







Joey & Holly Baird are the founders of The Wisconsin Vegetable Gardener.

They are a married couple living in southeastern Wisconsin (just outside of Milwaukee). Joey & Holly make videos on youtube about how to grow your own food organically, reusing found items (or items you may just throw away), what to do with the food you grow, home canning and simple home living. Along with traditional ground gardening they also grow indoors year-round using up and coming methods along with winter growing in cold frames and low tunnels.

Their goal through their; videos, podcast, public lectures and online communities is to educate the average person how easy it is to grow food, store food, and reuse everyday items. Their motto is;

"For The Health Conscious Organic Gardener Worldwide"

Joey and Holly enjoy speaking at garden expo's throughout the midwest. Holly is also an award winning home canner with a handful of ribbons from the Wisconsin State Fair including a Best of Show award for her home canning talents.

If you find this interesting and have any questions or would like to talk further we can be emailed at thewiveggardener@gmail.com

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By Holly Baird Making Your Own Tea

Tea is a warming and soothing drink enjoyed by many. For me it is one of my favorite drinks, especially on those cold winter afternoons with a little snack. Many teas have great health benefits. When it comes to healthy beverages at the super market the list is short. Even if you buy bottled cold teas there's often dyes, artificial colors, varied sweeteners and even artificial flavors added. As anything in life, if you want to know what's in it, you need to make it yourself. Making your own of just about anything can often be more enjoyable, cost effective, and healthier for you.

My husband Joey was heavily addicted to soda – a 3 or more cans a day. If he didn't get

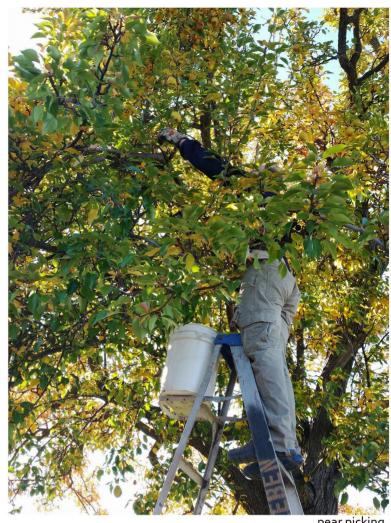
the soda he needed he would get terrible headaches and even body aches. One day he came home from work, was really drained, and parts of his body were numb. He spent a day or so sleeping and not eating much. He must've caught some type of virus, but when he felt better he could not stomach soda. He quit just like that. But he did find he enjoyed drinking tea. Now he drinks cold tea sometimes with a little sugar daily. He also enjoys hot tea. He no longer get severe headaches or body aches, and he says he feels a lot better than when he as addicted to soda. Tea is a great and healthy alternative to soda .Making your own tea is easy and can be done with different fruits or herbs you may



lemon balm leaves

have growing in your backyard or even kitchen. Lemon grass, lemon balm, basil, various mint, are commonly grown herbs and when dried are used for tea. You can even look at the ingredients list on your tea and see what you could possibly grow yourself. You can enhance black or green store bought tea with these flavors as well. Any fruit can be dried and added to tea. We do this with pears and have pear mint tea or pear lemon balm tea -both refreshing. Berries, pears, and apples are commonly grown on most people's properties. When dehydrated they store for about Once rehydrated with hot water, fruits, berries, and herbs release their entire stored up flavor, making delicious and flavorful tea.

If you don't want to dehydrate fruit, fresh fruit or frozen thawed fruit can be a refreshing addition to water. Cucumbers, limes, lemons, berries, oranges are all often added to water for additional flavor. We have a dwarf lime tree in our kitchen. Dwarf fruit trees are easy to maintain. You can just add these to a pitcher of a carafe, or you can buy a pitcher that has an insert to hold the fruit. Either way many people find this an effective way to drink more water because the fruit gives



water a natural flavor boost. There are even different recipe ideas that you can find online that promote different health benefits. If you are looking for a tasty and beneficial drink tea or fruit flavored water is a simple and great idea.



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growing indoors



Grow Lights

By Holly Baird

More and more people are now starting seeds every year in their homes. Starting your own seeds gives you the ability to have a broader variety of vegetables versus what you can find at your local garden center, nursery or big box store. Years ago, people would start them in a greenhouse, but not everyone has an option to have a greenhouse. Grow lights are the next best option. Do you need grow lights to start seeds? There is not definitive answer, but there are pros and cons either way.

We started seeds without the assistance of grow lights for years. We had a shelf put by a west facing window. The best situation is a south facing window, as it gives any plants the most access to daylight. We would rotate our trays of seeds as they reached for the light; ensuring all of the seedlings had equal access to light. Also, when starting seeds you will see them "reach" for the light. If you continue to turn the trays, changing the direction of the plants reaching, this will strengthen the stem of the plants, which is ensures better chances of transplantation.

Grow lights do assist plants in getting started, which makes them stronger plants, thicker stems, and doesn't make them have to stretch to an outside light source. Grow lights are an investment, they are not a necessity. The cost of grow lights can range from \$25 to many hundreds of dollars depending on how large and powerful you

want them to be. Just like any DIY project, there are different levels of cost based on what you are trying to accomplish. The cost determines the difference in the spectrum of lumens, and the type of plants you are growing. Different lights can vary. Some lights may be good enough for seed starting, but would not be good enough to sustain an indoor garden.

It is best to think of grow lights as an investment, as that is exactly what they are. When growing a garden, especially one to feed your family and can or preserve from, you will need plants. You can buy the seeds, or you can start them. Either way you are going to need the starts. Starting your own seeds gives you a better variety, and in some cases, a jump start on others. There are 2 types of grow lights. Tube lights and LED lights are the 2 basic types. LED is newer to the market with nearly and indefinite lifespan.





LED Light

Tube lights have a shelf life and some recommend replacing the tubes every year as they can become dimmer over time. Tube lights are bulky and heavier than the LED lights. Grow lights are set on a timer, based on how long the plants need them, and the particular plants, but it's generally 10 to 12 hours a day. This is also another part of the investment that needs to be considered.





The Alberta Urban Garden promotes organic gardening that is simple, sustainable and does not have to cost a lot. We do this by investigating the Science behind gardening, methods, practices and products to make sure that you will have the best chance of successfully growing your own food at home. Home grown food has consistently been shown to be a healthier option than store bought pro-

duce so why not put any space you have to good use!

Stephen is a gardener in the Edmonton Region in Alberta Canada. His short intense season has many challenges however through some simple techniques he extends his season growing more food in a small space.



Q:What growing zone are you in? A:I am located in the capital region of Alberta, Canada firmly in Zone 3.

Q:With being in a growing zone that has a very short time of frost-free days - what has been your biggest challenge in growing warm weather crops and how have you overcome that challenge?

A: Although we have a short number of frost free days our days are longer during the summer. At the peak of solstice my garden gets 16 hours of direct sun despite it sitting in an urban yard with tall fences. The biggest challenge with warm weather crops such as peppers, tomatoes and melons is giving them the heat they need in the spring to get them going. Often what I will do is begin my peppers indoors months ahead of time making sure they are well established plants before

moving outside. Crops such as tomatoes get the prime sunny spots in the garden and melons I and up using low tunnels in the spring to capture enough heat to get the plant established before our summer heats set in.It is critical here to not jump the gun with warm weather crops and move them outside too quickly. Although the day time temperatures in May can be hot nighttime is often still quite cool.

Q:The thought process of some gardeners who have small amount of space to grow in believe they cant grow enough to preserve or they feel its not worth the effort because of the limited amount space. You have a smaller area to grow in and you are able to produce abundant produce that you have plenty of to preserve and store over the winter. What are some techniques you practice to achieve a

a large amount of produce?

A:Small space gardening is somewhat of a challenge for myself. As mentioned I do not have a lot of space but am still able to produce quite a bit. Maximizing the production from a small space really boils down to a few key strategies that I implement every year.

- 1. Grow Vertically: By taking advantage of the vertical space in your garden you can grow crops much closer together. For instance along the back of my garden I have grapes growing up the fence and a strawberry patch below. If I had the grapes growing along the ground there would not be enough sun for anything to grow below them. I grow tomatoes and onions in a similar method.
- 2. High Yield Crops: Over the years I have been exploring which crops do well in my garden and produce higher volumes of produce for the same general footprint. If a crop or variety does not do well I usually move on and explore others to see if I can increase the production of every square foot in the garden.
- 3. Variety: Growing a variety of crops even in a small space not only helps reduce pest damage but it allows me to make up for bad years. For instance this year was not great for carrots in my garden. Spring was quite warm and very dry leading to very low germination. Those same conditions were great for tomatoes and we had the largest crop I have ever produced and I did not increase the number of plants I had. Although I was unable to make any pickled carrots this year I do have a large stock of tomato sauce and soup in the pantry.

Q: How did you get started in gardening?

A: To be honest I have no idea how I got into gardening. For as long as I can remember I have loved being out in the garden with my parents, grandparents and really anyone whom would follow me out. I grew up in Yellowknife NWT Canada which for those of you not familiar with Canadian Geography is just below the treeline in the subarctic and is in Zone 0. Even there my parents grew a variety of crops that we enjoyed. The time in the garden with my parents and grandparents are some of my most cherished memories from my childhood.

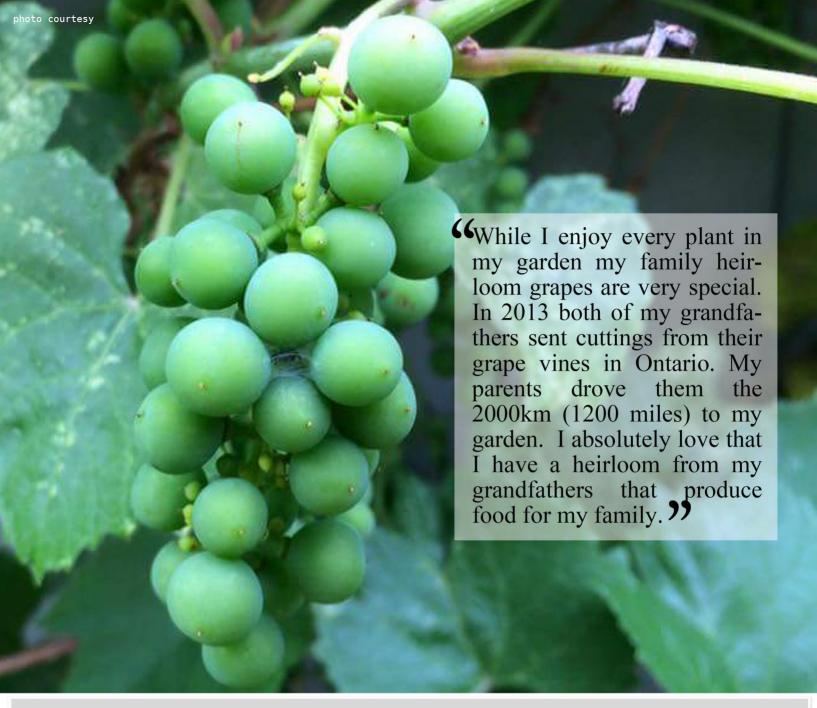
Most recently when we moved into our current home my wife and I decided to put in a garden in anticipation of having a child and wanting to share those memories. I had no idea as my friend and I built the first raised beds that it would ignite the passion with in me and a few short years later sharing my experiences with people all over the world!

Q: Many people have a favorite crop or type of plant they grow, you are no different. You have grapes that are special to you. Why are those grapes so meaningful to you?

A: You are 100% correct. While I enjoy every plant in my garden my family heirloom grapes are very special. in 2013 both of my grandfathers sent cuttings from their grape vines in Ontario. My parents drove them the 2000km (1200 miles) to my garden. I absolutely love that I have a heirloom from my grandfathers that produce food for my family.

These vines have such a great story and serve as a great way to remember the many good times I have had in the garden with them.

To make things just a little more special we were able to make jam and jelly from the



he grapes this year. Sunday morning breakfast is one of my favorite times to spend some quality time with my family. We are now able to share this special jam during that time.

Q:You have a video series on your YouTube channel called the "Testing garden assumption series" where you, as a "professional biologist", examine if things are really true or a myth. Things like are coffee grounds good for your garden, is chlorine in your tap water bad for your soil, etc. How did this series de-

velop? What is the biggest surprise for you in all of your tests and research?

A: As you are well aware when you create YouTube videos you get a lot of very interesting questions from the community. As I started to receive questions related to the subjects I have tested I found myself researching the issues. One day after I had spent an hour or so reading journals I realized I was onto something. I quickly jumped over to YouTube to see if anyone else in our garden creators community was working on





these questions. I found out that no one was and in fact some of the creators were promoting techniques that were not supported by research. I know they had the best of intentions but I felt this was where my background as a biologist could really be of some use. So I started the series and have continued to have a lot of fun exploring the various subjects. The work I did on tap water was quite surprising. I investigated if the chlorine that is in tap water to keep it sterile while it is pumped to our homes would have an impact on bacteria. Bacteria do the bulk of the work in the nutrient cycles, that provides our crops with the nutrients they need to grow. If tap water was to harm them that is likely not a good thing. After having done my experiment the results were really quite surprising. Even in the most extreme situation there was no difference in the bacterial concentrations.

A paper published a few months later took a look at this issue using new technology and supported the finding of my citizen science project. It sure was eye opening.

Q: You have a young son. Does he get involved in the garden at all? If he does how doe he involve himself?

A: I am proud to say yes my son is in the garden nearly as much as I am, as shown in the episode that was posted on October 28th 2016. He loves coming out to help, grow and eat the produce. I can not tell you how proud I was a few summers ago when I was out in the yard working while he played and realized he had walked into the garden and began snacking on a variety of crops.

To this day he loves gardening and his favorite snack is a sweet pepper, that he loves to eat just like an apple. This year my wife and I got him a larger planter for the deck where he could pick what he wanted to plant and tend the garden while he played. He not only selected his favorite crops like carrots, peas and peppers but some of the most stunning flowers I had ever seen.

Q: You've done a lot of garden myths What have you found to be the most overwhelmingly misinformed garden practice?

A: To be honest one of the largest surprises was the Epsom Salt video I did. There are claims on almost all social media platforms that attribute Epsom salt to a whole host of benefits. I was initially shocked by the claims and started to do some research. There is peer reviewed research out there stating the Epsom Salt is useful when there is a void of Magnesium and Sulfur. The applications where Epsom Salt is useful is when you are growing crops in a nutrient devoid media similar to what people do with Hydroponic growing. When growing in soil amended with compost, like most backyard gardeners, there is absolutely no need to add it.

What really captured me was the prevalence of the myth on social media despite the overwhelming evidence against its use in back yard gardens.

You Tube To Alberta Urban Garden www.albertaurbangarden.ca

3 Proven Gardening Tips



Sometimes when gardening you'll receive advice from different sources such as friends, magazines, youtube videos or even something you come up with on your own – home remedies using things you have laying around the house. It may even seem too good to be true but then you try it, and it works! Here are some garden tips that worked successfully for us and many other people too!

If you are familiar with the tomato horn-worm then you know it can take out a tomato crop quickly and all of your hard work is now their dinner. If you can spot the hornworms you can pull them off of the plants and get rid of them but this isn't always as easy as you

think as they are the same green color as the leaves of the tomato plants. One thing we were told to do was take a stick, nail an empty tuna can to it and fill it with bird seed. Place this tuna can post within your tomato crops. This will attract birds to your tomato crop, they will eat the seed, look around, see the horn worms and then eat the meaty hornworms. We tried this trick in our garden and had much success. After a few days it seems all of the evidence of the hornworm disappeared. We keep the birdseed full just in case, but have had more tomatoes than we could ever need.

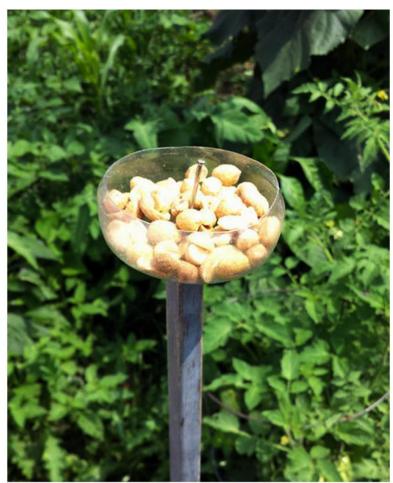
We all deal with weeds in our garden. In



Hornworms

large areas it can be a whole afternoon of work and weeding. If its an area you're not wanting to plant, you can smother out weeds for the season with cardboard. We had part of a row next to our straw bales that was just covered in weeds. We took the lawn mower to knock the weeds down a little, and then cover the area with flattened cardboard. This was successful for us all summer to smother out the weeds.

Many people experience different pests crawling or sliding along their plants. One of these is slugs. While slugs seem slow and harmless they are not. They will eat your tomatoes and if you live in a damp area there are a lot of them. To remedy this you take a plastic cup, bury it in the ground where only about ½ inch of the top of the cup is coming out of the ground. Then you fill the cup about ¾ of the way with beer. If you have something that has a stronger hops flavor, like an IPA, the more they are attracted to it. In a few days you will have party cups full of slugs.



Cup on stick



Conventional vs Organic



By Holly Baird

I chose to grow organically in my garden. Many people do. But many people also choose to use chemicals in their gardens. While this is a matter of personal choice, I am going to provide some general information on both so if you are trying to decide on one or the other, you can make an educated decision.

Organic gardening is using non chemical fertilizers, pest repellent methods and working within the ecosystem of your backyard. There are a number of reasons we choose to grow organically. These are not limited to the ones listed, but definitely does include them -you're eating what you are growing, it just

makes sense to keep it organic. When using chemicals, such as Miracle stuff, you are making plant dependent on that chemical. Better for the earth: A 22-year study at Cornell University found that raising crops organically produces the same yields of corn and soybeans as does conventional farming, but uses 30 percent less energy, less water, and no toxic chemicals. The study also found that organic farming conserved more water in the soil, caused less erosion, maintained soil quality, and conserved more biological resources than conventional farming. The study is a review of the Rodale Institute Farming Systems Trial, the longest running



Organic Weed Killer

comparison of organic vs. conventional farming in the United States. More antioxidants healthier food. Organically grown fruits and vegetables appear to have higher antioxidant levels than conventionally grown foods. A study published in the Feb. 26, 2003 Journal of Agricultural and Food Chemistry found that levels of antioxidants in organic corn were 58.5 percent higher than those in conventionally grown corn and that antioxidant levels in organically grown strawberries were about 19 percent higher than they were in conventionally grown strawberries. Data released in 2005 by the Organic Consumers Association showed that on average, the organic crops studied contained about onethird higher antioxidant content than comparable conventional produce. It also noted that levels of specific vitamins, flavonoids, and other health-protective compounds in organic foods were two or three times those found in matched samples of conventional foods. In conventional gardening, using chemical or synthetic pesticides, herbicides



Organic Compost

and fertilizers is convenient and quickly effective. They will often work instantly, giving you immediate results to pests, weeds, and anything else that you are dealing with in your garden. While this is convenient, satisfying in the instant and quick, there are some draw backs. Chemical fertilizers, herbicides and pesticides poison our waters, our soils, other living creatures and our own bodies. Some herbicides continue to be toxic to animals and plants. One study showed dogs that play in herbicide-treated yards have threetimes the risk of cancer. The overuse of chemical or inorganic fertilizers has serious consequences including the leaching of nitrates into the ground water supply and the introduction of certain contaminants, including cadmium, into the soils. Fertilizer run-off into ponds, lakes and streams over stimulates algae growth, suffocating other aquatic plants, invertebrates and fish. Toxic fertilizers made from industrial waste can bring mercury, lead and arsenic to our soil and water supplies. Pesticides kill all insects in their path. This means the beneficial insects, such as the ones that prey on harmful insects, are killed right along with the ones you aim to get rid of. Pollinators are also harmed by pesticides.

Homemade Vinegar



Webster dictionary defines vinegar as a sour liquid consisting of dilute and impure acetic acid, obtained by acetous fermentation from wine, cider, beer, ale, or the like: used as a condiment, preservative, etc. Many cooking applications require vinegar, as well as canning. If you do a lot, it can become costly. People are now using raw vinegar as a health supplement, ways to treat indigestion, and even clean with. Purchasing vinegar at the store, based on how it is produced, can vary in cost. There is your cheap, highly processed white vinegar, your salad vinegars – like balsamic, wine vinegars, etc, and then there is your raw

vinegar, such as raw apple cider vinegars. If you are one of the many people who find raw vinegar beneficial then you can make your own and could save some good money in the process. You can make your own raw vinegar and it is shelf stable once fermented because the naturally occurring yeast has eaten all of the sugars. Regular vinegar, such as white vinegar has been pasteurized, allowing it to be shelf stable.

Making your own vinegar is easy from pear or apple scraps. Simple take your fruit scraps and place them in a jar, ceramic bowl, or crock. Then, for every quart of water you add



the mixture you want to add ¼ cup of sugar. If you have some raw vinegar you can add 2 tablespoons of the raw vinegar to every quart of water. Pour your water mix over the fruit scraps, add as much as needed to make sure fruit scraps are submerged completely. Cover the container with cheesecloth, coffee filter or a loose towel. You want to prevent bugs from getting in. Place your container on a stable surface away from direct sunlight. We keep ours near the back of the kitchen counter. You want to check your ferments daily and stir them up a bit at least once a day. If they start to bubble that is great. This means the fermentation is happening. After a week you can strain the liquid through cheesecloth or mesh strainer.

Put the liquid in a mason jar, cover loosely with a coffee filter or cheesecloth and a rubber band. Place in same spot, away from direct sunlight. You will see the liquid darken and sediment form on the bottom of the jar. Fermentation can take anywhere from 2 to 6 weeks. Typically its about 3 weeks for me. I check mine daily just in case. If you see a gelatinous mold forming at the top that is not a problem - that is the "mother" and if you stir your ferment that will generally sink to the bottom. Once vinegar is fermented, cover with lid and store in a cool place away from direct sunlight or in the refrigerator. It will ready for you to use for over the next year or SO.



Indoor Winter Garden Activities for Kids

By Holly Baird

As winter is here, garden activities has stopped. Many take a break during this time of year to regroup and even analyze what changes could be made for next year's growing season. You can enjoy the break, but still do some fun family activities indoors.

Sprouts

Growing sprouts is fun, easy, and quick. This is the process of sprouting seeds in a jar to have something fresh and green to eat year round without needing a garden. This is fun for kids as they get to seed the seed sprout, it only takes a day before the seed sprouts to it's a quick process, and sprouts are really healthy so if kids eat them they are getting a lot of nutrients. They are more likely to eat them if they help in the process of growing them. It's also a brief lesson on caring for something that is living.

Herb Garden

You can take your indoor growing one step further by starting a window herb garden. Kids of all ages love this, especially if they want to help out in the garden or kitchen. This also helps them learn about different herbs and their uses. Some simple one to start are basil, parsley and sage. You simply find some smaller containers, the bottom of a milk jug would do, and you add some organic compost and plant the seeds. You can even paint the jugs or come up with some creative herb container markers. Paint the outside of the containers. Just remember to add drain holes. This is fun to start, then watch the progress of growth, and then when ready, use the herbs in cooking.

Sort Seeds

A lot of of us have a lot of seeds. Its very easy to let them become unorganized and at the end of planting time just toss them in a box or bag until the next season. However,

when your seeds are organized it does cut down on time spent looking for them at planting time. Also, seeds lose germination power over time, so knowing when they were bought will give you better success with seed germination. You can get your kids involved, especially school age children as they can help sort. You can organize them by alphabet, planting time of season, seed type, etc. Most common would be alphabetical.

Winter Farmer's Market

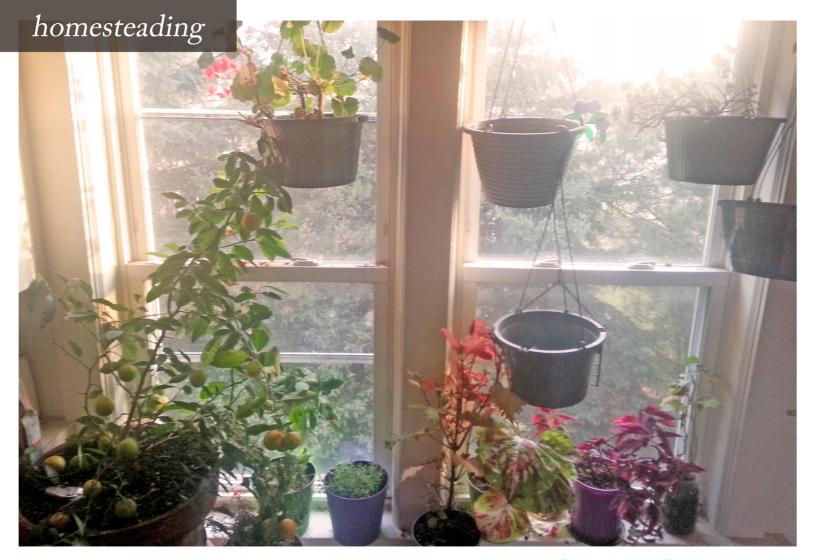
Many communities now have a winter farmers market. You can find these by using your search engine or even websites like localharvest.org. Many also have hot, ready to eat foods so you can make a day of it if you want to take a drive to one further away. This still gives you a chance to support local agriculture efforts, cut down farm to table dis



tance, and get your children involved in being in touch with where their food comes from. Some will even have local musicians playing. Just because its winter doesn't mean you won't be seeing the farmer's market until spring.

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Growing Herbs Indoors

Winter can seem drawn out and, at times, depressing for a gardener. There really isn't much you can do in the dead of winter in the garden. But if you have a south facing window a warm 3 season porch you can grow over the winter. You can invest in grow lights and coco coir and grow hydroponically but you may not want to invest money or time in that. Herbs can be very inexpensive to grow in your kitchen or by a south facing window indoors. There are some guide lines you want to follow to give you the best opportunity to have nice herbs indoors.

Grow herbs you know you are going to use. You also want to grow in a good, organic potting soil. You may have some left over from

your spring starts. You might also be able to get some from your home and garden or you might have you own compost you have made which will work also. We use a professional potting mix as a well as a rice hull potting mix that is available year round from www.HSucompost.com, a company out of central WI. They will ship potting soil to you as well. You don't want to use just dirt you have dug up out of the garden as it does not have nutrients for plants that is needed. You are going to grow indoors and using dirt from your garden is not recommended. We enjoy growing a few different varieties of basil, parsley, rosemary, sage, lavender, thyme, marjoram and others. You want to plant in a large container. The largest one for the space you will be growing in. We use 8 and 10 inch hanging pots we have found that others have thrown away. You use and kind of a container though. When planting, don't pack the seeds too tight in the container. Remember you are not transplanting these, this will be there home. Space them accordingly. Herbs grown indoors may grow slightly slower than those you would plant outdoor in the summer. It is best to have them by a window that gets a minimum of 4 hours of sun for best results. It may be hard to find herb seeds in late fall or early winter from the store or online. We use a trusted company that carries flower, vegetable and herbs seeds year round. You can find them at www.dollarseed.com.

Growing herbs indoor is very similar to growing them outdoors in the summer.

Having good potting soil or compost and good seeds is crucial. You cannot only grow herbs in the winter but all year round and saving you lots of money from having to by expensive fresh cut herbs from the store.



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