NEW ERA AGRICULTURE MAGAZINE

MICROGREENS / MICRO HERBS

Dr.K.Kayalvizhi and Dr.A.Sangari

Introduction:

Microgreens are young vegetable greens that are approximately 1–3 inches tall. They have an aromatic flavor and concentrated nutrient content and come in a variety of colors and textures. It is introduced in the Californian restaurant scene in the 1980s, microgreens have steadily gained popularity. They are rich in flavor and add a welcome splash of color to a variety of dishes. Microgreens vary in taste, which can range from neutral to spicy, slightly sour or even bitter, depending on the variety. This makes a good addition to any diet. It can be incorporated into a variety of dishes, including sandwiches, wraps and salads, garnishes on pizzas, soups, omelets, curries and other warm dishes.

Microgreens are easy and convenient to grow and don't require much equipment or time. It can be grown year-round, both indoor or outdoors. Optimum sunlight requirement is 12–16 hours per day.

Different Types of Microgreens

Microgreens can be grown from many different types of seeds.

The most popular varieties are produced using seeds from the following plant families:

Brassicaceae family: Cauliflower, broccoli, cabbage, watercress, radish and arugula

Asteraceae family: Lettuce, endive, chicory and radicchio

Apiaceae family: Dill, carrot, fennel and celery

Dr.K.Kayalvizhi and Dr.A.Sangari
Teaching Assistant (Horticulture), Institute of Agriculture,
AEC & RI Campus, Kumulur-621712, Lalgudi(Tk.)
Trichy (Dt.)

Amaryllidaceae family: Garlic, onion, leek

Amaranthaceae family: Amaranth, quinoa swiss chard, beet and spinach

Cucurbitaceae family: Melon, cucumber and squash

Cereals such as rice, oats, wheat, corn and barley, as well as legumes like chickpeas, beans and lentils, are also sometimes grown into microgreens.

Study measured vitamin and antioxidant concentrations in 25 commercially available microgreens. These levels were then compared to levels recorded in the USDA National Nutrient Database for mature leaves.Although vitamin and antioxidant levels varied, levels measured in microgreens were up to 40 times higher than those recorded for more mature leaves.Microgreens generally appear to contain higher nutrient levels than more mature plants, this may vary based on the species at hand.

Health Benefits of Microgreens

Heart disease: Microgreens are a rich source of polyphenols, a class of antioxidants linked to a lower risk of heart disease. Animal studies show that microgreens may lower triglyceride and "bad" LDL cholesterol levels

Alzheimer's disease: Antioxidant-rich foods, including those containing high amounts of polyphenols, may be linked to a lower risk of Alzheimer's disease.

Diabetes: Antioxidants may help reduce the type of stress that can prevent sugar from properly entering cells. In lab studies, fenugreek microgreens appeared to enhance cellular sugar uptake by 25–44%.

Certain cancers: Antioxidant-rich fruits and vegetables, especially those rich in polyphenols, may lower the risk of various types of cancer. Polyphenol-rich microgreens may be expected to have similar effects.

Instructions:

- Fill your container with soil, making sure you don't over-compress it, and water lightly.
- Sprinkle the seed of your choice on top of the soil as evenly as possible.
- Lightly mist your seeds with water and cover your container with a plastic lid.
- Check on your tray daily and mist water as needed to keep the seeds moist.
- A couple of days after the seeds have germinated, you may remove the plastic lid to expose them to light.
- Water once a day while your microgreens grow and gain color.
- After 7–10 days, your microgreens should be ready to harvest.

Requirements for growing of microgreens

- Glass or ceramic container with a lid grow mat or pad (coconut, jute or natural fiber)

- Fertile soil
- sprouting seeds (see list below)
- water
- a window

Difference between sprouts and Microgreens			
S.No.	Particulars	Sprouts	Microgreens
1	Growing condition	Indoor	Indoor
2	Growing medium	Jar with lid and water	Require soil or growing mat and water
3	Leaves	Tiny leaves	first true leave stage (2.5–7.5 cm)
4	Nutrient content	Less flavor and nutrient	More flavor and nutrient