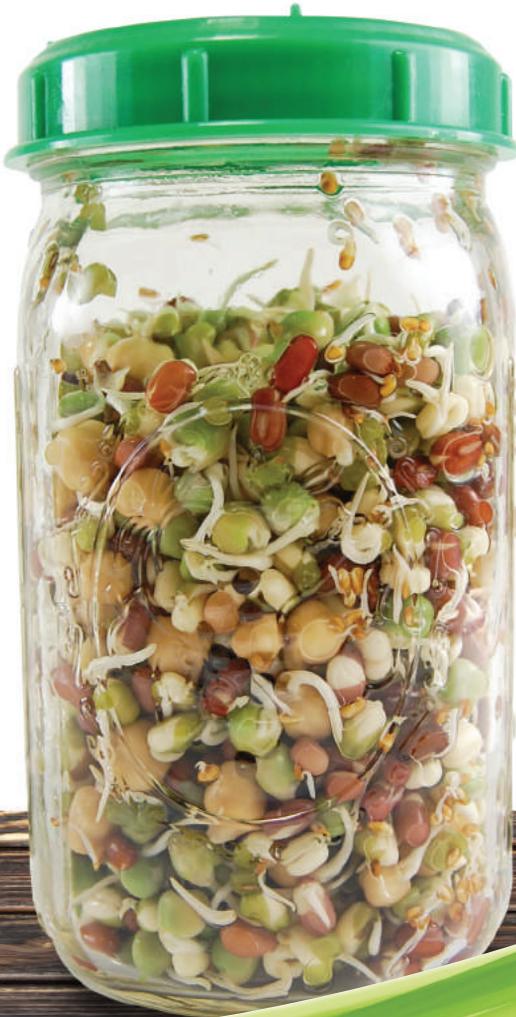


SPROUTING FOR HEALTH

by handypantry



- Popular methods for growing sprouts
- Full Wheatgrass cultivation instructions
- Learn how to detox and build your immune system
- Nutrition on organic sprouts and wheatgrass
- Learn how to avoid toxic build up

DEDICATION

We would like to applaud every reader of this booklet for considering an alternative lifestyle towards better health during this most indulgent decade.

Also, thank you to Phil Allen who originally wrote this booklet for his inspiration, research, and focus when Handy Pantry Distributors was in its infancy.

And finally, Ann Wigmore and Victoras Kulvinskas for their inspiration and direction back in the 70's before anyone knew much about the benefits of eating raw and living foods.

Sprouting for Health in the new millennium is solely for informational and educational purposes. No statement or part of this booklet is intended to diagnose or prescribe or take the place of a qualified physician. If you suspect chemical allergy, consult a health professional qualified in treating ecological illness.

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SPROUTING FOR HEALTH

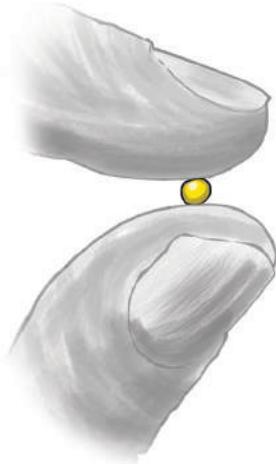
This little book is about little miracles. Tiny ones that we sometimes overlook. Like that little cut on our finger. How miraculous. It heals itself! Sometimes though—due to our carelessness—it festers, becomes infected and begins to give us pain. Pain is our body’s signal to us that it needs help. With a cut finger the course of action is obvious. Clean it and disinfect it. But what about tiny, invisible “cuts” that we can’t see, which are happening inside our bodies all the time? What do we do about subtle messages of pain coming from them? Too many of us reach for the nearest chemical “pain-reliever” when we could be doing something more—and better. There is a sword stabbing inside our bodies. A sword which cuts a swath of ill health in millions of Americans.

A FACT OF LIFE

Our bodies are being damaged inside, invisibly and mercilessly, by toxic chemical reactions. Toxic chemical additives and hazardous wastes in our air, water, and food supplies will continue to pervade our living and working environments. These toxins are returning to us in what we eat, drink, and breathe. Thankfully, much of the internal damage they do heals automatically like that cut on our finger. However, when our body is not adequately nourished it can’t neutralize and expel these poisons fast enough. They build up in our body and so does the invisible damage they do. Toxic build-up can severely damage our immune system.

A FACT OF HEALTH

A body that is toxic is like a cut with dirt in it. It is contaminated and may not heal properly. It needs to be cleaned and given the nutrients it needs to disinfect, detoxify, rebuild, and heal itself. Many of us have already recognized the fact of life and have altered our lifestyles to avoid as many chemicals as possible. Some of us have also recognized this fact of health and are being more careful about our nutrition. There is a food source in Nature full of concentrated nutrients that can help our body detox and rebuild our immune systems.



THE PARABLE OF THE MUSTARD SEED

We can turn to another little miracle for help. A tiny one that we may have overlooked. Consider the parable of the mustard seed. Inside this tiny little seed rests the future mighty plant. A plant that will be many times larger than that tiny germ of life from which it sprouts. A plant that will produce many more seeds, each with another plant resting inside. The mustard seed, then, is much more than a symbol of infinity and of man: it is infinity itself in living form.

Every seed is a plant embryo, waiting for the right conditions to respond with life, germinating into a shooting plant body. Some, like ancient Egyptian wheat, wait for thousands of years. When a seed meets the right combination of moisture, air, and temperature, it begins to sprout forth very fast. Just like us, it strives to emerge into the world with a healthy body and to grow up big and strong. For this reason, sprouting seeds produce a wide and abundant array of concentrated vitamins, minerals, trace elements, enzymes, growth hormones, amino acids, simple sugars, and essential fatty acids—all of which are essential to human health as well. These nutrients are charged with energy—the energy of life. Instead of nine months, however, these sprouts are ripe and ready for the world in just a few days.

Living foods—of which sprouting seeds, beans, and grains are but one category—are beneficial natural sources of concentrated healthful nutrition. Sprouts can help a body that is constantly exposed to toxic chemicals and is undergoing immune system decline. If we include sprouts in our diets, we give our body the nutrients and energy it needs to cleanse, detoxify, rebuild, and heal itself. Then those trillions of tiny cells that make up our comparatively enormous body can continue to do what they do best—keep us alive, alert, and feeling healthy.

TOXIC BUILD-UP

Annual human adipose (fat) tissue surveys and studies by clinical ecologists are confirming and documenting a steady and alarming build-up of toxic chemical residues in the entire American population. Several of the toxins detected are so dangerous at any level that they have been placed on the EPA “banned” list—a list which keeps getting longer. But banning them—and the thousands of others, which have not yet been tested for toxicity—will do nothing about the millions of tons of toxic chemicals that already permeate our environment. They will continue to build up in our bodies, unless we personally take corrective action. No one knows the full consequences of all these different chemicals combining in the human body. Especially when that same body is also exposed to various harmful biological and radiological agents as well. But thanks to the widespread contamination of our environment, we are all guinea pigs in a giant experiment resulting from our wasteful and destructive chemical, biological, and radiational technologies. If we wish to avoid possible future suffering and ill health, we need to do something about toxic build-up.

SYMPTOMS OF TOXIC BUILD-UP

One clinical indication of toxic build-up is chemical allergy. Blood and urine tests of chemically-allergic people invariably reveal high concentrations of various toxic chemical residues in their bodies. Page six lists some of the symptoms of chemical allergy caused by toxic build-up.

These symptoms need to be heeded. None of these conditions are normal. If you are experiencing any of them, your body is trying to tell you something. If you already know you are allergic to certain chemicals, you may wish to seek out a physician trained in clinical ecology for testing and treatment. More chemicals, such as pain-relievers, antihistamines, antacids, and others can only make matters worse. They only temporarily relieve or cover-up symptoms, without doing anything about our toxic build-up. Some clinical ecologists estimate that 1 in 10 Americans are already reaching the danger point—*toxic overload*. At this stage, internal damage leads to organ failure and various health emergencies. Toxic build-up may be one of the primary causes of the present runaway epidemics of infectious, contagious, and degenerative diseases in the industrialized world. Especially in the urban United States. These damaging toxins are also called free radicals.

CHEMICAL ALLERGY INDICATORS

- **SKIN:** Itching, burning, flushing, tingling, sweating behind the neck, hives, blisters, blotches, red spots, chloracne, weals, itchy rashes, psoriasis, and dermatitis.
- **EAR, NOSE, AND THROAT:** Nasal congestion, sneezing, nasal itching, runny nose, postnasal drip. Sore, dry, or tickling throat, clearing throat, itching palate, hoarseness, hacking cough. Fullness, ringing, or popping of ears, earache, intermittent deafness, dizziness, imbalance. Recurrent throat or ear infections.
- **EYES:** Blurring of vision, pain in eyes, watery eyes, crossing of eyes, sensitive vision. Eyelids twitching, drooping or swollen, Redness or swelling of inner angle of lower lid.
- **RESPIRATORY:** Shortness of breath, wheezing, persistent cough, mucus formation in the bronchial tubes, and recurrent respiratory infections.
- **CARDIOVASCULAR:** Pounding heart, increased or racing pulse rate, skipped beats, flushing, pallor, hot flashes, chills or cold extremities, redness or blueness of hands, faintness, and chest pain.
- **GASTROINTESTINAL:** Dryness of mouth, increased salivation, canker sores, stinging tongue, burping, re-tasting, heartburn, indigestion, nausea, vomiting, difficulty swallowing, rumbling in abdomen, abdominal pain, cramps or colitis, alternating diarrhea, and constipation, itching or burning of the rectum, food intolerances, bloating, gas, sluggishness after eating.
- **NERVOUS SYSTEM:** Headache, migraines, dizziness, light-headedness, compulsively sleepy, drowsy, slower reflexes, depressed; anxious, stimulated, overactive, tense, restless, jittery, irritable; silly, inebriated, unable to concentrate, trouble remembering words, numbers or names; stammering or stuttering speech, panic attacks and chronic anxiety, delusions or hallucinations, twitching, tremors, and convulsions.

FREE RADICAL DAMAGE

Normal molecules have pairs of electrons spinning in their outer shells that balance each other for electric stability. A free radical is any molecule that has an unpaired outer electron. It is “free” to react “radically” with other molecules and can cause cellular damage. There are three major kinds of biologically damaging free radicals:

- **OXIDES AND SUPEROXIDES.** Both are unbalanced forms of oxygen. Superoxides are oxygen molecules (O_2) lacking an outer electron. Oxides are singlet oxygen atoms that lack an electron. Both are highly reactive inside the human body.
- **HYDROXYLS (HO).** This is an unbalanced, free radical form of water (H_2O) which lacks the balancing electron of the missing hydrogen atom. This is the most reactive free radical known.

- **LIPID PEROXIDES.** These are fat molecules stripped of electrons and made into free radicals by the two other kinds when they attack lipids, or fats.

Free radicals can be very damaging inside the human body. One free radical can destroy an enzyme, even an entire cell. Free radicals cause four basic kinds of physical damage:

- **CROSS-LINKING.** This is when free radical damage causes protein, RNA, and DNA molecules—even whole cells—to fuse together, altering or halting their normal activities. This damage is most visibly evident in the skin, where it causes wrinkling.
- **LYSOSOME DESTRUCTION.** Lysosomes are cell digestive enzymes. When altered or released into the cell uncontrollably, they can destroy critical cell components, even the entire cell itself. A common symptom of this damage is inflammation, such as that found in arthritis and rheumatism.
- **CELL MEMBRANE DESTRUCTION.** Cell and tissue membranes are composed of lipids (fats) which assist passage of nutrients into cells and wastes out of them. When damaged by free radicals, these fats become insoluble, and the cell wall gradually becomes a “stone wall.” This damage eventually leads to cell dysfunction and cell death.
- **LIPID (FAT) PEROXIDATION.** It’s more common name is rancidity, the end result of fats and oils “going bad.” Once cell membranes and fatty tissue begin to go rancid under attack from free radicals, this creates a cascade of thousands more free radicals. Rancidity is free radical damage that is out of control. It may be one of the primary causes of disease in this “chemical age” and can be expected to take an even higher in the future.

TOXIC CAUSATION IN AGING AND HEART DISEASE

Strong body odor may be an indication that rancidity is occurring inside the body due to free radical damage. With the continued build-up of fat in human bodies comes more damage from free radicals because most chemical toxins are fat soluble. This means that they readily combine and react with fatty tissue while building up inside it. Consequently, the more fat and toxic build-up in a person’s body, the more cellular damage, ill health, and faster aging there will be in that body.

Toxic build-up may contribute to heart disease. Arteriosclerosis, or hardening of the arteries, results from cholesterol (fat) build-up and free radical damage, which hardens it onto the arterial walls. This combined with toxified fatty build-up around the heart itself contributes to the ever-increasing incidence of heart disease in this country.

TOXIC CAUSATION IN SEXUALLY-TRANSMITTED DISEASES

Toxins accumulating in the genital areas cause lower immune response, increasing the likelihood of infection and subsequent spread of disease. Toxic residues, therefore, are a major contributing factor in the spread of sexually-transmitted diseases (STD's). Several STD's are spreading like wildfire throughout the American population, reaching epidemic proportions, including AIDS, Epstein-Barr or chronic fatigue syndrome, herpes genitalis, chlamydia, infectious hepatitis, gonorrhea, syphilis and several others. At the same time, several strains are adapting to their toxic environment by developing immunity to various antibiotics (which also contribute to toxic build-up). The increased incidence of cancer in the excretory and reproductive organs may also be partly attributed to this toxic build-up.

TOXIC RISK TO FUTURE GENERATIONS

Toxic chemical residues tend to accumulate and concentrate in the genital areas for two major reasons. First, this area, is where most people carry a large portion of their body fat. As we learned earlier, toxins tend to lodge in fatty tissue. Second, this is also where the excretory organs are located. Toxins that cannot be excreted tend to linger in and migrate into the reproductive organs, where they can damage sperm and ovaries—even DNA, the “genetic blueprint” for future generations.

Several studies point to some alarming results caused by this toxic build-up in the reproductive organs. Average sperm counts among American men are reported to have dropped 30% in the past 15 years. Up to 25% of American men may be functionally sterile, compared with a minuscule 0.5% in 1938. About 5% of American women of child-bearing age are infertile, and the incidence is rising. Birth defects discovered in the first two years of life are now a whopping 16% in American babies. Defects in the DNA of these babies can result in hereditary weaknesses to several diseases, which they will pass on to their future generations.

HOW TO AVOID TOXIC BUILD-UP

Although we can't escape these toxic poisons completely, we can do something to slow, stop, or even reverse toxic build-up. Obviously, the more we expose our body to toxic chemicals, the more toxic our body will become. The first step, then, is to slow toxic build-up by decreasing our toxic intake. This means watching what we eat, drink, breathe, and allow our skin to come in contact with. This also means decreasing our intake of saturated fats, especially fried foods or fats and oils cooked at high temperatures, stored for a long time, or overly exposed to air and light. To stop or reverse toxic build-up, we will need to go further and increase our toxic excretion. This means adding nutrients in our diet known to neutralize these poisons and help our body eliminate them. This is where sprouts come in. They contain all the nutrients needed in a delicious and readily available form.

NATURE'S PROTECTORS: ANTIOXIDANTS

Our body's first and primary line of defense against free radical (oxidant) attacks are antioxidants, supplied in our diet. These natural substances neutralize free radicals by combining with them chemically to render them harmless. They go even further and are vital in nourishing, strengthening, and stimulating the immune system. Some antioxidants are vitamins, others are minerals or trace elements. Furthermore, others are enzymes and plant pigments. All of them, to one degree or another, can protect us from toxic chemical build-up and attack. Let's take a closer look at the twelve most important ones, all of which occur abundantly in various sprouting seeds, beans, and grains.

PRO-VITAMIN A (CAROTENES). This is by far one of the best antioxidants and immune system builders. The synthetic form of vitamin A is toxic to the body in large doses. When derived from carotenes (pro-vitamin A), it is completely nontoxic. Our body merely stores any excess in the liver and fatty tissue. Since this is where most toxic residues also get stored, pro-vitamin A can help keep fatty tissue from becoming rancid. Vitamin A is essential in the diet for healthy epithelial tissue. This tissue forms the skin and glands, such as the mammary glands, and the mucous membranes, which line the lungs and the digestive, urinary and intestinal tracts. Vitamin A deficiency has been linked with higher incidence of cancer in epithelial tissue, which accounts for well over half of all cancers. Optimum dietary levels of vitamin A are known to boost the immune system. Studies have found increased production of lymphocytes, phagocytes, T cells, B cells, and five classes of antibodies, including interferon and tumor necrosis factor. Vitamin A also helps protect the body from radiation, especially solar radiation effects on the skin. With rising levels of ultraviolet radiation falling on us due to a weakened ozone layer, this protection becomes doubly important. Unfortunately, however, according to several studies by the USDA and others, over 50% of all American diets are dangerously deficient in this vital vitamin and antioxidant. Pro-vitamin A rises dramatically when sprouting seeds that develop chlorophyll are exposed to a few hours of direct sunlight. Sunlight triggers the production of carotenes as well.

PRO-VITAMIN B COMPLEX. The B complex includes B-1 (thiamine), B-2 (riboflavin),

B-3 (niacin), B-6 (pyridoxine), B-12 (cyanocobalamin), B-13 (orotic acid), B-15 (pangamic acid), B-17 (laetrile), folic acid, pantothenic acid, biotin, inositol, choline, and PABA. The B-vitamins aid in the metabolism of proteins and fats, boost energy and help the immune system produce antibodies. They also help regulate the important elimination organs such as the liver and kidneys. One of the highest natural sources of B vitamins is sprouted grains.

VITAMIN C. This important vitamin directly neutralizes and detoxifies over 50 known chemical toxins. For example, it keeps cancer-causing chemicals known as nitrosamines from forming from nitrates. Vitamin C also boosts the immune system. It increases the production of disease-fighting lymphocytes and the production of interferon. It increases iron assimilation and helps prevent anemia. Fresh-squeezed citrus juices are one good source, but some sprouts and sprout juices are even higher in vitamin C content.

VITAMIN E. This vitamin provides a host of antioxidant qualities. It prevents rancidity of fats in the bloodstream and elsewhere in the body, especially the skin. It also protects enzymes, hormones, and other antioxidants. Vitamin E boosts the oxygen-carrying capacity of red blood cells and helps oxygenate body tissues. It strengthens the immune system and assists production of T-cells, B-cells, and several antibodies. Cold-pressed wheat germ oil is one way to add it to your diet. However, sprouted wheat, alfalfa, or clover cost much less.

CHLOROPHYLL. Although it is neither a vitamin nor a mineral, chlorophyll is a potent antioxidant and blood purifier. Its molecular structure is identical to that of the heme molecule in red blood cells, except it has magnesium instead of iron at the center. Since our body converts chlorophyll to heme in producing new red blood cells, it is essential in the diet for a healthy, oxygen-rich blood supply. Chlorophyll is said to fight infections by retarding the growth of bacteria, especially odor-causing bacteria, making it not just a great detoxifier, but a natural deodorizer. The highest levels of chlorophyll—up to 70% of solids content—are found in cereal grasses such as wheatgrass after they are juiced and strained. Wheatgrass juice provides many other important antioxidant vitamins, minerals and enzymes for quick assimilation into the bloodstream. Wheatgrass juice is also the best source for the antioxidant enzymes discussed below. Vitamins and chlorophyll remove free radicals directly. The following minerals and trace elements work indirectly by activating the antioxidant enzymes which will be converted later.

CALCIUM. Calcium helps the kidneys eliminate toxins. It helps regulate blood pH and electrolyte balance. Calcium helps the body eliminate heavy metals, such as cadmium, lead, and mercury, and radioactive isotopes such as Strontium 90.

IRON. This mineral, found in every cell in the body, is essential in the production

of hemoglobins, the oxygen-carrying components in red blood cells. Iron also improves immune response by strengthening respiratory action and tissue oxygenation. It has been found to prevent absorption of heavy metals such as lead and cadmium.

MAGNESIUM. This important mineral, a component of chlorophyll, has many protective functions in the body. It helps counteract aluminum toxicity, balances the properties of calcium, and aids in the utilization of many other antioxidants by the body. The RDA for magnesium is 350 milligrams, which is easily supplied by a diet which includes chlorophyll-rich sprouts.

POTASSIUM. This helps maintain normal mineral balance and effective mineral function. It helps detoxify the kidneys. It also prevents over-acidity by maintaining the acid-alkaline balance in the blood and tissues. Sprouted wheat and sunflower seeds are good sources of potassium.

SELENIUM. This trace element is known to fortify and strengthen the immune system by boosting antibody production. It helps the body to attack free radicals, especially hydrocarbons and heavy metals such as lead and mercury.

ZINC. This trace element is essential to the thymus gland in the production of virus-killing T-cells. Zinc is required in the production of nucleic acids, such as RNA and DNA, which also help protect against toxic attack. It is also important in the proper absorption and functions of several antioxidant vitamins, especially B-complex. Food processing destroys zinc, especially in the milling of whole grains into refined flour products.

ANTIOXIDANT ENZYMES. This is a group of metabolic catalysts used by the body specifically to rid itself of free radicals. These are the “activators” of the free radical disposal system. They include two primary members, super-oxide dismutase (SOD) and catalase (CAT); and eight secondary members, including glutathione peroxidase (GP) and methionine reductase (MR). Each is known to neutralize or deactivate a certain kind of free radical. And where it takes one molecule of a vitamin to neutralize one free radical, a single molecule of one of these enzymes can get rid of thousands. SOD eradicates the super-oxides and oxides. GP takes care of the very dangerous lipid peroxides. MR eliminates the hydroxyls. CAT neutralizes the hydroxyls and assists the others in reducing all the free radicals to harmless end products that the body can then more easily expel. All are found in sprouts, especially in sprouted wheat. Your body’s ability to digest and absorb nutrients from the food you eat is totally dependent on enzymes. Digestion is an enzymatic process from beginning to end.

THE MIRACLE OF GERMINATION

During germination, seeds become alive and undergo many fast internal changes. And the great miracle of this amazing process is a huge increase in a host of nutrients that are miraculously created inside the sprouting embryo.

- *Water absorption* swells the sprouting seed from 6 to 10 times its normal size, under tremendous dynamic pressures per square inch.
- *Enzymes* immediately become active and create a host of nutritional changes.
- *Proteins* are converted into free amino acids.
- *Starches* change into simple plant sugars.
- *Minerals* chelate, or combine in a way that increases their assimilation.
- *Vitamin content* increases from 3 to 12 times.
- *Chlorophyll and carotene content* increase dramatically when they are exposed to sunlight.

Wheat sprouts, for example, contain four times more folic acid and six times more vitamin C than unsprouted wheat. In studies at the University of Pennsylvania, vitamin C content in some seeds was found to increase up to 700% in just the first 72 hours of sprouting! For this reason, some fresh sprouts contain more vitamin C than citrus juices. This also applies to vitamins A, E, the B complex and others, depending on the variety of seeds sprouted. A Yale University study of grains, seeds, and beans showed that sprouting substantially increases all B-vitamins from 20% to 600%. Vitamin E content increases 300% in sprouted wheat after four days of sprouting.

Sprouts are complete foods. Their proteins are called “complete proteins” because in correct combinations they contain all the essential amino acids. They are also called “complete foods” because they contain all other essential dietary nutrients, along with the enzymes to help assimilate them. Simple plant sugars such as maltose are easily digested and enter the bloodstream quickly. For this reason, sprouts are also classed as “quick-energy” foods. Sprouts are live foods because they are living plants. Let’s take a close look at several of the most delicious and nutritious sprouts.

SECTION THREE

SPROUTS: A SOURCE OF GOOD HEALTH

ALFALFA SPROUTS. One of the most popular, nutritious, and delicious of all sprouting seeds. High in protein, essential amino acids, and eight digestive enzymes; vitamins A, C, B complex (including B-12), D, E, and 4 minerals; iron, phosphorous, calcium, magnesium, and potassium, and (when exposed to light) high in chlorophyll. Alfalfa sprouts are very tasty with a sweet, nut-like flavor. They are a lot safer, less expensive, and more fun to eat than factory-field, chemicalized lettuce. Alfalfa seeds sprout easily in combinations with other seeds. They make a lively addition to one's diet in salads, sandwiches, soups etc.

BARLEY. (unhulled, organic) Barleygrass much like wheatgrass is rich in B-vitamins particularly thiamine, riboflavin, protein, and a plethora of minerals. Grow, harvest, and juice just like Wheatgrass.

BROCCOLI SPROUTS (RAW). Contains vitamins A, B, and C; potassium and the phytochemicals sulforaphane; indole and isothiocyanate. Research suggests these phytochemicals may reduce the risk of breast, stomach, and lung cancers.

BUCKWHEAT SPROUTS. Rich in protein, iron, calcium, phosphorous, vitamin B complex, vitamin E, and large amounts of rutin and bioflavonoids. Ruteic acid has a powerful beneficial effect on the arteries and circulatory system. Bioflavonoids work with vitamin C to help detox the body and build the immune system. Buckwheat lettuce makes a tasty addition to any salad.

CHINESE CABBAGE SPROUTS. These provide lots of vitamin A and C, minerals, and when exposed to light are high in chlorophyll. They even taste like cabbage and are excellent when chopped up in cole slaw. Do not sprout for too long (see chart on p.23) or they will taste bitter.

FENUGREEK SPROUTS. Contain choline (a fat controller) and are rich in protein, iron, and vitamins A, D, and G. Fenugreek is a strongly scented herb of the pea family it is reported to be helpful for digestive problems including ulcers. It is spicy and is a major ingredient in curry powder. These sprouts are best used sparingly in salads, soups, sandwiches, curries, and rice dishes. Also acts as an herb for dissolving mucus in the body when taken as a tea.

GARBANZO. Rich in carbohydrates, fiber, calcium, and protein, as well as magnesium, potassium, and vitamins A and C. Soak eight hours, rinse and drain. Spread evenly in the sprouter. Rinse two to three times per day for three to four days. Do not expose to sunlight. Garbanzo makes an enzyme rich humus when sprouted one to two days and mixed in blender.

GREEN PEA. Rich in chlorophyll, protein, enzymes and minerals. Whole peas would be sprouted using the above method for two to three days. Do not expose to light.

LENTIL SPROUTS. High in fiber, protein and amino acids, vitamins A, C, B-complex, and E, iron, calcium, and phosphorus. Raw lentil sprouts can be a bit peppery to the taste. Their flavor is more sweet and nut-like when cooked. Lentils sprout well with other seeds. They make a good substitute for celery and green pepper in salads, soups, and vegetable combinations. Sprouted lentil soup is hearty and nutritious and was a staple food of the middle east.

MUNG BEAN SPROUTS. Another nutritional powerhouse. High in choline protein and the amino acid methionine vitamins A, B-complex, C, and E; calcium, magnesium, potassium, and phosphorous; trace elements zinc, chromium, and iron. Mung bean sprouts have a crisp, crunchy texture and a flavor similar to fresh-picked garden peas. They are a tasty addition to salads, vegetable dishes, and oriental main dishes.

RADISH SPROUTS. High in vitamins, A, B-1, B-6, and C, folic and pantothenic acids, niacin, potassium, iron and phosphorous. When exposed to light, they turn light green with chlorophyll. Radish sprouts are crisp, slightly hot and tangy, like tiny radishes. They sprout well with other seeds and make a spicy addition to any vegetable dish.

RED CLOVER SPROUTS. Resemble alfalfa sprouts and contain many of the same vitamins, minerals, and amino acids. They also turn green with chlorophyll when exposed to light. They add a zesty taste to salads and other dishes and sprout well with other seeds.

RED WINTER WHEAT SPROUTS. Probably the most nutritious, delicious, and versatile of all the sprouted grains. High in fiber, protein, amino acids, vitamins A, C, B complex, and E, niacin and pantothenic acid. Sprouted wheat is full of the sugar maltose and has a sweet, nutty flavor. It can be used in a wide variety of ways, including sprouted wheat breads and for making wheatgrass juice (covered on pages 20-22).

SOYBEAN. A very versatile bean that can lower cholesterol and protect against can-

cer through its healthy protease inhibitors. Good for keeping blood sugar under control. Great in salads, stir fries, soups, and breads. Use the same methods to sprout as green pea and garbanzo.

SUNFLOWER SPROUTS. High in fiber, protein, essential fatty acids, vitamins A, B complex, C, D, and E. They also contain calcium, phosphorous, iron, iodine, potassium, magnesium, and the trace elements zinc, manganese, copper, and chromium. Sunflower sprouts taste like nothing else you have ever tasted with a flavor that embodies freshness.

WHY SPROUTING IS IDEAL

Besides their nutritional advantages, sprouted seeds, beans, and grains have several other sterling attributes that make them an ideal addition to your regular diet and a prime food source in times of need. Sprouts are . . .

- **ECONOMICAL.** One tablespoon of seeds, costing less than 50 cents, will fill a quart jar with several ounces of delicious, ready-to-eat sprouts. One 4 oz package will yield several pounds. And this concentrated nutrition is alive. Something which can't be said for most nutritional supplements that cost much more.
- **ECOLOGICAL.** Because they are such nutritional powerhouses, their food value is much higher than most other foods per unit of production cost. This conserves energy and saves processing, packaging, and storage costs. And it avoids becoming "denatured" and accumulating toxic build-up in the food itself.
- **TOXIN FREE.** Sprouts are as sweet and pure as Nature intended them to be. When completely natural and organic and sprouted with clean water, they can be free of toxic residues. Handy Pantry Distributors supplies only natural (non-GMO, non-hybrid, non-treated, and microbial tested) sprouting seeds with up to 99% rates of germination, grown especially for sprouting.
- **EASY TO STORE.** Seeds do not have to be frozen or preserved to keep them from spoiling. All they require is a few glass jars with air-tight lids and a cool, dark storage area. They will store easily in very little space for a year or more. A small, low shelf (higher shelves are warmer) in a pantry is ideal for storing assorted seeds to feed an entire family for months. After sprouting, they can be placed in plastic bags in the refrigerator, again not requiring much space.
- **LOW IN CALORIES/FAT.** Depending on protein content, one fully packed cup of sprouts contains only 16 to 70 calories. And these are simple sugars for quick

energy. Sprouts contain no cholesterol and provide essential fatty acids. Several sprouts, such as alfalfa, are sweet and satisfying to the taste buds and the body. It is almost impossible to overeat raw live foods like sprouts. They are the perfect weight-loss and body purification food.

- **TASTY AND VERSATILE.** Bursting with flavor, you may be surprised how truly delectable they are. You can enjoy a wide variety of new taste sensations. Just add or substitute wherever you use vegetables. They take very little time to prepare when steamed, boiled, or stir-fried, or even baked in breads. You will find several delicious, easy-to-prepare and satisfying recipe ideas at the end of this booklet.
- **SIMPLE, EASY, AND FAST TO GROW.** This “garden in your hand” grows very fast in any weather with very little care. Most of them take less than a minute or two per day to grow. You can grow sprouts year-round, nearly anywhere indoors in any season, without any weather worries. No digging, planting, weeding, pests or chemicals to worry about either, and no long wait, as in outdoor vegetable gardens. In just 3 to 7 days, you will have a nutritious and bountiful harvest. When stored in your refrigerator, they will stay fresh for days—even weeks if rinsed properly. Because they require very little space and travel well, sprouts are the ideal vegetables for campers, boaters, and RVers. Complete, easy-to-follow instructions are given below and in the sprouting kits available from Handy Pantry Distributors. Specific instructions for each variety of seeds or seed mix are provided on the back of every Handy Pantry seed label.

SECTION FOUR

HOW TO GROW SPROUTS

Good sprouting technique doesn't take a "green thumb." Just pay attention to four factors: the right amount of moisture, the correct temperature, the free circulation of air, and minimal light. By rinsing them a couple of times daily, you keep them moist. You also wash away carbon dioxide and other metabolic wastes that could cause souring or spoiling. Using cool water when rinsing ventilates and cools the sprouts to prevent overheating. Proper draining prevents excessive moisture that can cause mold and rot. The ideal sprouting temperature depends on the seed but generally lies between 70 degrees and 85 degrees Fahrenheit (see sprouting chart on p.23). To protect the tiny growing things, keep sprouting containers away from cold drafts, direct heat, or any light. For free air circulation, at least one-third of the container must be empty. Sprouts expand 6 to 10 times over a few days, so give them plenty of room to grow. Sprouts are very light sensitive and need to be covered during the early stages of the growing cycle.

THE 6 RULES OF SPROUTING

1. Rinse often.
2. Keep them moist, not wet.
3. Keep them at room temperature (about 72 degrees F).
4. Give them plenty of room to breathe.
5. Don't put too many in any one container.
6. Keep them covered—no light.

CAUTION: Although bulk seeds, beans, and grains may appear cheaper than Handy Pantry seeds, it may not be to your advantage to use them for sprouting. Unless they are packaged as high-germination sprouting seeds, only part of them may sprout. This means that some seeds may ferment and spoil the whole batch. You will have to pick out the unsprouted seeds one by one. Otherwise, any you leave in will add hard spots and a bitter taste to what should be a succulent mass of tender and tasty sprouts.

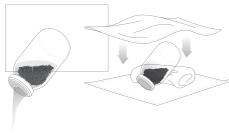
THE JAR METHOD

All you need is a standard wide mouth quart, half-gallon, or gallon glass jar. One technique is to cover the mouth of your sprouting jar with a muslin, cheesecloth or nylon mesh screen secured with a rubber band over and around the top. This will work, but the screen is subject to mold and mildew build-up and is not as easy as using special sprouting lids designed specifically for this purpose.



STEP 1: SOAKING (USING QUART-SIZED JAR)

Start with 1 1/2 tbs. or more of seeds (see Sprouting Chart). Place the seeds inside the jar and screw on the sprouting lid. Rinse seeds in luke-warm water. Fill the jar with luke-warm water, engulfing the seeds 3 times their depth. Let the seeds soak in a cabinet overnight (protected from light).



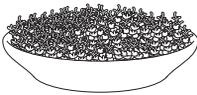
STEP 2: DRAINING AND STARTING

Empty the water out of the jar. Keep the jar away from direct sunlight. Drain excess water by propping the jar. Rotate jar to spread seeds evenly. Cover the jar with a dishtowel. Let it sit for 3 to 4 hours.



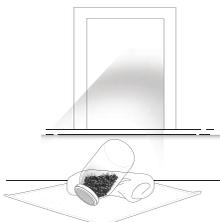
STEP 3: RINSING

Rinse the sprouts with cool, fresh water 2 or 3 times a day until fully sprouted. Eat or Refrigerate the completed sprouts. Any thrown off seed hulls will float out the top screen when water overflows. Rotate jar to spread out the seed each time you rinse.



STEP 4: HARVESTING

Pour the sprouts into a pan of clean water. Remove remaining hulls. Pull out the sprouts. Drain with a colander and gently shake. When fully drained, either use them or store them in a zip lock bag. When stored, allow for a little air circulation.



STEP 5: GREENING

Remove the sprouts and clean the jar and lid. Place the sprouts for greening back in the jar. Place it in indirect sunlight (near a kitchen window is fine). After the sprouts have greened with chlorophyll and carotenes for a day, rinse, drain, and eat or refrigerate.

THE TRAY METHOD

This method is just as easy as the jar method. It is also the best way to sprout several kinds of seeds such as beans and grains at the same time. One of the best sprouting trays for this purpose is the *Handy Pantry Sprout Garden*. The bottom of this sprouting tray is covered with holes for good drainage and will keep even the smallest seed from falling through. The dividers give an advantage over the jar method by allowing you to sprout different large seeds separately in each compartment. The depth of the tray and the many holes promote wheatgrass, sunflower, or buckwheat lettuce in just a few days (see Soil Method).



STEP 1: SOAK OVERNIGHT. 8-12 HOURS

Start with 2 to 4 tbs. of small seeds or 4 to 6 tbs. of large ones. Rinse and then soak in the provided sprouter covers. When sprouting different kinds, use different covers. Be sure to cover to protect from light.



STEP 2: SPREAD SEEDS EVENLY USING A LIGHT RINSE

Spread the soaked and swollen seeds over the “seedbed” in a tray compartment. Rinse under the faucet gently and allow the seeds to spread evenly.



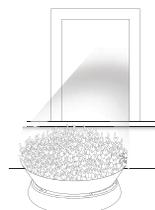
STEP 3: COVER AND SET ASIDE.

Use the cover to protect from light and possible airborne contaminants. Use the extra sprout cover as a drainboard on the bottom and stack all three sprouters if you’re using them all. Place the tray in a suitable room-temperature location.



STEP 4: RINSE THOROUGHLY

Rinse 2 or 3 times daily. Check the bottom of the tray for signs of mold. If you find any, wipe it off with a paper towel and rinse again.



STEP 5: PLACE NEAR INDIRECT SUNLIGHT

In a day or two, tiny leaves will begin to appear on sprouts such as alfalfa, cabbage etc. Uncover any compartment containing these to allow indirect light to enter, but do not place in direct sunlight. Use each cover underneath each sprouter tray as a drainboard and pour out any excess drainage each day.



STEP 6: HARVEST BY REMOVING HULLS

Harvest by cleaning to remove hulls and drain well. Hulls may rinse out easily by pouring the water through the exit ports on the side of the trays or by skimming them off the surface of the water.

THE SALAD MIXES

There are three pre-mixed salad combinations available from Handy Pantry Distributors. The 3-part salad mix contains alfalfa, Chinese cabbage and radish seed. When sprouted, they “fluff up” together into a delightful, tasty combination. They are good alone, together, or mixed with other salad fixings. The 5-part salad mix contains mung beans and lentils besides the above three. This creates a denser, higher fiber salad. Or this mix can be added to soups for a hearty flavor and nutritional boost. The Bean Salad Mix contains mung and aduki beans with lentils and radish seed. Aduki beans are high in fiber, protein, calcium, iron, vitamins A, B-1, B-2, and niacin. This combination is good by itself, or added to various vegetable dishes. The salad mixes can be sprouted using either the jar or tray method.

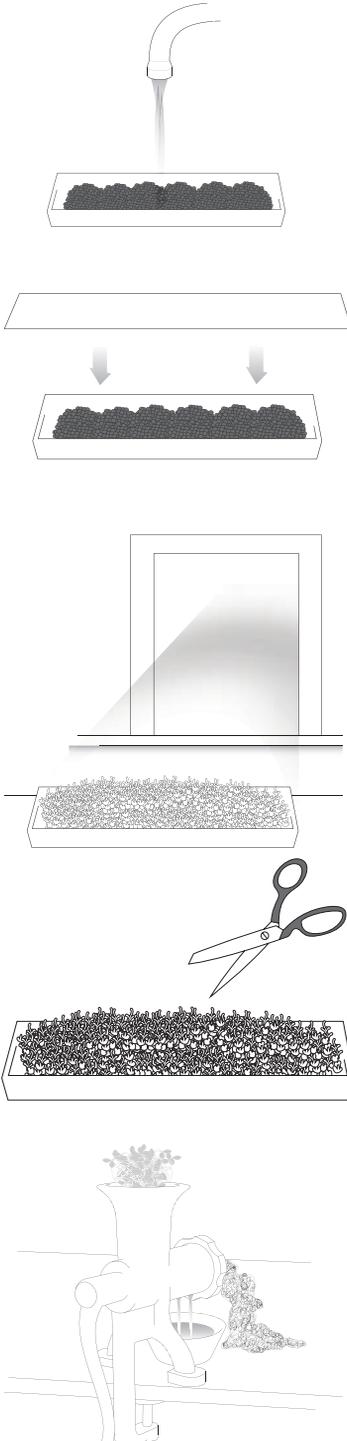
REFRIGERATING SPROUTS

Sprouts will stay fresh and hearty for a week or more when refrigerated, if you rinse them every day or two. You can even give the green sprouts an extra hour or two of sunlight after rinsing to keep them at their nutritional peak. Since sprouts are frost sensitive, do not place stored sprouts near the freezer compartment.

THE SOIL METHOD

This method for sprouting is optional for sprouting sunflower, peas, or fenugreek and is essential for growing buckwheat lettuce and wheatgrass for juicing. It is a little more challenging and requires a few special materials. You will need to begin with:

- 2 cups of sprouting wheat, sunflower, or buckwheat seeds
- 1/2-gallon jar or large tray for soaking
- Seedling tray, roughly 20” x 10”
- Growing soil to cover seedling tray 2” deep
- Watering can equipped with sprinkler head
- 3 to 4 sheets of paper towels and/or a dome
- Mister-spray bottle
- Serrated knife or scissors
- Juicer



STEP 1: SOAK

Simply soak the seeds or grain overnight for 8 to 10 hours while covered or placed in a dark cabinet.

STEP 2: SPREAD SEEDS

Spread soil mixture evenly on seedling tray about 2 inches deep. Lightly moisten the soil with the gentle, even spray of the sprinkler watering can. Don't over do it—make no puddles. Spread the soaked seeds evenly over the surface of the soil—only one layer thick.

STEP 3: COVER

Cover the seeds with a few layers of damp paper towels cut to the size of the tray. Place the optional dome over the paper towels. This will hold in moisture while keeping out light. Set tray in a cool (but not cold), dark place away from temperature extremes or drafts.

STEP 4: CHECK DAILY

Raise the plastic and paper towels once a day to give them fresh air and to make sure they are not drying out. If dry, use the mister to lightly re-dampen it. If mold grows, wipe it off and find a cooler spot (mold indicates too much heat and moisture or paper towels).

STEP 5: UNCOVER

When grass blades are about 2 inches high (in about 3 days), remove the plastic and paper towels gently and expose the grass to indirect light for a day or two. In dry weather, lightly spray with the mister once or twice a day.

STEP 6: MAINTAIN HEALTHY SPROUTS

When 3 to 4 inches tall, expose to direct sunlight for 2 to 3 hours each day. A cool breeze is helpful during sunning to keep the grass from overheating. During inclement weather, use a plant growing light or standard bright light for 3 to 4 hours each day instead. Use the mister in dry weather after removing from sunlight.

STEP 7: HARVEST

Harvest with a serrated knife or scissors when 6 to 8 inches tall. Grasp a bunch and cut about 1/2 to 1 inch above the soil. Sunflower, buckwheat, and fenugreek can be used directly in salads or juiced. Wheatgrass and Barleygrass, because of its high cellulose content, will have to be juiced.

STEP 8: JUICE

Grind the cut grass in a juicer and strain. The best juicers turn at a slow speed, are made of stainless steel (avoid aluminum) and are built to last. Do not use a blender. Blenders spin too fast so the sprouts are turned into a mush faster than the juice is able to be extracted.

MORE ABOUT WHEATGRASS JUICE

Wheatgrass and other sprout juices are best consumed right after juicing for the highest amount of nutrition. You can refrigerate for a day or two if you use an airtight jar. It will keep for a longer period if frozen quickly right after juicing. Wheatgrass juice can be a real tonic for the body, because it is high in antioxidants, enzymes, and simple sugars for quick energy.

Wheatgrass, about 8 inches long, is a powerful source of concentrated nutrition. As it grows, wheatgrass concentrates chlorophyll and other nutrients in preparation for becoming a big, fruitful plant. Wheatgrass itself is not digestible in our stomachs because it is too full of cellulose and other indigestible fibers. When juiced and strained, however, all the nutrients are released and are readily processable by the body. Wheatgrass juice is a very powerful detoxifier. Its high chlorophyll content cleanses the liver, tissues, cells, and purifies your blood. Placed in the nose, a few drops may reduce inflamed nasal passages and sinuses, relieving congestion without chemicals. Gargling will help relieve a sore throat. Wheatgrass juice is an excellent natural mouthwash and breath deodorizer. It will leave the breath smelling naturally fresh while nourishing the gums and delicate tissues of the mouth. Some have even used it on the skin to relieve pain and other irritation.

A WORD OF CAUTION

To prevent infestation and mold, seeds used for *planting* are treated with chemical pesticides, fungicides, and mercury coatings, which can be highly toxic. Imported seeds are required by law to be dyed for identification. Therefore, for your own protection, heed this warning:

NEVER SPROUT SEEDS, BEANS, GRAINS ETC. THAT HAVE BEEN CHEMICALLY TREATED OR DYED. SPROUT ONLY THOSE SEEDS THAT HAVE BEEN EXPLICITLY CERTIFIED AS EDIBLE.

In addition, never sprout or eat any seeds that have even the tiniest amount of mold. Growing molds can produce mycotoxins, which can cause food poisoning. For this reason, you should also thoroughly clean all sprouting containers after each use, preferably in hot, soapy water with a scrub brush.

SIMPLE SPROUTING CHART

The following chart lists sprouting seeds and salad mixes available from Handy Pantry. It condenses the basic sprouting information you will need into a simple handy guide. Happy sprouting!

SPROUTING CHART							
SEED	METHOD	AMOUNT QT. JAR	SOAK HOURS	TEMP F	RINSE/ DAY	HARVEST	
						DAYS	INCHES
Alfalfa ¹	Jar/Tray	1 1/2 Tbsp	6-8	65-85	2-3x	4-6	1 1/2-2
Barley	Soil	1-2 Cups	10-12	65-85	2x	7-10	4-8
Bean Salad ^{1,4}	Jar/Tray	1 Cup	10-12	65-85	2-3x	2-5	1/4-3
Broccoli	Jar/Tray	2 Tbsp	6-8	65-85	2-3x	4-6	1-1 1/2
Buckwheat	Soil	1 Cup	10-12	65-80	2-3x	8-15	4 1/2-6
Chinese Cabbage ¹	Jar/Tray	2 Tbsp	6-8	65-85	2-3x	3-5	1-1 1/2
Fenugreek ³	Jar/Soil	1/4 Cup	8-12	65-85	2x	3-6	1-2
Garbanzo	Jar/Tray	1 Cup	12	65-85	2-3x	2-3	1/2-1
Green Pea	Jar/Tray	1 Cup	12	65-85	2-3x	2-3	1/2
Lentil	Jar/Tray	3/4 Cup	8-12	60-85	2-3x	2-4	1/4-1
Mung Bean ²	Jar/Tray	1 Cup	12-18	70-85	3-4x	3-5	1-3
Radish ¹	Jar/Soil	2 Tbsp	6-8	65-85	2-3x	4-5	1-2
Red Clover ¹	Jar/Tray	2 Tbsp	6-8	65-85	2-3x	4-6	1 1/2-2
Red Winter Wheat	Jar/Soil	1 Cup	10-12	55-75	2x	2-3	1/4-1/2 (grass 6-8)
Soybean	Jar/Tray	1/2 Cup	12	65-85	2-3x	2-5	1/2
Sunflower	Jar/Soil	1 Cup	10-14	60-80	2x	2-4	3-5
3-Part Salad Mix ^{1,4}	Jar/Tray	1 1/2 Tbsp	6-8	65-85	2-3x	2-5	1-1 1/2
5-Part Salad Mix ^{1,4}	Jar/Tray	2 Tbsp	6-8	65-85	2-3x	2-5	1/4-3

Notes:

¹ Green with light during last day to develop chlorophyll.

² Grow in dark, allow to soak for a minute when rinsing.

³ Will get bitter if allowed to develop green leaves.

⁴ Cold final rinse extends storage life.

Sample-taste your growing sprouts occasionally to find when they taste best to your palate. If possible, use a carbon filter if your water supply contains chlorine. Space rinsing times evenly over the day. Morning and evening rinsing is usually easiest.

SECTION FIVE

HOW TO USE SPROUTS

Sprouts are vegetables. They can therefore be used in all vegetable dishes. The easiest, tastiest, and most nutritious way to use them is in uncooked dishes such as sprout salads or on sandwiches instead of lettuce. Since vitamins and enzymes are lost in cooking, sprouts should be added during the last stages of cooking. A few—such as sprouted wheat—can even be used in baking.

DEAD BREADS

Wheat and wheat-based breads are a staple food in the diet of over half the world's population. Unfortunately some breads on supermarket shelves are not very nutritious. During the milling process the live portion with most of the nutrients—the germ—is removed to prevent spoilage. Along with it goes the wheat bran or fiber that aids elimination. What remains is basically a sticky starch called gluten (also used in wallpaper paste).

COMMON CHEMICAL ADDITIVES IN COMMERCIAL BREADS

- Acidulants (Controls acid-alkaline balance)
- Anti-scaling agents (Prevents crystallization of starch)
- Chemical antioxidants (Prevents rancidity, discoloration)
- Artificial colors (Improves looks)
- Artificial flavors (Alters or imports taste)
- Artificial nutrients ("Fortifies" - only 7% have any nutritional value)
- Artificial sweeteners (Reduces calorie content, replaces sugar)
- Bleaching agents (Makes whiter)
- Dough conditioners (Provides uniformity)
- Emulsifiers (Smoothness, consistency)
- Excipients (Inactive carriers for other additives)
- Humectants (Holds moisture, prevents drying)
- Leavening agents (Obtains desired rising and lightness)
- Preservatives (Prevents spoilage, increases shelf-life.)

ALIVE SPROUTED WHEAT BREADS

Now consider a completely natural, uncontaminated alternative—sprouted wheat bread. All you will need is 2 cups of red winter wheat. After three days of sprouting, when the sprout is as long as the berry from which it springs:

- Vitamin B-12 is quadrupled to around 54 mg per 100 g (versus 1 mg white bread).
- Other B-vitamins have increased 3-12 times.
- Vitamin E content triples.
- Starches such as gluten are now simple sugars like maltose.
- Minerals are freed up for easy assimilation.
- Enzymes are plentiful and have converted starches to sugars, proteins to amino acids, and fats into essential fatty acids.
- Now contains 3 to 4 times more fiber than stone-ground whole wheat bread.

PART 1: MAKING THE LOAVES

Allow the wheat sprouts to drain and dry for 3 to 6 hours before grinding. Wet sprouts will not grind well and will create too much moisture in the dough. Use a food processor, Champion juicer, wheatgrass juicer, or meat grinder. Other juicers or blenders are not designed to grind and should not be used. After grinding, you should end up with a smooth paste. Lumpy, coarse or chunky dough will not work nearly as well and should be ground a second time. Now you are ready to form the loaves.

After washing your hands to prepare, you have two options. You can oil your hands with a corn, sunflower, or sesame seed oil and knead the dough, folding it into itself several times. This will spread the gluten and help the bread stick together and rise better. Option two is to go straight to shaping the loaves before popping them in the oven. Just form balls of dough about three inches in diameter. You should get 2 to 4 loaves from the 2 cups of wheat you began with. Place them on a flat baking tray such as a cookie sheet. You may wish to dust the tray with cornmeal or sesame seeds to prevent sticking. Oiling a baking tray is not recommended because heat makes oils indigestible. Now flatten each ball to a height of about 1 1/2 inches and a diameter of 4 to 5 inches. For a tastier bread, you may wish to mix your own “additives” into the dough. You can add dates, raisins, chopped nutmeats, nut butters, coconut, cinnamon, vanilla, etc. for a real tasty treat.

PART 2: SLOW-BAKING

You can't rush a sprout bread. Preheat your oven to 250 degrees F and place the baking tray with loaves on the center rack. Bake for 2 1/2 to 3 1/2 hours at 250 degrees F, depending on the size of the loaves and your oven. This low-temperature, long-term baking method preserves most of the nutrients from heat. Although the oven temperature may be 250 degrees, the temperature inside the loaves is about 100 degrees cooler. You may wish to use a spatula midway in the baking process to lift the bread from the tray to prevent sticking. The bread is ready when the top of each loaf is firm to the touch but not hard. The loaves should still be moist like brownies when removed from the oven.

This delicious sprouted wheat bread is denser, chewier, sweeter and tastier than breads made with flour. This method of using sprouted grains in bread-making goes back to biblical times. Such breads can become a major improvement in you and your family's diets. You will get plenty of protein while consuming fewer calories, very little fat and no pesticide residues, processing contaminants or chemi-

cal additives. You will experience better digestion because of the enzymes and fiber in the bread. By including sprouted wheat bread in your diet, you will be getting the real stuff of life for nutritional support. You may even experience a corresponding boost in energy and health, which the living germ of grain can help bestow.

SPROUT RECIPE IDEAS

There are as many ways to use sprouts in cooking as there are for any vegetables. The difference here is that you will want to cook the sprouts as little as possible in order to protect their vital nutrients. There are many ways to use sprouts in cooking. The following are 30 methods. The sprouts listed below work well but try others and use your imagination.

1. Add to tossed salads
2. Use in coleslaw—cabbage, clover, radish
3. Try in potato salad—mung bean, lentil
4. Add to jellied fruit salads—alfalfa, clover
5. Use in oriental stir-fry dishes—mung bean
6. Blend into fruit shakes or juices—cabbage, mung bean, lentil
7. Blend with vegetable juices—alfalfa, clover
8. Replace celery in sandwich spreads—lentil, radish
9. Grind up and use in sandwich spreads—lentil, radish
10. Mix with soft cheeses for a dip—mung bean, radish
11. Top grilled cheese sandwiches after grilling—alfalfa, clover
12. Stir into soups or stews as they cool—mung bean, lentil
13. Use as a breakfast cereal—wheat only
14. Mix into pancake or waffle batter—buckwheat
15. Add to potato pancakes—alfalfa, clover
16. Add to scrambled eggs—alfalfa, clover, radish
17. Mix into omelets—alfalfa, clover, radish
18. Grind up and mash into potatoes—mung bean, lentil, wheat
19. Combine in rice dishes—fenugreek, lentil, mung bean
20. Mix into fried rice as it cools—lentil, mung bean
21. Stir-fry with other vegetables—alfalfa, clover, radish, mung bean, lentil
22. Mix in spaghetti sauce as it cools—alfalfa, clover
23. Sauté with onions—mung bean, clover, radish
24. Puree with peas or beans—mung bean, lentil
25. Add to baked beans—lentil
26. Steam and serve with butter—mung bean, lentil
27. Use to garnish a plate—alfalfa, clover, salad mixes
28. Mix into camping foods as you cook them—lentil, mung bean
29. Use in sandwiches instead of lettuce—alfalfa, clover, radish
30. Eat them fresh and uncooked in a sprout salad/salad mixes

SPROUTS AS GOOD STORAGE

Freshly grown foods are at their height of flavor and nutrition. Our body needs fresh living food to survive and stay healthy. This brings up a predicament to many who store long term emergency food and supplies in case of emergency—can one live well and long term on such foods?

We think yes, and we have put together a list of things you can store very easily that will grow into living foods for you on any timeline: Overnight and/or over a few days as sprouts and over long periods as crops.

You can have fresh food within 5-8 hours if you have grains that will sprout in your food storage. You can cover wheat, spelt, quinoa, chia, amaranth, and many other grains with water and in 5-8 hours the seed will start its germination process. Many other seeds and beans like alfalfa, radish, mung beans, garbanzo, adzuki, broccoli, and clover can grow into sprouts in 3-5 days. Once a seed starts to sprout, its nutrition levels skyrocket, making it a whole, living food source.

NUTRITION OF SPROUTS

- enzymes become active and create a host of nutritional changes
- proteins are converted to free amino acids
- starches change to simple plant sugars
- minerals chelate or combine in a way that increases their assimilation
- vitamin content increases from 3 to 12 times the amount
- Wheat sprouts, contain 4 times more folic acid and 6 times more vitamin C than unsprouted wheat. Vitamin C content in some seeds was found to increase 700% in just 72 hours of sprouting.
- Sprouts are called a complete food because they contain all the essential amino acids.
- They are also called quick energy food because the plant sugars are easily digested and enter the bloodstream

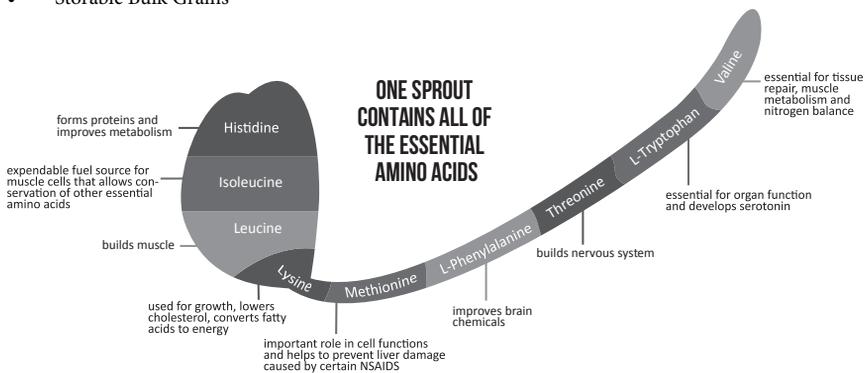
With lots of planning, you can plan a permaculture landscape that will produce food and resources on an ongoing basis. A small orchard, a cellar, a greenhouse, many garden beds full of herbs, melons, vegetables, and lettuces are all great ways to plan for a sustainable living source in an emergency situation. One of the most important things to keep in mind is that with modern growing methods,

much can be grown indoors and in small spaces. This requires a lot of knowledge on how to garden, and lots of time spent to get results. With some education effort now, and some good garden and grain seed stored away, you can live indefinitely on your own produce.

Once you have a garden and fruit trees that regularly produce food, you will need ways to preserve these foods for the winter and off harvest season. There are some amazingly easy ways to preserve foods that are ideal for extended emergency situations. Traditional canning is a possible solution but it will use a lot of fuel and water, both of which might be in short supply during an emergency. By using a solar dehydrator and lactic acid fermentation, you will be able to preserve food without large amounts of fuel, water or electricity.

We hope you have found this review of sprouts as a solution to food storage helpful, and here are a few other items to consider when creating your food storage:

- Garden Seeds
- Fruit Seeds
- Culinary Herb Garden Kit
- Medicinal Herb Garden Kit
- Salsa Garden Seeds
- Jar Top Fermenters
- Fermentation Crocks
- Hanging Food Pantry Solar Dehydrator
- Food Storage Tofu Kit
- Food Storage Sprouting Kit
- Bulk Organic Soybeans
- Manual Grain Mills
- Oat Rolling Kit
- Bulk Organic Oat Groats
- Storable Bulk Grains



Sprouts are considered "Complete Food" because they contain all of the essential amino acids. Essential amino acids are necessary for life but are not self produced by the body. They must be injected through food.

BROCCOLI SPROUTS NUTRITION

Broccoli sprouts (raw) provide vitamins A, B, C; potassium and the phytochemicals sulforaphane; indole and isothiocyanate. Research suggest these phytochemicals may reduce the risk of breast, stomach, and lung cancers.

BROCCOLI, KALE, SPINACH

All members of the Cruciferous family of green vegetables, broccoli, kale, and spinach offer a wide range of benefits to Biogenic Greens. Rich in iron, oxalic acid, chlorophyll, carotenoids, lutein, zeaxanthin, indoles, vitamins A and C, and fiber. Broccoli sprouts also contain a powerful antioxidant “sulphoraphane,” which helps human cells fight the progression of free radicals. A study by researchers at Johns Hopkins University reveals that broccoli sprouts have up to 50 times more anti-cancer chemicals in them than in the mature vegetable.

NUTRITION FACTS OF BROCCOLI SPROUTS (3 DAYS OLD)

Serving size 3 oz (85g)
Serving 1
Amount per serving
Calories 35; calories from fat 5
% Daily Value*

Total Fat 0.5g 1%
Saturated Fat 0g 0%
Cholesterol 0mg 0%
Sodium 25 mg 1%
Total Carbohydrates 5g 2%
Dietary Fiber 4g 16%
Sugars 0g
Protein 2g
Vitamin A 10%
Vitamin C 60%
Calcium 6%
Iron 4%

STORING SEEDS

Sprouting seeds, beans, and grains have long been a survival method of all cultures since civilization began. Without saving seed from the previous harvest, how would the next seasons harvest begin? Methods of storing have of course improved and there are many, however, the best contemporary method that we've found oxygen absorbing packets.

OXYGEN ABSORBERS

This is by far the best known method of storing for long term periods. When oxygen absorbers are added to a can, jar, or bucket and quickly sealed, the oxygen is immediately dissipated and therefore cannot allow microscopic larvae to generate. Larvae exists in some quantity on most foods of this sort and must not be allowed to breath, or obtain warmth, moisture or light to generate. Oxidation is another factor that can occur. Removing oxygen preserves the life force of the item being stored. Cans and buckets sealed with oxygen absorbers seem to last the longest with a reported shelf life of up to ten years. But more realistically 12-15 years depending on the item stored and storing conditions. It is best to store food grade nitrogenized cans in a cool dry place for long term periods.

"It would be difficult to keep enough fresh vegetables in storage to sustain a family during an emergency situation, but because of their low volume and easy storage potential, it is possible to keep enough sprouting seeds in storage to feed your family for a year or more."

—James Talmage Stevens, Author of *Family Preparedness Handbook*

TOP TEN REASONS TO SPROUT!

1. Only Pennies Per Serving

- One tablespoon of seeds will fill a quart jar with several ounces of sprouts. A 4-ounce package will yield several pounds.

2. Simple and Easy

- It takes less than a minute per day to grow and prepare sprouts. Sprouts will grow nearly anywhere indoors and in any season. Sprouts require very little space and travel well. They are the ideal vegetables for campers, boaters and RVers. Complete, easy-to-follow instructions are provided in the sprouting kits, and on the seed package labels.

3. Fresh and Fast

- This “garden in your kitchen” grows very fast, in any kind of weather. No digging, planting, weeding, pests, or chemicals involved. And there’s no long wait. Just 3 to 7 days to a bountiful, nutrition-packed harvest. When stored in your refrigerator, they will stay fresh for days—even weeks if rinsed properly.

4. Toxin-free Food

- Sprouts are as sweet and pure as Nature intended food to be. The Handy Pantry supplies only natural, untreated, organic seeds, with up to 99%

rates of germination, grown especially for sprouting. Almost everything we carry is certified organic.

5. Complete Foods

- Sprouts are real health food. They are full of life—as you will see in how fast and luxuriously they grow. The right combination of sprouts contains everything needed for life and health. All their many nutritional elements are easily assimilated and readily available for your body. When home-grown, you know they are pure, and you can enjoy them at the peak of their perfection.

6. Tasty and Delicious

- Bursting with flavor, you may be surprised how truly delectable they are. Enjoy them in salads, on sandwiches, stir-fried, steamed, or even baked in wholesome, homemade bread.

7. Highly Nutritious

- Several contain more protein than cooked meat and at a tiny fraction of the cost. The presence and balance of amino acids make this protein more digestible. All sprouts are rich in vitamins, minerals, trace elements, enzymes, and fiber. When exposed to light, several become rich in chlorophyll. For specific nutri-

tional qualities of each, see *Sprouting for Health* in the new millennium.

8. Low in Calories / Low Fat

- One fully-packed cup of alfalfa sprouts contains only 16 calories. These are simple sugars for quick energy. Sprouts contain no cholesterol and provide several essential fatty acids. Sprouts are the perfect weight-loss and body purification food.

9. Help Detox your Body

- Chlorophyll helps cleanse and oxygenate the blood. Enzymes aid in the digestion and assimilation of nutrients, and contribute to the body’s life force. Fiber aids in elimination, and their lecithin helps the body get rid of cholesterol. A raw food diet is one of the best ways to detox your body.

10. Build your Immune System

- Antioxidants protect you from radiation and toxic chemicals. They help the body to cleanse, detox, rebuild and heal itself. Sprouts are rich in antioxidants and help protect you from the health scourge of toxic build-up. Antioxidant enzymes are important because they contribute to a strong immune system.

SECTION SEVEN

AZOMITE **THE BEST UNKNOWN FERTILIZER!**

Azomite is a naturally occurring mineral (montmorillonite) from Utah, which has a high concentration of nitrates. Finely ground montmorillonite makes an excellent fertilizer. The high concentration of nitrates provides essentials for plant growth. Azomite contains over 60 known trace minerals essential for plant health. Plants fertilized with Azomite absorb the trace minerals and pass them on to you in bioavailable form.

NATURAL & ORGANIC FOR INDOOR AND OUTDOOR PLANTS **WHEATGRASS & MICROGREENS**

- 100% Organic
- Contains a heap of minerals
- Improves crop quality & yield
- Helps plants and flower's fruit
- Completely Biodegradable
- Leaves no residue on your wheatgrass or plants
- Safe for all your indoor and outdoor plants, including microgreens
- No contamination issues
- Benefits both roots and leaves
- Safe around pets and children
- The only fertilizer you will ever need in this century.

THE WHEATGRASS STORY

Growing wheatgrass, buckwheat, and sunflower sprouts as well as juicing them seems to stem back to the 70's with Ann Wigmore and Victoras Kulvinskis. The Boston Institute of Health advocated these methods long before it became a national fad. Even after Victor's departure into other endeavors and Ann's untimely fire related death 30 years later, we still feel the need to give credit where credit is due.

Ann Wigmore was a hero in the Natural Health movement and left a legacy of books such as *The Wheatgrass Book*, *The Sprouting Book*, *Why Suffer?* and others published by Penguin Press and sold by Handy Pantry Distributors. All the above mentioned available on our website.

Ann was a researcher, and a humanitarian and even went to India to spread her message. A trip that the author sadly had to decline at the time and will probably remain a life-long regret.

WHEATGRASS NUTRITIONAL INFO

This is the new age of juicing and most everyone has heard of wheatgrass by now. The following information offers a much requested statistical analysis on the subject. The structural breakdown of wheatgrass is so concentrated that one ounce of Wheatgrass has the same nutritional value as 2.5 pounds of green garden vegetables. There are many other benefits to be found in wheatgrass besides vitamins, minerals, and amino acids. These include:

- **CHLOROPHYLL** known for its ability to nourish the blood and detoxify poisons
- **ENZYMES** that help the digestion and metabolization of nutrients and abscisic acid, that is known for its anti-tumor activity.

WHEATGRASS CULTIVATION

This booklet does detail above and beyond "The Soil Method" on page 21. Growing wheatgrass is easy with these simple instructions.

ADDITIONAL NUTRITIONAL INFO:

One ounce of Wheatgrass juice contains the following:

NUTRIENTS

protein	6480mg
crude fiber	4860mg
calories	81
chlorophyll	153.9mg
carbohydrates	10.53mg

AMINO ACIDS

lysine	234.9mg
histidine	129.6mg
arginine	315.9mg
aspartic acid	631.8mg
threonine	299.7mg
lutamic acid	688.5mg
proline	267.3mg
glycine	332.1mg
alanine	388.8mg
valine	356.4mg
isoleucin	251.1mg
leucine	461.7mg
tyrosine	145.8mg
phenylalanine	307.8mg
methionnine	121.5mg
cystine	64.8mg
tryptophan	32.4mg
amide	81mg
purines	16.2mg
seene	688.5mg

VITAMINS

A	14175 IU
K	2268mcg
C	89.1mg
thiamine	81mcg
choline	8.1mg
riboflavin	575.1mcg
pyroxidine	364.5mcg
vitamin b 12	8.1mcg
niacin	2130.3mcg
pantothenic	680.4mcg
biotin	32.4mcg
folic acid	307.8mcg

MINERALS

calcium	145.8mg
phosphorus	145.8mg
potassium	907.2mg
magnesium	29.16mg
iron	16.2mg
mangnesium	2.835mg
selenium	28.35mcg
sodium	8.1mg
zinc	141.75mcg
iodine	56.7mcg
copper	0.162mg
cobalt	14.175mg
sulfur	56.7mg

REFERENCES

Beta-Carotene: The Amazing Pro-vitamin that Promotes and Protects Your Health, by Dr. Bruce D. Miller, Institute for Preventive Health Care, Fort Worth, TX, 1985. The vital functions that pro-vitamin A performs in the body. Why you need it in your diet for disease prevention.

Clinical Ecology: A New Medical Approach to Environmental Illness, by Iris R. Bell, M.D., Ph.D., Common Knowledge Press, Bolinas, CA, 1982. Geared to physicians. Check it out of your local library and give it to your doctor if you suspect you may be chemically allergic. Delineates symptoms, introduces concept of toxic body loading.

Diet for a New America, by John Robbins, Stillpoint Publishing, Walpole, INK 1987. Stinging indictment of the pesticide industry and use of hormones in meat production, causing premature puberty in children. Presents the need for diet change to nontoxic, whole, live, raw foods.

Fighting Radiation with Foods, Herbs and Vitamins, by Steven R. Schechter, N.D., East West Health Books, Brookline, MA, 1988. "Documented natural remedies that protect you from radiation, X-rays, and chemical pollutants." Very comprehensive, in depth coverage of dietary and supplemental health needs for preventing toxic build-up.

Food Irradiation Facts, by National Coalition to Stop Food Irradiation, San Francisco, 1989. Fact sheet explaining why food irradiation is an additional, -and needless- threat to our health. Do we want to be guinea pigs for this creator of free radicals in food?

Food Irradiation: Contaminating Our Food, by Richard Piccioni, *The Ecologist*, Vol. 18, No 2, 1988. The dangers that food irradiation presents to human health.

Free Radicals, Stress, and Antioxidant Enzymes, by Zane Baranowski, Biotec Foods, city and date unknown. Explains need for toxin clearing antioxidant enzymes derived from dried organic wheat sprouts.

Human Ecology and Susceptibility to the Chemical Environment, by Theron G. Randolph, M.D., Charles C. Thomas, Springfield, IL, 1982. Geared to physicians and pharmacists. Warns about dangerous interactions of toxic chemicals with synthetic chemical pharmaceuticals and synthetic chemicals vitamins inside the human body. Why more chemicals, even supposedly therapeutic ones, increase toxic build-up and immune system decline, why chemical allergy is a warning sign.

Morbidity and Mortality Reduction by Supplemental Beta-Carotene in CBA Mice Given Total Body Radiation, by Dr. Eli Seifter, et. al., Journal of the National Cancer Society, November, 1984. Technical paper showing radiation protection properties of pro-vitamin A in the form of beta-carotene.

Nontoxic and Natural-How to Avoid Dangerous Everyday Products and Buy or Make Safe Ones, by Debra Lynn Dadd, J.P. Tarcher, Los Angeles, 1984. If you want to avoid toxic chemicals without altering your lifestyle, this book is indispensable.

Our bodies are Dumping Grounds for Toxic Chemicals, by Debra Lynn Dadd, Earthwise Consumer, P.O. Box 1506, Mill Valley, CA, Winter, 1989. If you read her book, you may want to subscribe to her newsletter. This article reports on latest human adipose tissue survey (conducted annually by the U.S. Public Health Service since 1967). One interesting tidbit: all persons tested showed various levels of styrene in their body fat (styrene is used in fast-food foam containers as polystyrene, such as coffee cups).

The Antioxidants: The Nutrients that Guard the Body Against Cancer Heart Disease, Arthritis and Allergies - Even slow the Aging Process, by Richard H. Passwater, Ph.D., Keats Publishing Inc, New Canaan, CT, 1985. Explains how antioxidants neutralize and eliminate free radicals.

The Art of Making Sprouted Bread, by Steve Meyerowitz, The Sprout House, Great Barrington, MA, 1990, How to do it by the guy who calls himself Sproutman.

The Beansprout Book, by Gay Courter, Simon and Schuster, New York, NY, 1973, Why sprouts are good for you and good tasting too. Full of recipes and sprouting information.

The Health Issue of the 90's: Toxic Build-Up, by B.N.G., Inc., Tempe, AZ, 1991, Brochure explains how to stop toxic build-up. Introduces an herbal formula designed to help the body detox itself by drinking Herbal Clean detox tea.

Troubled Water, by Jonathan King, Rodale Press, Emmaus, PA, 1985. Warns about specific chemical toxin contaminants in drinking water, how they got there and their health effects. Why you may want to get your water tested and/or get a water filtration device.

Your Home, Your Health and Well-Being, by David Rousseau, W.J. Rea, M.D. and Jean Enwright, Ten Speed Press, Berkeley, CA, 1988. Full of how-to suggestions for clearing your home of toxic chemicals, and home toxic problems. Includes a chapter by Dr. Rea in layman's terms on toxic body loading. And chemical allergies experienced by his patients; what is now called ecological illness, confirmed by chemically-revealing blood tests.

OUR BESTSELLERS



Half Gallon Sprouting Jar

EVERYTHING YOU NEED FOR LEARNING ABOUT AND GROWING SPROUTS, ORGANIC SEEDS, BEANS AND GRAINS. YOU CAN HANDLE LARGER VOLUMES USING THIS JAR METHOD OF SPROUTING. IT INCLUDES A SPROUTING JAR STRAINER LID AND AN 8 OZ ORGANIC PROTEIN POWERHOUSE SEED.



Sprout Garden

3 Tray Stackable Seed Sprouter

HANDS DOWN THE MOST POPULAR SPROUTER. THE 3 TRAY STACKABLE SEED SPROUTER SYSTEM GROWS VARIOUS QUANTITIES AND SEVERAL CROPS AT ONCE! SIMPLE BPA FREE, DISHWASHER SAFE AND MADE IN THE USA. IF UNSURE ABOUT WHICH SPROUTER TO BUY... THIS IS THE ONE!



Hurricane Juicer

Manual Stainless Steel Wheatgrass Juicer

THE BEST MANUAL JUICER ON EARTH! THE HURRICANE STAINLESS STEEL WHEATGRASS JUICER JUICES WHEATGRASS AND MOST FRUITS AND VEGETABLES. IT HAS ONLY A FEW PARTS TO WASH AND ASSEMBLE. IT NEVER RUSTS AND WILL LAST YOU A LIFETIME! YOU'LL LOVE THE HURRICANE JUICER!

US \$7.95



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