

GROWING MICROGREENS

Microgreens can be grown two ways, either hydroponically, or in soil. Some types of microgreen seeds tend to grow better in soil, others better hydroponically using growing pads, and some are fine grown either way (see chart on reverse side). A good source that specializes in selling seeds and equipment for growing microgreens is True Leaf Market. You can find them online at: www.trueleafmarket.com. Not only do they have the items you can use to grow microgreens; they also have several instructional videos which you can access for free on their website. Put your used soil (with roots) or your used grow pad in the compost. Leeks are the only crop listed here, that you can get two harvests from.

Materials Needed: Containers for growing your microgreens. I generally use two 10" X 20" trays for a single crop. These can be obtained from True Leaf Market or from a garden store. For soil, you want the trays without drainage holes in the bottom. You can use other containers as well. True leaf market also sells 10" X 10" and 5" X 5 "trays. The latter fit into a larger 10" X 20" tray. You need a spray bottle which you will fill with some of your PH balanced water (see Step 1 below). You need soil or a grow pad (or pads). Regular potting soil or compost soil work well. If you are planting in soil you also need a bowl or jar to soak your seeds, a colander for rinsing, and a large spatula to tamp down the soil and sprouted seeds. You need a good source of light. Grow lights work well, or a nice sunlit area can work too.

Hydroponic Method	Soil Method
Step 1: PH balance your water. Microgreens like a slightly more acidic water with a PH of between 5.5 to 6.5. True Leaf Market sells testing strips to help do this. Test a gallon of your water to determine the PH. If it is higher than 6.5, stir in a teaspoon of lemon juice and retest. To get it from a 7 to a 6 takes about 2 teaspoons of lemon juice/gallon.	Step 1: PH balance your water. Microgreens like a slightly more acidic water with a PH of between 5.5 to 6.5. True Leaf Market sells testing strips to help do this. Test a gallon of your water to determine the PH. If it is higher than 6.5, stir in a teaspoon of lemon juice and retest. To get it from a 7 to a 6 takes about 2 teaspoons of lemon juice/gallon.
Step 2: Prepare your tray. Place two cups PH balanced water into the bottom of your tray. Tilt tray around to distribute water evenly in channels. Lay a growing pad in the tray. Press it down to saturate it. Spray it well with PH Balanced water.	Step 2: Pre-soak your seeds. Most seeds that prefer growing in soil, require pre-soaking. Soak your seeds in cold water for the time specified in the table on the reverse side. For all seeds (except beet seeds which must be planted immediately), you can opt to remove them to a colander for a day or two and rinse them every 12 hours to get them all well sprouted.
Step 3: Spread seeds evenly over your saturated grow pad. For smaller seeds (arugula, broccoli, etc.) sprinkle about 2-3 tablespoons of seeds. For larger seeds like radish, you can use up to a quarter cup.	Step 3: Prepare your tray. Place four cups PH balanced water into the bottom of your tray. Spread 1 ½ to 2 inches of soil evenly over the bottom of your tray. Press (tamp down) the soil with a spatula. You want your soil well moistened, but not soggy. Spray surface of the soil with some PH balanced water.
Step 4: Mist and cover your crop. Spray your seeds with PH balanced water to soak them well. 10-12 sprays evenly over each section is a good amount. Then, spray the inside of your second tray. Invert it over your crop as a blackout/humidity dome.	Step 4: Spread seeds evenly over the surface of your soil. Tamp down seeds gently so they make a good contact with the soil. Give the seeds a good misting with the spray bottle.
Step 5: Mist your crop every 12 hours. (10-12 sprays evenly over each section with PH balanced water.) Also mist the inside of your humidity dome and replace it over your crop each time you mist your crop.	Step 5: Cover your crop with a blackout/humidity tray. Spray the inside of the extra tray with your PH balanced water. Invert it over your crop as a blackout/humidity dome. Mist your crop and the inside of the dome every 12 hours (10-12 sprays evenly over each section with PH balanced water.
Step 6: Uncover your tray at about 4-5 days. After the baby leaves (cotyledons) begin to emerge, wait one more day before uncovering your crop and exposing it to light. Discontinue misting.	Step 6: At about day 4, for certain crops, (see "Special Instructions" on the chart on back) flip the blackout tray to put the bottom of the tray directly over the crop to stress it and make the crop stronger.
Step 7: Check daily and water when needed. Lift up a corner of the grow pad to add PH balanced water. You want the water to come about halfway up in the channels at the bottom of the tray.	Step 7: Uncover your crop and expose it to light. At this point, discontinue misting it and begin watering from the bottom trying not to get the leaves wet.
Step 8: Harvest your crop. Either pull up handfuls of greens by the roots and trim the roots off, or, with scissors cut your crop close to the grow pad. Think of it as giving your greens a haircut.	Step 8: Harvest your crop. Either pull up handfuls of greens by the roots and trim the roots off, or, with scissors cut your crop close to the grow pad. Think of it as giving your greens a haircut.
Step 9: Rinse, dry and store your crop. I use a small salad spinner to rinse and spin my sprouts. Then I lay them out to dry on a paper towel before putting them in storage containers (most often zipper bags). Store in the refrigerator.	Step 9: Rinse, dry and store your crop. I use a small salad spinner to rinse and spin my sprouts. Then I lay them out to dry on a paper towel before putting them in storage containers (most often zipper bags). Store in the refrigerator.

Uses for microgreens: Microgreens make excellent garnishes. Use microgreens generously in place of lettuce on sandwiches, in pita pockets, etc. Use in salads. Can also be added to smoothies.

Anti-fungal treatment for microgreens: 2 tablespoons 3% Food Grade Hydrogen Peroxide in 1-liter water. Put in a spray bottle and mist on crop if a problem with mold arises. Tiny white hair-like growths are common, but not usually mold.

This Information was obtained from www.trueleafmarket.com and their Growing Microgreens handouts, and from: www.cropking.com/sites/default/files/SeedingCharts.pdf from their Seeding Chart.

GUIDE TO GROWING MICROGREENS

Seed Variety	Pre-soak Yes/No	Hydroponic or Soil	Seeding rate/ 10"X 20" tray	Days to Germination / Harvest	Special Instructions	Nutrition (Vitamins, etc.)
Arugula	No	Either	.7-1 oz.	1-2 days/6-8 days	Easy, fast growers. On the spicier side (decreases with time). Blackout 1-3 days.	A, C, Calcium, iron, Phosphorus
Basil (all types)	No	Hydroponic preferred	1 oz.	5-7 days/12-16 days	Mucilaginous. Keep damp with regular misting. Blackout 4-7 days. Use in place of regular basil in any recipe.	A, B6, C, E, K, Calcium, phosphorus, iron, zinc, copper, magnesium, potassium
Beet (all types)	10-24 Hours	Soil only	1-2 oz.	3-4 days/11-21 days	Sow immediately after soaking. Cover slightly with soil. Blackout for close to 1 week. Cut close to soil to harvest.	A, B, C, E, K, Calcium, magnesium, potassium, Iron, zinc, protein
Broccoli	No	Either	1 oz.	2-3 days/8-12 days	Can be sown a bit more thickly. Flip lid for blackout 2-3 days.	A, C, Calcium, phosphorus, sulfuraphane,
Buckwheat	12 Hours Cold water	Soil preferred	12 oz.	1-2 days/7-14 days	Grows tall quickly. Blackout 3-4 days.	B, C, K, Folic acid, Fiber
Cabbage	No	Either	1 oz.	2-3 days/6-14 days	Flip lid for blackout at day 4 for 1 or 2 days.	C, K, E, Beta-carotenes, iron
Cauliflower	No	Either	1 oz.	2-3 days/8-12 days	Can be sown a bit more thickly. Flip lid for blackout at day 4 for 1-2 days.	C, K, E, Beta-carotenes, iron
Chia	No	Hydroponic preferred	1 oz	2-3 days/ 8-12 days	Mucilaginous. Keep damp with regular misting. Blackout 2-3 days.	Omega oils, amino acids, proteins
Cilantro	4-8 hours	Only in soil	2 oz.	7-10 days/21-28 days	Sow thickly. Cover with thin layer of soil. Prefers cold (below 70°). Keep blackout dome on for 1 week.	A, C, Calcium, iron, phosphorus
Chard (all types)	4-10 hours	Soil preferred	2 oz.	4-6 days/11-21 days	Cover with a small layer of soil over the seeds. Blackout 4-7 days. Cut close to the soil to get the color from the stem.	A, B, C, E, K, Calcium, magnesium, potassium, iron, zinc, protein.
Kale (all types)	No	Either	1 oz.	1-4 days/8-12 days	Cover (blackout dome) for one or two days, then uncover and expose to light.	A, C, K, iron, copper, fiber, antioxidants
Kohlrabi	No	Either	.7-1 oz.	1-3 days/8-12 days	Cover with a blackout dome for 2-4 days. When sprouts have taken hold of growth medium, expose to light.	A, C, B complex, calcium, potassium, copper
Leeks	No	Hydroponic preferred	2oz	3-4 days/12 days	Best if planted more thickly. Blackout 3-4 days. Yields 2 crops.	B6, Folate (B9), C, iron
Peas (all types)	12 hours in a lot of cold water	Soil preferred	10.0z.	2-3 days/12-16 days	Rinse in colander every 12 hours until they sprout before sowing. Blackout 3-4 days.	A, C, Folic acid, iron, Zinc, fiber
Radish (all types)	4-6 hours	Either	1-1.5 oz.	1-2 days/6-12 days	Easy, fast growers. Strong radish taste. Blackout 2 days.	A, B, C, E, K, folic acid, niacin, iron, potassium, phosphorus, pantothenic acid, calcium, magnesium, zinc, Beta-carotenes
Sunflower	4-8 hours in cold water	Soil only	9 oz.	1-2 days/7-10 days	Sprout in colander several days. Cover with small amount of soil (optional). Blackout 2-3 days.	A, B, D, E, calcium, iron, magnesium, phosphorus