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Life is Better with a Microgreens: The New Superfood Hitakshi Marathe<sup>1</sup>, Sanjay Singh Mankoti<sup>2</sup> ICAR-IARI, New Delhi Miss. Hitakshi Marathe – <u>hitakshimarathe@gmail.com</u><sup>-</sup>Young professional<sup>-</sup>ll Mr. Sanjay Singh Mankoti - <u>sanjay.sgkj@gmail.com</u> - Technician (T-1)

### INTRODUCTION



Microgreens are young, edible greens that are harvested just a few weeks after germination. They are essentially tiny versions of fully grown vegetables and herbs, typically measuring 1 to 3 inches in height. Microgreens have gained popularity in recent years due to their high nutritional content, unique Flavors, and attractive appearance.

To grow microgreens, the seeds are sown densely in a shallow container or tray filled with a growing medium such as soil, coconut coir, or hydroponic mats. The seeds are then covered with a thin layer of soil or kept uncovered, depending on the variety. They are typically grown indoors or in a controlled environment with adequate light and temperature conditions.





Types of microgreens include radish, broccoli, kale, arugula, cilantro, basil, and many more. Each variety offers its own distinct taste and nutritional profile. Microgreens are known to be rich in vitamins, minerals, and antioxidants, often containing higher concentrations than their mature counterparts.

After sowing, microgreens require regular watering to keep the growing medium moist but not waterlogged. They also need sufficient light, preferably natural sunlight or artificial grow lights, to promote healthy growth. Within a week or two, the microgreens will develop their first set of true leaves, indicating they are ready to be harvested.

To harvest microgreens, they are typically cut just above the soil level using scissors or a sharp knife. The entire plant is consumed, including the stems and leaves. Microgreens can be enjoyed fresh in salads, sandwiches, smoothies, or used as a garnish to enhance the visual appeal and flavor of various dishes.

Microgreens are praised for their concentrated flavor profiles, which can range from mild and nutty to spicy and tangy. They add a burst of freshness and color to culinary creations and are often used by chefs and home cooks alike to elevate their dishes.

# IMPORTANCE OF MICROGREENS



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Here are some key reasons why microgreens are considered important:

1). Nutritional density: Microgreens are known to be packed with essential nutrients, including vitamins, minerals, and antioxidants. Studies have indicated that microgreens can have higher nutrient concentrations compared to their mature counterparts. Consuming nutrient-dense microgreens can contribute to a well-balanced diet and support overall health.

**2). Flavour enhancement:** Microgreens offer a range of flavors, from mild to intense, depending on the variety. Adding microgreens to dishes can enhance the taste, texture, and visual appeal of meals. They provide a fresh and vibrant burst of flavor, making them popular among chefs and home cooks for culinary creativity.

**3). Easy to grow:** Growing microgreens is relatively simple and doesn't require a large amount of space or specialized equipment. They can be grown indoors, making them accessible to urban dwellers or those with limited gardening space. Their quick growth cycle (typically 1-3 weeks) means you can enjoy a fresh harvest in a short amount of time.

**4). Environmental sustainability:** Microgreens can be grown using sustainable practices such as hydroponics or vertical farming, which require less water and land compared to traditional agriculture. They also have a smaller carbon footprint as they can be grown locally, reducing transportation-related emissions.

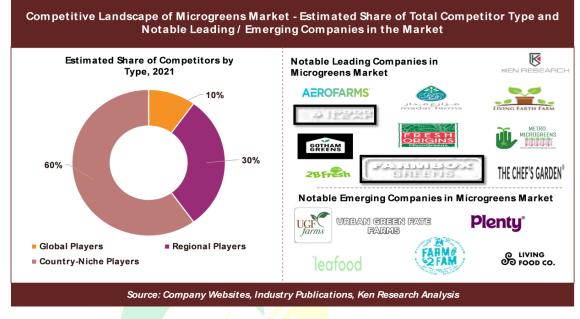
**5). Versatile culinary applications:** Microgreens can be used in a variety of culinary applications, including salads, sandwiches, wraps, smoothies, soups, and garnishes. Their small size and delicate texture make them versatile for both decorative and flavor-enhancing purposes.

**6). Economic opportunities:** The increasing popularity of microgreens has created economic opportunities for farmers, local producers, and entrepreneurs. Growing and selling microgreens can be a profitable venture, especially in areas where there is high demand for specialty produce or niche markets.



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**7). Educational tool:** Microgreens provide an excellent educational tool for teaching children and adults about plant growth, nutrition, and sustainable agriculture. Growing microgreens at home or in educational settings can foster an appreciation for fresh food, gardening, and healthy eating habits.

While microgreens offer numerous benefits, it's important to note that they should be consumed as part of a balanced diet and not solely relied upon for meeting all nutritional needs. Variety in food choices is key to obtaining a wide range of nutrients and vitamins.

### **Economies of selling microgreens**

The sale of microgreens can offer various economic advantages and opportunities.

1). Market demand and Premium pricing: The demand for microgreens has been steadily increasing in recent years. This demand is driven by factors such as the growing interest in healthy and fresh foods, the rise of culinary trends emphasizing unique flavors and visual appeal, and the desire for locally grown produce. This presents an opportunity for growers and producers to meet the market demand for microgreens and potentially generate revenue. Microgreens often cater to niche markets, including specialty food stores, farmers' markets, upscale restaurants, and health-conscious consumers. This demand can result in premium pricing, allowing sellers to capture a higher market value.





**2). Quick turnover and multiple harvests:** Microgreens have a short growth cycle, typically ranging from 1 to 3 weeks. This allows for multiple harvests within a relatively short period. The quick turnover time enables growers to have a steady supply of microgreens throughout the year, contributing to consistent sales and revenue generation.

**3). Differentiation and value-added products:** Sellers can differentiate their microgreens through factors such as unique varieties, organic or locally grown labels, or specific culinary applications. By offering specialty or rare microgreen varieties, sellers can attract customers looking for distinct flavors and experiences. Additionally, value-added products like prepackaged mixes or microgreen-infused products can further enhance the market appeal and potentially command higher prices.

**4). Direct-to-consumer sales and local markets:** Selling microgreens directly to consumers, either through farmers' markets, community-supported agriculture (CSA) programs, or online platforms, can eliminate intermediaries and increase profit margins. Direct sales allow growers to establish relationships with customers, receive immediate feedback, and build a loyal customer base. Additionally, targeting local markets can reduce transportation costs and appeal to consumers looking for fresh, locally sourced products.



**5).** Collaboration with chefs and restaurants: Collaborating with local chefs and restaurants can open avenues for higher-volume sales and exclusive partnerships. Microgreens are sought-after by culinary professionals due to their flavor profiles, nutritional density, and visual appeal. Establishing relationships with chefs can lead to regular orders, special menu features, or even contract growing arrangements, ensuring a consistent revenue stream.

6). Scaling up and wholesale distribution: As demand increases, scaling up production and establishing wholesale distribution channels can provide further economic opportunities. Supplying microgreens to grocery stores, specialty food suppliers, or restaurants on a larger scale can result in bulk orders, long-term contracts, and increased profitability. However, scaling up operations should be carefully planned to maintain quality control and ensure consistent supply.

7). Branding and marketing: Effective branding and marketing strategies play a crucial role in capturing the attention of potential customers and differentiating microgreens from competitors. Building a strong brand identity, highlighting the unique qualities of the microgreens, and leveraging social media platforms can help attract and retain customers, contributing to economic success.

**8). Innovative growing techniques:** The emerging field of vertical farming and hydroponics presents opportunities for growing microgreens in controlled environments with high productivity and resource efficiency. These innovative techniques allow for year-round production, reduced water usage, and the potential for automation. While the initial setup costs may be higher, the long-term benefits can include increased production capacity and improved profitability.

It's important to note that the economies of selling microgreens can vary depending on factors such as market conditions, competition, production costs, and customer preferences. Conducting market research, evaluating pricing strategies, and continuously monitoring and adjusting business operations are essential for optimizing the economic benefits of selling microgreens.

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### Conclusion

The adoption rate of microgreens has been steadily increasing in recent years, driven by several factors including the growing interest in healthy and fresh foods, culinary trends, and the desire for locally grown produce. While specific adoption rates can vary across regions and markets, there is a notable upward trend in the popularity and acceptance of microgreens. While the adoption rate of microgreens has been positive, it's important to note that there may still be variations in awareness and acceptance across different regions or demographic groups. However, the overall trajectory indicates a growing interest and adoption of microgreens as consumers continue to embrace their nutritional value, unique flavors, and culinary appeal.

