds evenly over the soil, and gently press them down.
- ❖ **Water and wait:** Keep the soil moist and place the container in a warm, sunny spot. In just 7 to 21 days, your microgreens will be ready to harvest.

This simple process means that we can enjoy freshly grown greens even if you live in a city apartment or don't have much gardening experience. Plus, growing our own microgreens reduces your carbon footprint by eliminating the need to buy packaged greens from the store, making it a more sustainable option for the environment.

### **Environmental Impact: A Green Solution**

In addition to being good for health, microgreens are also great for the planet. Growing them requires minimal space, water, and resources compared to traditional crops, making them an eco-friendly choice. Since they grow so quickly, they can be harvested in just a couple of weeks, reducing the amount of time and energy needed to produce them. Microgreens are also highly efficient when it comes to water usage. They need less water than mature crops, and because they can be grown indoors, they're not subject to the fluctuations of outdoor weather. This makes them an ideal option for people in areas with limited access to water or for those who want to reduce their water usage.

Additionally, by growing our own microgreens, we are contributing to local food production, which reduces the need for long-distance transportation of produce and,

ultimately, lowers the overall environmental impact.

### **The Future of Microgreens: A Sustainable Trend**

As the world becomes more conscious of sustainability and healthy eating, microgreens are poised to play a key role in the future of food production. With their nutritional benefits, versatility in cooking, and low environmental cost, microgreens represent the future of food - quick-growing, nutrient-dense, and good for both the body and the planet.

Not only are microgreens perfect for home growers, but they're also being embraced by farmers and chefs alike. Urban farming initiatives are popping up in cities around the world, where people are growing microgreens in repurposed containers, rooftops, and even hydroponic systems. These greens are helping to create a more sustainable and localized food system, ensuring that fresh produce is available even in urban environments.

### **Conclusion: Tiny Greens, Big Benefits**

Microgreens may be small, but they're proving to be one of the biggest food trends of the decade. Packed with flavour, nutrition, and environmental benefits, they are a simple, affordable, and sustainable way to enhance our diet and lifestyle. Whether you grow them at home, pick them up from a local market, or enjoy them in a gourmet dish, microgreens are a delicious and nutritious way to make every meal a little bit better.

### **References**

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