HOW TO GROW MICROGREENS

INTRO

So, you've decided to embark on the exciting journey of growing microgreens at home! This guide is here to support you every step of the way. Growing your own food can be a rewarding and fulfilling experience, and microgreens are a fantastic choice for beginners and seasoned gardeners alike. With just a few simple materials and a little patience, you'll be able to cultivate these nutrient-packed greens right in your own kitchen!

As you dive into this adventure, remember that there are various choices and techniques involved in growing microgreens. We'll keep things straightforward yet comprehensive, providing you with essential steps to ensure your success. The process is divided into four easy phases: Planting, Germination & Blackout, Light & Water, and Harvesting.

Before we get started, please take a moment to review the materials included in your kit and gather any additional supplies you may need from around your home or local garden store. Also, most micros prefer near room temperature (**68-72 degrees**) and moderate humidity (**40-60%**), they need regular watering (not too much, not too little), and a good source of light (a south facing window, grow light or plug-in light). Sometimes they may need some airflow depending on how much you are growing or other factors.

Remember that while there is a process laid out here, it's also an opportunity for creativity and exploration. Feel free to experiment with different seed varieties and growing methods to discover what works best for you. Enjoy the journey of nurturing your microgreens - it's not just about the end result but also the joy of watching them grow! Now, let's get growing!

Note: Always follow safe practices when growing or handling food including keeping work areas clean, sanitizing trays, mats, and utensils, washing hands, and rinsing harvested microgreens before consumption.

PREP SPACE & MATERIALS

1) Determine where you will grow your microgreens – provide a suitable space that has good temperature and humidity, as well as a good source of light (away from pets – on a table or shelf, near a window or with an artificial light).

- You will need an area to put the newly planted micros in the dark (like a closet, cabinet, box etc.).
- Optional: An artificial light source.
- Optional: If using an artificial light source, you may want to use a timer.
- Optional: A small fan to help the micros grow stronger or to prevent moisture issues

2) Determine which seed type you will be using and which grow medium you prefer to use or is best suited for the type of seed.

- For the purposes of this guide we will focus on one of the most common types of micros which are Brassicas (in our case, radish, kale, broccoli or a mix/blend) and the grow medium being potting soil or silicone mat.
- Note that if you choose to grow other seeds such as pea shoot or sunflower, they require soaking before planting. Pea shoot in fact does not require the silicone mat – soil is good but using the mesh growing tray by itself works well also.

3) Gather your supplies:

- Grow medium of choice (select one)
    - Potting soil (preferred method explained in the guide, requires less watering)
    - Silicone mat (good option for most seeds, requires more watering)
    - Mesh growing tray by itself (for select seed types)
    - Other mediums (personal choice such as coco coir)
- Clean grow trays
    - 1 mesh growing tray (white)
    - 1 solid watering tray (green)
- Seeds of your choice
- A scale that can measure in grams
- A small cup for spreading seeds
- Spray bottle for moistening soil and/or seeds
- Watering can or cup for watering
- A sharp knife or scissors for harvesting

4) Select your planting area and/or growing space. Planting can take place in a garage, potting shed, outdoor area or even on the kitchen counter. Your growing area could be a sunroom, kitchen, greenhouse or anywhere you can provide the proper environment and tend to the micros while they germinate and grow.

- Clean and organize your space, tools, equipment.*

5) Select your seeds and measure out how much to use.

- Using a scale and a small cup, add just **6 grams** of any of the included Brassicas (other seeds may require a different amount).

Supplies included with Starter Kit v2	**Examples of some other items NOT included with Starter Kit**
 Microgreens Seeds	

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PLANTING

DAY 1: STARTING THE CROP

1) If you are using A) soil or B) the silicone grow mat, take a grow tray with holes (the white one) and place your grow medium inside so it covers the bottom.

- A) For soil, fill the tray enough to reach the top – spread it evenly by hand, being sure to reach the corners.
    - "Tamp" or flatten the soil so it sits just below the top edge of the tray.
- B) For the silicone mat, simply lay it flat on the bottom of the mesh growing tray.
- *Optional: If you are just using the grow tray by itself as a grow medium (such as for pea shoots), you can skip this step.*

Option A) Filling the white mesh tray with soil

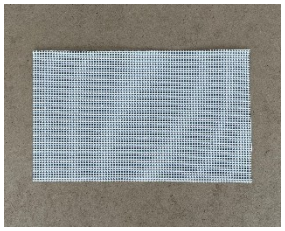
Add soil

Spread evenly

Gently Tamp

Keep below top of tray

Option B) Laying the silicone mat flat on the white mesh tray



White Silicone Mat

Silicone Mat placed in White Mesh Tray

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2) Moisten the tray evenly. The planting area needs to be wet enough to aid germination. Make a few passes over the grow tray with water using a spray bottle or water sprayer. You don't want it to be dry but it is important not to overwater as well.

- A) If using soil, allow the water to soak in. Do not over saturate and if using a sprayer from a hose or sink, be gentile. Having a flat and even surface is one of the keys to having a good crop.
- B) If using the grow mat, simply ensure it has enough water that it glistens or shines.

Spray and moisten evenly

3) Using the small cup of measured seeds, cascade the seeds on top of the medium by using a gentile but deliberate "shake" motion to spread them evenly. Do not bury them or push them down. Try not to have clumps or clusters of seeds on-top of one another. At the same time, the plants will have a way of sorting things out – they don't need to be perfect!

Option A) Distributing the seeds on the soil

Use small cup of measured seed

Scatter or cast seed evenly

Check for any clumps

Option B) Distributing the seeds on the silicone mat

Seeds cast evenly on the silicone mat

4) Once the seeds are in place (for either option A or B), we need to moisten the tray evenly – make a few passes of water across the entire tray using a spray bottle or water sprayer.

- The seeds should have a gloss or sheen to them.
- Don't oversoak.
- Don't spray with too much pressure (it could create clumps of seeds or divots when using soil). The seeds need just enough moisture to make it through germination.

Spray and moisten evenly

Should be moist, not wet or soaked

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GERMINATION & BLACKOUT

DAY 1 CONT'D: HELP IT GROW

1) The next steps begin the period of "blackout". We want to starve the seeds of light. We also want to mimic what occurs in nature – seeds are normally buried, so to trick them, we place a solid tray on top of the newly planted seeds and the growing tray. This helps with germination and starts the growing process.

- Place the green tray on top of the white tray (covering the seeds).
- Apply some weight on top to apply pressure. Use something stable that weighs about 36oz. We use half a brick.
    - Alternatively, something as heavy as a can of vegetables may work just fine.
- Place the "tray" (all the parts stacked together) in a dark space with no light (like a closet, cabinet or box).

Optional: Having a spare or extra green tray helps with this stage of process – keeping a bottom tray to hold moisture and adding top tray to hold the weight. Additional trays sold separately.

Place green tray on top of seeds/white tray

Place a weight on top of green tray

Now comes the hard part – waiting.

- The next step is to leave the tray alone to allow the seeds to establish and germinate.

DAY 2-3: CHECK & WATER (IF NEEDED)

At this point, you're probably wondering what is happening underneath the weight and tray you smothered the seeds with. When you are just starting out, this is perfectly natural and part of the fun. If you want to see if the seeds are starting to germinate, or if you are concerned that the seeds or medium is not moist enough, feel free to peek under the top tray (just be gentile). You will see stems breaking out of the seed hulls, and eventually the cotyledons will emerge (the "first leaves").

The fundamental steps here are:

- A) If you used soil and applied enough moisture on Day 1, you have nothing to do here. If you suspect or observe that the soil is too dry, then spray/mist the soil and seeds with a spray bottle.
- B) If you chose to use the silicone mat, then the seeds need to be sprayed with a spray bottle 1-2 times per day to ensure they get the water they need (again, glistening or a sheen).
- The key here is to not let anything dry out but not to overwater either. Watering a tray of microgreens is not the same as what you might do in a garden. Less is more.

DAY 4: COVER UP, LET 'EM STRETCH

By now the micros should be showing all sorts of signs of life (germination, sprouting) and in fact, they should be pushing on the tray and weight above. This is a good sign of when to move to the next stage of blackout. To this point, the roots have emerged, the seeds have started to sprout, but they need room to grow up. This is key to getting them to stretch – we starve them of light 1 more day to get them about an inch tall.

- To do this, simply remove the weight, take the green watering tray and place it underneath the white mesh growing tray.
- Place the tray of micros in a dark space (a closet, cabinet or box is ideal).
- While doing this, just as before, make sure there is enough moisture present (spray if needed).

Note: At this stage you might see something that you suspect is some kind of mold forming from the tiny vegetables. Most likely, this is what's called root hairs. No need to be alarmed, this is the roots forming, searching for water – which is not an indication that something is wrong. You will notice they often shrink or almost disappear after being sprayed with water.

LIGHT & WATER

DAY 5: GIVE THEM LIGHT & A GOOD DRINK

As you may have noticed, these little gems are really starting to take off, but they may look a little pale and yellow. That's because they haven't seen any light yet! Plants go through a process called Photosynthesis which produces Chlorophyll, causing most plants to turn green. Other plants like radish contain pigments which are not photosynthetic, but you will notice they go through a transformation once under light.

Now is the time to let them really grow and take on a whole new life. In a professional setting, we give them 14-16 hours of light per day! That may not be necessary or even recommend at home. It is entirely up to you if you want to use natural light, and/or supplement with artificial light. But you need to give them consistent, ample light, for a long period, every day.

- Remove the crop from the darkness and place it into a well-lit setting.
- Try and give them at least 10-12 hours per day (if using artificial light, a timer is a good option).
- IMPORTANT: At this stage you must start to water the crop.
    - Lift the white mesh growing tray and pour enough water in the green watering tray (the bottom tray) so that it seeps into or reaches the inside of the white mesh growing tray (not too much to overflow, be gentle in letting the white tray back down). This process is called "bottom-watering".

Bottom-watering is a technique where water is provided to plants from beneath, allowing the growing medium to absorb moisture through capillary action. For microgreens, this method is particularly beneficial as it promotes healthy root growth, reduces the risk of overwatering, and helps prevent mold and fungus gnats.

Bottom-watering is especially advantageous for microgreens because it:

1. Ensures even moisture distribution throughout the soil
2. Keeps delicate foliage dry, reducing the risk of mold
3. Encourages roots to grow downward, strengthening the plants
4. Allows microgreens to take up only the water they need, minimizing the risk of overwatering
5. Maintains lower humidity levels around the plants, further reducing the risk of fungal issues

By using this technique, microgreen growers can promote healthier, stronger plants while simplifying their watering process and reducing potential problems associated with top-watering.

DAY 6+: KEEP WATERING & WATCH THEM GROW!

At this point in the process, you merely want to keep the micros properly hydrated and thriving until the they reach the ideal growth for harvesting.

- Check on and bottom-water the micros as needed 1-2 times per day.
    - A) For soil, you want the water to be absorbed in the medium to maintain moisture (don't over saturate).
    - B) For the silicone mat, add enough water so that it can reach the white tray above
- Do not overfill and flood the medium or micros.
- If the micros start to show water on the stems or leaves, you are overwatering.
- If they start to fall over, you are underwatering. Adjust as needed.

HARVESTING

HARVEST DAY!

The moment you have been waiting for! It's time to collect the bounty from all your efforts! So how do you know when the harvest your crop. This can vary, but most circles will recommend that they are ready to cut just before or shortly after the "true leaf appears" (the leaf that appears between the first leaves (cotyledons). It has also been said that the best time to harvest microgreens is when they taste the best to you! There is some room for experimentation and preference.

Note that as vegetables grow, they take on different characteristics including how they look, how they taste and the amount of nutrients they contain. This can be a personal choice, but we recommend for the items in the kit or with most Brassicas, that you keep it to about 8-12 days since planting (this applies to most micros and mediums).

Finishing up…

- Prepare a clean area to work in and wash your hands.
- To harvest, take a clean pair of scissors or a sharp knife, and carefully cut them above the tray and/or any soil.
- Place the micros in an air-sealed container, and store them in your refrigerator
    - If they appear wet/damp, or as a proactive measure, add a piece of paper towel in the bag/container to remove moisture and lengthen shelf live.
- Place any suitable biodegradable waste in a compost (this includes the leftover stems, roots from harvest along with soil).
- Properly wash your trays and any used silicone mats as needed. They are top-rack dishwasher safe.

EAT AND ENJOY!

Congratulations! The hard part is done! Now is the time to enjoy the fruits of your labor! Try your greens on all sorts of meals to discover different flavor combinations and incorporate these superfoods in your everyday diet.

- It is always recommended to rinse/wash produce before consumption.*
- Add micros to almost any dish (think of them as “topers”).
- Most micros cannot be cooked (some shoots can be sautéed like peas).
- Consume them within about 7-10 days for the freshest experience
    - If they turn colors and become limp, they may become spoiled.

Message us if you have any questions or issues along the way.

Thank you for using our products! Happy growing!

**Always follow safe practices when growing or handling food including keeping work areas clean, sanitizing trays, mats, and utensils, washing hands, and rinsing harvested microgreens as if desired before consumption.*

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