

Westmorland Horticultural Society's Gardening Newsletter

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“The Friendly Garden People”
Growing Since 1928

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Branching Out



The WHS welcomes new members and meetings are typically held at **7:00 PM** on the fourth Tuesday of each month at the **Mapleton Park Rotary Pavilion**. Of course, during this time of physical distancing, our meetings are all on hold. But with so many people now at home, this might be a good time to advise your gardening friends that they can check out our newsletter on our website. They can find us on Facebook or check our website for upcoming events and to find out when our meetings resume.



From The Editor

Sadly I'm writing another issue that will only be available online as we still can't meet for our annual May plant sale. However, we gardeners are a very determined group! Thanks to Betty and Claudia for providing their yards, and to all members who dug up plants to share, we are able to hold a mini-plant sale. We'll miss Jim's auctioneering skills, but I hope we all get a new plant or two! There's a strange irony that I'm sure all gardeners have noticed... since I'm not working, it's the first

time I've been able to work in my garden during the week (I had my beds cleaned up by May 1 for the first time ever!) and no one will be coming to see it due to the physical distancing precautions we all need to follow! My beautiful tulips I planted last fall weren't seen by anyone but Darryl and I. My gorgeous February daphne had no visitors to admire it when it burst into bloom in April - so we just took lots of pictures to make it feel appreciated!

Speaking of being appreciated... This spring I found a cana lily rhizome that had been stuck in an empty pot 2 years ago. It had been stored in the back of our basement and buried under a box - no light - no water - no soil - for 2 years - just a dried up rhizome! I felt sorry for it so planted it and it must have been very anxious to prove to me that I made the right choice. In no time at all it was sending up beautiful new green leaves - **much** faster than my year old ones that I'd taken good care of. So I've made a vow to really appreciate this one when it blooms this summer! It deserves a little extra love after all that neglect! But it does serve as a reminder of a lesson most gardeners know - when in doubt -

plant it and wait and see! Plants often surprise us and the "experts" who tell us to toss them out aren't always right!

Those who read the April issue of the newsletter will recall that I decided to write one extra long article as I could go over the usual 8 page limit when we're not printing paper copies. I've included another one this month, so settle in with a cup of tea and get some helpful hints for growing plants in containers. It covers topics that would normally be broken up over several issues - choosing a container, choosing the plants, the best soil, feeding and watering and even design tips from the experts.

Gardening season is now in full swing and we're all rejoicing that garden centres are open for business. I hope everyone finds an interesting new addition to their gardens. It's always fun to try a new vegetable or a new flower or a new gadget.

I hope everyone enjoys this issue. And I hope that soon we can continue meeting in person. Until then, stay well and happy gardening!

Laura Sarson

In This Issue

Ask Dr. Fill.....	2
Daylilies.....	3
Growing Broccoli.....	4
No Sun? No Problem.....	5
Container Gardens.....	6



WHS Roll Call.

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Did You Know?

For every 3 meters (10 feet) of green peas planted you should harvest at least 2 pounds of shelled peas, or 2 1/2 cups.

For \$2.50 worth of vine ripened tomatoes at the grocery store, you could buy 30 seeds for 30 tomato plants, which will yield at least 20 pounds of tomatoes a piece. That's a total of 600 pounds of tomatoes for \$2.50! Not a bad deal!

Ask Dr. Fill



Dear Dr. Fill

I am new to vegetable gardening and I'm very worried about accidentally pulling up everything that I plant, thinking that it might be a weed. I've read that it's important to keep the weeds out, or they'll steal all the water and food from the soil. But how can you identify seedlings and not mistake baby beans or carrots for weeds?

**Sincerely,
Scared New Gardener**



Dear Scared New Gardener,

I don't mean to scare you even more, but this is tricky, even for the most experienced gardeners. If you don't know the difference between a weed and a radish sprout, you could accidentally pull up every radish before you have a chance at a harvest! Luckily, there are a few tricks that will help a lot. And rest assured, every gardener you meet will tell you that they've accidentally pulled up a prized plant, or nursed along a huge weed!

Of course, buying young transplants at a nursery, or starting your seeds indoors and moving them to your garden are one option. But some veggies are better planted directly in your garden from seed.

When plants are at the seedling stage, they look quite different from their mature stage, so you need to get good at identifying seedlings, and this will just take a bit of

experience. You can find resources online to help you make this identification. These include pictures of vegetable seedlings as well as those of common weeds, allowing you to simply check what you have and only pull weed seedlings. Until you get to know your seedlings better, (which really won't take you that long!) there are some other tricks and tips that will help make the task easier.

Sowing your seeds in a very straight row and using markers at the beginning and end of the row are by far the best precautions. Anything that pops up on either side of the row can be safely pulled. Also, anything that pops up in parts of your garden outside the rows that you've marked can be safely pulled as they are certainly going to be weeds. And while you're pulling them, examine them closely so you'll recognize them as weeds when one of them shows up in the rows you've planted (which will happen!)

Secondly, look at your seed packs for germination times for the plants you're growing. This will help you be aware of when the seedlings should emerge. If they should take 10 days to germinate and something's popping up a day or so after planting – chances are it's a weed! Of course, germination rates are only a guideline, so if you're expecting them to take 8 days, and something in your row pops up in just 6 days, don't pull it! It just means

that your seed was very happy with the soil you placed it in!

If you're willing to put in extra effort, there are some more extreme options. You can use a control planting. There are typically a few extra seeds in a seed packet, so plant a few seeds in a labeled container and label them well. These will be your "control". One small container could hold a few radish, a few cucumber, a few carrots, etc. so it doesn't take much room. When they come up, examine them closely, or better yet – take a picture. Then make comparisons to what comes up in the garden bed this year and in future years!

You should always avoid pulling up plants until seedlings have developed their true leaves. The first leaves on any seedling are called cotyledons, and they don't look anything at all like the true leaves of a plant, so mis-identification is easy at this point. Once some true leaves have opened, it's much easier!

Another option also requires some effort, but you might want to consider it. You can actually intentionally sprout weeds early to remove them BEFORE you plant your veggies. A couple of weeks before planting in the garden, place some clear plastic over the area you'll be sowing seeds. This will speed up germination of many weed seeds so you can pluck them out before planting seeds in that area.

It may seem scary at first, but don't worry. It won't take you long until you're an expert at recognizing weeds and your wanted plants. And thanks to technology, there's one last great assistant – download an app to your phone that identifies local weeds. This has the huge bonus of not just knowing that it's a weed – but knowing WHAT weed it is. One of the best advantages of knowing the name of the weed is to learn whether it's an annual or perennial weed. If it's an annual weed, like chickweed, you really want to insure that it never gets to bloom and go to seed. They are typically much easier to pull up, but you certainly don't want hundreds of them popping up next spring! And if it's a perennial weed, (such as creeping Charlie or quackgrass) you'll want to dig it up while it's fairly new – getting **every last piece** of the root. Perennial weeds can develop VERY large roots making them almost impossible to pull up if they are allowed to grow to full size. And one tiny shred of root left in the ground will often grow into a new plant.

There's one more advantage to making a positive ID on any weed you have growing in your gardens. Weeds are a GREAT indicator of your soil's health, and they can tell you exactly what you need to do in order to have a garden that will thrive.

For example, common groundsel is an indicator of rich soil, crabgrass grows where the soil has

Cont'd Page 3

Ask Dr. Fill (cont'd)

been depleted of nutrients and is particularly low in calcium, and dandelions indicate poor soil that is low in calcium, but often high in potassium. Mullein grows in acidic soil with low fertility, so it's an indicator you'll likely need to add lime to grow a decent garden. Daisies grow in acidic, often soggy soil with poor fertility, so you'll want to increase drainage in that area before you plant your veggies. Plantain grows in compacted, sour soil with low fertility and often indicates your soil is a very heavy clay.

The bottom line is that even if you do accidentally pull up one or two seedlings by mistake, you're still going to have a nice vegetable garden, so don't worry too much. And you really will very quickly learn to recognize the plants that you grow – even when they're tiny!

Thanks for the great question!

Happy Gardening!

Dr. Fill



Daylilies – The Solution To Many Garden Problems!

If you hear the word daylily and think of those old orange ones that bloomed in Grandma's garden (or in the ditch) think again! Few plants are easier to care for and come in more bloom styles, heights, growth patterns, bloom times, and forms than daylilies. You can find ones that

are beautifully scented and ones that have no scent at all. You can have huge blooms, the size of a dinner plate or tiny clusters of blooms. And whether you prefer the ones with single-coloured blooms or the ones with intricately patterned petals, or the ones with pastel shades or vibrant colours, daylilies (Hemerocallis) can fit into any garden scheme. As an added bonus, their green foliage provides the perfect backdrop to your other perennials when your daylilies are not in bloom. They tend to stay beautifully green and unaffected by insects or disease no matter the weather.

The name daylily should not put you off. Many of these plants do produce blooms that last only one day, but the next day there's a new bloom there to replace it. And while some of the older varieties had a relatively short bloom period, ones like Stella d'Oro can be blooming from summer through to Halloween.

Their genetic heritage contains traits from species native to habitats ranging from bogs to rocky mountainsides so there are daylilies that will thrive in most soil conditions. Best of all, they are rarely bothered by pests or disease. Lily lovers who stopped growing true lilies because of the red lily beetle can still grow the flower shapes that they loved so much without having to worry that the plants will be devoured as soon as they come out of the ground in the spring. And if you relied on one

of your lilies to be the star of your floral bouquets, daylilies look equally beautiful and can be the star in any bouquet of mixed flowers.

Daylilies are one of the easiest plants to use to create colour harmony in your garden, once you step back and decide exactly what you need. Do you need a large swath of cool, pale blossoms to "calm" your gardens and give a sense of continuity? There are dozens of daylilies that would fit the bill. Do you need hits of vibrant colour like a constellation of bright, bold stars that draw the eye to that part of your flower bed? There are daylilies that do this beautifully. Do you need to reinforce the colour theme that you had hoped to create that has slowly become a bit muddled? Daylilies are perfect for tying together many colour themes. Besides the traditional golds and oranges, they come in reds, pinks, purples, yellows, greens, and whites with or without hints of colour.

And here's some more good news. While some of the newer hybrids are very slow to grow beyond their original clump size, many daylilies are very quick to create new plants. If you are looking for a large patch of yellow blooms to fill a large, empty area, chances are you can find a gardener who will have a lot of plants they're happy to share for free. If you have a small garden and fear plants that will outgrow their spot, there are lots of daylilies that are very well behaved!

In the past 25 years, breeders have begun to create hundreds of named varieties within a new form called the "eyed" daylilies, and they are becoming extremely popular due to their amazing colours. These eyed lilies have a zone of different colour or a darker shade of the same colour located between the throat and the tips of the blooms. There are also the fully double varieties with ruffled petals that barely resemble the traditional six petal form.

While daylilies tolerate a broad range of soil conditions, they will always benefit from good soil and frequent watering. Regular water increases bloom numbers and bloom sizes. Watering is most important in spring when the plants are making scapes and buds, and in the summer during the bloom season. Do deep watering, which reaches 8 to 10 inches into the soil, rather than a succession of brief, surface waterings. There are a few other tips for water.

#1: Avoid overhead watering during the heat of the day -it will cause any open blooms to spot and/or wilt. **#2:** Over head watering in the evening can cause spots on the next day's blooms. **#3:** Don't overwater. Daylilies prefer drought to drowning!

If your soil is sandy, amend it with well-rotted manure, compost, or other organic matter that will add and hold nutrients. If you have heavy clay, there are some daylilies that will

A great French marshal once asked his gardener to plant a tree. The gardener objected that the tree would not reach maturity for a hundred years. The marshal replied, 'In that case there is no time to lose. Plant this afternoon!'

~ From a speech by John F Kennedy

Daylilies



thrive there, but most will prefer that you improve the drainage with organics. If you are considering planting in raised beds, you need to be a bit more careful as elevating the rhizomes can expose them to much colder temperatures in a winter without much snow cover. Be sure to choose ones that are hardy to Zone 3 to be on the safe side!

Most daylilies prefer full sun (about 6 hours per day) and well-drained soil, but many also will do just fine with dappled sun in the afternoons. It may seem counter-intuitive but light yellow cultivars, and many shades of pale pink and other delicate **pastels need full sun** to bring out their lovely colour. It's the red and purple cultivars that benefit more from partial shade in the hottest part of the day (the dark colours absorb heat and do not withstand the sun as well as lighter colours).

To plant, work the soil to a depth of about a foot, and space plants according to the recommendations on the plant tag. Crowding is a no-no! Dig a hole, make a mound in the center, and set the plant on the mound with the crown at the soil surface or no more than an inch below. Firm the soil around the roots, and water well. If you have added lots of nutrient rich compost to your soil, no more fertilizer is needed. If your soil is lean, as growth begins in spring, you could feed lightly with a 5-10-10 granular

fertilizer, then feed again in about 3 months.

A daylily bed looks best when faded blooms are removed every day or two. Simply snap them off using your thumb and forefinger. New flower buds also open more easily when freed of old wilted blooms. At the end of the bloom season for each variety, cut off the bloom scapes to within a few inches of the ground.

Although pests are seldom a problem, an infestation of aphids can cause malformed blossoms. Keep an eye out for them, and blast them with a garden hose to get rid of them. Thrips do little damage to the foliage, but they do sometimes rasp the petals within the bud; if you have thrips, blooms open with white spots, particularly noticeable on dark-coloured flowers. If needed, spray with insecticidal soap in early morning or late evening, not in hot sun.

To rejuvenate established clumps, divide them in early spring every three to four years to keep them blooming well and to prevent over-crowding.

If you're reading descriptions of daylilies in seed catalogues or on plant tags, you'll come across the words tetraploid and diploid. These refer to the number of chromosomes in the genetic makeup. There's no need to consult with a genetic specialist to learn about DNA. In gardener's language, the tetraploid daylilies (referred to as tets by gardeners who want to show off a bit!) have larger and thicker

leaves and flowers, stronger flower scapes, more intense colour, and increased vigor. While most of the major daylily awards have historically gone to diploid selections, since 1996 all of the major award winners from the national associations have been tetraploids.

However... don't let that stop you from buying plants labelled diploid! If you prefer pink coloured daylilies, it is best for you to choose the diploid one. (For this, you will need to talk to that genetic scientist!). Aside from the pink ones, the best double daylilies and spider daylilies are also commonly diploids. Also, if you look at the daylily varieties in most nurseries, diploids are generally more common, and less expensive, than the tetraploids. If you have any interest in attempting to cross some of your daylilies to get a new one, you'll need to be careful. Because of the difference in the number of chromosomes, diploid and tetraploid daylilies cannot be crossbred to produce new types.

It's easy to fall in love with daylilies – but be careful. There are over 50,000 named hybrids available. You'll need a lot of space if you want to grow them all! But dare to dream!



Did you Know?



A U.S. study found that nearly 90% of the fresh herbs sold in grocery stores were sold to people under 35.

Growing Broccoli



Broccoli is not necessarily the easiest plant to grow in our area, but it certainly can be grown successfully if you follow a few rules to keep it happy.

Broccoli is in the family of plants known as Brassicaceae or Cruciferae which also includes cabbage, cauliflower, Brussels' sprouts, kohlrabi, kale, and turnip.

You need to grow all of these plants in the conditions they prefer – and that can be problematic! They need at least six hours of full sun per day, and plenty of rich, well-drained soil. Adding plenty of compost will result in strong, happy plants, so those conditions are relatively easy to provide.

But they also need a **nearly neutral pH soil**, and that can be a challenge. If your soil is too acidic, (below a pH of 6) you will NEED to add lime each fall for a healthy crop. Otherwise you are very susceptible to clubroot. **Clubroot** is a soil-borne disease that attacks members of the brassica family and can be almost impossible to destroy. Spores can remain in soil for 20 years – just waiting for their opportunity to attack! As a brassica crop grows, its roots release chemicals which increase the germination of those resting spores. Raising the pH is the first step in making sure that it doesn't take hold in your garden, so if you don't lime your soil or if

Plants for Pollinators



did. However, scientists are now discovering a new problem with many of these flowers. And it's not just the effect on our pocketbooks (these new plants can be pricey!). It appears that it affects our birds and bees. These flowers may still attract pollinators with their bright new colours (or they may not... more about that later!) but sadly, the pollinators are sometimes only getting about 15 to 20% of the nectar energy that they expect to get from that particular flower. And just recently a new question has arisen. Is it possible that these new hybrids could get cross pollinated with a native species that many pollinators rely on as a food source? If so, that means that fields of wildflowers that sustain nectar feeders could slowly become a useless source of food without us realizing it. And as gardeners, we have no way of knowing whether a new cultivar of an old favourite will be able to act as a host plant to the beneficial insects that once thrived in our gardens on the "original version".

Unfortunately not all cultivars are the same, so for now, it's very difficult to know what to buy and what not to buy for a TRULY FRIENDLY pollinator garden. For example, we all know that butterflies and bees are drawn to our old traditional purple coneflowers. Now they've been bred to create brand new colours

and brand new bloom shapes and sizes. Many of these cultivars have no benefit to pollinators. Others which were bred with double flowers or with flowers on top of flowers on the same stem cause bees to struggle for many minutes to find their way to the centre, only to arrive and find no pollen and no nectar. If those are the only type you have in your garden, you may be thinking that you're helping the population because the plants are buzzing with bees and butterflies, drawn there by the colour. Sadly, they're starving trying to find a flower with the needed pollen and/or nectar. To date, no one has studied the countless new hybrids to learn which ones have more nectar, which ones have less, and which ones have none at all. The chances of this information ever being put on a plant label seem pretty remote. In the coneflower study, the green one called 'green jewel' proved to be much less visible to pollinators, so at least they weren't being drawn to it and then flying away with no food reward. The cultivar known as 'pink double delight' does not produce pollen and with its strange "coneless" form, its nectar is inaccessible to birds and bees. On the other hand, the coneflower sold as 'magnus', which was bred to produce far more blooms on one plant, but with the same "coneflower" shape, is little changed from the native species and is still a great choice for a pollinator friendly garden.

There have been several new varieties of ninebark on the market for the past few years which were bred for foliage in various shades of red and gold and chartreuse. They apparently weren't necessarily bred to be more insect resistant, but it turns out they are. The cultivar 'Monolo' with deep red leaves was avoided by the ninebark beetle (which would make most gardeners happy) and the cultivars 'Dart's Gold' was preferred by them (which is not so good!). Researchers speculate that because their dark red foliage seems to be high in compounds which seem to be poisonous to plant eating animals and insects, the beetles avoided those shrubs. However, they also speculate that it is probably toxic to any number of beneficial insects as well, and that's where it becomes tricky. The worst part is this: these ninebarks are often sold as "native plants" and "beneficial to pollinators" – which the ORIGINAL NATIVE PLANT was. The new ones may actually be toxic! This area of research is so new that right now it's often just a guess, and it's usually not an area of research that plant breeders are necessarily interested in pursuing when profits are at stake.

Several PhD students are currently studying many aspects of the use of cultivars and hybrids versus native species and their research is interesting, and somewhat scary. They are finding that bees are

more likely to visit the native species over the cultivar in most (but not all) cases. They are also studying specific plants available for sale in nurseries and are just beginning to publish those results. For example, they found that 'Fan Scarlet', a new cardinal flower may perform nicely in the garden and may lure hummingbirds to its bright red tubular flowers, but these pollinators are being rewarded with less than 20% of the nectar energy that they would find in the native species, *Lobelia cardinalis*. And if you grow the native cardinal flower, you know that it didn't really need any improving! It's a show stopper just the way it was!

So how do you know what is environmentally a "good choice" when you're shopping for new plants? It's not always possible to know! This area of research into the impact of new hybrids is very new and there are absolutely no rules around labelling plant tags with any information on this. There seem to be a few **general rules for those who want to keep their gardens "TRULY pollinator friendly"**. 1) If it has double blooms that seem to totally hide the centre where the pollen and nectar can be collected, you might want to choose a different flower. Some consider it an absolute no-no as they prevent bees from accessing their food while wasting all their

Shade Gardens



colours of reds and pinks and golds that the pretty flowers are secondary! They are similar to Heuchera (Coral Bells) which are also happy in shade. Coleus also offers the same season-long colourful foliage, but must be treated as an annual here, whereas tiarella and Coral Bells are both zone hardy.

Hellebore (also called Lenten rose) is advertised as a shade plant, but in our zone it blooms best with some morning sun, but needs shade in the afternoon. They bloom VERY early in the spring (late April to early May) but they hold onto those blooms for almost the entire summer!

Toad Lily has orchid-like blossoms, ranging from white, to pink, to purple, that bloom in late summer through fall to a hard frost. This perennial tolerates full shade but prefers partial shade with some morning sun. Many gardeners who rushed to order it when pictures of it started appearing on every magazine cover were a bit disappointed when their toad lily produced its first flower. Many photos of it make it look quite large – the blooms are actually quite tiny – but they are beautiful. They just require that you stand close and look closely!

Last but not least is a shade lover that is pretty enough to go by about a dozen different names. **Epimedium**, aka Barrenwort, Bishop's hat,

Fairy Wings, and horny goat weed is a beautiful ground cover for growing in the shade of deciduous trees where many other plants won't survive due to the lack of moisture in the soil. The pretty heart shaped leaves are tinged with red and it has pretty little flowers in early summer. Epimedium plants do require watering during prolonged dry spells, and should be cut back in the early spring, so that only nice strong growth remain.

With so many choices you might not have room for a single Hosta! Oh, nonsense! You can always make room for a Hosta!



Container Gardening

Newer gardeners might think that container gardening is as easy as buying some plants and putting them in a pot; sadly it's not quite that simple if you want the plants to thrive and not just limp along all summer. What kind of soil do your plants need? How much water do they require? Where's the best place to put the pot after it's planted? Does the plant need to be fed? If so, how often?

Let's start with **the container**. It really can be almost anything, but to reduce watering needs in hot weather, choose non-porous materials, such as glazed ceramic, fiberglass, resin, or metal containers. Terracotta or unglazed clay pots wick

away moisture from the soil and dry out rapidly – therefore they aren't the best choice for some plants – but are great for things like herbs that don't ever want to have really wet soil. And always buy a bigger pot than you think you'll need! Small pots hold a smaller volume of soil, which means they'll dry out faster. Bigger pots need to be watered **far** less frequently. They're not cheap – but consider them an investment – you only need to buy them once!

If you need to move your pots to maximize sun exposure, lightweight resin pots might be the way to go. But in a windy area, a smaller container filled with soil and plants can blow over and damage the plants, so for those areas, cement or wrought iron would be better. Just consider placing them where you want them while they're still empty and planting them there, or they might get too heavy to move!

Most of all, there must be a **drainage hole** in the bottom. And remember that gravel or stones placed in the bottom of a pot **do not** improve or add drainage. That is one of those **gardening myths** that just won't go away, but the fact is that they can increase drainage problems! Also remember that while decorative containers that have a little whimsy are fun to use as planters, old household items that were headed for the landfill aren't always a safe choice. Make sure that if you are growing food that they aren't

covered in **toxic lead paint** which will leach into the soil and cause serious health issues.

The next issue is **what to plant!** Don't just choose what's blooming and pretty at the garden center; consider your growing conditions, just as you would have to do if you were planting in a garden. If you have full sun, pick plants that can tolerate that. In shady areas, choose plants that don't require much sunlight to perform their best, or you won't have much, if any, bloom. If you don't want to be stuck home watering your containers every day, consider succulents. They thrive in dryer soil and there are some beauties out there! There are countless annual flowers that do great in containers, but don't forget to include foliage plants and perennials, too. These plants can be pulled from their containers at the end of the growing season and moved into the garden, or even a basement, to overwinter, and replanted next spring. And consider how many hours you'll devote to deadheading. Some annuals like petunias require constant deadheading, (Some people love this chore, some find it too time consuming). Some annuals, such as million bells, require hardly any deadheading at all, and some like the gorgeous illumination begonias are notorious for dropping their blooms all over your deck or patio, which can become a real issue. Another option is to simply move your tropical houseplants outdoors for

I do not like broccoli. I haven't liked it since I was a kid and my mother made me eat it. I'm the president of the United States and I'm not going to eat broccoli ever again. ~ George H.W. Bush

Container Gardening



the season, but be sure to harden them off by introducing them to the sun very gradually, or you'll risk killing them by burning their leaves. And of course, move them inside before freezing temperatures arrive! If you have a large patio, this can save you a lot of expense in buying annuals, and it can give your outdoor space a very tropical feel! Try some ferns in hanging baskets for your shaded areas or choose ones that can handle a bit more sun for other areas. Just keep in mind that there are very few that will thrive in full sun. Shade dwellers such as snake plant, Boston fern, aglaonema, philodendron, and pothos need to be kept in shade, because even the darkest corner of your deck is probably brighter than where they were living inside your house!

If you're growing **vegetables in containers**, be sure to pick varieties bred for this – they're usually shorter and sturdier and will thrive in containers. And check the depth of the pot they require. If you're growing carrots, you need to give them room in the pot to form, but other vegetables such as broccoli, dill, and lemon grass do need lots of room for roots!

If supporting wildlife is important to you, be sure to include some pollinator plants in your container garden plans. A great container gardening tip is to make sure one out of every five plants you

include supports some form of wildlife. Avoid the newer hybrids that may look pretty, and lure in lots of bees and hummingbirds, but don't provide the nectar they were hoping to find.

When it comes to **potting soil**, you get what you pay for. If you want a successful container garden, **don't skimp** and buy the cheapest potting mix. And don't try to store your soil at the end of the growing season to use next year. Toss it in your compost pile and use new soil in the spring. If you're only going to make up one or two outdoor small pots, you can buy a high end bag of potting soil for that purpose, but if you are filling a lot of large containers, you'll want to make your own by mixing up some compost, some peat moss, some garden soil, and some bone meal, vermiculite, and perlite. You can find recipes for specific plants online. But always choose high quality over low price every time. Never put a \$10.00 plant in a \$2.00 hole!

To **reduce watering needs**, and introduce beneficial microbes and nutrients to your containers, always mix your bags of potting soil with some finished compost before filling containers. A ratio of 50/50 usually works. This provides plants with a slow-release source of nutrients throughout the gardening season. (If you're growing cactus or succulents, cut way back on the compost and add coarse builders sand (NOT play sand) to the potting soil instead. Or,

use a cactus-specific potting mix to fill your containers if a small bag will be enough.

Most studies now prove that spending the extra money on potting soil that contains "**water crystals**" or buying them separately to add to your soil, is a waste of money. There are 2 basic types: starch based crystals (Quench is one popular variety) and polyacrylamide (Soil Moist and WaterCrystals are brands in this group). Some studies suggest that polyacrylamide, (which most water crystals are made of), is a potential cancer causing agent, and that it should not be added to containers you are growing food in. And most studies say that these crystals don't really work that well anyway! The starch based crystals MAY give you an extra 5 hours or in some cases, a day without watering, according to most studies. **Mulching your containers** is a much more effective way of retaining moisture. And moving them into a cool shaded spot, and grouping them together, is the easiest solution if you plan to be away for a few days and unable to water them. This tip comes with one word of caution. Mulching containers is a GOOD idea – however it can make it tricky to know whether they need to be watered. That's where a moisture meter comes in very handy. You can buy them at Walmart for about \$5.00 and they'll tell you whether the soil is moist down at the bottom of the roots – which is where it matters!

Once you've measured it for a few times, you'll get to know how often your larger containers need to be watered without using the meter!

The next consideration is the **visual appeal** of your containers when you're growing flowers. Beauty is in the eye of the beholder, but there are some tips that experts offer to give your containers that wow factor. To keep container gardens from looking too busy, stick with just one or two main focal points per container and surround those featured plants with simpler textures, colours, and forms. Consider whether the pot will be viewed from just one side or from all sides when deciding where to put your taller plants. Keep the balance and proportion of the container in mind – a small plant in a big container AND a big plant in a small container will both look "wrong".

The best known container tip is to have **a thriller, a filler, and a spiller** in your larger pots. Have one plant that really catches your eye, (make it your biggest investment!), have a few less noticeable filler plants, and then a few that spill over the edge and drape down to cover part of the container.

A tall plant looks great in the center of a tall container, but not so great in a small one; the best plan for small planters is to develop a dome shaped design so that it displays a balance from all sides.

Continued... page 8

With our nurturing hands duly occupied, while gardening we allow ourselves the time and space to truly feel peace, pride, satisfaction, and joy. ~A. Brown

Container Gardens



If you have found a very tall and very narrow pot that you love, designers will suggest that you place a plant that is relatively thin and at least twice the size of the pot. They suggest a plant like Japanese Silvergrass for any narrow pots because of its height and weight. If you have a pot that is relatively wide and short, they suggest that you choose a plant that will not grow above half the height of the pot. A Fuchsia is a good plant to choose here because of its fullness and overflowing nature. For the absolute knockout look, they suggest placing these two pots beside each other for the visual contrast.

Designers have a basic **rule of proportion** when choosing plants for your large containers. The container should be about half the height of your plant (or a third of the total height of the plant plus the container). Using this design principle, a 9-inch pot looks fine with an 18-inch plant, because $18 \div 9 = 2$, and 9 is one-third of 27.

When planting your containers, organize and lay out the plants before you start planting to make sure the plants all look good together and the pot won't be too full. This can save you oodles of time in the long run!

After you tip a plant out of its nursery pot, inspect the roots and tease out any that are circling around inside the pot. Pot-bound plants seldom

perform well, so breaking up those circling roots and spreading them out in their new container makes for a MUCH healthier plant. If possible, gently **remove most of the soil** that was in the plant pot at the nursery. They tend to use very inexpensive light weight peat moss, which sheds water if it ever dries out, making it very hard to revive a wilting plant. Removing their soil and gently placing the roots into your GOOD soil is always a wise idea.

Don't skimp on space. While it might seem smart to fill the bottom of a container with empty water bottles or Styrofoam chips or other fillers so you don't have to use as much potting mix, for the best root growth, the entire pot should be filled with potting mix if you can possibly afford it.

Lastly, water your containers properly. **Don't** wait for plants to begin to wilt before watering. An important container garden tip is to always water before plant stress occurs.

When watering, it's smart to fill each container repeatedly, allowing at least 20% of the water added to the top of the pot to drain out the bottom three or four times before moving on to the next container. This insures that any peat moss in your potting soil is beginning to absorb some water, and also helps flush out excess fertilizer salts. Water in the morning whenever possible to prevent fungal diseases and slugs, as

well as minimizing water loss due to evaporation.

What should I feed my container grown plants? Even though the potting soil and compost mixture you used to fill the pots contains nutrients, you should still add supplemental fertilizer occasionally throughout the growing season. There are many different organic fertilizers that are perfect for container gardening. Vegetables should be fed more frequently than ornamental plants as they require more nutrition to produce a good yield, and using an organic fertilizer is even more critical when growing food. If you would prefer to use a product like Miracle Grow for your container grown flowers, but know how harmful it is to the environment when it's used in your gardens, you can use it with a bit less guilt as it won't be leaching out of your containers and finding its way to ground water or rivers, lakes, or streams.

There are dozens of different brands of complete granular fertilizer blends that you can choose from. Most of these products combine assorted plant, manure, animal, and mineral-based ingredients, and depending on the brand, they may have an N-P-K ratio of 4-5-4 or 3-3-3 or something similar. They contain a combination of ingredients that provides some amount of all three macronutrients (nitrogen, phosphorus, and potassium), in addition to many trace nutrients, vitamins, and other things. All of these products have different

formulations, so be sure to choose appropriately according to what plants you're growing in your container garden. With granular products, it's possible to have too much of a good thing. Even natural fertilizers can be easily over-applied, leading to several different issues, including nutrient deficiencies, pH imbalance, and/or fertilizer "burn" (yes, even some natural fertilizers are capable of this). To avoid these issues, don't overdo it by applying too much, too often. Again, be careful to follow all label instructions.

There are also many different types of liquid fertilizers available, such as liquid kelp or seaweed or fish emulsion, compost tea, earthworm castings tea and some natural liquid fertilizer combinations blend these products with ingredients such as liquid bone meal, blood meal, feather meal, and rock phosphate to create a well-rounded fertilizer and growth stimulant.

Liquid fertilizers are best absorbed when the plants growing in your containers are not under stress. NEVER fertilize your plants when they're wilting or suffering from heat stress. Water them first, a few hours before fertilizing them, to maximize their absorption of nutrients. Don't use more than you need. Most liquid fertilizers should be applied every two to four weeks throughout the growing season, but never use more than the label on your product suggests.

A farmer once said, "You cannot live solely on vegetables, for they furnish nothing to make bones with", then he continued walking behind his oxen, which, with vegetable-made bones, jerk him and his lumbering plow along in spite of every obstacle. Henry D. Thoreau