



filling your ark

September 2008

Indoor Vegetable Gardening!

One good activity that is often overlooked is growing vegetables indoors. When outdoor gardening activities wind down for the season, our attentions should naturally turn to indoor gardening pursuits. Certainly pumpkins, squash, and sweet corn are not going to be items grown inside the average home! But, many leafy crops, root crops, tomatoes, and other vegetables can be grown indoors during the cold months of the year.

The rules are a little different when growing vegetables indoors. Temperature, pollination, and light requirements need more careful consideration than when one grows produce outside. The fertilization needs are also a bit different when gardening crops indoors. Nevertheless, there are some good veggies that can be grown inside, and it is an activity that gardeners should explore, especially for those with limited or no outdoor space.

Which System to Use When researching how to grow an indoor veggie garden I noticed that there are a couple of different systems. One is the old-fashioned soil method and another is a hydroponic system. The name "Hydroponic" comes from Latin and means "Working Water." In reality hydroponics is the growing of plants without soil. There are literally hundreds

of methods of hydroponic gardening. The idea is to give a plant exactly it needs, when it needs it, in the amount that it needs it in, so the plant will be as healthy as is genetically possible. One source advises against hydroponics as not being the best way to grow plants. He warns that they are very prone to infection and therefore the entire loss of a crop. Second, they only provide the very base nutrients for the growth and health of a plant. The flavor of a plant grown hydroponically is non-existent. A plant grown organically with composted manure, compost and good soil will be far healthier, much more nutritious, and flavorful. On the other hand, another source raves about the benefits of hydroponic systems. He contributes this system to greater yields, healthier and larger plants, and attributes the controlling of the environment to allow for faster growth and a greater number of crops. Finally, he praises this system for lower water usage and the recycling of the water that it does use. I prefer the idea of a soil based gardening method as this is what has been done since the time of Adam and we've somehow survived this long. My goal is to provide tasty, healthy, money saving foods over fast, more abundant and possibly less nutritious methods. Shortcuts always short something and I don't want to risk my food.

Seeds. Vegetable seeds are sometimes hard to come by in the late summer to early fall. A good plan is to buy the seeds when they are in abundance, in the late winter to early spring. Store them according to their needs, and start your indoor vegetable garden in the fall.

Containers. Indoor vegetables can be grown easily in any pot or container. Plastic is less expensive usually, but anything will work. Plastic gets hotter than ceramic containers. Ceramic containers seem to be the favorite among indoor gardeners. The most important part of the container is making sure that there is drainage in the bottom. If you are using plastic or metal containers, using an ice pick or another sharp object easily makes holes.

Plant stands are an excellent way to show off your indoor gardens. They come in many varieties so let your imagination run wild. Plant stands can be easily made with bricks and any boards. Window sills, ladders, ledges, shelves, tables, and just about anything, can be used to make a beautiful indoor garden.

If you decide to paint your containers, make sure that you only paint the outside. Painting the inside could contaminate the soil and give you all kinds of growing problems. If you are using spray paint, make sure that you cover the top of your container while painting.

Soil Preparation. Different gardeners will tell you different ingredients to prepare the best soil. The soil requirements are different than those we are used to encountering when gardening outdoors. Whatever you do, do not choose garden soil, no matter how rich it might be, for indoor vegetable gardening! Lightweight soil mixes, that drain well, are the best. Garden soil can harbor diseases and insects that are more difficult to control in a confined indoor space, and even the best-quality garden soil can compact when used indoors in containers. A good mix for indoor

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72-Hr Rotating and Updating

FS How Much Food?

veggies would be 1 part potting soil, 1 part vermiculite, 1 part peat, and 1 part perlite. Another source recommended a mix that works well in equal amount by volume of silica, sand, perlite and forest mulch. There is another favorite of equal parts of sharp coarse sand, native soil and compost or peat moss. If your veggies are growing in hanging containers, you will need a light mix of equal parts of perlite, black peat moss and vermiculite. All nurseries also have premixed mixers, but you will pay a little more for these.

Packing the Containers with Soil. Getting the containers ready for planting is easy. After you have established the fact that there is adequate drainage, add the mixed soil. The soil should be lightly packed. If the soil is packed too tightly, there will be problems with root development, drainage and aeration. When you fill the container with soil, make sure there is between one and two inches of space at the top for watering.

Planting. You can start vegetables from seed much easier indoors because you don't have to wait for certain weather conditions. As the seeds sprout, make sure that you thin them. One squash or broccoli seed will make a very large plant. Starting your indoor gardens from nursery purchased plants is fun because you have instant beauty in your containers.

Watering. The only downside that is usually found in indoor gardening is the watering. Plants grown in containers need more care and more attention than plants grown outside. Outside you can use timers and irrigate with drip systems. Indoor gardeners need to water by hand and more frequently because plants dry out faster in containers due to the confined space in which they are growing and the lack of indoor humidity during the heating season. If you are patio gardening, this is especially important. Sometimes new, small plants have to be watered more than once

a day. Because frequent watering can deplete nutrients, a supplemental feeding every two weeks will be necessary. Use a balanced organic fertilizer for best results.

Light. The amount of light and intensity also are important factors to consider. Outdoors in midsummer, lighting conditions are considerably different from the typical indoor conditions of late fall to early spring. Varieties of a given plant need to be chosen that will do better in shorter day situations, and supplemental lighting may very well be required to insure success. At least 6 to 8 hours of sunlight are required, and the plants need to be situated very close to a light source. The problem with more tender plants might be coldness radiating from the windows during the coldest part of the year. If that is the case, then supplemental lighting with a combination of cool-white and warm-white fluorescent lighting will be necessary.

Temperature. Most leaf crops such as lettuce, endive, swiss chard and the like require cooler indoor temperatures. If you have a bright room which is more or less unused, it might make a good place to grow some of these plants. Likewise, an enclosed, sunny porch where temps will not dip down to freezing would be a good place to grow leaf crops and root crops as well. These plants will tolerate daytime temps in the low to mid 60's and can take cool nighttime temps down into the upper thirties.

Veggies such as tomatoes, sweet and hot peppers, cucumbers and beans do require warmer daytime and nighttime temps in order to flower and set fruit. Ideally, daytime temps should be in the upper 70's and nighttime temps should not drop lower than 60. A south facing indoor room with supplemental heating and one that warms up considerably in the winter would be a good place to grow these crops.

Pests. One benefit of growing veggies in-

doors is the lack of pests commonly found when the same plants are grown outdoors. Cucumber beetles, tomato hornworms, and cutworms are a few examples of pests that will be avoided when growing indoor crops. On the other hand, there are still potential pest problems, even when growing them indoors. Insect pests common to houseplants will also be attracted to veggie plants. These include whitefly, spider mites, and in some instances, mealy bugs. Treatment would be the same as for houseplants, and insecticidal soaps are very useful to have on hand.

Pollination. Pollination is something that will have to be done manually. An artist's brush helps to distribute pollen from one flower to the next, and is an indispensable tool to have on hand. (See June Newsletter "How Do I Pollinate My Plants by Hand")

Conclusion. Most veggies grown indoors will not have the size or yield of those same varieties grown outdoors. But, you can have hanging baskets, pots, and planters filled with various crops that will perform fairly well if lighting, pollinating, watering, fertilizing, and temp requirements are met. It might not be quite the same as growing the same plants outdoors, but it can be quite fun to tend an indoor veggie garden when the snows are blowing and the winds are roaring outdoors! So, try your hand at growing a few vegetables indoors this year!

Indoor Salad Garden. Some easy greens to grow indoors are Bibb lettuce, Cos lettuce, loose leaf, snap peas, chives, spinach, arugula, mustard greens and radish. First, fill a seeding tray with soil-less potting soil or seeding mix, then pre-moisten. Sow seeds in a tray at the correct depth. It will differ depending upon which seed you are planting. Read packets carefully for information on depth. Place the tray in a south- or west-facing window provided it is warm enough and there isn't a cold-air draft. Seeds need to be warm enough to germi-

nate. If not, you might need to place them on a seeding mat to reach the proper temp of between 61 to 65 degrees. Moisten the soil and label the seeds. Once germinated, you may need to thin out the plants and repot them into four-inch pots to give them room to grow. Keep a grow light on young plants to prevent leggy growth. Spindly plants generally means there's not enough light or the light source is too far away. The grow light should be next to but not touching the young plants. Those with adjustable heights are a bonus. Plants need 12-14 hrs of light per day. Be sure to use an organic fertilizer. Harvest your fresh greens for a true home-grown salad. Pinch off the leaves as you need them, which will actually promote new growth. Lettuce will start to taste bitter when the growing cycle is complete. Replant as you harvest to have a continuous supply

A Few Veggies to Consider for Indoor Growing: Cherry tomatoes are especially fun. They will continue to grow for a very long time as you continue to pick off the little tomatoes. They are very pretty. They can be grown with or without stakes to hold them up, depending on your preference. Cherry tomatoes-determinate vines, 'Gypsy' peppers, Hungarian sweet peppers, Various hot peppers, Short-vined cucumbers, Short-vined squash, Leaf Lettuce of all types, Bush beans, Endive, Small-rooted carrots, Small-rooted beets, Radishes, Miniature cabbage, Bunching onions, Swiss Chard, Spinach, Eggplant.

Recommended Website

This website is by a member of the church in Nevada who has used her food storage for many years. She has thirteen weeks of affordable menus and recipes, shopping lists, and helpful tidbits.

<http://theprudenthomemaker.com/default.aspx>

Food Storage MREs

What is MRE - you ask? MRE, or Meal Ready to Eat, is a self-contained, individual field ration in lightweight packaging procured by the US military for its service members for use in combat or other field conditions where organized food facilities are not available. MREs can be purchased by civilians directly by the contractors who supply them to the US Government. The National Guard has provided MREs to the American public during natural disasters such as Hurricanes Frances, Jeanne, and Katrina. An example of an MRE, let's say, "Chicken in Thai Style Sauce" meal would contain: A box with a flexible pouch containing 8 oz of the entrée, a box with a flexible pouch containing 5 oz of rice, a flameless heater, one 1.4 oz foil packet of crackers, one 1.3 oz Nutrafruit cereal bar, one packet of spiced cider drink mix, one packet of instant coffee, one packet sugar, one packet salt, one packet pepper, one packet grape jelly, one piece chewing gum, one moist towelette, one pack matches, one pack toilet paper, one plastic spoon.

MREs are currently available in 24 different varieties. How do MREs taste? One comparison says that they taste like any sort of food out of a can (such as Spaghetti-O's). How are MREs stored? The pouch used to store an MRE is a sealable container. The pouch has three major advantages over a cylindrical metal can: It is lighter, flexible and can handle more abuse. It is flat, making it easier to carry in a backpack or pocket. Flameless heaters use a simple chemical reaction to provide sufficient heat to warm the food. MREs can be purchased by either civilian, military or foreign; each having their own advantages and disadvantages. A few internet suppliers are: MREFoods.com, MREDepot.com, beprepared.com and Longlifefood.com. Many places charge \$10-20 for shipping.

72-Hour Kits Winter Preparedness

With summer rapidly drawing to a close, it is time to turn our attention to adjusting our 72-hour kits to survive the winter months. We cannot cling to the notion that disaster will only happen in warmer weather. Some of the more obvious items to consider having in (or with) our kits include extra pairs of warm socks, insulated boots, water and wind-proof coats, and insulated sleeping bags. Many experts say goose down jackets are an excellent idea. When choosing accessories, search for items that are wind, water-proof, and tear-resistant. Gloves, scarves, hats, and ear muffs are recommended additions.

Keeping warm during the night may be the difference between life and death. Take advantage of the newer technology of space blankets. They are lightweight and waterproof. Wrapping in these blankets at night will help ward off hypothermia-which is very dangerous in colder climates.

Also, make sure your first aid kit supplies are not expired. A good flashlight with extra fresh batteries and a multi-tool are recommended also.

Lastly, have PLENTY of fresh water and high-energy bars. Hunger and dehydration can cause us to make mistakes due to confusion. Remember to check and update car survival kits for winter months. More on car emergency kits will be provided in our November newsletter.

New Food Storage Blog

Here is a food storage blog I created to collect helpful information. If you find anything to add, please let me know.

<http://fillingyourark.blogspot.com/>