

## Sprouts

1. Sprouts are known for their nutritional value.
  - \*Sprouts are a complete food, able to sustain life. They contain essential vitamins, minerals, enzymes, amino acids, and chlorophyll. Plants achieve their maximum nutrient density in the first 5-10 days.
  - \*Sprouting creates a living food, dramatically increases the nutritional value of seeds, beans, and grains, and even creates nutrients that are not present in the dry seed, such as vitamin C.
  - \*Homegrown sprouts are easy to digest, inexpensive, fresh, and organic.
2. Choose the variety of sprout based on the desired use.
  - a. Salad. Many sprouts grow tall enough to be used as lettuce—as a salad, a salad topping, or a sandwich topping. Use in coleslaw or as a garnish.
  - b. Vegetable. Most beans can be sprouted to increase their nutritional value, to reduce gassiness, and to shorten cooking time. A small amount of sprouted beans can be added to salad for extra crunchiness, but larger quantities of beans will need to be cooked after sprouting to be digestible.
  - c. Bread. Some grains can be sprouted and then added whole to bread dough. To add 1 cup sprouted wheat berries, subtract ½ cup flour and ½ c. water. Sprouts will quicken the leavening action of breads. Sprouts can also be dried and then ground before adding to bread dry. Place sprouts on a cookie sheet in a 175 oven, in a dehydrator, or on a wood stove, etc. Grind the dried sprouts and add the powder to baking.
3. Choose a growing method and the desired size of sprouting container.
  - a. Canning jar with a lid that allows drainage, such as a piece of nylon stocking held with a rubber band or a purchased strainer top: This method works well for beans and grains, but it results in crowding of salad-type sprouts.
  - b. Sprout bag: Bags made from nylon, cotton, hemp, or linen work well for beans and grains just like jars. Soak the seeds in a jar overnight, then transfer them to the bag, soak the whole bag, and hang it to drip. Fill or swish with water twice a day.
  - c. Commercially made plastic tray, or homemade wood tray with screen bottom: Trays work well for upright growing of salad-type sprouts. Upright growing yields three times as much as jars do. Plastic trays don't drain as well as screens. Wood frames tend to grow mold on the wood.
  - d. Bamboo baskets—Baskets work well for upright growing of salad-type sprouts, but the bamboo tends to grow mold.
  - e. Mesh screen strainers and splatter screens—Strainers work well for upright growing of salad-type sprouts but tend to get overcrowded. Splatter screens provide good space and drainage. Look for ones made from stainless steel; avoid aluminum.
4. Measure the desired quantity of seed into a jar or cup and soak in water overnight. The quantity will be determined by the size of your sprouting container.
5. The next morning, pour the soaked seeds into your sprouting container. If using a tray or strainer, spread the seeds around to cover the surface. (If you find that the seeds have expanded to exceed the capacity of your sprouting container, transfer some of the seeds to another container. Overcrowding will encourage mold to grow.)
6. Rinse the seeds with a strong stream of water. Sink sprayers work best, but inexpensive faucet sprayer attachments are available at hardware stores.

7. Arrange the sprouting container for good drainage.
  - a. Jars can be tipped at an angle and set into a plastic food container, such as a square freezer container.
  - b. Sprout bags should be hung up to drain over a sink or bowl.
  - c. Trays, baskets, and splatter screens should be propped on top of blocks or cups to allow drainage and roots to grow underneath.
  - d. Mesh strainers with handles can be set in a bowl.
8. Cover the sprouting container to create a greenhouse effect.
  - a. Jars and bags don't need to be covered.
  - b. Trays, baskets, and splatter screens can be covered with houseplant drip pans, plastic cake lids, or plastic storage containers.
  - c. Plastic grocery-store bags can be propped over the top of any sprouting container like a tent.
9. Rinse the sprouts at least twice a day. Three times a day is better. When the sprouts have firmly rooted to the container, they can be completely immersed in water to help remove seed hulls. A little white mold is not harmful and is easily washed off. If gray or black mold appears or the sprouts smell bad, throw them out.
10. Sprouts can take from two to nine days to grow. When the sprouts have reached the desired size, cover and store in the refrigerator. You can rinse them occasionally to help them stay clean and crisp.
11. Sprouts don't need light to grow. You can put them in indirect sunlight on the last day to green them up a little.
12. You can fertilize sprouts for extra nutrition, if desired. Add a few drops of liquid kelp to the initial soaking water. Add it again about halfway through the growth cycle by placing the kelp solution in a bowl and setting the sprout roots in it. You can also mist the sprouts regularly with a kelp solution.

**Small sprouts:** lentil, mung, bean varieties, wheat. These sprout best in a jar or bag. Most of these are sprouted only long enough to see a small tail. French lentils are my favorite because they are crunchy. Mung bean sprouts are used in Chinese food. The sprouts from home will not be as fat as store-bought because commercial growers use ethylene gas to make the sprouts grow plump. Sprouting beans before cooking will reduce gassiness and turn the bean into a live, alkaline food. Wheat sprouts are a complete food. Ideally, try to eat them raw because cooking will destroy the enzymes.

#### Amazing Wheatballs

1. Blend to a paste in a blender or food processor:
    - ½ c. sprouted wheat
    - ½ c. nuts (walnuts, almonds, etc.)
    - ½ c. raisins (or ½ c. dates plus 2 tbs. honey)
  2. Scoop teaspoonfuls and form into balls.
  3. Roll in coconut or finely chopped nuts.
- Optional: add peanut butter.  
Makes approx. 12-13 balls

**Medium sprouts:** alfalfa, broccoli, clover, chia

Broccoli sprouts contain 50 times the amount of cancer-fighting substance found in mature broccoli.

Chia sprouts are edible. The most fun way to grow them is with a Chia Pet—ch-ch-ch-chia! Eat only the sprout; the seeds and roots are bitter. Use half the amount of seed recommended in the directions. Cover the sprouter loosely with a plastic bag to keep the sprouts from drying out.

**Tall sprouts:** fenugreek, buckwheat, and black sunflower. These sprouts grow quite tall and can be used like lettuce.

Sunflower comes in two varieties. The shell-removed kind is only meant to grow a small tail. The black-shelled kind is meant to grow very tall and form green leaves.

| Teri's favorites | Quantity of seed | Container  | #Days |
|------------------|------------------|------------|-------|
| wheat            | ¾ c.             | jar        | 2-3   |
| lentil           | ½ c.             | jar        | 3     |
| mung             | ½ c.             | jar        | 4     |
| alfalfa          | 3 tbs.           | 12" screen | 5-6   |
| broccoli         | 2 tbs.           | 10" screen | 5-6   |
| clover           | 2 tbs.           | 10" screen | 6-7   |
| fenugreek        | 4 tbs.           | 12" screen | 7     |
| buckwheat        | 4 tbs.           | 12" screen | 8     |
| black sunflower  | 7 tbs.           | 12" screen | 9-10  |

### Sources

jar toppers: The Herb Shop, Handy Pantry Sprouting

splatter screens:

[http://www.amazon.com/gp/product/B00061N0J6/ref=oh\\_aui\\_detailpage\\_o03\\_s00?ie=UTF8&psc=1](http://www.amazon.com/gp/product/B00061N0J6/ref=oh_aui_detailpage_o03_s00?ie=UTF8&psc=1)

drip trays: 10" tray Walmart, 12" tray, 10" dome, 12" dome Lowes

sprouting sack: The Herb Shop, Handy Pantry Sprouting

liquid kelp: Gardens Alive! ([www.GardensAlive.com](http://www.GardensAlive.com) or 513-354-1482)

seed sources:

1. Mountain Valley ([www.mvseeds.com](http://www.mvseeds.com) or 801-486-0480, 1438 S 700 W, SLC)
2. Handy Pantry Sprouting ([www.handypantry.com](http://www.handypantry.com))
3. The Herb Shop (160 S State, Springville)
4. Walton Feed ([www.waltonfeed.com](http://www.waltonfeed.com) or 800-847-0465)
5. The Mail Order Catalog ([www.healthy-eating.com](http://www.healthy-eating.com) or 800-695-2241)
6. Thompson and Morgan ([www.thompson-morgan.com](http://www.thompson-morgan.com) or 800-274-7333)

## **Sprouting Simplified**

### **Alfalfa Sprouts in a Jar**

1. Place 2 tbs. alfalfa seed in a jar, fill with water, and let soak overnight.
2. In the morning, drain, refill, and drain the water again. Set the jar upside down and at an angle in a plastic container. Leave on the counter.
3. Rinse the sprouts morning and night until desired size.

### **Alfalfa Sprouts on a Splatter Screen**

**(Be sure to use a stainless steel screen, not aluminum.)**

1. Place 2-3 tbs. alfalfa seed in a jar, fill with water, and let soak overnight.
  2. In the morning, pour the soaked seeds onto a 12-inch splatter screen, refilling the jar with water to swish out the last of the seeds.
  3. Spread the seeds around to cover the surface, leaving a 1-inch empty border around the outside edge. Keep the water gently running to help rinse your fingers as you spread out the seed.
  4. Use the sink sprayer to gently spray over the seed-covered screen.
  5. Set the screen on a clear drip tray or bowl. Place another clear drip tray or bowl over the top to create a greenhouse effect.
  6. Rinse the seed-covered screen morning and night until desired size, being careful not to wash the seeds off the screen. It becomes easier to spray the sprouts as they grow and anchor to the screen. You will even be able to turn the screen upside down!
- Sprouting on a screen produces 2-3 times the quantity as sprouting in a jar with the same quantity of seed.

## Microgreens

1. Gardeners have been busy developing new ways of growing greens indoors to bring the benefits of fresh, living greens to more kitchens and diets.
  - a. Living greens are a powerful source of essential phytonutrients and live enzymes. People must eat some live food to be healthy. Newly germinated greens provide many times more important nutrients than full-grown plants.
  - b. Greens can be grown in the kitchen free from chemicals and pests. Fresh greens can be eaten at the peak of quality.
  - c. Home-grown greens provide food independence. Seeds for sprouting are a valuable addition to family food storage.
2. Kitchen gardeners have developed names for stages of growth to help define the different methods of growing greens.
  - a. Sprouts are seeds that have barely germinated. They have a tiny tail and are often crunchy to eat. Sprouts are grown using repeated rinsing with water.
  - b. Microgreens are the second stage of seed growth. They have roots and the first and sometimes second set of leaves. Microgreens are grown in a thin layer of soil. They pull trace minerals from the soil into the plant.
  - c. Baby greens are microgreens allowed to grow longer and develop tender leaves.

### Teri's steps to growing microgreens

1. Fill a tray with 1½ inches potting soil. Spray the soil with water to dampen. (Use a sink sprayer.)

(Tip: keep some potting soil in the house during the winter so that it doesn't freeze and become unpleasant to handle.)
2. Sprinkle seed to densely cover the soil with a single layer of seed. (Seed can be sprouted in a jar first, but I don't bother.)
3. Spray the seed with water. (Use a sink sprayer or a squirt bottle.)
4. Cover the tray.
  - a. You can cover the seed with vermiculite.
  - b. You can use a clear tray cover, but you must check the soil's dampness daily.
  - c. You can cover the tray with plastic wrap.
  - d. You can cover the seed with a thin layer of soil, but I find that this slows down germination.
  - e. You can cover the seed with paper towel, but some seeds will stick to the towel.
5. Seeds must stay damp, so monitor carefully until sprouts are well established. I usually water with the sink sprayer every other day and use a spray bottle on days in between when needed. If water gathers in the drip tray underneath the soil tray, carefully tip the tray over the sink to empty.
6. When most of the seeds have germinated and white fuzz starts to appear on the shoots or soil, remove the tray cover or plastic wrap.
7. Microgreens do not need sunlight when germinating, and most seed types will grow to harvest stage with only indirect light. Some plants will benefit from exposure to sunlight to green them up.

8. Harvest microgreens by cutting with scissors. Some seeds will produce a thick carpet that can be cut straight across. Some seeds germinate and produce shoots in “waves.” These should be harvested by cutting only the tall plants and leaving the shorter ones to continue growing.

Good book: Microgreens, A Guide to Growing Nutrient-Packed Greens (Franks and Richardson)

Good seed sources:

Handy Pantry (d.b.a. Living Whole Foods, Inc.)

Handypantry.com

1-800-735-0630

Walk-ins or will-call pickup: 1041 N. 450 W., Springville, Utah

Mountain Valley Seed Co.

Mvseeds.com

801-486-0480

### **Steps to calculate quantities for storage**

1. Decide how often you would like to eat sprouts each week.
2. Measure and weigh the amount of each seed needed for the specific growing containers.
3. Multiply each weight by 52—enough for each week of the year.

French lentil:  $\frac{1}{2}$  c. per jar = 3 oz. x 52 = 156 oz. = 9.75 lbs.

Mung bean:  $\frac{1}{2}$  c. per jar = 3 oz. x 52 = 156 oz. = 9.75 lbs.

Wheat:  $\frac{3}{4}$  c. per jar = 4.6 oz. x 52 = 239.2 oz. = 14.95 lbs.

Alfalfa: 3 tbs. per 12” screen = 1 oz. x 52 = 52 oz. = 3.25 lbs.

Clover: 2 tbs. per 10” screen = .7 oz. x 52 = 36.4 oz. = 2.28 lbs.

Broccoli: 2 tbs. per 10” screen = .6 oz. x 52 = 31.2 oz. = 1.95 lbs.

Fenugreek: 4 tbs. per 12” screen = 1.4 oz. x 52 = 72.8 oz. = 4.55 lbs.

Chia: 2 tbs. per half-tray (10”x10”) = .6 oz. x 52 = 31.2 oz. = 1.95 lbs.

Cabbage: 2 tbs. per half-tray = .6 oz. x 52 = 31.2 oz. = 1.95 lbs.

Chard:  $\frac{3}{4}$  c. per half-tray = 1.6 oz. x 52 = 83.2 oz. = 5.2 lbs.

Adzuki bean:  $\frac{1}{2}$  c. per half-tray = 2.9 oz. x 52 = 150.8 oz. = 9.43 lbs.

Pea: 1 c. per half-tray = 5.8 oz. x 52 = 301.6 oz. = 18.85 lbs.

Buckwheat:  $\frac{1}{4}$  c. per half-tray = 1.6 oz. x 52 = 83.2 oz. = 5.2 lbs.

Sunflower:  $\frac{3}{4}$  c. per half-tray = 2.1 oz. x 52 = 109.2 oz. = 6.83 lbs.

## Step-by-Step Indoor Lettuce

1. A window box of leaf lettuce will grow to maturity in 6 weeks and then will produce enough lettuce for a good-sized salad (for 6 people) once a week for 6 weeks. I plant a group of boxes (usually 3), wait 6 weeks, and then cut 1 box for 1 salad. (With 3 boxes, I cut 3 times a week--one box on Monday, another box on Wednesday, etc.).
2. When I start cutting the first set of boxes, I plant the next set of boxes. The second set will be ready for cutting just as the first set is done producing. If you want more lettuce, plant more boxes—just be aware of the six-week rotation. I plan for indoor lettuce for 8 months of the year, or about 32 weeks. That means planting about 5-6 times.

### Teri's steps to growing lettuce

1. Choose a container. I like 28" window boxes that have drip trays. You can also use wallpaper troughs that don't allow drainage. Lettuce puts down shallow roots and doesn't need much drainage. However, don't ever put a wallpaper trough out in the rain, or it will fill up with water and drown the lettuce. (Yes, I learned the hard way.)
2. Fill the containers with potting soil. I use approximately 1 bag (1 cubic foot) of potting soil to plant 2 window boxes. (I buy 9 bags at the end of the summer season for 18 plantings during the winter.)
3. Plant 2 rows of seed the length of the box. I use approximately 1 package of lettuce seed to plant 2 boxes. (I store 9 packages of seed for 18 plantings.) My very favorite variety of leaf lettuce is Burpee's Gourmet Blend. Head lettuce varieties must be very tiny, such as Tom Thumb, to grow successfully indoors. A fun website for small plant varieties is [ContainerSeeds.com](http://ContainerSeeds.com). Be aware that lettuce seed will store and germinate well for only 2-3 years.
4. Water gently. (I use a ketchup squirt bottle.)
5. Cover the box with plastic wrap to keep the soil moist. When seedlings start to appear, remove the plastic wrap. If you have cats, put wood skewers into the soil to keep the cats from using it as a litter box.
6. Water approximately every other day.
7. Most potting soils contain sufficient fertilizer for the lettuce life cycle. If not, add fertilizer to your watering about every two weeks.
8. Leaf lettuce produces well in a south-facing window. Alternatively, use long, fluorescent grow lights. Keep the bulbs just barely above the leaves. I use 4-ft. shop light fixtures that hang from chains from the ceiling. The bulbs are sold in hardware stores and Walmart as either plant/aquarium bulbs for old style fixtures or as blue (65K) and red (33K) spectrum for new style fixtures. Lettuce likes cooler temperatures, so it does well in a basement under lights.
9. Cut leaf lettuce with scissors, carefully choosing the largest leaves and leaving the smaller leaves to continue growing. Be sure to cut above the "v" where the new growth is forming. Baby leaves will emerge from the "v" and continue growing to full size. If you cut next to the soil, the lettuce will not produce any new leaves.