

ORGANIC GARDENS *TODAY*

SPRING 2014

VOLUME 4, ISSUE 1

**Start Your Gardens,
Set Up A Worm Farm,
Food For Body AND Mind,
The Next Evolution Of Organic,
Seed Quality And Much More!**



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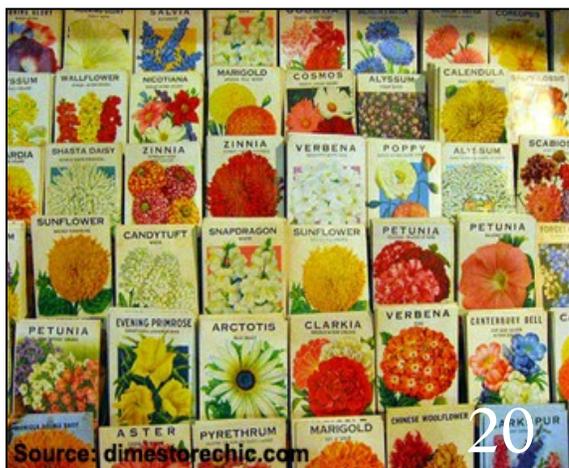


Organic Gardens Today
Magazine



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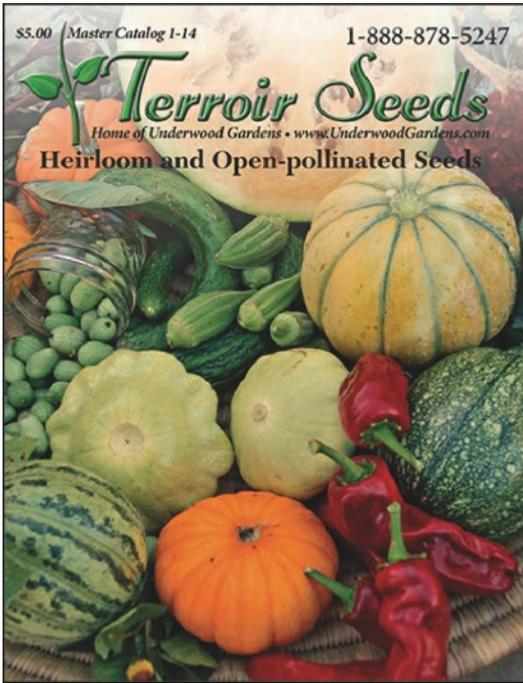
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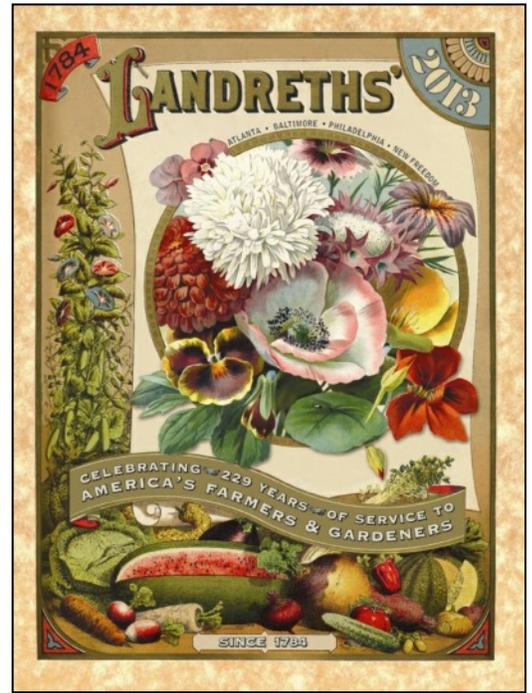
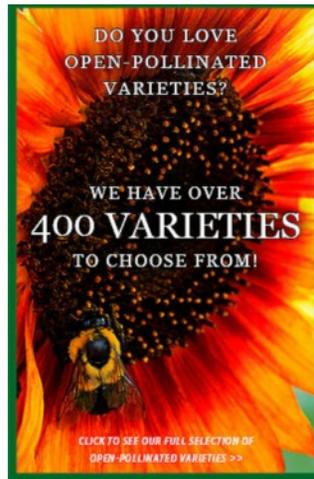
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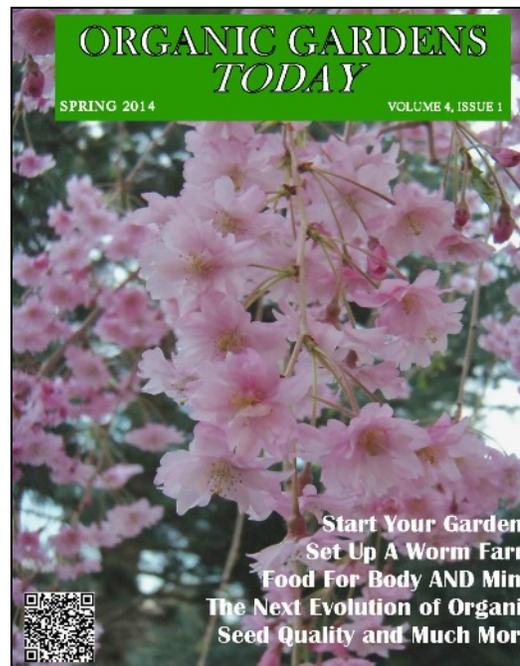
High Mowing Organic Seed



Organic Gardens Today would like to thank

Kim Daehnke

For the back page photo.



After the difficult winter most of us had, the colors of spring are appreciated, including the pink blooms of *Prunus subhirtella* var. *Pendula*, Weeping Cherry.

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From The Editor

Welcome to the Spring edition of *Organic Gardens Today!*



What a crazy, long winter it has been! Here in the Northeast we have been inundated with snow storm after snow storm, and are facing down storm 13 as I write. Last year at this time I was appreciating the blooms of my Royal Heritage hellebores. This year there is still a two foot pile of snow on them. The only grass I see is where I made paths through my property so I can access my shed and to the swing set in the backyard (my grandson told me the swings needed to be saved from the snow!). We can only hope that the old wives' tale of "March comes in like a lion and goes out like a lamb" will hold true this year.

While lecturing I have heard so many gardeners ask "when will spring finally arrive?". We are all chomping at the bit to get outside and clean up from the winter's wrath this year. There will be a lot of corrective pruning that will need to be done to remove broken or damaged branches from the heavy snow. I will guarantee that your lawn will suffer from pink or gray snow mold, and a good raking plus an application of sulfur will help keep it at bay. With all the work that will need to be done, try to get outside if even for an hour or two. I always try to convince gardeners that they need to be in their gardens at least once a week surveying their plants. If you know what your garden looks like, you will be able to identify any problems before they become a major catastrophe, and hopefully you will be able to correct the problem without the use of harmful pesticides. Look at your trees and shrubs. When the snow clears, get out and see what has survived the winter and what has not and jot down any notes into your gardening notebook for 2014. Remove any foliage of perennials that you were unable to get done last fall and check for new sprouting buds at the base. Remember spring will be here before too long, so the more you can accomplish before hand, the less stressful a spring you will have.

I would like to encourage every reader of this magazine to attend a "March Against Monsanto" march on May 24th. They are held throughout the United States and the WORLD to bring attention to the plight of our food and our health. You will learn about the importance of GMO labeling, the plight of farmers, and the cronyism between Monsanto and our government. Your eyes will be opened to what is really happening and hopefully you will walk away with new knowledge that you can share with your friends and family. For more info check out their website <http://www.march-against-monsanto.com/> for locations of the marches and how you can get involved.

If you like what we have accomplished with *Organic Gardens Today*, please **share us** with your family, friends, coworkers and fellow gardeners. We rely on word of mouth to spread the word about the magazine, and I thank you in advance for sharing us. If you go to our website, www.organicgardentoday.com and you can click the "Share" button to share the website with your friends on any social media platform.

David Daehuke, Editor



PS: Like us on Facebook page and join our group. Type "Organic Gardens Today" in the search box or use the link below

<https://www.facebook.com/groups/184728751568234>

You can start a discussion, add your comments or follow useful links to like-minded articles and websites.

MEET OUR WRITERS



DAVID DAEHNKE, THE GARDENING GURU, EDITOR

David is a seasoned gardener and lecturer, helping both the novice and experienced gardener. His fun and informative lectures are widely requested throughout the Northeast. Over the past 12 years, David has successfully managed three public gardens as Executive Director, but his true love is communicating proper gardening practices and creating gardens of beauty. He received his B.S. Degree in 1984 in Ornamental Horticulture at Delaware Valley College. David is widely known from his radio show “The Gardening Guru” on WGHT 1500 AM, beginning it’s 20th season in 2014. He is a horticultural consultant on his Internet Web page, www.thegardeningguru.com.



SANNE KURE-JENSEN

Sanne Kure-Jensen is a regular contributor to Country Folks, Country Folks Grower and Wine & Grape Grower agricultural newspapers. She is also a successful agricultural grant writer, organic grower and beekeeper in Portsmouth, Rhode Island. An environmental advocate for more than a decade, Sanne works with non-profit boards and town committees stewarding open space, local farms, public gardens and Narragansett Bay. You may [Contact Sanne](#) with your comments and questions.



STEPHEN SCOTT

Stephen is the co-owner with his wife Cindy of Terroir Seeds, an heirloom seed company that not only provides quality garden seeds but helps customers improve their gardens and skills with a wealth of information not found anywhere else.

From his experiences in gardening, rangeland and habitat restoration Stephen has found that it’s not just about the seeds; the highest quality seeds are great, but there is room and need for more, much more.

Stephen has discovered a cycle to gardening that is not being addressed much today- soil education and awareness of its role and importance; the important role of quality seed and how they interact with the soil; the critical importance of micro-organisms that feed us all that many are not aware of; how to prepare the food grown from the garden and how it can all tie in together to markedly increase our health- all from our home garden. Visit their website at www.UnderwoodGardens.com.



MAUREEN FARMER

Maureen Farmer is master gardener and the founder of The Farmer’s Garden website (www.thefarmersgarden.com). The Farmer’s Garden is an online place to make in-person connections between gardeners across the US. Gardeners and want-to-be gardeners can search and post free classified ads to share excess homegrown produce, tools, or gardening space with people in their area. Food banks can post wanted classifieds for surplus food. She is an avid gardener and also a former Board

member of Urban Oaks Organic Farm in Connecticut.

MEET OUR WRITERS



CLIFF WILLIAMS

Cliff Williams has worked 20 years in the frozen vegetable processing industry. He has been involved with everything from the dirt to the package you get at the store. He has also worked seasonally for 4 years in the fertilizer industry, as well as growing up gardening and gleaning. When you add in all the supporting research that went into creating Urban Crofting to his experience, you will find that few people have the unique insight into our food that he does.



JANINE PATTISON

Janine Pattison MSGD is an award-winning UK garden designer and horticulturalist who trained with English Heritage at Eltham Palace in London and at Kingston Maurward College in Dorchester. A Registered Member of the Society of Garden Designers, the British Association of Landscape Industries and the Garden Media Guild, Janine is also a highly qualified RHS horticulturalist. Her practice is fast gaining a reputation for creating stylish, contemporary gardens often on difficult sites. www.janinepattison.com



CINDY MEREDITH

Cindy Meredith is the owner of [The Herb Cottage](#), a rural nursery in Lavaca County, Texas. In business since 1998, Cindy has a wide range of knowledge about gardening with herbs and adapted plants. The dynamic web site for herb and plant lovers is a handy source for growing information. Not just for Texans and other folks who live in hot, humid climates, the web site addresses all aspects of gardening.



LUCIANE MACALAN GILAN

Luciane was born and raised in Brazil. She left her hometown, Porto Alegre in 1988 to live and travel around Europe. She then moved to Hawaii for two years, where she learned about and experienced a healthy attitude towards life and food. In 1995, Luciane opened Café Colonial in New York City. After 15 successful years, she declined to renew Café Colonial's lease due to the increase on her rent, but opened [Porto Alegre Café](#) in Ramsey to continue to share her healthy cuisine with others and to be closer to home. Porto Alegre is inspired by the cafés of Paris, Madrid and Lisbon. Most recently Luciane is also sharing powerful testimonies of life teaching experiences that she learned from her travels, business and a divorce; she loves to inspire people with food for the mind and body.



DAISY LUTHER

Daisy Luther is a freelance writer and editor who lives on a small organic farm in the Pacific Northwestern area of the United States. On her website, [The Organic Prepper](#), Daisy writes about healthy prepping, homesteading adventures, and the pursuit of liberty and food freedom. Daisy is also a staff writer at [The Daily Sheeple](#), where she helps to "Wake the Flock Up". You can follow her on Facebook, Pinterest, and Twitter, and you can email her at daisy@theorganicprepper.ca

LYNDA DILLMAN - Lynda Dillman writes about 'Worm Farming' and helps home owners in being successful with their worm farm at his blog, [Worm Farming For Beginners](#).

Home Grown Gardening Tips

Gardening Tips For March

* When the weather warms up, you can set out plants of pansies as long as the ground and garden centers are ready. They will continuously bloom if the blossoms are kept picked.

* Fast growing vines, like scarlet runner bean, the hyacinth bean, passion flower, and to some extent clematis vines are great candidates to plant against ugly fences or walls.

* Annuals can be started in the house towards the middle of the month. Sweet peas can be planted directly into the ground when it is ready.

* The Winter coverings of perennials can be removed by the end of the month. It is best to do it on a cloudy day, and remember to recycle those branches!

* Give your lilacs a light coating of lime. They prefer an alkaline soil, which is not commonly found in this area.

* Hardy roses can be pruned as soon as you are sure that chances of an extreme freeze have past.

* Hardy chrysanthemums and other late-flowering perennials can be divided when the sprouts begin to show.

* As soon as planting conditions are right, sow the following vegetables outside where they are to grow: peas, parsnips, spinach, beets, carrots, lettuce, parsley, radishes and salsify. Potatoes may go in early also.

* As always, keep an eye out for insects, eggs or cocoons and destroy them before they get the upper hand.

* Prune shrubs in the month of March if they do not flower until Summer. Prune all Spring flowering shrubs after they have finished flowering.

* Any shrubs, hedges or trees that have suffered broken limbs due to snowfall or wind can be correctly pruned now.

* Rake your lawn to remove any debris that has accumulated on it over the Winter. For more tips on lawn care, visit [Organic Lawn Care Manual](#) .

* Begin your garden book now, for future reference on what plants, seeds and other jobs have been great and which have done poorly.

* A compost heap provides good organic matter for amending your soil. If you do not already have one, begin one this Spring.

* Bird houses can now be cleaned and disinfected for the new nesting season.

Gardening Tips For April

* When doing your Spring clean-up, keep a watchful eye out for sprouting perennials. Tread lightly!

* Scatter annual poppy seeds in the borders or wherever you want them to grow. Seeds of other annuals that can be planted directly can be done as soon as the danger of frost has past.

* Clematis paniculata may be cut down almost to the ground. It will make rapid growth and will flower again in the Fall.

* Lily pools should be drained and cleaned at this time of year before the lilies start to grow. Hardy water lilies can be purchased and set out now, while tender kinds should be moved out in late May or beginning of June.

* There is no better time to divide perennials than when they first start growing in Spring. Dig the entire clump up and use your hands to feel where the plant can or cannot be split. Use of a knife to assist in the splitting may be necessary on tougher, woodier perennials. When replanting the new clumps, make sure to add organic matter to the hole, which will give the new roots a healthy start.

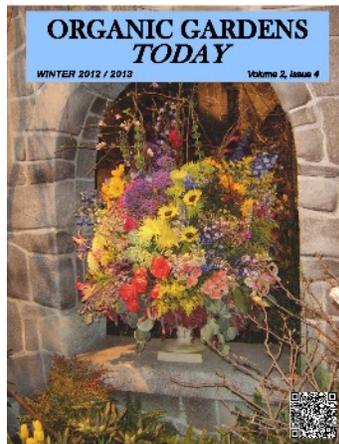
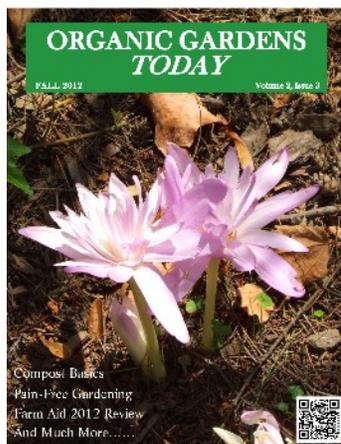
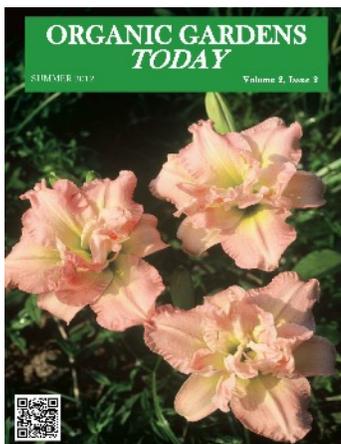
* The pruning of roses should be completed as soon as possible, cutting back to live wood and cutting the stems even more if a smaller quantity but better quality of flowers is preferred. Comparatively light pruning will create a profusion of smaller blooms instead.

Home Grown Gardening Tips (continued)

- * Set out pansy plants as soon as the ground is ready. They will flower continuously if the old blossoms are kept picked.
- * Perennials, roses and other shrubs can all use an application of a 5-10-5 organic fertilizer to give them a jumpstart for Spring.
- * As soon as the weather is settled, cabbage, broccoli, lettuce, and cauliflower can be planted in the garden.
- * Defoliation of hawthorn trees is caused by a fungus which can be controlled by spraying now with a fungicide such as sulfur.
- * Hydrangeas, buddleias, and other late flowering shrubs may be cut back to produce a new flush of growth. These plants flower on new wood and do not produce as well on older wood.
- * Lilacs, as well as clematis, like a sweet soil, so an application of lime along with your application of 5-10-5 fertilizer can be made now.
- * Early blooming shrubs can be pruned after they have ceased flowering.
- * It is wiser to attack weeds as soon as they appear. They can be eradicated much easier now than when they have become established.
- * Now is a good time to have your soil tested for pH and soil nutrient values. This will serve as a blueprint for your fertilizer and lime needs for the upcoming year.
- * When seedlings that have been grown in a cold frame or inside the home are ready to be set out, choose a cloudy, quiet day if possible.
- * If you desire large peony blooms, you must pick off the side buds that form along the stem. This will redirect all of the energy to the lone flower bud at the tip of the stem, otherwise known as the terminal bud. Peonies should also be staked no before they get too large. A support that encircle the whole plant loosely is the best kind.
- * An easy and non-toxic way to kill the weeds that grow in the cracks of your driveway and sidewalk is to pour boiling water onto these plants. Try not to pour excess that can run off into your existing beds or lawns.
- * Chrysanthemums can be made into bushy plants by pinching the tips of the branches judiciously until the end of June, then allow the shoots to grow. These bushier plants will have more blooms than one not pinched.
- * Keep all newly planted trees, shrubs, perennials and roses well watered so that the roots will not dry
- * Chrysanthemums can be made into bushy plants by pinching the tips of the branches judiciously until the end of June, then allow the shoots to grow. These bushier plants will have more blooms than one not pinched.
- * Keep all newly planted trees, shrubs, perennials and roses well watered so that the roots will not dry out.

Gardening Tips For May

- * Peonies require plenty of water to fill out the flower buds and often benefit from an application of organic fertilizer.
- * If chrysanthemums and asters have not been divided, this work can be done now before they get too large.
- * Nearly all flowers seeds can be directly sown in the garden during the next few weeks. Fine seeds such as petunias may be kept in place with a light coating of peat moss.
- * Remember to leave the foliage on all spring flowering bulbs until they turn yellow. Even though the plant may be done flowering, it is now storing the energy needed for next year's blooms.
- * Keep the faded flowers picked from pansies to encourage new blooms.
- * Irises should be given an application of bone meal now. Work it into the soil and water thoroughly when done. You will not see the results this year, but will next year.



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ORGANIC NEWS and NOTEWORTHY

Organic Farmer Facing Jail Time For Refusal To Spray Pesticides

The French agriculture ministry is prosecuting Emmanuel Giboulot, an organic winemaker, for failing to apply insecticide to his vines. The ministry wants insecticide to be sprayed to control the leafhopper *Scaphoideus titanus*, believed to be responsible for the spread of the grapevine disease, but Mr. Giboulot believes the pesticide is ineffective and damaging to pollinating insects such as bees, and insists the disease can be fought via more natural means.

Emmanuel Giboulot appeared before a judge in the city of Dijon last week after defying an official order to treat his vineyard against an insect suspected of transmitting a devastating plant disease, and risks six months in jail for failing to take preventive measures against a bacterial vine disease. He was fined €1,000 for putting neighboring vineyards at risk. The court's final verdict will be announced on April 7. Mr. Giboulot, an organic and biodynamic winemaker, was found to be in violation of a directive to use pesticides to fight *Flavescence dorée*, an infectious disease spread by the leaf hopper, *Scaphoideus titanus* that threatens the Côte-d'Or region of Burgundy. An estimated 30 acres of vines were destroyed by the disease in 2012.

"Would we give chemotherapy to someone as a preventive measure against a potential future cancer?" Mr. Giboulot asked.

He argues that the pesticide is harmful to beneficial insects and animals, and may not even be effective at preventing the vine disease. "My father began converting to organic farming in the 1970's, and we are now fully organic and biodynamic," Mr. Giboulot is reported as saying.

Last June another organic winemaker was prosecuted and convicted for not treating his vines, but was spared a prison sentence or fine after finally agreeing to spray against the disease.

Source: [The Guardian](#)

Keystone XL pipeline protesters tie themselves to White House fence as police arrest dozens of people

by Emily Stephenson, Reuters

Police arrested dozens of young people protesting the Keystone XL project on Sunday (March 2nd), as demonstrators fastened themselves with plastic ties to the White House fences and called for U.S. President Barack Obama to reject the controversial oil pipeline.

Participants, who mostly appeared to be college-aged, held signs reading "There is no planet B" and "Columbia says no to fossil fuels," referring to the university in New York.

Another group, several of whom were clad in white jumpsuits splattered with black ink that was meant to represent oil, lay down on a black tarp spread out on Pennsylvania Avenue to stage a mock spill.

Organizers estimated 1,000 people protested and said several hundred agreed to risk arrest by refusing to leave the sidewalk in front of the White House.

"If the Democratic Party wants to keep our vote, they better make sure President Obama rejects that pipeline," said Nick Stracco, a 23-year-old student at Tulane University in New Orleans.

Sunday's event, which was planned by students with support from environmental groups 350.org and the Energy Action Coalition, began with a rally at Georgetown University, where Obama unveiled a new climate change plan last summer.

The group marched to the White House, where police began arresting protesters, pulling them aside in small groups into tents set up on Pennsylvania Avenue.

Organizers said they intended to remind the White House that young people are a key voting demographic of the president's party and their peers do not want to inherit environmental damage caused by current leaders.

"Our future is on the line. The climate is on the line," said Aly Johnson-Kurts, 20, who is taking a year off from Smith College in Massachusetts. She said she had decided to get arrested on Sunday. "When do we say we've had enough?"

Source: [National Post](#)



March
Against

Monsanto



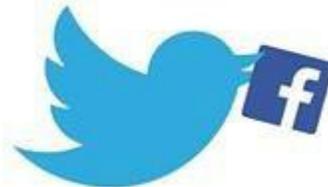
WORLDWIDE!

March Against Monsanto is a global call to action aimed at informing the public, calling into question long-term health risks of genetically modified foods and demanding that GMO products be labeled so that consumers can make informed decisions.

Why We March?

- *Protect our food supply
- *Support local farms
- *Protect our environment
- *Promote organic solutions
- *Expose the cronyism between big business and the government
- *Bring accountability to those responsible for the corruption

Join Us May 24th 2014



#MARCHAGAINSTMONSANTO

It's time to take back our food.
It's time to March Against Monsanto.
www.march-against-monsanto.com

Ladies and Gentlemen, Start your Gardens!

By David Daehnke



This year, more so than the previous years, it is imperative that you start your own vegetable garden. In years' past I have tried to convince you via the "Safer and no pesticides route" or "Stay away from GMO's" but this year I know I will convince more of you to garden for one simple fact: Produce costs are going to skyrocket this year. With the extended drought in California (where water usage seems to be dedicated to fracking instead of producing food), crop production will be at an all-time low, and what will make it to the market will be of lower quality. Even the media outlets are already reporting that your food bill will definitely be higher. Now there are two avenues you can take to combat the higher costs. One is to start that vegetable garden, where you will receive the greatest financial benefit. A pack of vegetable seeds cost only \$1 to \$2 and you will reap hundreds of dollars of produce from that single pack of seeds. Secondly this will make more people realize the value of their local farmers' markets. I have heard some people say that local farmers markets are more expensive than going to the mega chain supermarket. While this may have been the fact, you will see that this year the farmers' market will be cheaper. Costs shouldn't be the reason from keeping you from going to them. Their fruits and vegetables are locally grown, most times are organically grown and you are support-

ing a member of your community when you buy from them. Even more important is that the produce is fresher and packed with more nutrients than your local supermarkets. They were recently picked at proper maturity instead of being picked before maturity and sprayed with chemicals to preserve them during their trip to the supermarket. Hopefully this one paragraph has convinced you to start your garden. Now let's look at the steps to begin your new journey.

STEP ONE: PLACEMENT

If you have the available space in your yard, than mark out an area that you will dig up the turf to create your garden in an area that has full sunlight for most of the day. If this is your first time doing this, I always suggest that you keep the garden smaller than what you think you will need. Remember your eyes are always bigger than your stomach, and creating an oversized garden will just create more work and less enjoyment. You will always be able to increase the size of your garden in years to come but it will be difficult to overcome the weariness that planning too big will yield. Take your spade and remove the turf from the area and SAVE to replace any bare patches that you have. If you do not have the space, container gardening will be your best option. In the past i have used plastic and fiberglass containers for the light weight so I can move them if needed, but as I have grown older and wiser, I would suggest clay pots instead. You never know what chemicals went into the making of the plastic and fiberglass and there is the very good possibility that they will leach into your vegetables. Clay, on the other hand, will be heavier but do not contain the chemicals. An added benefits is that clay pots breathe which helps avoid over watering. This will also mean that you will need to water them more, but the plants will be healthier. When they become old and break, you can use the broken shards as drainage for new pots. No matter which type of pot you choose, always make sure that there are drainage holes in the bottom AND that you add some sort of coarse material (such as rocks or old broken clay pots) to the bottom to keep the soil from sitting in water. Pots that have drainage trays at the bottom are fine, but remember to tip the pot over 2 to 3 hours later to remove excess moisture. Even if you have a large garden you can grow your vegetables in containers for the ability to move the containers from one location to another in your landscape beds. Think of them as portable annuals, bringing color and texture to your bare spots.

STEP TWO: SOILS

I was taught very early in my horticultural career that "Dirt is what is under your finger nails, but soil is a living, vibrant medium". What we want in our gardens is a soil that is full of beneficial bacteria and microscopic insects that will breakdown any organic materials and convert it to nutrients. Adding organic materials such as cow manure, humus or compost are one of the items that will help you have a successful and bountiful garden. I would love to think that everyone has a compost pile in their yard somewhere, or at the very least a compost bin (most municipalities have a program of giving each resident a compost bin to help offset their waste costs, so check with yours). Being a realist I understand that not everyone does, so you can purchase cow manure or compost through your local garden center. The bad news is you don't know what is in that purchased compost unless it states it is organic or you purchase it through a company such as Gardens Alive (www.gardensalive.com), which sells bagged compost. When purchasing online, realize that your shipping costs will be high due to weight, sometimes even as much as the compost. Even if you have an existing vegetable garden, a yearly top dressing of organic materials will only benefit your garden. For containers mix equal parts of soil and organic material.

STEP THREE: PLANTING

For those of you who will be planting a vegetable garden, I prefer the "Square Foot" gardening plan, where you will plant different vegetables in blocks in your garden. This allows for walking areas in and about the plants, while also categorizing each block. Planting this way allows you to rotate crops through the season, creating a larger harvest by seasons' end. Let's say you start with early season root crops such as carrots, beets or radishes. By the time you are completing their harvest, you can move on to the summertime crops with eggplant, tomatoes and peppers. Finally when their harvest is completed you can squeeze in a final planting of the root crops again before the cold temperatures of winter bring us inside. Remember to read the planting instructions on spacing that come with the seeds or plants. Overcrowding will only lead to smaller yields and the possibility of low air flow through the garden, which can mean more disease and insect problems. With containers you have the freedom to plant them like they were containers of annuals. You can still do a rotational planting, but with the summer vegetables I

like to get creative. In the center of the pot plant your tomato or pepper, then along the edges plants an herb that compliments the vegetable. I personally love tomato, basil and mozzarella sandwiches, so I make sure to plant smaller varieties of basil along the outside edges of the container, sort of my one stop shopping when I am harvesting. I will also plant small-leaved creeping scented geraniums in some pots to add a little color and fragrance if the container is on my back patio or by a door. So be creative and find out what combinations excite you!

STEP FOUR: WATER AND FERTILIZING

Watering is the single most important item you can do once the vegetables are planted. All plants need 1 inch of water per week to sustain them. Instead of purchasing a fancy water gauge to measure how much water has fallen through rain, I simply use a small tuna fish can, which measures approximately 1 inch from bottom to top. Just lay the container on top of the soil and check it once a week. (Please make sure to completely clean and wash the can before using. If not it will only attract animal visitors to your garden). Now the amount of watering will be dependent on the season. In spring and fall when the temperatures are cooler and rain is more prevalent, the need for watering will be minimal. During the hot and dry days of summer, you may find yourself watering the gardens and containers 3 to 4 times per week since the water will evaporate quickly from the soil. What you want to try to accomplish is a soil that is evenly moist throughout the week and avoiding periods of excess moisture to parched arid soil. This bell curve type of soil will put the plants into stress and minimize your harvest. Often times I hear from gardeners that they "water once a week". Since you have seasonal changes, that can be either too much or too little. Use the human soil moisture gauge: your fore finger. Plunge your finger into the soil and see if it feels moist or dry. That will be your best way to see if you garden or container needs moisture, I tend to upset people when it comes to fertilizing, because my philosophy is if you have a healthy soil full of organic material, the plants will have as much nutrients as they need. If it makes you feel better you can always top dress the soil with some compost or sprinkle some organic 5-10-5 fertilizer, but that is as far as I go. When you use the chemically synthesized fertilizer (you know who I am talking about) that are high in nitrogen, you will create excessive green growth at the cost of the

cost of the vegetables and with the excessive growth you will cause the plant to stress because the roots cannot keep up with the water and nutrient requirements of the top growth. Remember the top equals the bottom, so as much as the plant has green growth, there needs to be equal root growth to sustain the plant.

FINAL TIPS

In most areas you will need to fence in your vegetable garden to keep the furry critters out. I prefer to use chicken wire as compared to other garden fencing since it will also keep out chipmunks. Remember to put at least a foot of the fencing into the ground to prevent tunneling under the fence. Finally there is a product available for containers called root watering crystals. These crystals will absorb moisture when it is present and slowly release it back into the soil as it is needed. Since these crystals are made from polymers, I do not use them in containers where I will be eating either the foliage or vegetables. I want my produce to

taste as good as it can and try to avoid any substance that can leach not only into the soil but also the plants... Don't get me wrong, these root watering crystals are a benefit to annual and perennials that you have in a container, just not for vegetables.

Hopefully this story will motivate you to start your own "produce factory". You will know that your vegetables are grown without pesticides, without GMO's, and will taste the best that you have ever eaten, simply for the fact you grew them yourself. In the fall I would love to see your pictures on your successes and possibly failures, so we can educate others through the learning process you have gone through. Remember gardening is a learning experience, and even "expert" gardeners are always learning something new each and every year. So send us your photos and maybe we will post a few of them in the magazine!



The Different Ways To Setup A Worm Farm For Your Organic Garden

By Lynda Dillman

Having an organic garden is a great way to produce fresh chemical free vegetables to feed your family and friends. When growing organic vegetables the success results can differ from each gardener due to a number of factors.

One main reason why beginner gardeners don't grow healthy vegetables is because the soil they use doesn't have enough nutrients for the plants. In order to enrich the soil a lot of gardeners add some compost to the soil.

An easily way that any gardener can produce their own compost is setting up a worm farm in their home. The compost produced by the worms can be used to grow healthy organic vegetables.

Worms are wonderful, they naturally take great care of the soil and make it richer and more aerated than it would otherwise be. Worms may be wriggly and slightly slimy, but the world and our gardens are a much richer place because of the hard work they do.

Worms naturally break up the soil, and consume an incredible amount of organic material, in fact as much as half their body weight every single day!

Setting Up Your Worm Farm

If you would like to buy a worm farm, you will find there are a lot of different worm farms for sale. There are so many different types, you might not know where to start looking. If you would like to add a unique touch to your new worm farm, you may want to think about making it yourself. It's quite an easy thing to do, and it involves a bit of time and effort, and using some recycled materials that would have found themselves in a scrap heap somewhere.

Using A Plastic Crate

If you have, or you can get your hands on a nice plastic crate, you could potentially use this for your worm farm. Any plastic crate that comes with a lid is ideal, but you will need to drill some air holes into it. Once you have drilled the holes, make sure you fit a tap to the bottom of the crate so you can drain out the fertilizer

once it has been made. This fertilizer is wonderful and will work well on your garden once it has been diluted. Ideally about 1 part fertilizer to 10 parts of water should be sufficient, and can be added to your plants via a watering can.

Using A Styrofoam Box

If you consider yourself to be 'Green', you'll no doubt be very aware of the fact that Styrofoam lasts a very long time. This is a great reason to use a Styrofoam box as a worm farm, rather than placing it in the trash. What's more is this hardy material is a great insulator and is therefore ideal if you want to keep your worms nice and warm during the colder months. Although you should still make sure your worms are warm enough during the winter, a Styrofoam box will make them a little cozier.

Using A Tire

If you happen to have a spare tire hanging around the place, you may be interested to know it can be used as a worm farm. Tires are ideal because they last long and can form a solid structure that your worms are sure to love. A tire sat on bricks and wood with holes drilled into the tire so the liquid escapes is perfect. A small tub placed under the holes ensures the liquid fertilizer is caught. Place an old trash can lid or piece of wood on top of the tire so it can be used as a lid.

Using A Bin Or A Barrel

It's incredibly easy to make a worm farm from an old bin or even a barrel. As with a farm made using a tire, the bin or barrel need to be built on a raised platform so it can sit there quite nicely away from the ground. You should also ensure there are plenty of holes made so the liquid is able to escape.

Using Wood

It's very easy to get your hands on some unwanted wood, and you may know someone who wants to get rid of a pile. Worm farms can easily be built using wood, as it's easy to construct a box shaped farm, just make sure you create a hinged lid, or one that can easily be lifted off.

Worm farms can be built out of wood, in box form, with a hinged or lift off lid. A number of gardeners

owning a farm use wood to construct one.

Using A Pathway

If you are lucky enough to have an old pathway you don't use very often, you could potentially turn it into a worm farm. All that's required is for you to place down some fruit and vegetables scraps, before adding the worms and covering them up with some sort of organic material. If there's a chance someone may decide to use the pathway, you may want to place some unwanted pallets on top of the worms so they are not crushed when the pathway is used.

In order to maintain the pathway, you should dig up the compost and add it to your garden, doing this just twice a year will ensure the compost is lovely and rich. If you would like to place plants in the area where the worm farm is going to be, then planting seeds is ideal as the amazing fertilizer will do your plants wonders.

Creating A Free Range Worm Farm

The idea of creating a free range worm farm may seem somewhat bizarre, but it's one that is definitely worthwhile. The idea is that you place any type of container

you wish into your garden and allow your worms to come a go as they please. This means your worm farm is completely free range as the worms will have the ability to travel as far as they want, and stay either in or out of the worm farm you have created for them.

If you want to create a free range worm farm for them, make sure you make enough drainage holes so the lovely fertilizer is able to drain out with ease. When this is done, make sure you continuously place kitchen scraps into the buckets so your worms have plenty to eat.

Garden Composting Success

Once you have kept a worm farm for a few weeks, you will begin to see how good they are at breaking down your compost and making it fine a beautiful. It will then be perfect for putting on your garden. You may wish to dig your worms out now and again and place them in some more compost, but ideally you should leave them be and keep adding compost and using the liquid fertilizer on your garden.

Lynda Dillman writes about 'Worm Farming' and helps home owners in being successful with their worm farm at his blog, [Worm Farming For Beginners](#).



The Farmer's Garden is an online place to make in-person connections between gardeners across the US. Gardeners and want-to-be gardeners can search and post free classified ads to share excess homegrown produce, tools, or gardening space with people in their area.

Building Community, One Tomato at a Time™

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Mason Jar Meals: “Fast Food” for Preppers

By Daisy Luther

I’ve mentioned this before, but it bears repeating – canning is the perfect way to provide “fast food” for preppers.

Last night we got home from 2 days of traveling. We were tired and hungry. It was so nice to pop a lid off a jar and heat up a tasty, nutritious and filling meal in less than five minutes, without worrying about all of those nasty additives that a store-bought can of soup would contain. The instant gratification from a home-canned meal is wonderful on a day that you just don’t feel like cooking, and invaluable when disaster strikes and you are unable to use your usual methods of preparing a meal.



You can preserve your own recipes easily – find the guidelines [HERE](#).

Canning meat – [HERE](#).

Canning beans – [HERE](#)

Soups, stews and [chili](#) can help you quickly produced a well-balanced meal. Click the preserving tab at the top of the page for more recipes.

Some meals need only a quickly boiled carbohydrate like rice or pasta to make a satisfying meal at the drop of a hat – here are 3 tried-and-true canning recipes to enjoy...

Hungarian Goulash

Ingredients

4 pounds of stewing meat (beef, pork, etc.)
4 tbsp of REAL Hungarian paprika (must be the real stuff for an authentic flavor)
2 tsp of dry mustard
Salt and pepper to taste
4 onions, quartered
4 cloves of minced garlic
1 tbsp of olive oil
4 carrots, sliced into coins
6 potatoes, diced
2 bell peppers, diced
1 can of tomato paste
½ cup of red wine vinegar
Water as needed

Directions

In a bowl, mix Hungarian paprika, dry mustard, salt and pepper.

In a large stockpot, heat olive oil and begin to sauté your onions and garlic.

Dip your stewing meat in the spice mixture, then place the meat in the stockpot to brown with the garlic and onions. Brown lightly – the meat does not have to be thoroughly cooked.

In quart jars, layer your meat and vegetable mixture, carrots, peppers and potatoes.

Add 6 cups of water, vinegar and the jar of tomato paste to the stock pot and mix with any drippings or spices that remain after browning the meat. Bring this mixture to a boil.

Ladle hot liquid into sanitized jars over the layered contents. Use a table knife to remove any air pockets in the jars. If necessary, top up with water, allowing 1 inch of head space.

Lid the jars and process in your p-canner for 90 minutes at 10 pounds of pressure, based on altitude.

SERVING SUGGESTIONS: When heating your goulash, whisk in 1 tbsp of flour in order to thicken the sauce. Once it is hot, stir in a half cup of sour cream or yogurt and heat only until the sour cream is warmed through.

Serve your goulash over egg noodles, potatoes, spaetzle or dumplings and don’t forget a side of fresh sour dough bread!

Beef Stroganoff

Ingredients

3-4 pounds of stewing beef or sliced sirloin
2 onions, finely chopped
4 cloves of garlic, finely chopped
4 cups of mushrooms, sliced
1 tbsp of butter
2 tbsp of Worcestershire sauce
Salt and pepper to taste
Water to deglaze pan

Directions

In a large stockpot, sauté beef, onions, garlic and mushrooms in butter until lightly browned.

Stir in Worcestershire sauce and enough water to deglaze the stockpot. Use a metal utensil to scrape the bottom of the pot to loosen the flavorful pieces there.

Add 1 cup of water and stir well, bringing to a boil.

Ladle the stroganoff into sanitized jars, distributing the sauce evenly across the jars.

Lid the jars and process in your p-canner for 90 minutes at 10 pounds of pressure, based on altitude.

SERVING SUGGESTIONS: When you are ready to serve the beef stroganoff, stir 1 cup of sour cream or plain yogurt into the heated sauce. Serve this over rice or noodles.

Chicken Cacciatore

The rich herbed tomato sauce and the tender chicken will not last long on the pantry shelves – as soon as you serve one jar of it, your family will beg you to make it again!

To make life even simpler, this is a raw-pack recipe!

Ingredients

3 pounds of boneless chicken, cut into bite sized pieces (a mix of breasts and thighs is nice)
2 cups of red and green peppers, cut into chunks
2 cups of onion, cut into 8ths
2 cups of mushrooms, sliced
4 cloves of garlic

4 cups of diced tomatoes, with juice
1 bottle of red wine
2 tbsp of oregano
2 tbsp of basil
2 tbsp of thyme
Salt and pepper to taste

Directions

Layer chicken, peppers, onions, mushroom and garlic in quart jars.

In a large stockpot bring wine, tomatoes, and herbs to a boil. Ladle hot liquid over the layered ingredients in your sanitized jars.

Lid the jars and process in your p-canner for 90 minutes at 10 pounds of pressure, based on altitude.

SERVING SUGGESTIONS: When preparing the cacciatore, stir in a small can of tomato paste when heating to thicken the sauce. Serve over pasta, with a side of garlic bread.



Daisy Luther is a freelance writer and editor. Her website, [The Organic Prepper](http://TheOrganicPrepper.com), offers information on healthy prepping, including premium nutritional choices, general wellness and non-tech solutions. You can follow Daisy on [Facebook](https://www.facebook.com/daisy@theorganicprepper) and [Twitter](https://twitter.com/daisy@theorganicprepper), and you can email her at daisy@theorganicprepper.ca

How to Read a Seed Catalog

By Maureen Farmer

Even if you live in an area where the ground is covered with snow during the winter months, it's still a great time to be a gardener. How can this be? The answer is seed catalogs! It's always exciting to open the mailbox and discover a seed catalog. The pretty photographs and the interesting and delicious sounding descriptions make you forget about the snow and cold for at least a few minutes.



Seed catalogs can also be overwhelming. They're packed with information needed to help you to select the best choices for your garden.

Seed Types

Open pollinated (OP) seeds are genetically stable. This means that if you save seeds from the plants these seeds produce, the child seeds produce another plant with most of the same characteristics as the parent plant. They are often more flavorful and suitable for certain growing conditions.

Heirloom seeds are from plant varieties that have been around for approximately 50 or more years. They are open pollinated.

Hybrid seeds are created by cross-pollinating two different plants of the same species. This is done because both varieties have one or more beneficial characteristics and combined they create a much more desirable plant. Hybrid seeds are often labeled F1 or F2. This means they are first or second generation offspring of their

parent plants. Hybrids are sometimes bred to be more disease resistant. Saved seeds may not produce plants with same characteristics as the parent plant.

Organic seeds may be either open pollinated or hybrid and are grown on a certified-organic farm. They have not been treated with any pesticides or coated with any chemical compounds that prevent rotting or premature sprouting. They also may not be genetically modified.

Pelleted seeds are tiny seeds that have been coated with an inert material (often clay) to make it easier to plant them in a more uniformly dispersed pattern. The coating dissolves when the seeds are watered. Pelleted seeds may or may not be organic.

Treated seeds are dusted with a chemical fungicide to prevent damping off disease after they've been planted. Treated seeds are not organic.

Codes

- * AAS - Past All American Selection winner
- * VFN - Resistant to verticillium wilt, fusarium fungus and nematodes
- * M or MV - Resistant to mosaic virus
- * Other codes or icons may indicate cold tolerance or a good container plant. Seed catalogs usually contain a reference key to the meaning of the icons or codes they use.

Weather Tolerance

The description may include cold tolerance or resistance to bolting. Choose cold tolerant varieties if you live in an area with a short growing season. Bolt resistance varieties will allow you to harvest vegetable crops like lettuce and other leafy greens further into the hot summer months.

Another weather related icon, typically a circle, is the amount of sunlight a plant needs. An open (uncolored) circle means that the plant needs full sun. Full sun means six or more hours of direct sunshine each day. A circle that is half shaded indicates that the plant needs partial shade (three or more hours of direct sunshine) conditions to thrive. A fully colored circle indicates that this is a shade plant.

The hardiness zone is also likely to be listed in a catalog or on a seed package. It may be listed as a range or as the lowest (coldest) numbered zone in which the plant

will grow. This is important when determining if a plant will act as a perennial or an annual in your climate.



Days to Maturity

The number of days to maturity is usually the approximate number of days between sowing and harvest. Occasionally, it's the number of days between transplanting and harvest. This is especially important when selecting vegetable or herb seeds. The description should help you determine which maturity case the seed company is referring to. This number is used to deter-

mine if you have a long enough growing season for this variety and when to sow your seeds in your planting and harvest schedule. This number is an average and the actual maturation time will vary each year depending on weather, growing conditions and the nutrient levels in your soil.

When purchasing vegetable or herb seeds, grow what you eat. Grow what you or your neighbors have had success with in the past. Also try something new and see what happens. Add a few new flower varieties to your garden too. Seeds are inexpensive, so have fun experimenting this year.

Maureen Farmer is master gardener and the founder of The Farmer's Garden website (www.thefarmersgarden.com). The Farmer's Garden is an online place to make in-person connections between gardeners across the US. Gardeners and want-to-be gardeners can search and post free classified ads to share excess homegrown produce, tools, or gardening space with people in their area. Food banks and individuals can post wanted classifieds for surplus items. She is an avid gardener, horticultural professor and former Board member of Urban Oaks Organic Farm in Connecticut.



*We believe in a world of **healthy soil, seed, food and people**. Everyone has a **fundamental need for vibrant food and health**, which are interrelated.*

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Polytunnel vs Greenhouse?

By Janine Pattison

Once the growing bug has bitten you and you have enjoyed some success with producing plants, vegetables, salad crops and herbs outdoors in your garden, you might like to start thinking about investing in a structure so that you can extend the growing season. A structure like a greenhouse or a polytunnel will allow you to start the season much earlier and will allow plants to keep growing much later into autumn. The earlier start will let you begin sowing seeds well before conditions allow in the garden and will also free up all those windowsills in your house which are normally full of seed trays and propagators from February onwards. Being able to potter about during poor weather under cover is a huge bonus and you could use it to overwinter tender plants.



Your two main choices for protected growing are between a greenhouse or a polytunnel. Both of these structures will give you valuable space to grow all sorts of crops and plants, but which is best? Well they both have a wide range of advantages and disadvantages over each other and so I thought it would be useful to compare

and contrast your two options to help you decide which might be best for your needs.

Before you go too far with the process, check whether you need planning permission for a greenhouse or polytunnel. Usually they are classed as temporary structures and don't need permission but check first to avoid problems later.

Firstly you need to consider where to site the structure. Greenhouses can be quite attractive and usually being smaller than polytunnels are easier to screen. Most people wouldn't want a polytunnel to be the focal point of their garden. An open and sunny site is best for both structures. You will need to get access all around it for maintenance - either clearing up leaves in the autumn or washing the glass/plastic to improve light levels in the winter. A large fence or hedge in close proximity is best avoided as well as overhanging trees. The excess shade will reduce light levels and hinder the growth of your plants. The tree roots will also compete for moisture and nutrients too.

The area you choose should be as level as possible to make installation easier. A greenhouse needs to be on a completely level base while a polytunnel can be installed on a sloping site if necessary. Greenhouses are best orientated East/West and need to receive direct sun for a good portion of the day. Site the door on the side away from the prevailing wind. Afternoon sun can raise the temperature too high in a greenhouse so consider automatic window openers or install temporary shade netting if required. Polytunnels work best if they are orientated North/South as this seems to regulate the inside temperature better. This orientation will also offer the long side to the prevailing wind.

In terms of size, the advice is to always go for the largest that budget allows and the site can accommodate. Growing undercover is addictive and it is amazing how much space you can fill with your favourite plants. Polytunnels work out much cheaper per square metre of growing space and are suitable for high output growing. You can harvest rainwater easily from the roof of a greenhouse but it is more difficult to do that from a polytunnel. Both structures would benefit from having a tap installed and an automatic irrigation system will reduce the workload during the growing seasons.

Greenhouses are usually best erected by the supplier - they are doing this day in and day out and will make it look easy. It isn't! Handling heavy glass is dangerous work and best left to the experts. Polytunnels are a much better option for the DIY route - make sure you have enough people to help and do it on a warm, still day. It will be more comfortable for the team and the plastic covering will be easier to manage and less likely to be damaged.

Greenhouses are available in a variety of materials and these all have an effect on the cost, appearance and lifespan. A good quality greenhouse should last 25-30 years with minimal maintenance. The polytunnel structure should have an almost indefinite life while the plastic cover will need replacing perhaps every 5 years. There are various options of cover to choose from depending on budget and type of growing being done.

The important things for you to weigh up are:

Appearance	Location
Size	Productivity
Cost	Lifespan

I hope this offers some useful guidance for this important decision. Happy growing!



Janine Pattison MSGD is an award-winning UK garden designer and horticulturalist who trained with English Heritage at Eltham Palace in London and at Kingston Maurward College in Dorchester. A Registered Member of the Society of Garden Designers, the British Association of Landscape Industries and the Garden Media Guild, Janine is also a highly qualified RHS horticulturalist. Her practice is fast gaining a reputation for creating stylish, contemporary gardens often on difficult sites.

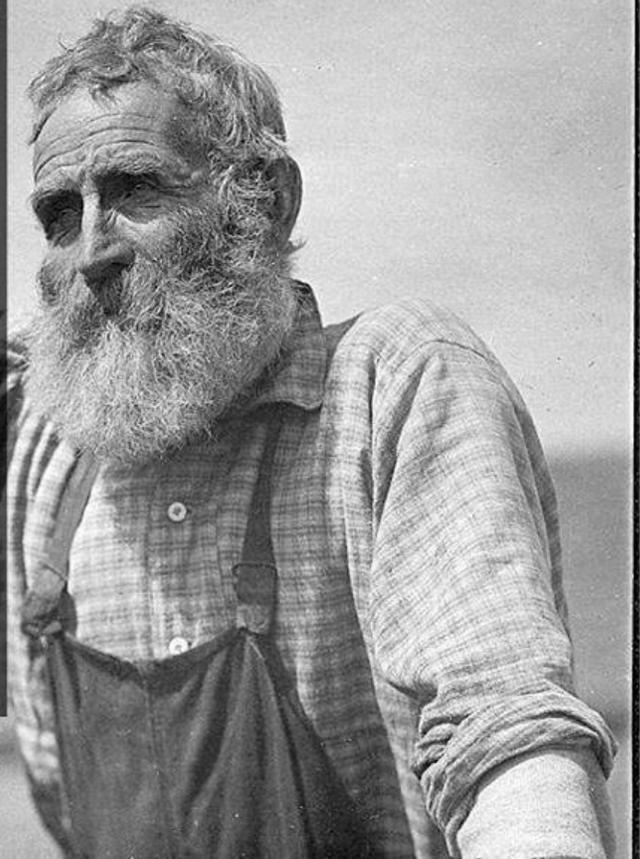
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My grandfather used to say that once in your life you need a doctor, a lawyer, a policeman, and a preacher, but every day, three times a day, you need a FARMER.

~ Brenda Schoepp

/GROWFOODNOTLAWNS



Artemisia- Herb of the Year 2014

By Cindy Meredith

The International Herb Society chooses an herb to be the Herb of the Year each year. The hope is that the chosen herb will become more well known and studied, due to its prominence. This year it's Artemisia, a large, diverse genus of plants with between 200 to 400 known species belonging to the daisy family, Asteraceae.

Artemisia is in the daisy or Asteraceae family. It is one of over 350 species in that large family of plants. It comprises hardy herbs and shrubs known for their volatile oils. They grow in temperate climates of the Northern Hemisphere and Southern Hemisphere, usually in dry or semi-dry habitats. The fern-like leaves of many species are covered with white hairs. Common names used for several species include mugwort, sagebrush, sagewort, and wormwood, while a few species have unique names, notably Tarragon (*A. dracunculus*) and Southernwood (*A. abrotanum*). Occasionally some of the species are called sages, causing confusion with the *Salvia* sages in the family Lamiaceae. Most species have strong aromas and bitter tastes from terpenoids and sesquiterpene lactones, which exists as an adaptation to discourage herbivory. The small flowers are wind-pollinated.

The aromatic leaves of many species of Artemisia are medicinal, and some are used for flavoring. Most species have an extremely bitter taste. Wormwood has been used medicinally as a tonic, stomachic, febrifuge and anthelmintic- to destroy parasitic worms- hence the term 'wormwood' One species, *Artemisia annua*, has been used and is still used to fight malaria.



Artemisia vulgaris (mugwort or common wormwood) is one of several species in the genus Artemisia which have common names that include the word mugwort. This species is also occasionally known as Felon Herb, Chrysanthemum Weed, Wild Wormwood, Old Uncle Henry, Sailor's Tobacco, Naughty Man, Old Man or St. John's Plant (not to be confused with St John's wort).

Native to temperate Europe, Asia, northern Africa and Alaska, it is naturalized in North America, where some consider it an invasive weed. It is a very common plant growing on nitrogenous soils, like weedy and uncultivated areas, such as waste places and roadsides. It is a tall herbaceous perennial plant growing 3-6 feet tall, (occasionally taller), with a woody root. The leaves are dark green, found in pairs along the stem, with dense white hairs on the underside. It flowers from July to September.

The Mugwort is closely allied to the Common Wormwood, but may be readily distinguished by the leaves being white on the under-surfaces only and by the leaf segments being pointed, not blunt. It lacks the essential oil of the Wormwood. Mugwort oil contains thujone, which is toxic in large amounts or under prolonged intake. Thujone is also present in *Thuja plicata* (western red cedar), from which the name is derived. Mugwort herb contains a very small percentage of oil, so is generally considered safe to use. Pregnant women, though, should avoid consuming large amounts of mugwort. The species has a number of recorded historic uses in food, herbal medicine, and as a smoking herb.

Uses in the Middle Ages

In the European Middle Ages, mugwort was used as a magical protective herb. Mugwort was used to repel insects, especially moths, from gardens. It has also been used from ancient times as a remedy against fatigue and to protect travelers against evil spirits and wild animals. Roman soldiers put mugwort in their sandals to protect their feet against fatigue. The leaves and buds, best picked shortly before the plant flowers in July to September, were used as a bitter flavoring agent to season fat, meat and fish. Mugwort was also used to flavor beer before the introduction of or instead of hops- indeed the common name 'Mugwort' refers to its use in beer.

Medicinal

The mugwort plant contains essential oils (such as cineole, or wormwood oil, and thujone), flavonoids, triterpenes, and coumarin derivatives. It was also used as an anthelmintic- to destroy parasitic worms, so it is sometimes confused with common wormwood, *Artemisia absinthium*. The plant, called nagadamni in Sanskrit, is used in Ayurveda for cardiac complaints as well as feelings of unease, unwellness and general malaise. Since it also causes uterine contractions, it has been used to cause abortion.

In Germany, known as Beifuß, it is mainly used to season goose, especially the roast goose traditionally eaten for Christmas. Mugwort or yomogi is used in a number of Japanese dishes, including rice cakes and bean cakes.



Yomogi Daifuku (Japanese Mugwort flavored mochi with sweet red bean filling)

In some regions of Japan, there is an ancient custom of hanging yomogi and iris leaves together outside homes in order to keep evil spirits away. It is said that evil spirits dislike their smell.

The juice is said to be effective at stopping bleeding, lowering fevers and purging the stomach of impurities. It can also be boiled and taken to relieve colds and coughs. I have grown yomogi from seeds purchased at [Kitazawa Seed](#), a wonderful seed source for Asian herbs and vegetables.

Allergen

Mugwort pollen is one of the main sources of hay fever and allergic asthma, in North Europe, North America and in parts of Asia. Mugwort pollen generally travels less than 2,000 meters.

The highest concentration of mugwort pollen is generally found between 9 and 11 am. Cooking is known to decrease the allergenicity of mugwort.



Artemisia absinthium (Absinth Wormwood, Common Wormwood)

Wormwood was used to repel fleas and moths, and in brewing (wormwood beer, wormwood wine). The aperitif vermouth (derived from the German word Wermut, "wormwood") is a wine now flavored with aromatic herbs, but originally with wormwood.

The highly potent spirit Absinthe also contain wormwood. Absinthe was highly intoxicating and addictive due to thujone. Currently Absinthe is being distilled with wormwood from which the thujone has been removed. The beverage is still alcoholic with a flavor similar to the original beverage but without the addictive properties of the earlier recipe.

What is thujone? Thujone is an organic compound found in varying ratios in different plants. Plants such as cedar leaf, sage, tansy, thyme, rosemary and wormwood are all known to contain thujone. It is believed that thujone is used in several modern products including Absorbine Jr.® and Vicks Vaporub.

Some have taken dried Wormwood, placed it inside a coffee filter to form a sort of "pod" and then placed them under furniture and such as a natural way of repelling fleas from their home.

From Mrs. Grieve's A Modern Herbal

The Common Wormwood held a high reputation in medicine among the Ancients. Tusser (1577), in July's Husbandry, says:

*'While Wormwood hath seed get a handful or twaine
To save against March, to make flea to refrain:
Where chamber is swept and Wormwood is strowne,
What saver is better (if physick be true)
For places infected than Wormwood and Rue?
It is a comfort for hart and the braine
And therefore to have it it is not in vaine.'*

Besides being strewn in chambers as Tusser recommended, it used to be laid among stuffs and furs to keep away moths and insects.

According to the Ancients, Wormwood counteracted the effects of poisoning by hemlock, toadstools and the biting of the seadragon. The plant was of some importance among the Mexicans, who celebrated their great festival of the Goddess of Salt by a ceremonial dance of women, who wore on their heads garlands of Wormwood. With the exception of Rue, Wormwood is the bitterest herb known, and used to be in much request by brewers for use instead of hops. The leaves resist putrefaction, and have been a principal ingredient in antiseptic formulas.

Historic Uses

Wormwood leaves' primary medicinal use, is to stimulate the gallbladder, help prevent, and release stones, and to adjust resulting digestive problems. Clinical studies with volunteers proved that wormwood does effectively increase bile.

It expels roundworms and threadworms. It is also a muscle relaxer that is occasionally added to liniments, especially for rheumatism. Wormwood is an extremely useful medicine for those with weak and under active digestions. It increases stomach acid and bile production and therefore improves digestion and the absorption of nutrients, making it helpful for many conditions including anemia.

It also eases gas and bloating, and if the tincture is taken regularly, it slowly strengthens the digestion and helps the body return to full vitality after a prolonged illness. Use as a weak infusion taken 2-3 times daily. Can be used as a compress for stings and bites.

Tree Wormwood, *Artemisia arborescens*, is a very bitter herb indigenous to the Middle East that is used in tea, usually with mint. In small quantities (in tea) its believed to have medicinal properties, pacifying various

kinds of digestive turmoils. In larger doses it may have some hallucinogenic properties. In Israel *Artemisia* is sometimes referred to by the name "Shiva", the Queen of Sheba.



Southernwood, *Artemisia abrotanum*

Southernwood has a strong camphor-like odour and was historically used as an air freshener or strewing herb. It forms a compact bushy shrub with small yellow flowers. The grey-green leaves are small, narrow and feathery. It can easily be propagated by cuttings or by root division. It makes a handsome, evergreen border plant.

Historic Uses

Southernwood was used to treat liver, spleen and stomach problems and was believed by the 17th century herbalist Culpeper to encourage menstruation. It is seldom used medicinally today, except in Germany, where poultices are placed on wounds, splinters and skin conditions and it is employed occasionally to treat frostbite.

Similar to Wormwood and Mugwort, its constituents have been shown to stimulate the gallbladder and bile, which improves digestion and liver functions. The leaves are mixed with other herbs in aromatic baths and is said to counter sleepiness. An infusion of the leaves is said to work as a natural insect repellent when applied

to the skin or if used as a hair rinse is said to combat dandruff.

It can be very useful when grown in a chicken run as it helps to keep the chickens in tip top condition and helps to prevent them from 'Feather-Picking' (which can be lethal as they can very quickly become cannibalistic) as it helps to prevent infestation of mites and other insects that pester chickens.



Sweet Annie, *Artemisia annua*

Sweet Annie is very easy to grow, in fact, some might even call it invasive, and it is considered a noxious weed in some places. You can try and deadhead the blooms to keep it from reseeding, but in my experience, this is very difficult because the blooms are so numerous. I love it, though, and don't mind where it comes up on its own... but then my "garden" is anything but organized and formal!

This *Artemisia* will grow in sun to shade here in Texas. It will reach a height of about 4 or 5 feet in one season. It is not particular about soil type and needs very little water once it starts to gain some size. It looks good in containers, too. In fact, some people grow it in pots and shape it for a Christmas Tree. The seeds are small, so if you purchase seed or harvest some and want to sow them yourself, just sprinkle the seed on the surface of the soil or potting medium and keep them moist. They should germinate within 2 weeks.

Sweet Annie, known in China as qing-hao, has been used in treating malaria and fever since the seventh century. Western herbalists, too, have used the plant for this purpose, and value it also for its effectiveness against diarrhea, indigestion, and certain bacterial diseases. In the past 20 years, scientists in Beijing have isolated a substance from sweet Annie (found only in this

herb) which they have used to treat quinine-resistant malaria in thousands of patients, with nearly 100 percent success. Because allergic reactions are common, medicinal use of this herb (or any herb) should be undertaken only under the supervision of a qualified health practitioner.

As you can see, the *Artemisia* family is diverse and large. There are many cultivated varieties on the market now that are garden-friendly, although they will grow quite large in good garden soil. Silver King, Silver Mound and Powis Castle are a few types of *Artemisia* easily found at garden centers. Here's a brief description of some of the popular types of *Artemisia* offered. Why not celebrate the 2014 Herb of the Year by planting an *Artemisia* in your garden this year?

Cindy Meredith is the owner of The Herb Cottage, a rural nursery in Lavaca County, Texas. In business since 1998, Cindy has a wide range of knowledge about gardening with herbs as well as using herbs in the kitchen and landscape. The dynamic web site for herb and plant lovers is a handy source for growing information for Texans and other folks who live in hot, humid climates like ours.

The monthly newsletter from theherbcottage.com is full of information about herbs, herb growing and using herbs in everyday living.

Cindy loves to talk herbs, gardening and especially- gardening with herbs.

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Food For Body *AND* Mind

By *Luciane Macalan*

This is my second article to Organic Gardens Today magazine. In my first one, I wrote about how I grew up and how my journey took place from a simple life growing up in Porto Alegre, Brazil - where my food habits were developed- to traveling and living in Europe escaping to Hawaii in order to cure a broken heart (that I will leave for another story) and finally moving to the New York/New Jersey area.

I did mention in that article that Hawaii played a big role in how I look at organic foods and the whole culture of taking care of the body. I don't think one can ever separate food from both the body and mind. We can eat health food and choose organic ingredients, but if our minds are filled with inorganic thoughts then all our bodies and attitudes will have a direct impact from it. I do believe in the correlation that good thoughts and a good attitude have to taking better care of our bodies and having a better understanding of life in general. That brings me to the way I intend on breaking up this article: for the mind and for the body.

Let's start with food for the body.

Spring is coming and there is no better way to start it off than with a healthy diet of fresh juices that can cleanse us and take some of the toxics of the heavy winter foods out of our bodies and bring us some good vibrant energy.

For the LORD your God is bringing you into a good land of flowing streams and pools of water, with fountains and springs that gush out in the valleys and hills. It is a land of wheat and barley; of grapevines, fig trees, and pomegranates; of olive oil and honey. It is a land where food is plentiful and nothing is lacking. It is a land where iron is as common as stone, and copper is abundant in the hills. When you have eaten your fill, be sure to praise the LORD your God for the good land he has given you.
(Deuteronomy 8: 7, 9,10)

I am neither a preacher nor an expert on the Bible but a few years ago I decided to take a peek at what God says about food. I found several verses and this one sparked my interest because it talks about the promise land. Why would God mention certain types of food specifically? I think mostly because it is good for us, if not essential.

Let's explore a few.

Water

When we consider that body is made up of over fifty percent water, it is hardly surprising that we need to drink regularly to keep our bodies functioning well. Adults lose almost 3 quarts of water every day. This liquid must be replaced. In fact our bodies can survive longer without food than water.

Drinking a sufficient amount of water is necessary to bulk our waste products in the bowel to prevent constipation and subsequent bowel movement. It is also needed to flush toxins out through the skin in the form of sweat and through urine to prevent irritation to the kidneys or bladder.

I recommend several glasses of water during the day, or fresh squeezed juices. If you are a coffee drinker like me, drink extra water to compensate the dehydration effect that coffee can have.

I have a few juice recipes that combine benefits for your body and your taste buds. Buying a good juicer will come in handy and will definitely be money well invested.



Grape, Pineapple and Lemon

- Two cups of green or pink grapes.
- Half of a fresh pineapple (please never from the can)
- Half a lemon

The health benefits of grapes include their ability to treat constipation, indigestion, fatigue, kidney disorders, macular degeneration and the prevention of cataracts. Grapes, one of the most popular and delicious fruits, are rich sources of vitamins A, C, and B6 in addition to essential minerals like potassium, calcium, iron, phosphorus, magnesium and selenium.

Grapes contain flavonoids that are very powerful antioxidants, which can reduce the damage caused by free radicals and slow down aging. Grapes, due to their high nutrient content, play an important role in ensuring a healthy and active life.

Remember God spoke about grapevines therefore I believe grapes and berries (raspberries, blackberries, blueberries are from the same family) and a must to include in our diet.

Carrot, Apple and Beet

- 5 whole carrots
- 1 apple
- ½ beet



Beets are high in many vitamins and minerals such as potassium, magnesium, fiber, iron vitamins A, B & C;

beta-carotene, beta-cyanine. These are but a few of the many nutrients, vitamins and minerals that can be found in beets and beet greens. They are a wonderful tonic for the liver, works as a purifier for the blood, and can prevent various forms of cancer.

I do believe the old saying to be true that one apple a day keeps the doctor away.

Carrots have numerous benefits. They are diuretic, stimulate the appetite and enhance the secretion of digestive juices. It makes a good remedy for colic, flatulence, colitis, intestinal infections and more. It has antiseptic properties and helps to prevent and treat bacterial and viral infections.

Green Cleanse

- 2 cucumbers
- 2 or 3 celery stalk
- ½ apple
- ½ lemon
- 1 handful of spinach

For this purifying drink, I choose cucumbers instead of kale because of their cooling and cleansing properties that help with inflammatory skin conditions. It is full of water to flush our system and cucumbers make a good remedy for arthritis and gout.

Now for some food for the mind.

As my understanding of food grew, so did my understanding of human behavior. Like Jim Rohn once said. "Formal education will make you a living; self-education will make you a fortune." I find the job of looking inside and learning who we are and what triggers us to do what we do is one of the biggest challenges in life. We can't change others but we can change ourselves.

My experiences in Hawaii played a huge role in my discovery of organic foods and allowed me to look inside myself and find the spiritual aspects of it. Spirituality deals with our relationship with that which is beyond us as individuals. This is a relationship with something greater than we are and is a very personal inner journey.

In the old days, organic food was mainly associated with hippies. The hippie movement basically rejected materialism. Hence they sought spiritualism of both Eastern Mysti-

cism & Commune type. That's why the origin of most organic stores has a heavy association with Eastern Philosophies, ayurveda a form of alternative medicine, floral, homeopathy, etc.

In my case it was a journey of full circle that started as a child with Christianity, learning about eastern philosophies, marrying an Israeli man and converting to Judaism and finally back to the Christianity. I just found some of the bible verses so practical and easy to meditate on it. The bible talks about food, money, love, hardships, stories of perseverance, trials and debt. Can you believe God even talks about debt?

Every individual has their own journey to fulfill, and in the last few years I had my share of stresses and difficulties to overcome but I found some of those verses bellow very inspiring and full of truth.

[Philippians 4:6](#)

Don't worry about anything; instead, pray about everything. Tell God what you need, and thank him for all he has done.

I thought the nature of we human beings is to think, try to figure things out and yes, worry. As I grow in years I find that I am getting wiser not older (I will always be a kid at heart) and I'm discovering that worrying is like a rocking chair. It keeps us busy but doesn't take us anywhere.

[Proverbs 12:25](#)

"Worry weighs a person down; an encouraging word cheers a person up"

Worry is the opposite of faith. Worry prevents us from enjoying the moment. We are so preoccupied with what will be or should be that we fail to enjoy today, what is all we have. It is already proven that stress and worry is the number one cause of many sicknesses. But how do we stop worrying or giving in to anxiety?

Here is the best recipe I have come up with:

- Practice taking 5 min ever morning to sit or kneel and thank God for another day. Remember gratitude opens doors and complaints close doors.

- Practice deep breathing at least twice a day, specially when worries comes. The root of anxiety is fear and worry.

- Create an inventory of good sweet moments, good things that happened whether in nature, in your personal life, pictures, good movies that inspired you or anything good that was kept vivid in your memory.

- Say out loud when worries grips in 'I refuse to play this broken record again and again.'

- Once the broken record starts to play immediately take out of the file one of the sweet moments and focus on that image, event, movie or person.

This is an exercise. Just like a muscle, the replacement of continual worrying thoughts with sweet good thoughts needs to be built up; Winston Churchill said: *"Success consists of going from failure to failure without lose of enthusiasm. You may fail a few times but perseverance will lead to a more worry free life"*.

Finally I do believe that a good amount of prayer can't hurt anyone. Ask and you shall receive.



Luciane Macalan is the owner of Porto Alegre Cafe in Ramsey, New Jersey. I am a mother of 3 children and one just left for college. I live in New Jersey and most recently I am trying to teach people not only about healthy eating but coach about health ways of thinking and living our lives. Please follow me at:

Lucianemacalan.wordpress.com

Portoalegrecafe.com

[@lucianemacalan on Twitter](https://twitter.com/lucianemacalan)

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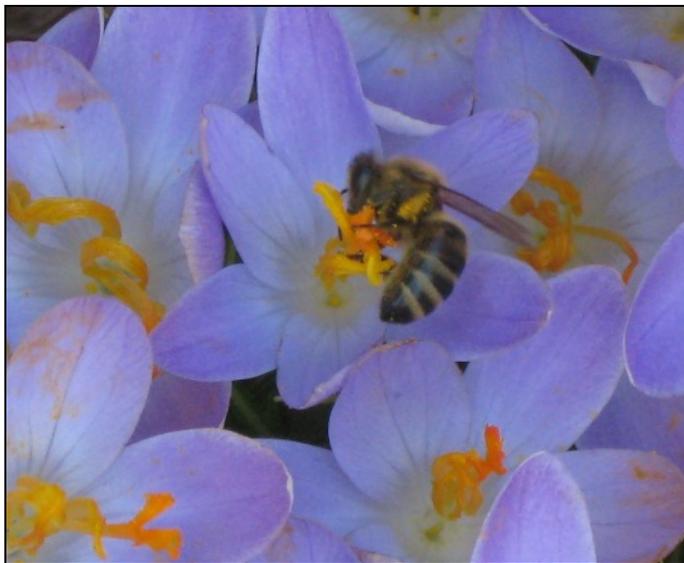
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Sweet tooth? Consider beekeeping

By Sanne Kure-Jensen



With rising transportation costs and public outcry over sugar poisoning our children, think about a natural sweetener with health benefits. Think Honey; think Backyard Beekeeping.

REALLY!

Having bees in the backyard may yield enough honey for your household, for holiday gifting and maybe a little extra to sell or barter. Bees can also increase vegetable and fruit yields and help improve local food security. Bees and honey have medicinal uses too.

Beekeeping is a great choice for people who love nature and want to reduce threats to a declining population of pollinators and contribute to global food security. As much as 70% of foods raised around the globe require insect or animal pollination. Wild and managed honeybees are threatened by shrinking habitats, diseases and increasing chemical use. Backyard beekeepers increase local food and vegetable harvests today and for our future.



Honey is a delicious, natural sweetener which never goes bad. Honey found in the Egyptian pyramids was safe and delicious after two thousand years. Honey and beeswax were used in ancient Egypt for food, medicine and even mummification. Bees were so important to their culture, one Pharaoh's title was "Bee King." The hieroglyph for Upper Egypt was a honeybee.

Many people confuse aggressive wasps or hornets, which are shiny, with fuzzy honey bees which are gentle and generally don't sting unless their home or hive is threatened. Many happy gardeners work side by side with honeybees.

A honeybee visits 50 to 100 blossoms on a typical collection flight. The bees are pollinating blooms and helping plants set fruit along the way. Apples and berries will be fuller and more symmetric when fully pollinated. Farm and garden yields can be up to 30% higher with regular visits from honeybees and native pollinators.



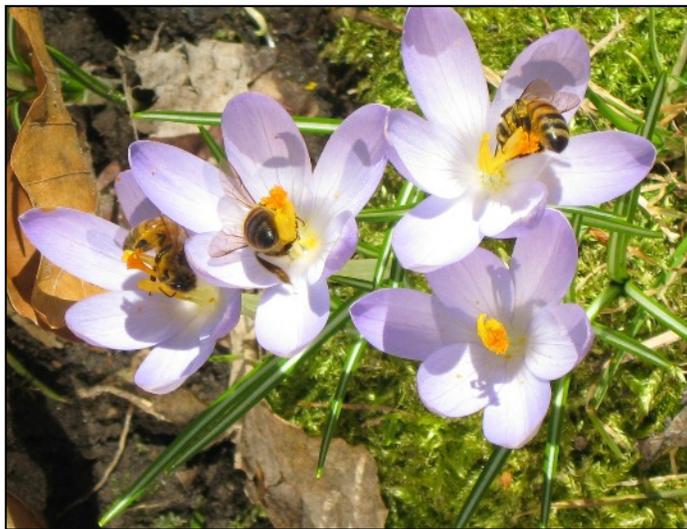
Please keep all pollinators (including butterflies and beetles) in mind when you design gardens and select plants; use high nectar value plants with a wide variety of bloom times so that pollinators don't have to starve while waiting for the next burst of bloom.

Pollinator-friendly gardens including nectar and pollen sources like Apple, Red Maple, Tulip Tree and Black Locust. You will enjoy these trees and shrubs with fruit, blooms and/or glorious fall color while your bees will love their nectar-loaded blooms: Raspberry, Blackberry, Blueberry, Sumac and Basswood. Other honeybee favorites include White Clover, Red Clover, Milkweed, Globe Thistle, Aster, Goldenrod and Dandelions.

Yes, Dandelions are among the BEST nectar sources for honeybees! Please don't poison or pull these plants from your lawns. Teach your neighbors the many benefits of growing dandelions in lawns and gardens.

Eat Your Weeds:

If you practice chemical free-lawn care, add some extra zip to your salad with a few young dandelion leaves. Traditional healers used dandelions as a diuretic, so moderation is recommended. In the early 1900s, many families made dandelion wine. For fun reading and great recipes for common weeds, see Didi Emmons' book "Wild Flavors."



My favorite use for dandelions is to let my bees work their magic and turn their yellow flowers into delicious HONEY!

Dandelions can actually improve your lawn; their long tap roots accumulate nutrients and minerals from deep in soils. When the plants die and decay, these nutrients become available to grasses and other plants.

Be sure to provide a shallow water source for pollinators and butterflies. You can use a birdbath or shallow dish with a few tapered rocks for the bees to land on whatever the water level.

Honeybees and other pollinators need food throughout the year, not just during the growing season. Honey is made as a way to preserve the bounty of a many blossoms for their long cold winter. Responsible beekeepers share these stores with their bees. At fall harvest time we leave 40 to 60 pounds of honey for the bees' winter provisions.

Honey has many uses beyond sweetening our food. Traditional healers use honey for its natural antibiotic properties in wound and burn treatments. Apitherapy, or getting a deliberate bee sting, is a traditional treatment for Rheumatoid Arthritis, Multiple Sclerosis and shingles.

Consider becoming a beekeeper or supporting one in your neighborhood! Enjoy the delicious honey, improve your garden yield, plant for pollinators, help increase global food security and share information on apitherapy. For general information, view the [American Beekeeping Federation](http://www.AmericanBeekeepingFederation.org) website or contact your local beekeeper's association.



Sanne Kure-Jensen is a regular contributor to Country Folks, Country Folks Grower and Wine & Grape Grower agricultural newspapers. She is also a successful agricultural grant writer, organic grower and beekeeper in Portsmouth, Rhode Island. An environmental advocate for more than a decade, Sanne works with non-profit boards and town committees stewarding open space, local farms, public gardens and Narragansett Bay. You may Contact [Sanne](#) with your comments and questions.

Seed Quality from Two Perspectives

By Stephen Scott



The marriage of the concepts of heirloom seeds and seed saving is not new by any means, but rather one that has been growing and gaining ground in the past several years. For some this is a welcome return to a more traditional method of agriculture, while others use heirlooms for their flavor and diversity to improve the breadth of their production and offerings to the public.

Whether you are a home gardener, small scale grower or large farmer, whether you buy all of your seeds, save some for next season or a combination, this information can help you be better informed, make better choices and buy more wisely.

Cindy and I have been home gardeners for 18 years and involved with soil restoration and rangeland improvement projects with local ranchers for 20 years. Our interest in food, especially good food, goes back a bit further than that! The appreciation for seeds and seed saving came from both our work with soils and interest and enjoyment of good food. Tasting the flavors of our garden produce sparked the interest of how to keep those characteristics that the seed produced for the future, to be able to enjoy them and share with others. Thus our seed saving education began.

Several years after taking over, refining and expanding an established family owned heirloom seed company of 20 years, we've gained knowledge from the differences and similarities in seed production and seed saving from these two different perspectives. We want to share some of these with you; along with lessons we've learned

along the way that can help improve the quality of all of our seeds. We will work from a point-to-point framework, showing the goals, concerns, differences and similarities in both types of seed production and preservation approaches.

The foundational goal is the same for both the home gardener and seed company – having a sufficient quantity of high quality seed stock of each variety needed for next year that is pure and true to type. This sounds simple enough, but in practice is not always easy to accomplish for either one.

We are approaching this from a seed quality standpoint, not just a seed saving one. Saving seed is fairly simple to do, but the results from planting those seeds can be very mixed; without a basis of understanding of seed quality, people can be disappointed and confused as to why they got the results they did. Both the home gardener and the seed company must understand seed quality to be successful in their respective endeavors.

Goals

Let's look at the goals and concerns from both points of view:

The home gardener might state the reason for saving seeds as, "Enough seeds for next year's planting, reduce the amount of seeds needed to buy, take advantage of selection and adaptation to achieve better production in our local climate." These reasons are the very roots of why home scale seed production is important on a local and regional scale. A diversity of varieties are kept alive that are simply not possible on a national scale, as some regional adaptation can only happen in a small geographical area and won't be applicable to a larger audience, but are no less important for the local people in that area.

As a seed company, our goals might be, "Produce a sufficient quantity of enough varieties and volume of seed to sell next season, introduce several new varieties, provide a wider selection for gardeners than they can produce themselves and provide a high quality standard that maintains our reputation." This reflects how the seed industry started, by offering varieties that were new, unusual or were not available in an area and offering a professional standard of germination and production that benefited the gardener and grower.

These are similar goals, but on completely different scales and for different results. Their achievement, and success, depends on how the concerns or challenges are recognized and approached. We have economies of scale as a seed company with our network of growers, but the home gardener has some advantages that we would have a hard time taking advantage of, like keeping a locally adapted regional variety alive.

There are no one-size-fits-all best solutions to the availability of quality seed. A resilient, robust and diverse seed and food economy requires home gardeners, regional and national seed exchange programs to participate alongside independent seed companies to contribute all of their unique advantages and skills. Only in this way can the full expression of the diversity and adaptability of open pollinated seeds be realized and utilized.

An obstacle for the home gardener used to be the lack of access to solid, proven and reliable seed saving information and resources. There were lots of introductory articles, booklets and classes on seed saving, but little in the way of intermediate or advanced classes, books, forums or articles for the home gardener. Thankfully, this is not the case anymore, as the internet has given the home gardener access to more detailed and advanced information.

A few examples are Seed Savers Exchange (<http://www.seedsavers.org/>), an excellent resource for the home gardener to learn from and exchange seed stock with. There are also online resources usually used by seed professionals but accessible by anyone such as GRIN, the Germplasm Resources Information Network of the USDA (<http://www.ars-grin.gov/>) and PFAF, Plants for a Future (<http://www.pfaf.org>). There are several books available that are excellent in their education of producing seeds; one is "Seed to Seed" by Suzanne Ashworth that has been one of the standards for seed production and saving for over 20 years. Another newer one is "The Complete Guide to Saving Seeds" by Robert Gough & Cheryl Moore-Gough, which covers flowers, trees and shrubs.

In addition to the above mentioned resources, as a seed company we have access to our growers and other professionals – a group of experienced food and seed producers who have learned through years of training, experience and trial-and-error how to produce the best seeds to continue the traits and characteristics of each

variety they grow. These resources are closely guarded, as a highly experienced seed grower is a very valuable resource for any seed company.

Challenges

When looking at the challenges of producing high-quality, viable seed in enough quantities for next year, both the home gardener and seed company face similar concerns. Seed quality should be the primary concern for both. Without high quality, true seed there would be too much variability in all aspects of agriculture, from seed germination, growth, health, pest and disease resistance, food production and the harvesting of more seed. The quality is achieved through proper management, isolation, harvesting and testing ensuring the viability, vigor and growing true to type of next year's seed crop.

Management methods

Management for the home gardener starts with the decision of how many plants to use for seed production as opposed to food production, which can be quite different. Ripe vegetables often have immature seeds, while mature seeds are normally found in inedible, overripe or almost rotting vegetables. Some varieties can produce both food and seed by simply letting chosen specimens ripen and mature their seeds on the vine or bush, while the rest are harvested for food, such as a perfect tomato tagged to let ripen for its seeds. Others will need to be kept solely for producing seed, such as a lettuce plant that needs to be allowed to bolt to set seeds.

Minimum Viable Population

A sufficient number of plants, called a minimum viable population, should be used to avoid a genetic bottleneck or the loss of genetic adaptability and diversity that inevitably occurs over time. Sometimes this is hard for the home gardener to do, as often there isn't enough space for the population needed while allowing for other vegetables to be grown. Our tomato example serves here, as the minimum viable population is 100 plants, way too many for most home gardeners. The rule of thumb is that outcrossing varieties such as tomatoes need 100 plants as a minimum genetic population, while inbreeding ones like peppers need 20 plants. So what is a home gardener to do?

Even modest home garden seed production often results in much more seed than one gardener will use in several years. One very effective solution is participation in member to member seed exchanges either locally, regionally or nationally. This has the dual benefit of introducing a greater amount of genetic diversity to overcome a smaller plant population from any one garden while dispensing extra seed.

As a seed company, this concern is overcome by the amount of plants needed to produce the quantity of seed for next year's sales, and most seed growers who are also food producers have separate fields for seed production, so there is no conflict with seed vs. food growing.

Isolation and Selection



To keep seed quality high, isolation and selection are both used as part of quality management. Isolation simply means keeping two similar varieties, such as peppers, from cross pollinating. Selection chooses the most desirable characteristics to save seed from, or removes undesired characteristics from the seed producing population.

Isolation methods can be time, distance or physical. The time method is simply planting two cross pollinating varieties at different times so that they aren't flowering at the same time. Distance isolation involves planting far enough apart so that the pollen or pollinators cannot reach each other. Physical barriers prevent the spread of pollen from one plant population to another by cages, pollen sacks or socks, a thorough but time and labor-intensive approach.

Home gardeners often use time isolation by either planting at different times during a growing season, or only planting one variety each season. Distance isolation can become a challenge, depending on the size of the garden or property. Usually only very dedicated seed savers will use physical barriers.

Our seed company utilizes a network of seed growers to solve the different seed crop isolation requirements. Time isolation is used by those with longer growing seasons while larger growers use the distance approach, having the needed space on their properties. Another solution is several growers producing different seed varieties at the same time. Physical isolation is used extensively when correcting undesirable traits in a variety, during grow-outs to re-introduce a new or rare variety or for traditional seed breeding and stabilization.

Selection is another aspect of quality management in seed production, with two approaches – negative and positive. Negative selection, or roguing, removes undesirable aspects, characteristics or traits from the seed producing population to maintain the established variety. An example of this is a potato-leaved tomato. Any regular-leaved tomatoes growing in the row would be removed as undesirable for that particular tomato's characteristics. Another might be the color of the flowers of a vegetable – the purple ones would be removed, as yellow is the color of the correct characteristics. Positive selection involves saving seed with desirable aspects, characteristics or traits such as a large, sweet, striped, early paste tomato. Positive selection over a period of a few years is how local adaptation can be enhanced for the home gardener, and new varieties brought onto the market for seed companies.

Both the home gardener and seed company grower would over-plant slightly to account for selection losses, and perform the selection process as part of their daily gardening and inspection activities.

Germination Testing and Trialing

Two final aspects of quality seed management are germination testing and trialing or grow-outs, which give proof of the seed sprouting quickly with lots of vigor and growth energy, growing true to type with weather tolerance, disease resistance and good production amount. This becomes “the proof in the pudding”, as it shows any weaknesses and confirms the desired characteristics of the variety being produced.

The home gardener can easily test the germination of the current crop of seed early in the winter, as most seed needs to dry completely and age a few weeks before showing the best germination. For most crops a moist paper towel in a sealed plastic bag works very well to test germination. The grow-out can be as a food crop next year, so that the production and garden space are not wasted.



saved them, the local and regional seed exchanges that helped keep them alive and the seed companies that grew them out, advertised them to a wider audience and sold them across the country.

Aunt Ruby's German Green tomato is a perfect example - grown in northern TN for over 200 years, passed to a great-grandniece, they would have been lost if they hadn't been passed to Bill Minkey who donated them to Seed Savers Exchange. They grew the seeds out, told their story and they survive today because of that collaboration. Another excellent example is that of the Concho chile from northeastern Arizona. It was grown in the tiny town of Concho, AZ for several hundred years after being traded by the Espejo expedition in 1563 to the local Hopi Indians. Around 2000 it was almost extinct with only a couple of families continuing to grow it. A local lavender farm resurrected it and shared the seeds with us, and we have helped it to reach all across North America and several other countries.

It took the effort of everyone - the gardener, the seed exchange and the seed company to keep these and many other heirlooms alive; one alone wouldn't have been able to do it. Thus is the circle of life of the seed, along with those who care for the seed.

Stephen Scott is an heirloom seedsman, educator, speaker, soil building advocate, locavore, amateur chef, artist and co-owner of Terroir Seeds with his wife Cindy. They believe in a world of healthy soil, seed, food and people. Everyone has a fundamental need for vibrant food and health, which are interrelated. They welcome dialogue and can be reached at Seeds@UnderwoodGardens.com or 888-878-5247.

We as a seed company will either have the germination tests performed by the grower so that any issues can be addressed before the seed is shipped to us, or we will perform them once we receive the seed from our smaller growers. Either way, all of our seed is tested for germination prior to being sold to our customers. Next spring's grow-out will be done either by us or the grower, depending on the grower, the seed variety and seed volume.

There are those that would argue that the heirlooms we have today are the result of families saving their seeds and passing them down from generation to generation. This is partly true, but only partly. We have the abundance of heirlooms today thanks to the families that



The Next Evolution of Organic

Our Food Should Contain All the Ingredients for Life

By Cliff Williams

This is always an exciting time of year as we begin to turn our eyes towards spring and getting started in the garden. I would like to share a new concept in gardening that is the equivalence of the Holy Grail in the search for perfect food. There is another evolution in food, a quantum leap that awaits those that seek perfection in food. Commercial agriculture is powerless to change, but organic gardeners are among the few who will be able to make this step.

There is nobody who eats better and fresher than organic gardeners, yet there is one more step. The problem holding us back lies in the fact that organic gardening has descended from the same origins as commercial agriculture, and there is one flaw that has yet to be worked out. All of our nutrition should come from plants, unfortunately, it no longer can.

Thousands of years ago a simple misunderstanding about food began and has grown into epic proportions. In a nut shell, plants provide nutrition for themselves and plants provide nutrition for humans and animals. As silly as it sounds, the real problem facing humanity is that we don't view these as separate issues. Plants have the ability to provide both for the nutritional needs of the plant and the nutritional needs for humans and animals, even though the two are different. Most people have never considered this difference, which is why agriculture and home gardeners alike only feed the plant. Like some mysterious veil, very few have ever considered giving plants the nutrients that plants need to grow as well as the nutrients humans need to grow. When we grow plants we need to feed them plant nutrients and human nutrients.

All of the lack of nutrition, as well as all the horrible violations to our food supply, up to and including genetic violation, is the result of taking human and plant nutrition out of the soil and replacing it with the bare necessities to grow only a plant. We have unknowingly been draining our agricultural soils of the minerals and nutrients needed for human life. When we correct that nutrient malnutrition our plants are experiencing, we will have another quantum leap in our health to enjoy.

Modern micronutrient malnutrition seems to be a new concept that is just now coming into the light. I was introduced to this concept by an article written by Lawrence Mayhew, an agricultural consultant in Michigan. We have all heard somewhere along the line that our agricultural soils are deficient in nutrients, but that's all you hear. At this point in time most all of our food is deficient in much of the nutrition necessary for human life. It is only common sense that fruit, grains and vegetables should contain all the ingredients for life. Genetics, malnutrition and chemical poisons shouldn't be the attributes used to describe our food, all of our food should be super food. That is the way it was meant to be, we shouldn't have to seek out super foods like raw cacao nibs and spirulina. Plants have the ability to bring up not only the nutrients that they need, but also the nutrients that we need, even if they themselves have no need for it. The problem is that it has to be in the soil to begin with, and sadly it is not.

It is obvious that mainstream agriculture is unequipped to deal with this as their solution to growing plants in undernourished soils is by genetically modifying them. They know about this micronutrient malnutrition and have made a conscious choice to genetically violate our food supply. Currently modern agriculture takes out 5 to 10 times more nutrients than they put back in. Healthy whole, complete food requires over 50 nutrients from the soil, currently only 3 to 10 are put back into the soil. This is a very complex subject to explain, so in this article I will touch lightly on the many aspects and causes of our Modern Micronutrient Malnutrition predicament.

First of all this is very real and serious, despite the fact that you've probably never heard of it. It is estimated that 50% of deaths world-wide and most chronic health issues are related to this lack of micronutrients. Micronutrients are what comprise our bodies, and what makes all the goodies inside of us work properly. Our immune systems are greatly affected by many of these micros, as are our bone construction and loss, heart and internal

organs, brain and mental health, the list just goes on and on. Take a look around you, our stunning sophisticated health care system is losing ground, people are dying of cancer at earlier ages, diabetes, heart disease are as bad as ever and we can no longer afford health care. Does it look to you like we really don't know what is causing this downward spiral in health?

Our decline accelerated when we chose technology and industry over an agrarian lifestyle. Society began leaving the farms and heading for jobs in the cities at the beginning of the industrial revolution. Those that stayed on the farms took the food to the cities and along went the nutrients in the food never to return to the soil for the plants. We broke our circle of life and did not even know that what we did. Our circle of life should begin with the plants getting their nutrients from the soil, we eat the plants and nutrients, then our excrement returns the nutrients to the soil where billions of microbes, bacteria and the likes prepare it for the plants and another cycle begins. The third most natural act (behind breathing and eating), should be to return our excrement back to the soil to complete our lifecycle, yet it is now held with the utmost of contempt. We dumped our nutrients and they are no longer available.

Are you curious about the extent to which we are deficient? So far, I've made some pretty extraordinary statements. Growing healthy food requires more than 50 different nutrients; much of this knowledge has been around for almost a hundred years now. If you are passionate about healthy food you've probably already heard this. These 50 nutrients provide nutrition for the plant, nutrients for humans and other animals, as well as nutrients for the microbes in the soil, which process the nutrients for the plants (roughly equivalent to our stomachs). Below is a picture of the periodic table. This is the list of ingredients from which all things are made. I've outlined the nutrients that should go into our food. If you look at it you will notice that, except for the inert gasses and radioactive stuff, almost every substance known to man should be in our food. This is what is consumed or used up when we grow our plants. The next picture of the periodic table shows what a real good commercial fertilizer mix might have.

This is not sensationalism, I worked in the fertilizer industry. I was shocked when I first learned of this discrepancy. Some soils are naturally high in some nutrients and low in others to begin with, but the list

Nutrients that should go into food

Nutrients in a good commercial fertilizer

above shows what growing food will consume from the soil, if it is in the soil to begin with - and the other list is what a high end fertilizer used in commercial agriculture will put back. It should be noted that most commercial fertilizers aren't that good, and many fertilizers available to home gardeners only contain N, P, and K. Also, in both lists the H, C, and O come from water (H₂O) and carbon dioxide in the air (CO₂). Those that compost have the ability to bring in more nutrients, but the list is still incomplete. To this day, we feed the plant and not the plant and human.

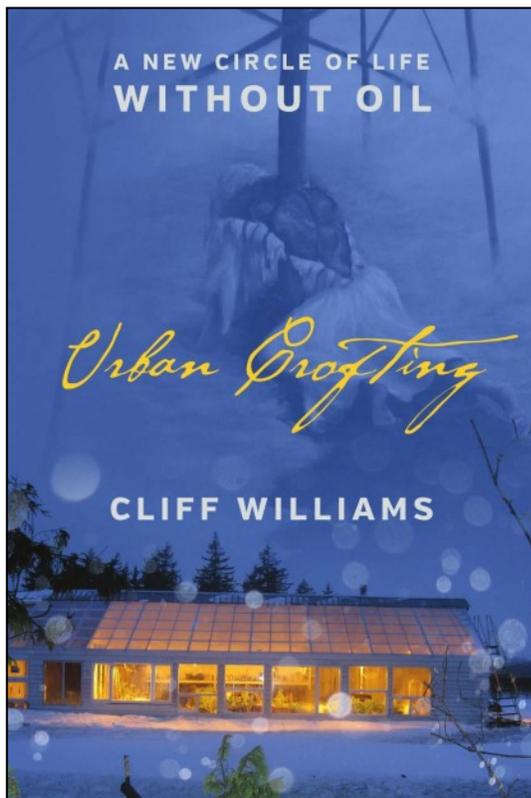
So where do you go from here? Commercial agriculture is both unwilling and unable to change. That leaves organic gardeners in the driver's seat. The solution lies in rebuilding our own soils for our food on personal level, I call it personal agriculture.

This is my passion and I'm on a journey to solve this. Our health is too important to leave in the hands of others, so we will each have to provide for our own families. Besides the nutrient problems, many

gardening practices are ancient and too labor intensive and leave much room for improvement. I am developing a new personal agriculture that changes the parameters of gardening and provides for fresh nutrient-enhanced produce all year long, even in urban neighborhoods.

This article I've written is just the introduction, but you've already taken the first step. Organic gardening is a huge step, and it opens a door that leads to perfection in food. I have been developing a self-reliant approach to this, and it offers solutions to many issues that limit gardening. It is possible to grow food year round with less effort than a customary exercise program, and do it in an urban setting. A further introduction can be seen on my website, <http://urbancrofting.com> A more complete explanation to the problems and solutions can be found in my book, "Urban Crofting", by Cliff Williams, available online at Amazon and other online bookstores.

Cliff Williams has worked 20 years in the frozen vegetable processing industry. He has been involved with everything from the dirt to the package you get at the store. He has also worked seasonally for 4 years in the fertilizer industry, as well as growing up gardening and gleaning. When you add in all the supporting research that went into creating Urban Crofting to his experience, you will find that few people have the unique insight into our food that he does.



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2014 Perennial Plant of the Year

Panicum virgatum 'Northwind'

A Native American Grass for All Seasons –



Panicum virgatum 'Northwind' is the Perennial Plant Association's 2014 Perennial Plant of the Year™. *Panicum virgatum*, pronounced PAN-ic-um ver-GATE-um, carries the common name of switch grass.

Hardiness: USDA Zones 4 to 10

Light: Switch grass performs best in full sun and will tolerate light shade.

Soil: *Panicum* is famously adaptable to almost any soil.

Uses: Switchgrass is a stalwart selection in the full-sun, especially native, meadow or prairie gardens. Flower arrangers find the foliage and plumes useful for arrangements. Finally, this warm-season perennial grass offers golden fall color.

Unique Qualities: 'Northwind' is very easy to grow. It will enhance any sunny border, not just a native, meadow- or prairie-style garden. 'Northwind' has a refined, garden-worthy appearance and habit.

Maintenance: There are no serious insect or disease problems with Switchgrass. Plants are best divided in spring. 'Northwind' is not patented. It can be reproduced from divisions. Liners are available from numerous propagators, including members of the Perennial Plant Association.

This warm-season perennial grass has blue-green foliage and stands more erect than is typical of the species. 'Northwind' is only the third ornamental grass to be named Plant of the Year™ following *Calamagrostis* 'Karl Foerster', 2001, and *Hakonechloa macra* 'Aureola', 2009.

The genus *Panicum*, native to North America, is a member of the Poaceae family (formerly family

Gramineae). Regardless of nomenclature, members of *Panicum* are excellent perennial grasses for the landscape. The genus botanical name (*Panicum*) is thought to derive from the Latin pan, bread. One species (*P. miliaceum*, common millet) has been used for centuries to make flour.

The origin of the common name switchgrass or switch grass is obscure. "Switch" is believed to be a variation of Middle English "quitch," among whose meanings is "quick," or alive, suggesting the grass is difficult to kill. Others say the name derives from the swishing sound the grass makes when tossed by the wind.

Roy Diblik selected 'Northwind' from a population of *Panicum virgatum* he raised using wild-collected seed from plants growing along railroad tracks in South Elgin, Illinois. In July 1983, he noticed that one plant had wider leaves and a very upright growth habit, unlike the typical arching form of the others. He gradually built up stock of the upright one. In 1992, when Northwind Perennial Farm opened, he introduced it and named it 'Northwind'.

Panicum virgatum 'Northwind' spreads slowly to form erect clumps of slender, steel-blue leaves about five feet tall. In late summer, the foliage is topped by a haze of showy, finely-textured flower panicles that rise to six or even seven feet, and that open golden yellow and mature to beige.

Deep roots make 'Northwind' remarkably drought-tolerant, once established. And like most ornamental grasses, *Panicum virgatum* 'Northwind' is seldom eaten by deer.



OGT Magazine would like to thank [NGB](#) & [PPA](#) for this article.

What are Seed Tapes and How Can I Use Them?



They are a pre-sown product of single or multiple species of seeds that are already spaced between tissue layers at the correct distance for growing. As well as the simple, linear tape, there is a wide range of other shapes and sizes, such as discs, mats and carpets. Many flower, vegetable or herb seeds can be purchased already incorporated into these products.

Advantages include:

- 1). Even seed spacing prevents oversowing, especially with crops like lettuce, greens, carrots, wildflowers, etc. This also eliminates the need for thinning the young seedlings.
- 2). The lightweight tape prevents birds from eating freshly sown seeds
- 3). The tape, when covered with additional soil, won't wash away in a sudden spring downpour, ruining evenly spaced and sown rows.
- 4). Almost all seed tapes are biodegradable to protect wildlife and have no damaging impact on garden ecosystems.
- 5). For gardeners experiencing arthritis or other mobility issues, a seed tape is a quick and easy way to sow tiny seeds.

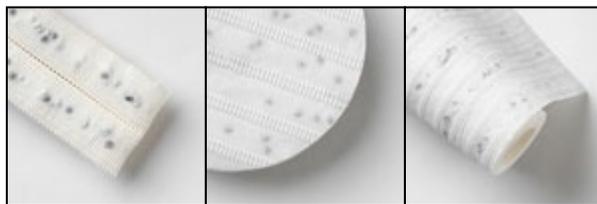
Types:

Seed tapes: Come in various lengths, single track or multiple tracks, both available with the option of one seed variety or a multiple of seeds - suitable for salad, mixed vegetable and flower collections.

Seed discs: Small discs, from 8-12cm diameter are for standard flowerpots – perfect for the indoor herb garden. Larger discs, from 14-30cm diameter are often used for sowing container gardens.

Seed mats: Ideal for sowing seeds in window boxes, bedding borders and big planters. Sizes vary from as small as a business card up to 3' in length.

Seed carpets: Usually for larger areas where a ready-made 'mini garden' is desired. These are great for wildflower fusions, mixed vegetables and salads.



Where to use these products

Seed tapes and pre-sown associated products are suitable for both indoor and outdoor use, whether you are looking for a small window box or have a larger corner of the garden to fill – there is a size and shape product for everyone.

Suitable for children's gardens

These eco-friendly tapes, discs, mats and carpets are ideal for children of all ages and abilities. They are a quick, easy and fun way to sow and grow your vegetables, herbs or flowers in a variety of environments and conditions. Children learn first-hand how simple, fun and satisfying it is to grow vegetables and herbs from seed. As we all know, children that grow vegetables and herbs are also more likely to eat them.

There is no need to worry about even spacing, handling, thinning or waste – these easy to use seed products are the ultimate work saver for all gardeners.

How-To

Prepare soil as for any planting. Place seed tapes, discs or mats on the soil and cover with the recommended top layer of soil. The products are well-suited for large empty garden plots as well as fill-ins in tighter locations. They are also ideal for container plantings.

Where to buy them

Explore your local garden center, nursery, or one of the many online garden retailers such as Burpee, Gardener's Supply, Jung Seed, Park Seed, and Territorial Seed.

OGT would like to thank [Seed Developments](#) for this article

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