



Make-and-take
Microgreens
Workshop

What are Microgreens

- Microgreens are seedlings grown to fully expanded cotyledons or one true leaf.
- Microgreens are a close cousin of sprouts.
- Microgreens are grown with light in a potting mix unlike sprouts, which are typically grown in the dark in water.
- Sprouts are consumed entirely-leaves, stem, & roots; only the stems & leaves of microgreens are eaten.
- 25 varieties available—only use seeds labeled “microgreens”



Why Eat Microgreens

- Nutritious

- Versatile



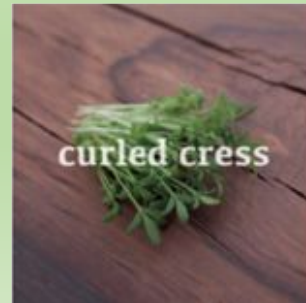
- Intense flavor

Dietary Tips

- Microgreens can boost color, enhance flavor, and add texture to any dish, while delivering a nutritional boost as well.
- Some tips for adding microgreens into meals include:
 - using them as a topping for salads and soups
 - tossing a small handful into a smoothie or juice before blending
 - using them as a garnish alongside any main dish
 - placing microgreens on top of a flatbread or pizza after cooking
 - adding microgreens into an omelet or frittata
 - replacing lettuce with microgreens on a burger, sandwich, or tacos

What Microgreens Can I Grow ?

- **Fast and easy:** arugula, kale, radish, broccoli, mustard, broccoli raab, bok choy, komatsuna and other Asian greens, cress, lettuces (fragile)



What Microgreens Can I Grow ?

- **More challenging:** aramanth, beet, Swiss chard, cilantro, basil, pea, and sunflower



Potting medium

- Soil-less media – 50/50 blend of vermiculite and perlite

or

- Easiest choice—use an inexpensive mix made for **starting seeds**. Made from— Coco coir and/or peat, blends of vermiculite and/or perlite
- Compost leftover potting mix after greens are harvested!

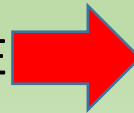


+



Or ONE

OF THESE



Getting ready

- Wash your seedling trays with detergent and hot water.
- If your tray doesn't have holes, cut a few, or use a soldering iron- less chance of breaking plastic
- Make a "wick" for your tray with a 3-inch strip of paper towel folded to a ½ inch strip
 - You will be watering from UNDERNEATH. Thread it so the "tails" are poking to the outside bottom of tray



Getting ready

- PRE-MOISTEN your potting mix in a plastic bag with warm water until it's the moistness of a wrung-out sponge. Should not drip when squeezed.
- Place 1 ½ - 2 inches of mix in planting tray, and gently tamp down
- Next: Time to plant!



Planting

- Some suggest soaking large seeds in cold water for 12-24 hours.
 - Not usually necessary, and makes seeds harder to plant
- How many seeds to use? Depends on size of seed
 - For tiny seeds, the rule of thumb is 6-8 seeds per square inch.
 - For larger seeds, like sunflower, peas, and Swiss chard, sow densely but not touching.



Tip—how many seeds to plant

- Place enough seeds in the bottom of the container (before you cut the holes) to cover bottom in a single layer
- Empty and set aside seeds—that's how many you will place on the potting mix



Planting

- Place the seeds on top of the planting mix:
Two options
- Cover the seeds with a small amount of moistened potting mix

OR

- You can also NOT cover them with potting mix, but you will have to be very diligent about spraying them with water a couple times a day.



Planting

- Tamp down, and mist with a lightly bit of water
- Cover with **foil** until seeds germinate (remove when seeds germinate)
 - some recommend that you should have a “blackout” period—no light—until germination occurs. May force the seeds to grow taller seeking the light.

OR

- Plastic wrap—cover loosely



Remove cover and stop using heat mat when germination occurs

Planting

- Place a few pebbles in the lid of the tray, and nest the tray **in** the lid. The “wick” should be touching the bottom of the lid. The stones keep the tray from sitting directly on the bottom of the lid.
- DO NOT WATER at this stage.



Germination FAQs

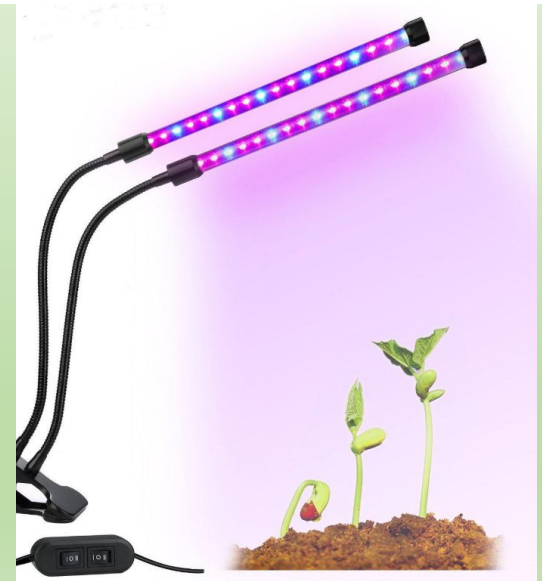
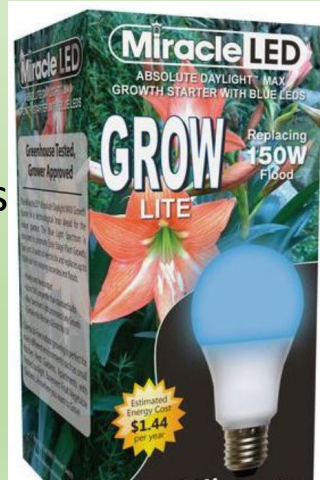
- **Mold or roots?**
 - Many seeds, like radish, can grow feathery like roots that look like mold when they first begin to sprout in your sprouting jar. If you pull out your magnifying glass you will see that what you thought was white mold is actually lots of tiny roots.
- **Why do my basil seeds look moldy?**
 - When basil seeds become wet, they form a gelatinous membrane around them that makes them look moldy, but this is a harmless mucilage layer of a healthy seed.
- **My microgreens definitely have some mold!**
 - If your microgreens do get a little mold, you can spray them with equal parts hydrogen peroxide and water to kill the mold, then continue to grow and harvest them.

Growing Requirements: Light

- Some recommend a “blackout” period until germination, but it’s usually not necessary. REMOVE FOIL WHEN SEEDS GERMINATE
- Light—essential after germination.
 - Outdoors in summer weather: 5 hours of direct sunlight or 8 hours of indirect sunlight.
 - Indoors in winter or early spring, you will need to supplement lighting—slight from the window isn’t enough.

Growing Requirements: Light

- Indoors: Fluorescent lights, or inexpensive LED grow lights—keep positioned at **2-3 inches above the seedlings** for 12 hours a day
- Outdoors in summer weather: 5 hours of direct sunlight or 8 hours of indirect sunlight.



Growing Requirements: Temperature

- Optimum temperature for germination of most seeds (check your label) is about 75°
- If your home or area is exceptionally cold, you should use a warming mat 10" x 21--(\$10-\$12)—or place on the fridge.
- As soon as the seedlings germinate, remove the heating pad and expose to lights
- After germination, microgreens will grow well at normal room temperatures between 65-85



Growing Requirements: Air

- Make sure that there is plenty of air flow around the seedlings.
- A ceiling fan in the room is ideal.
- In most homes with air circulation with normal heating and cooling, additional air circulation is usually unnecessary.

Growing Requirements: Water

- DO NOT add water to your newly seeded trays. The pre-moistened potting mix should stay moist until seeds germinate.
- Until germination takes place, lift off the tray cover, and see if the top of the potting mix is still damp to the touch.
 - If it is, no need to do anything.
 - Most seeds need light misting at least once a day. Replace plastic or foil

Growing Requirements: Water

- After germination, you may add up to an inch into the lid underneath the tray.
- The wicks will draw the water up into the potting medium as needed by the plant.
- Make certain that the tray is not sitting in water, as this will drown the delicate roots.

THE KEY TO SUCCESS IS MOISTURE

Not too much and not too little!

- If the germinating seed dries out even for a few minutes it will cease to grow.
- Too much water will rot the seed before it has a chance to germinate.
- Remember—more plants are **killed by over-watering** than under-watering

Finally—Ready to eat

- When TWO TRUE LEAVES appear (first leaves up are the “seed leaves” or cotyledons)
- Usually about 1 ½ -2 inches tall



Harvesting

- Cut at “soil line” when greens are 2-3-in. tall
- No re-growth
- Refrigerate for up to 10 days



Helps to place a dry paper towel in the baggie to absorb moisture.

Do not wash greens before storing.

Resources

- **WEBSITES** to search, type in “Microgreens”
- <https://caldwell.ces.ncsu.edu/2018/02/what-are-microgreens/>
- <https://www.instagram.com/onthegrowfarms/>
- <https://themicrogardener.com/>
- <https://draxe.com/nutrition/microgreens/>
- **YOUTUBE LEARNING**
- <https://www.youtube.com/watch?v=D3vnBEvYDZo> On the Grow: How to grow Microgreens
- <https://www.youtube.com/watch?v=9gdGvT8oEdQ> Garden Answer: How to grow Microgreens
- <https://www.youtube.com/watch?v=DskT6ppASjk> (Easy Grow Hydro Page) Beginners guide to growing Microgreens)
- Stick with trusted resources for learning and purchasing seeds. University extensions, Nurseries and folks who do this for a living.

Resources

- **SOILLESS MEDIA MIX.** Vermiculite or Perlite, seed starter mix—Lowes, Home Depot
- **CONTAINERS** One with holes so water can be absorbed up through the bottom, the other a solid waterproof container. Walmart or Amazon.
- **HEAT MAT** Amazon. Vivosun durable waterproof heat mat , 10"X 21" 2 for \$ 21.00 or Lowes, Home Depot and Garden centers
- **SEEDS**
- <https://www.trueleafmarket.com/collections/micro-greens-planting-seed>
Trueleafmarket.com by Mountain Valley seeds
- <http://kitazawaseed.com>
- www.botanicalinterests.com
- Available at our local health food store, Fred Meyers and some nurseries. Buy (Botanical Interest) brand, not regular growing seeds.
- Johnnys Seeds <https://www.johnnyseeds.com/vegetables/microgreens/>
- AMAZON, OF COURSE