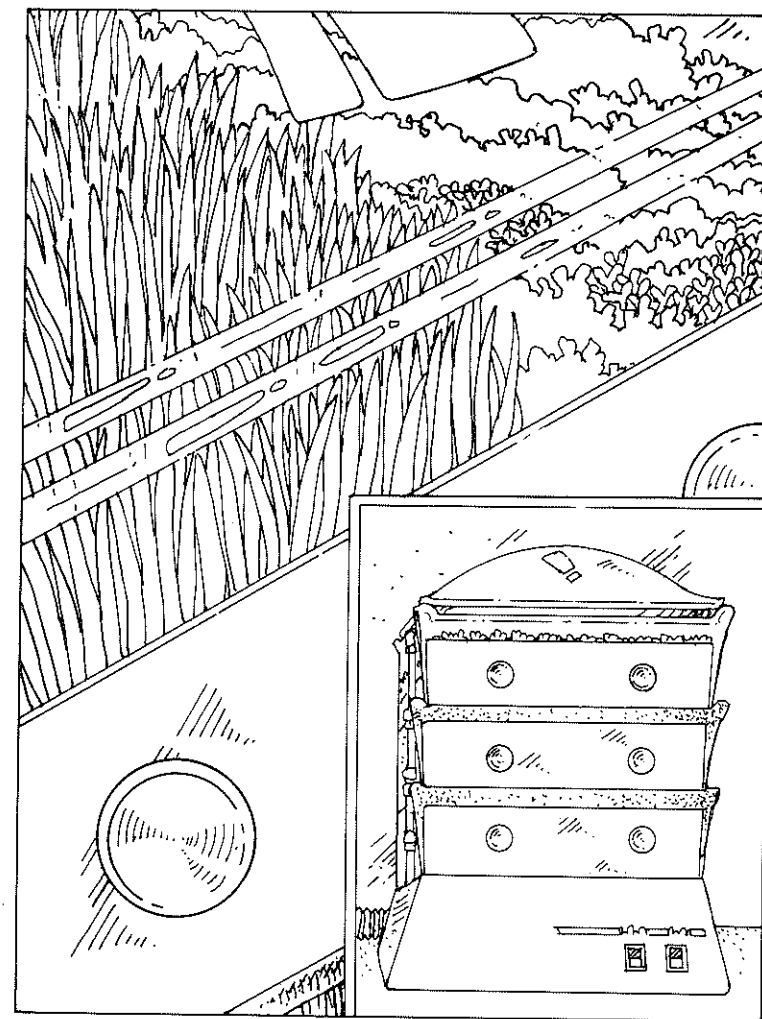


I both plant and store all my supplies right in my kitchen. If you live in a house you may want to set up the system in your kitchen, in your basement, in your garage, on the back porch, or in a special greenhouse area. You may also choose to break up the operations, for example, by storing soil and actually planting in the basement, setting trays in upstairs windows, and soaking seeds in jars by the kitchen sink. Whatever setup you choose, though, you will need plenty of indirect sunlight for the growing plants and a warm place to start the trays off during the winter months (65-75° F is ideal).

If the thought of bringing soil into your home bothers you, and you have no place to grow things outdoors, don't panic. Although there is no real substitute for wheatgrass grown in good soil, there are ways to grow it without soil in automatic sprouters. I use one of these to grow sprouts at home, but I still prefer to use soil to grow wheatgrass and baby greens. This is because after about five days of growth young plants begin to look for nutrients not found in the seed, but found in soil. Thus, for two to five days the plants grown in automatic sprouting machines are in need of outside nutrients that are not available. The result is wheatgrass that isn't as potent as it could be. However, if soilless growing is the only way you can foresee growing and using wheatgrass, it is far better than having none at all.

GROWING WHEATGRASS

If you use the method that I recommend, you will need to seek out some good topsoil and peat moss, or a mixture of topsoil and compost. Topsoil is the first twelve to twenty inches of dark-colored soil immediately beneath the grass on your lawn, or under the leaves covering the surface of a wooded area. If you live in a city, rather than risk being jailed for digging in the park, get some topsoil from a friend in the suburbs, or buy a few large bags from a florist or garden supply store. Peat moss is also available at these shops. Instructions for setting up a composting system begin on page 74.



Automatic Sprouter

When taking topsoil from a wooded area, especially one where pine trees are growing, mix about a half pint of ground limestone (lime) into a trash barrel full of soil. This will offset the acidity of the soil and make your wheatgrass richer-tasting and easier to grow. Lime is inexpensive, and is available at any garden center. Ordinary lawn topsoil won't usually need lime,

but you can add a handful or two per barrel full of soil just to be on the safe side. If you are using compost from an outdoor garden, it should be screened before being mixed with the topsoil, to remove large stones, sticks, and other debris. Do not use compost that has been treated with animal manures, as this may contain harmful bacteria. If you aren't mixing compost into the soil, mix soil with peat moss in a 75-25 ratio.

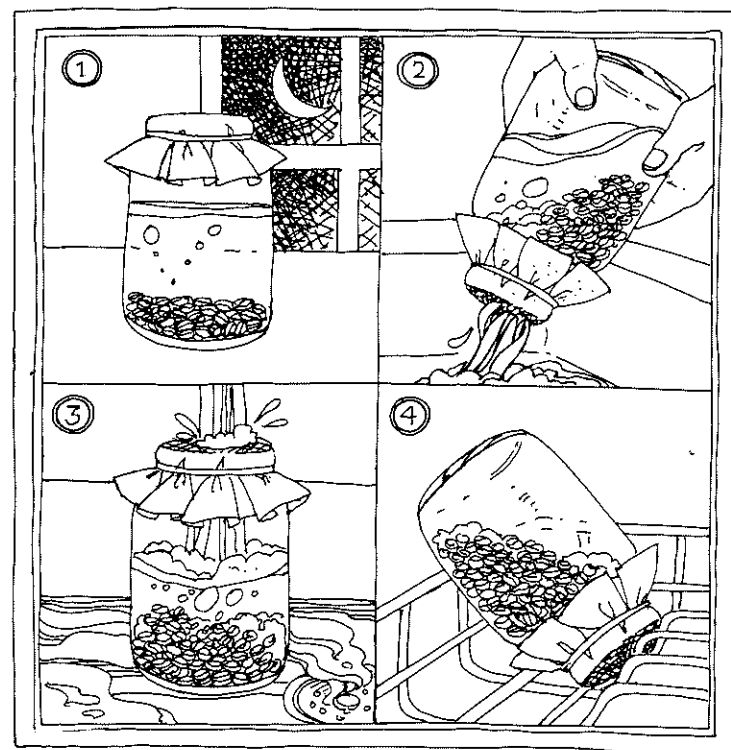
To produce a tray of wheatgrass per day, you will need to start off with two barrels full of topsoil and half a bale of peat moss. Along with this you will need two additional empty barrels to begin composting the used plant mats. These will take care of your soil needs for a few weeks. After that time you will be able to use the recycled soil mats from the compost barrels.

"Hard" or "winter" wheatberries are the ones we use to grow wheatgrass. These wheatberries are small, elongated grains with a deep golden color. If possible, obtain organically grown seeds from a natural foods store. Sprays and fertilizers lodged in plant fibers are toxic, and sprayed seeds do not grow well.

For planting the wheatberries I recommend that you purchase some hard plastic trays. Restaurant supply stores will often sell you cafeteria trays about 10" x 14" in size. Of these you will need one to hold the soil and another to cover each planted tray for the first three days of growth. So in all you will need about a dozen trays if you plan to harvest a tray per day.

To soak the wheatberries before planting, you will need some wide-mouth jars. While seeds are soaking and sprouting, cover the jars with squares of nylon mesh (available at hardware stores), and secure each with a rubber band. Try to get strong rubber bands, as weak ones can snap and the sprouts will go everywhere.

The only other things you will need are water and a little patience.

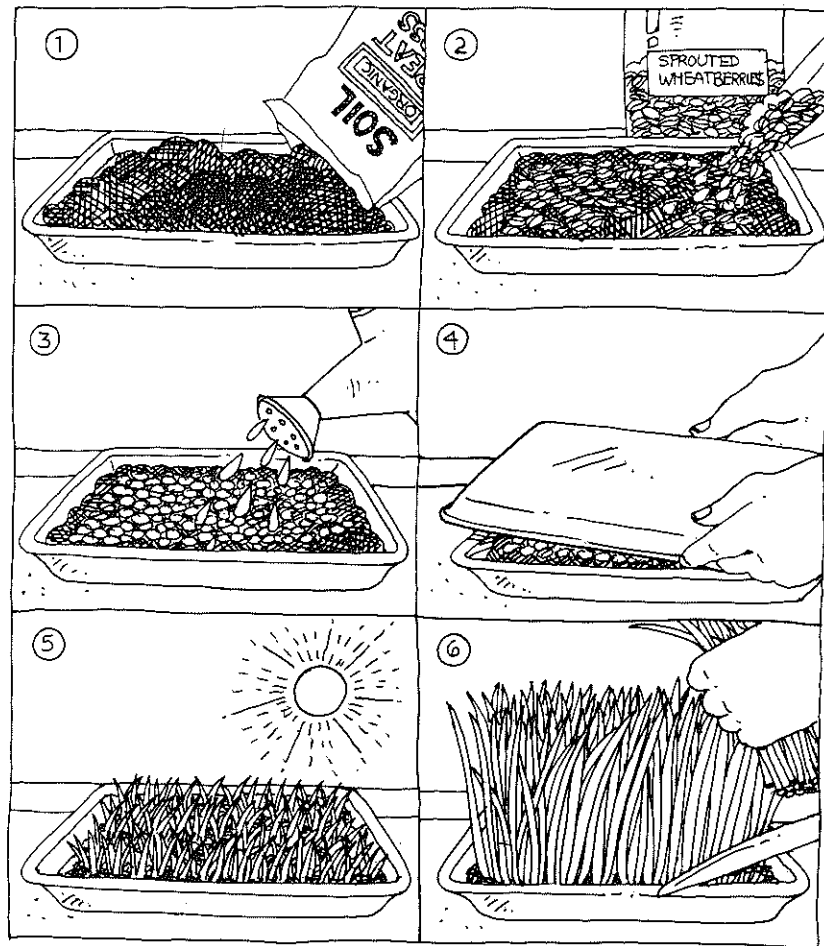


Sprouting

Planting Instructions

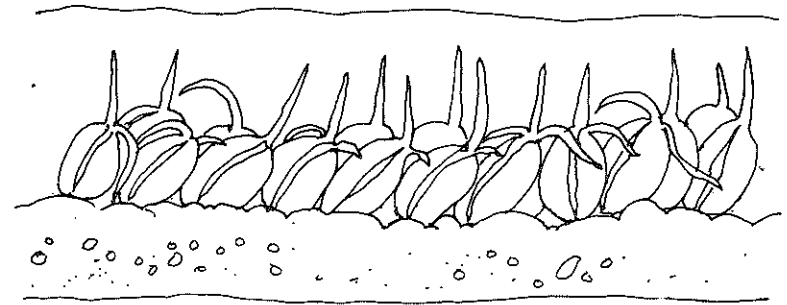
The amount of wheatberries to use will vary according to the size of the tray you're using, but in general one cup of dry wheatberries will be the right amount for a 10" x 14" tray. Before planting, wash the wheatberries to remove any grime or dust. Next, place them in a jar and fill it with water. Put a screen over the top and let it sit overnight (or for twelve hours). Drain the wheat after soaking, and rinse it well. Let the sprout in the jar at a 45° angle for another twelve hours—that makes twenty-four hours between washing the wheatberries and actually planting them.

Now spread a smooth, even layer of soil one inch deep at the bottom of the tray, leaving small trenches around the edges to catch excess water. Pour the sprouted wheat in the middle of the tray and spread it out evenly with your hands, covering the soil. Ideally, one seed should touch another on all sides, but should not have any others piled on top of it. Sprinkle the tray with water, making it damp (but not swampy), and cover with another tray.



Planting

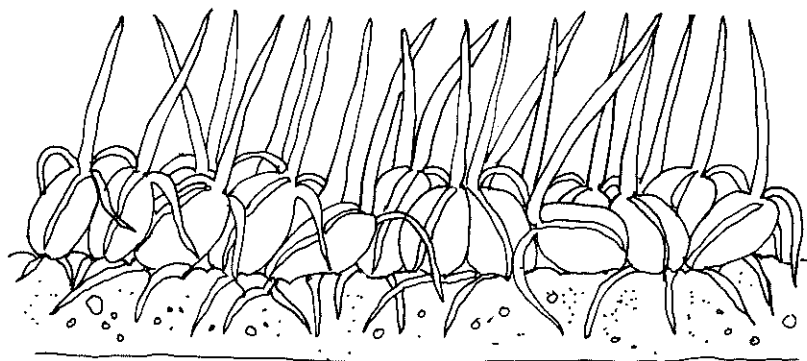
The second tray, used as a cover, creates a mini-ecosystem that duplicates the conditions under which wheat would normally grow outdoors. Beneath the cover the wheat will stay moist, warm, and protected from light, just as it would if it were covered with a thin layer of soil in the fields—but in this case the seeds stay clean and grow faster. After you have watered and covered the tray, set it aside for two to three days.



One-Day-Old Wheatgrass

At the end of two to three days (two in warmer weather and three otherwise) uncover the trays, water them, and set them out in indirect light. The two- to three-day-old wheatgrass will be about one inch high, very sturdy, and white or yellowish in color. The berry portion is barely visible at this stage. The more indirect light the plants get, the thicker and shorter the leaves and blades of grass will be, but direct sunlight will stunt their growth and dry out the soil in a couple of hours. Ideally, a balance between light and shade will produce thick, green, and juicy wheatgrass.

If you uncover a tray and see a bunch of greenish-blue mold instead of wheatgrass, you may have had bad seeds or you may have drowned them by soaking them too long. It is also possible that you over-watered the tray and/or placed it in too warm a spot to germinate. Try new seeds, less water, and a cooler location (about 65-75° F).



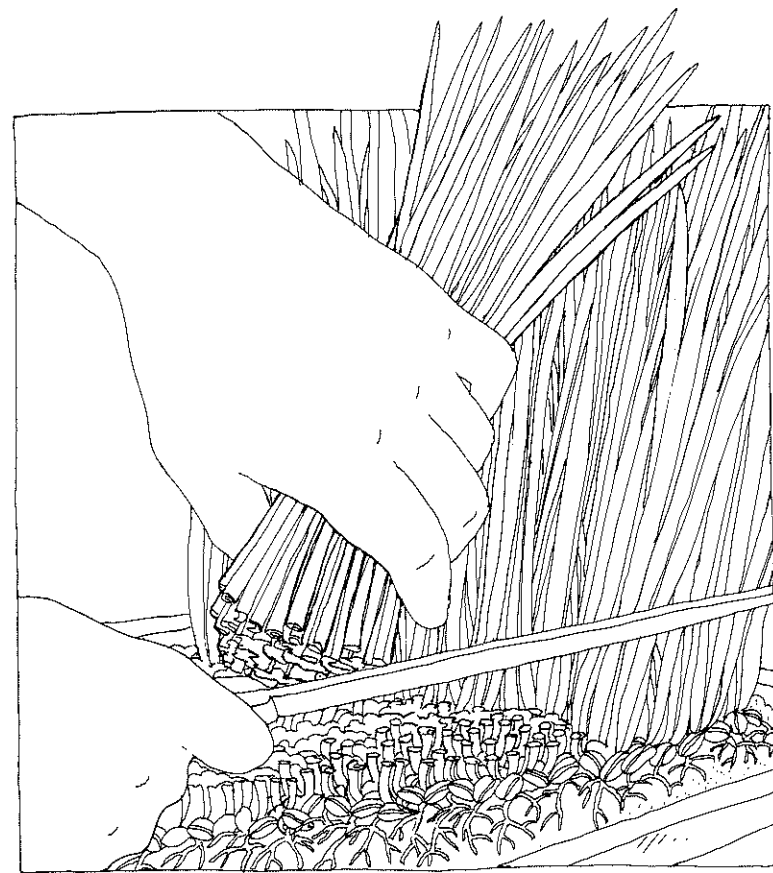
Two- to Three-Day-Old Wheatgrass

Once the trays of wheatgrass are set out in the light, they will need to be watered every day or every other day depending on the weather, humidity, and indoor temperature. The first or second time you water the plants, mix in a tablespoon of powdered kelp so that they will take up added trace minerals and iodine. Try not to muddy the soil, but keep it moist at all times. If by accident a tray is allowed to dry out, avoid the temptation to flood it with water, as this will shock the plants further. Moisten the soil instead, and make sure it doesn't dry out again for the next two days. Don't worry if the plants refuse to stand up straight again. Drooping is caused by lack of water, and the wheatgrass will still be good to eat.

After about six to twelve days your wheatgrass will be about 7–10 inches tall and ready to harvest. In cooler weather, it may take a few days longer for wheatgrass to mature fully, but during hot weather it can reach 10 inches in five days.

To harvest wheatgrass, cut as close to the soil as possible, because many nutrients are concentrated close to the soil mat. If you pull up some soil with the plants, merely rinse the root ends with plain water before juicing or eating the wheatgrass. Do not rinse the grass if you are going to store it in the refrigerator, however, as the water speeds its decomposition.

Ideally, wheatgrass should be juiced and used immediately after cutting. Although the cut grass can be stored for up to seven days in plastic bags in the refrigerator, once juiced it will begin to go bad in a half hour, and be completely spoiled in twelve hours. If wheatgrass juice is not used right away, it should be discarded.



Harvesting

Planting Instructions Check List

As a handy reference guide to growing wheatgrass indoors, I have summarized the steps that we have just discussed.

- Mix 2 barrels of topsoil 50–50 with peat moss or screened compost. Obtain about 12 hard plastic cafeteria trays, several wide-mouth jars, and wheatberries to plant.
- Wash wheatberries and let them soak for 12 hours; then allow them to sprout for 12 hours.
- Spread soil 1 inch deep on trays, leaving shallow trenches around the edges to catch excess water. Smooth the soil and spread the sprouted wheatberries on top.
- Water the planted tray, cover with another tray, and set aside for 2–3 days.
- On Day 4, uncover the tray, water it, and set it in indirect light. Continue watering the tray daily or every other day, as needed, to keep it moist.
- Harvest wheatgrass with a sharp knife when it reaches 7–10 inches in height, cutting as close to the roots as possible without pulling up lumps of soil. Use wheatgrass as soon after harvesting as possible. If necessary, cut wheatgrass can be stored for up to 7 days in a covered container or plastic bag in the refrigerator.

COMPOSTING USED WHEATGRASS MATS

After you have harvested wheatgrass from the trays once or twice (it will come up several times as long as it is cut before it reaches the first jointing stage—about seven inches tall), you will be left with a mat of roots and soil that can easily be recycled into compost.

Composting is nature's way of building, improving, and maintaining the fertility of soil. In the forest, fallen leaves and dead branches cover the earth, making rich compost for the

trees that continue to grow. In fact, everything that has been taken from the soil to nourish growing plants must be returned to it through decomposition of plant and animal matter if it is to continue to support new growth. Compost is a mixture of ordinary soil and plant residues that have been broken down into a rich humus by the microorganisms and worms in the soil.

The modern growing techniques used by agribusiness farmers often neglect to replace trace elements and organic material that crops take out of the soil as they grow. What little is put back most often comes in the form of synthetic chemical fertilizers. After a tract of land has been farmed in this way for a few years, its topsoil is depleted and it becomes a useless desert, barely able to sustain weeds. Acres upon acres of land all over the world are being ruined in this way every year.

Composting will prevent the problem of soil depletion in your indoor garden. It is a way of restoring natural balance. It adds organic matter and enables soil enzymes and organisms like the friendly earthworm to thrive and multiply, enriching the soil and providing the plants grown on it with top-quality nutrients. This is precisely the way nature has preserved plant life on earth for centuries. On a large scale, it is the only way we can ensure that the soil will be fertile enough to produce food for our children—and theirs.

An important worker in your compost pile is the earthworm, whose job it is to digest organic matter and convert it into rich plant nutrients. Earthworm castings are an extremely valuable source of nitrogen, minerals, and other nutrients. The castings that are left behind after earthworms eat and digest the soil contain five times more nitrogen, seven times more phosphate, and eleven times more potassium than the original soil.

You can obtain earthworms from a compost pile or an old pile of leaves, or you can buy some at any bait and tackle shop. Ask for red wigglers. A couple of handfuls are sufficient to get an entire colony started. The earthworms will go to work producing their weight in castings every twenty-four hours.