Sproutman's soil-free wheatgrass grower Instruction Manual



Welcome

Congratulations! You've just purchased the best way to experience one of the most potent health promoting foods on the planet. Wheatgrass has been nourishing animal life for 60 million years - some of them large, muscular, multithousand pound cows, horses, and elephants. Although humans don't have the digestive capacity to break down the excessive cellulose in grass, we do consume grains - wheat, rice, corn, oats - which are the seeds produced by grass. Ancient civilizations were driven by the quest for greener



grass. Today, humans can finally reap the benefits from the thousands of concentrated plant compounds in grass thanks to the modern invention of juicing.

Wheatgrass juice rebuilds the blood, cleanses the intestinal tract, soothes irritated tissues, reduces bacteria populations, purges the liver, neutralizes toxins, alkalinizes the blood, and stimulates enzyme activity. When wheatgrass is used in concert with a total wholistic health program, it has the potential to turn your health around.*

Sproutman

Steve Meyerowitz



^{*}The information in this booklet should not be used to diagnose, treat, or prevent any disease or condition. Always consult a healthcare provider when making changes to your diet or lifestyle.

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Parts List and Assembly



- a. 3 Clear Greenhouse Covers: Promotes warmth and humidity.
- b. **3 Black Germinating Lids:** Covers the growing seeds during the first 1-3 days of growth.
- c. **3 Growing Trays:** The main tray that holds soil or the seedling flats if soil-free.
- d. **3 Soil-Free Seedling Flats:** The flats with many holes used to support the seeds for soil-free growing.
- e. 2 Paper Towel Sheets: Paper towels not included.
- f. 3 Shelf Baskets: The slotted cradle that holds the growing trays.
- g. 8 Standing Columns: These are the vertical supports for the shelf baskets.
- h. 4 White Caps: They fill the holes at the top of the four columns.
- i. 4 Black Feet: With short legs that fit under the bottom tray.
- j. 1 Spray Bottle: Water bottle for spraying the trays.
- k.1 Bag of Seeds: Certified organic, tested for wheatgrass. (comes with USA models only)

Assembly

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- 1. Put the 4 black feet with white legs into bottom four holes of the shelf basket.
- 2. Put 4 columns into top four holes of the white shelf basket and place another basket on top of these columns.
- 3. Repeat step 2.
- 4. Place 4 caps in top four holes of the top (third) shelf basket.
- 5. Place a white growing tray into each shelf basket
- 6. For soil-free gardening, insert the seedling flat on top of each tray.
- 7. For easy cleanup of roots, use the paper towel sheet on top of the seedling flat.

To Add Additional Shelf Baskets

- 1. Remove top four white caps.
- 2. Place four new columns in holes of the top shelf basket.
- 3. Add new shelf basket on top of the four columns.
- 4. Place the four white caps into top basket holes.

Using Sproutman's Wheatgrass Grower

1. Examine Your New Sproutman® Wheatgrass Grower and Prepare for Use Make sure you have everything in the parts list. Rinse your new Wheatgrass Grower and all of its parts. Wash the white Growing Tray, Seedling Flat, and Pape Towel Sheet with hot tap water.

2. Use Only Wheatgrass Tested Seeds

Seeds are the most important element in wheatgrass gardening. Wheat seeds available in health food stores are intended for bread-making. They are not designed for wheatgrass gardening, regardless of whether or not they were organically grown. Purchasing seed from a wheatgrass specialist is absolutely essential to your gardening success. The use of commonly available wheat is the number one cause of problems associated with growing wheatgrass. Do not overlook this. More on seeds later.

3. Soak the Seeds

Soak approximately 14 ounces of wheatgrass seeds in a jar of pure water for 8 hours. Typically, this takes 1 to 1.3 cup of seeds. It varies according to the density of the wheat. Use water that you consider fit for drinking. Distilled and reverse osmosis water are not considered ideal because they lack satisfactory mineral content. These waters may also be too precious because they take several hours to produce.

4. Spreading Out the Seeds

a. For Soil-Free Gardening.

Place the White Growing Tray on your counter and insert a Seedling Flat on top. Lay a



Paper Towel Sheet on top of the seedling flat. This Paper Towel Sheet is optional but makes cleanup easier because it prevents the roots from locking into the many holes of the Seedling Flat. Sprinkle the pre-soaked seeds out evenly on the sheet. Try to make sure they are only one level deep. Typically, it takes a little more than one cup of seeds to evenly fill the seedling flat.

Spread the pre-soaked seeds evenly on the seedling flat or on the paper towel sheet.

b. For Soil Gardening.

Place the White Growing Tray on your counter and add 1-2 inches of soil. Sprinkle the pre-soaked seeds out evenly on top of the soil. Try to make sure they are only one layer deep. Typically, it takes a little more than one cup of seeds to evenly cover the soil with seeds.

What Kind of Soil.

Soil must be light and airy. Potting mix is widely available and usually works well. Make sure it includes lots of peat moss and aerating ingredients such as pearlite or vermiculite. "Loose and light" are the key points to successful soil gardening. Soil gardening requires a little more attention to watering than hydroponic (soil-free) gardening, especially during the first 3 days of growth. It also demands more vigilance regarding mold because you can't rinse it under running water as you do in the soil-free approach. More on mold later.

Using Sproutman's Wheatgrass Grower

5. Watering Your Seedlings. Days 1-3

Getting the seeds started during these first 3 days is critical if you are going to achieve a good-looking, trouble-free wheatgrass crop. This is the most important phase of growth. Your attentiveness and your skills as a gardener during this period will determine your degree of success.

Fill the mister (spray) bottle with whatever water you consider suitable for drinking. Spray the seeds thoroughly with the spray bottle. Take at least 30 seconds to wet every seed. Now, add the Black Germinating Lid. Check your seeds for proper moisture twice per day for



Spread the seeds out evenly on top of the soil and spray. Then place the black cover on top.



Use the black "germinating cover" during the first 2 or 3 days. It protects the new seeds from the outside air.

the first 3 days. Mist them a second time if they are dry. Replace the Black Germinating Lid and check it fits securely. If it sits unevenly and has gaps, place a light weight such as an apple or an orange on top to ensure a better seal.



Trade the black lid for the clear greenhouse cover at this point. It provides more air circulation.

Check your seeds on the morning of day 2. Using your mister, water for 15-30 seconds. Make sure you water all areas evenly. Put the Black Germinating Lid back on and check the seeds again in the evening. Mist them if they appear dry. After day 3, if everything is growing evenly, one watering per day from then on is usually all that is needed. On day 3, start to cover the growing grass shoots with the Clear Greenhouse Cover instead of the flat Black Germinating Lid. This provides more air circulation and reduces the opportunity for mold to grow.

6. Care and Watering - Day 4

At this point, the shoots should have started to emerge and straighten up. Day 4 is still a critical day for careful watering and examining the appearance of your crop.



Day 4. Examine for signs of mold. If mold is a problem, try leaving the greenhouse cover off during all or part of this time. But spray the crop lightly 2-3 times this day to prevent the young shoots from drying out.

The bottom shelf is at Dav1.



7. Start Immersion Watering on Day 5

Soil gardeners continue to mist your crops daily with the Spray Bottle. The following is for Soil-Free gardeners only.

On day 5, the roots underneath should have started to form a mat locking itself to the flat. If this is the case, then you can put aside your mister bottle and water the growing sprouts at the sink, once daily. Carefully water the tray from the top using a watering can with a sprinkler head or , ideally a shower spray on your faucet. (If you don't have one, you can purchase a faucet spray adapter for your sink at your hardware store.) The shower spray is essential because a jet of water from your standard faucet is too strong. It drills holes in the newly formed 5-day old root mat. Add enough water to cover the top of the seeds. Let the water soak in for 30 seconds or more; then drain the water out. If you see any signs of mold, repeat your rinsing to remove the pesky spores before they multiply.

Be Careful! On day five, the roots are just starting to grip the seedling flat. If you tip the tray too far, the mat may break and the seeds will fall out. Gently tilt the tray and stand it at a shallow angle for a minute or two. Don't tilt it too high! You can separate the seedling flat from the growing tray and rinse them separately. Shake out any excess water from the tray.



Gently spray the young shoots with a shower from a faucet sprayer or a watering can with a sprinkler head.



Drain the flat into the tray. Empty the water out of the tray before re-inserting the seedling flat.

8. Maintenance - Day 6, 7, & 8

Once your grass is growing evenly and has created a matrix of roots, you have successfully mastered the critical phase of growth and can coast until har vest time. There is only



one exception: You must remain on the lookout for mold. Soil-Free gardeners: rinse once per day by showering the seedling flat in the sink. Drain the water in the flat as much as possible by setting it at an angle for a few minutes. Empty the white tray of all water. A dish rack is ideal for optimum drainage.

A dishrack is ideal for drainage.



At this point, when your grass is one inch tall, it's time to remove the greenhouse cover. The open air helps prevent mold, which can get trapped in the tight, enclosed space of the greenhouse. Your job as a gardener is to obser ve when to water. You may need to spray twice daily to keep the young shoots from drying out.

When your grass looks like this, then it is tall enough to grow without the help of the greenhouse. Grow in the open air from here on. Spray twice daily to keep the growing seedlings moist.

9. Harvest Time - Days 10-14

Harvest typically falls between 10 and 14 days. Choose the time when your grass looks healthy and before it starts to show signs of aging. Regardless of whether you grow in soil or without, you can cut your blades at eight inches to 12 inches high - it's your choice. Taller is better. The three factors that influence how high your grass grows are seed quality,

Using Sproutman's Wheatgrass Grower



temperature, and frequency of watering. Sixteen ounces of blades usually yields 13 ounces of juice.

Grow your hydroponic grass as tall as possible. Height depends on the three factors.

Harvest and Storage

To harvest both soil or non-soil grown grass, use a long knife and slice the blades just above the seed bed. If you are not going to juice it right away, store the blades in the



No soil. No mold. Read this booklet thoroughly for tips on growing great grass.

Plant a new tray of grass every 3-4 days to establish a rotation cycle so you're always in the green.



refrigerator in a plastic storage container or the green plastic bags that neutralize ethylene gas. (Available in most health food stores.) Depending on the quality of the grass, the temperature of your refrigerator, and your storage method, cut grass can last 10-20 days. It lasts longer in the refrigerator than in the tray, so harvest the grass at its prime. Start a new batch every 3-4 days in order to maintain a rotation schedule so you always have a crop ready for harvest.

How To Clean Your Wheatgrass Grower

In between crops, wash the grower parts with soap and water. If there are any traces of mold, wash it away thoroughly. If it is a bad case, consider using a bactericidal product such as hydrogen peroxide or household bleach. Make sure to also rinse the clear greenhouse cover and the black lid daily. Mold spores can attach themselves anywhere.

Juicing Wheatgrass

After all your hard work, you must invest in a juicer that will maintain the therapeutic quality of the grass and minimize your juicing chores. No you can't use a blender! You need a machine that will safely extract the water from the pulp without overheating it. And you need one that is practical to use so that the labor of juicing will not become a forbidding task. A juicer that sits in the cabinet like a museum piece will never contribute to your health. Tribest offers a family of wheatgrass juicers - Z-Star, SoloStar-II, and Green Star. There is a juicer for every lifestyle and budget. Quality is never sacrificed, no matter which of them you choose.



The popular SoloStar-II juicer is one of the most economical choices for juicing wheatgrass and everything

About Light and Temperature

Normal daylight is all you need to develop deep green grass. The average kitchen has adequate light. Because the blades of grass are so young and thin, it actually takes very little light to green them up. Direct sunlight is not necessary and, in fact, may overheat and dry out your crop in hot weather. Reduce contact with direct sunlight when temperatures are above 90 °F. If you believe you do not have sufficient natural light, supplement with full spectrum bulbs or plant lights.



Add Extra Levels

Need more wheatgrass? No problem. Add extra levels as you see fit. Increase your growing capacity without changing the footprint of your wheatgrass grower! More levels require only vertical airspace, not counterspace. Additional levels provide more volume and are perfect for situations where a more frequent cycle of crops is desired. Need more grass? Stack it up to 10 levels high!

Sproutman's No-Soil Wheatgrass Grower with an extra (fourth) growing level.

· Seed Quality and Storage

As mentioned earlier, seed quality should be your highest priority. The seed you choose may very well make the difference between an easy to grow, trouble-free crop and a harvest of mold and headaches. "Organic" seed is not good enough. It merely defines a method of agriculture. It does not guarantee great grass.



Quality seed specific for growing grass is the #1 factor that will determine your success.

Grass can be grown successfully from either hard winter or spring wheat. Soft wheat is not recommended. Kamut®, Durham, and Spelt can all make excellent grass. Barley and oat of the variety suitable for growing grass are not available in health food stores, even though cooking barley and oats are commonly available. Sprouting grade barley is only available through specialty mail order seed suppliers. In general, the best way to get great grass seed is to buy from a wheatgrass or sprouting company. They test and select the best seeds.

If you find a good batch of grass seed, order it in volume and store it for the longterm. Find a perfectly sealed storage bucket with a moisture proof lid and set it in a cool, dry place, approximately 60 °F. Grain is difficult to store in hot weather. Buy new seed in the fall when you will have nine months of winter temperatures for cool storage.

Troubleshooting Tips, Q&A with Sproutman

How do I get rid of mold?

If you don't stop mold at its inception during days 2-4, it is virtually impossible to arrest. Unfortunately, spraying it with agents such as hydrogen peroxide and grapefruit seed extract, rarely yields positive results. In fact, their overuse burns the grass and ruins the crop. The best thing to do is to har vest early before the mold does more damage. Cut the grass above the mold and wash off the blades. Remember, mold on wheatgrass is similar to mold on bread. Although it is unappetizing, it is not pathogenic. Just cut and wash it off.



Washing the young seeds clean with a strong spray is an excellent way of ridding your crop of mold spores.

The best way to deal with mold is to prevent it. Mold spores come in on the seed. Your best bet is to buy seed that is selected and identified for wheatgrass. If stored properly, this seed has the lowest propensity for mold. Try removing the greenhouse cover earlier during days 3-6, and spraying the young shoots twice per day to protect them from drying out. This has the advantage of allowing mold spores to escape from the otherwise enclosed space. A small fan in the growing room (not pointed at the grass) is also very helpful to keep mold spores from concentrating in one location. (For more, read "how to eliminate mold" in the book: Wheatgrass Nature's Finest Medicine.)

• I've got more grass than I can juice and it's getting y ellow

It is best to cut your grass while it is still vibrant and green and refrigerate it in a plastic container or a non-polyethylene bag. Cut grass can last more than two weeks in a refrigerator at 38 °F. I use the green anti-ethylene plastic bags. These bags enhance the shelf life of any vegetable. As an alternative, you can juice your grass and freeze it in ice-cube trays. Many grass lovers choose frozen grass over fresh because of its convenience. And they still get the desired results.

Don't I have to juice and drink the grass immediately?

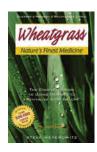
Not necessarily. You could consider chilling your fresh squeezed juice to just above freezing temperature, say 34 °F. Then store it in a pre-chilled thermos. This can extend the viability of the juice for two or more days. Also, if you use a *Green Star* juicer - the gold standard of the juicing industry - its materials influence the longevity of the juice. You must consider the big picture. If drinking it immediately limits you to say...four drinks per week, and storing it properly raises you to eight drinks per week, then which do you think is better? Even if those eight drinks are only 90% as potent as fresh, eight drinks is more beneficial than four. Many folks have stopped juicing because they thought it was too much work. A small compromise that keeps you on the program longterm is the best strategy.

• Is grass grown in soil more nutritious than in water? Actually, they are very close. A study done on the nutrient content concluded that both grasses were equal (read: Wheatgrass Nature's Finest Medicine). Hydroponically grown grass (no soil) can benefit from nutritional products such as liquid kelp and Ocean Grown. Both add a wealth of minerals that the roots absorb by osmosis. Similarly, soil gardeners can add fertilizer to enrich the soil.



Only 1-2 inches of soil is necessary for a successful crop.

Dr. Chiu-Nan Lai, of the University of Texas System Cancer Center, used soil-free wheatgrass in her research and still reported that "the inhibition of activation of potent carcinogens is quite strong at a reasonably low level of extract." And Robert Nees, former director of *The Optimum Health Institute*, the largest wheatgrass retreat center in the world, served hydroponic wheatgrass to his guests throughout the 1980's and reported there was no discernable difference. Again, the big picture is paramount to your decision - which approach fits best into your lifestyle?



For more information about wheatgrass gardening and therapeutic usage, read Sproutman's *Wheatgrass Nature's Finest Medicine*.

Paper Towel Reduces Root Cleanup Labor

by Steve Meyerowitz, Sproutman®



Use layer a double layer of paper towel. Cut two edges to fit the tray. Many unbleached (brown or off white) paper towels are now available.



Lay the pre-soaked wheatgrass seeds on top of the paper towel. Spread them out evenly.



The paper functions as a buffer to reduce the wheat-grass roots from locking into the holes in the seed-ling tray. Spray the paper with water so it adheres neatly to the tray.



Lay the seeds out evenly but only one level thick. Place the clear greenhouse lid on top and spray with the mister bottle 2-3 times per day until the shoots are 1+ inches tall.

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