January 2018 - Vol. 4 No. 1

Table of Contents

Backyard Composting With Practical Tips From The Pros

By Ralph Morini | January 2018 - Vol. 4 No. 1

Compost, a soil additive created by mixing things like plant-based kitchen scraps and yard waste, adding air and water and allowing them to be broken down by bacteria and fungi, is highly valued by knowledgeable gardeners. Composting is gardening alchemy. It turns waste products into gardening gold. Adding organic matter to the soil increases water retention and reduces nutrient leaching in coarse (sandy) soils while improving drainage and balancing air and moisture in fine (clay) soils. Compost reduces the bulk density of soil, making it easier for roots to penetrate. It provides food for micro-organisms that help plants capture nutrients. These same microbes help control diseases and degrade pesticides in the soil. Its humic acid content even helps reduce drought stress in plants. To top it all off, composting uses materials that all households generate and keeps them out of landfills, helping reduce waste disposal costs and extend landfill life.

Backyard compost bin
Photo: Ralph Morini

The Basics

With all these benefits, it just makes sense for gardeners to compost. The most productive way to compost at home is called “hot”composting. It is a pretty simple process whose dos and don’ts can be summarized in a few points:

- Composting can be done in a pile or simple wire or wooden bin. Recommended size for a hand-managed compost pile is a 3 or 4 foot cube. Site it in an inconspicuous location, a distance from the house in the event it draws critters or emits odors.
- Start with a 3 inch base layer of coarse plant material, twigs etc to enable bottom up aeration
- **Build the pile with a 3 to 1 mix** by volume of **brown** to **green** material. That’s **brown for carbon, green for nitrogen.**
    - **Browns can include**: leaves, sticks, untreated wood shavings, food soiled paper, hay/straw, dead plant material.
    - **Greens can include**: fresh grass clippings and plant materials, coffee grounds, fruit/vegetable kitchen scraps, manure (not from pets), hair.
- Items **not** to compost: meat/grease/bones, dairy products, eggs, pet waste, diseased plants or

trimmings, pesticide treated materials, weeds with seeds, charcoal or coal ash, black walnut leaves/twigs, pressure treated wood materials.

- Chopping or shredding the materials speeds the composting process. Use your lawn mower, string trimmer etc.
- Layer the browns and greens, then mix them to start the process. Commercial compost starters are available, but are generally not considered necessary for success.
- Mix the materials regularly to aerate them. The composting process requires oxygen. A good mix of materials will heat to 140 degrees or more, then will begin to cool. The pile should be remixed a few days after peak temperature. Continue the regular mixing until the pile is completely cooled.
- Add water to keep everything moist, not wet. About like a wrung out sponge.
- When complete, the compost will be dark and crumbly, smell like good soil and the pile will be cool.

Finished compost: dark and crumbly.
Photo: Ralph Morini

- Tips:
    - If the pile gets smelly or slimy, it is too wet or has too much green material. Add brown material and turn the pile to mix it in.
    - In dry weather, keep the center of the pile lower than the edges, so it will hold more moisture and reduce the need to moisten it manually.
    - Diseased or insect-infested materials can be composted, but the pile must get “hot” to kill insects or pathogens. Probably best to dispose of such materials rather than compost unless you are sure your pile gets up to about 140ºF.
    - Some sort of bin to contain the compost materials, although not essential, is a good idea. It controls the materials, makes a neater presentation in the landscape and may help keep animals out of the pile. It can be any kind of structure from wood to wire to purchased composting bins. Make the call based on your specific situation.

Tips from the Pros

As part of the research for this article, **we visited two local commercial composters.** Rather than seeing home composters as competitors, the commercial folks see us as allies. They are true believers that putting organic material back in the ground is essential to making progress on the world's food security problems. The gardening public seems to understand this since both companies are more worried about finding the volume of materials they need to make their product, than they are about selling what they make.

Both of these compost operations use leaves and wood chips from yards and municipalities as their carbon sources. One gets his nitrogen from food waste collected from universities and restaurants, the other uses turkey litter (manure and bedding) from a commercial turkey grower. Both mix their materials and build windrows — long narrow piles — that they monitor for temperature. They mix the materials using power equipment to keep the rows aerated during decomposition. Typical cycle for a well-managed hot compost batch is 3 ½ to 4 months. When the row is cool, they screen it to get chunks and non-decomposed material out of it, and offer it for sale. Organic commercial compost is tested for pathogens, but our sources really don't worry about lingering disease or weed seeds in their material because they monitor temperature closely and are confident that their material is pathogen free. Their biggest concern is receiving material that contains herbicides that could damage crops when applied as compost. So they do their best to publicize the need for herbicide free feeder materials from the municipalities and landscapers who supply them.

Commercial compost operation using rotating aerator windrow. Note the "younger" row of compost materials in the background. Photo: Ralph Morini

When asked for advice for the home composter, their tips were insightful:

- **Hoard your carbon materials**. In the typical home, you'll have plenty of nitrogen sources; food materials are available all year around, and grass clippings are available in the spring through fall. But the carbon materials you need are often less plentiful. Leaves, a key carbon source, are available in the late fall into winter. Gathering the right mix of materials to initiate a compost batch takes some planning and the carbon materials are the key.
- **Successful composting requires a nitrogen source, a carbon source, air and water.** Include chunky materials like wood chips in the mix to reduce bulk density and maintain some air flow in the pile. Turn it regularly for the same reason. Including woody materials requires that the compost be screened prior to use, but the extra effort is worth it to support the decomposition process.
- **Water also has to be controlled**. Too little starves the process and too much limits air availability. Serious composters cover their piles, preventing over or under moisturizing by adding water manually as needed. Again, the guidance is to keep it about as moist as a wrung out sponge.

If all these rules and procedures are beyond what you are prepared to commit to, don't despair. There is also room in the world for less-motivated folks to compost. **For many of us, the most practical way to go forward is to toss appropriate materials into the bin as they become available.** This prevents preparation of the properly proportioned batches needed to achieve hot composting. The materials will take longer to break down into usable form, typically a year, maybe longer. But if you turn it and check moisture periodically, you can create a great product and still put the otherwise disposable materials to good use. If you know you are not going to maintain a hot pile, resist throwing weed seeds and diseased plant materials into the mix because you won't reach the temps needed to kill them. If you add materials to your compost batch as they become available, you will tend to have usable compost at the bottom of the pile and newer not yet ready material at the top. It is not unreasonable to scrape the newer uncomposted product off the top of the pile and use the fully composted, older product, or screen everything. Use the good stuff now and put what isn't yet ready back into the bin for further decomposition. In any case, providing both carbon and nitrogen sources and managing aeration and moisture is still essential.

A Final Word

It was eye-opening that both commercial composters worried more about their raw material supply than selling what they produce. In fact, one of them has since closed his operation because he couldn't acquire enough compostable material to reach a break-even volume level for the business. It is admittedly extra work for restaurants, for example, to sort compostables from other food wastes, and kitchens get busy…

On the other hand, about 20% of material going to Virginia landfills is food and yard waste. Imagine converting that to a sellable product that provides wonderful benefits to soil, enhancing food production and beautifying landscapes. It will likely take legislation to create anything more than creeping change in this

situation, and this seems unlikely in the short term. But maybe we small time composters will help to create the cultural shift that will make it possible in the future. At least we hope so.

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The Ornamental Garden in January

By Susan Martin | January 2018 - Vol. 4 No. 1

January is the perfect time to enjoy the tempting photos and descriptions of plants we'd like to introduce into our gardens next spring. It's also a good time to review notes on last season's successes and failures and sketch out a few ideas. But, despite the lure of the easy chair and the fire, there are still some tasks that require our attention. Gardening is an active pursuit after all, and those little garden elves whisper in our ears, "Go outside, get moving, and enjoy some fresh air. A visit to the garden will do you good." In addition to outside tasks, there are some indoor tasks as well. But let's consider outside first.

January Outdoor Tasks:

Feeding Birds

The cold weather spells of January make many of us more aware of providing seed and water for our backyard birds. We need to make sure, however, that we are helping rather than hurting the birds we love. A bird feeder can be compared to the office water cooler with coworkers crowding around and sharing paper

cups during the cold and flu season. To prevent the spread of disease, we must be very conscientious about cleaning bird feeders on a regular basis.

Feeder Maintenance

Do not allow residue and mold to accumulate in the bottom of hanging tube feeders. Feeders should be cleaned with soapy water and a brush and then rinsed with a disinfectant solution of one part white vinegar and four parts water or a solution of one part bleach and nine parts water. Rinse well with clean water and dry thoroughly before refilling. Choose feeders that can be dismantled or otherwise cleaned easily. If you use a platform feeder or feed on a deck or balcony, put out only as much seed as birds can consume in a day. Scrub the feeder with soapy water and a disinfectant solution. Rake up and dispose of droppings and food residues scattered beneath the platform. Recommendations on cleaning schedules vary for both tubes and platforms, but most advise cleaning at least every 2-4 weeks.

Types of Bird Seed and Feeders

European Goldfinches at tube feeder

Most common birds will visit platform feeders and will be attracted to black-oil sunflower seeds. Hanging, tube-type feeders attract American goldfinches, chickadees, and a variety of other species. Tube feeders permit these types of birds to avoid competition with blue jays and grackles that dominate platform feeders. Small sparrow-like birds, such as juncos and song sparrows, prefer white millet. In general, ground feeders prefer white millet, whereas birds attracted to tube feeders prefer black-oil sunflower. Therefore, white millet and mixes rich in millet should not be used in tube feeders or feeders with small perching surfaces. Cardinals and mourning doves are attracted to safflower seeds.

Bird Watch Programs

If you enjoy bird watching, consider volunteering for a program such as FeederWatch sponsored by Cornell University. There are easy instructions for registering online and directions for how to participate in the bird-counting project. Another program is the Great Backyard Bird Count, a cooperative venture launched in 1998 by the Cornell Lab of Ornithology and National Audubon Society. More than 160,000 people of all ages and walks of life worldwide join the four-day count each February to create an annual snapshot of the distribution and abundance of birds. **This year's count will take place February 16-19.** Follow the link for general information and to register.

Red-bellied woodpecker and white-throated sparrow at platform feeder Photo: Ralph Morini

Feeding Year Round

Most people concentrate their feeding efforts during the winter months so that they can help birds withstand the rigors of cold and snowy weather when natural food might be harder to find. Feeding birds year round is also enjoyable. Although autumn provides many seed and berry options, naturally produced seeds are not always plentiful in the spring and summer. You may consider extending winter feeding a while longer so that

you can enjoy having birds visit your yard in spring and summer. Fresh water is always needed but is especially welcomed during the hot summer months.

Dealing With Snow and Ice

It's advisable to spread sand rather than salt on paths and steps so as to avoid salt damage on plants. Although sand provides friction, it won't promote melting; safety should take precedence. It's also a good idea to notice indentations in paths or uneven surfaces where water pools and freezes. Add those spots to a repair list for next spring.

Heavy snow can damage boxwoods and other evergreens. Use a broom with an upward sweeping motion to clear snow. If shrubs are covered in ice, allow the ice to melt naturally. Attempts to remove ice may damage plants.

Leaves

Continue to blow leaves off the lawn when leaves collect in heavy piles that could inhibit airflow and prevent sunlight from reaching the lawn.

Outdoor Plants

Inspect garden plants for frost heaving; gently lift the plant, loosen the soil, and settle the plant more deeply into the ground. Check fruit trees for rodent damage on bark. Note any broken tree branches, especially if they are near traffic areas.

Spring Projects

Identify hardscape or other projects you'd like to undertake this spring; contact a contractor in January about getting on the spring client list.

January Indoor Tasks:

Houseplants

Dust houseplants regularly; this allows the plant to gather light more efficiently.

Don't overcrowd plants; spacing between them helps deter insects from traveling to other plants sites.

Watering With Tap Water — **Fluoride and Chlorine**

It is fairly common advice to let tap water sit overnight before watering houseplants to help reduce the amount of fluoride and chlorine that could be harmful to plants. Fluoride, however, does not dissipate from water (evaporate into the air as a gas). Some houseplants are particularly sensitive to fluoride; fluoride inhibits photosynthesis and other processes. It will move in the transpiration stream from roots or through stomata and accumulate in leaf margins. Damage shows up as brown spots and scorch marks along the margins and tips of leaves. If you enjoy growing fluoride-sensitive plants, it would be best to use distilled water or rainwater. Houseplants that are particularly susceptible to fluoride include:

- Cast Iron Plant (*Aspidistra elatior*)
- Dracaena (*Dracaena*)
- Easter lily (*Lilium longiflorum*)
- Parlor Palm (*Chamaedorea elegans*)

- Peace Lily (*Spathiphyllum*)
- Prayer Plant (*Maranta leuconeura*)
- Spider Plant (*Chlorophytum comosum*

Chlorine, on the other hand, seldom causes significant damage to houseplants. Chlorine might sometimes damage the root tips, which will affect the overall growth of the plant. You should be able to taste or smell chlorine in the water if it's at levels that might cause problems. Unlike fluoride, chlorine will dissipate from water if you let the water stand for about 24 hours.

Spider Mites

Check houseplants for pests such as red spider mites which flourish in sunny, dry rooms. Look for a fine webbing on the leaves and between the leaves. Or, place a sheet of white paper under discolored leaves. Tap the leaves, then watch for tiny moving creatures on the paper. Mites are not insects; they are more closely related to spiders. They attack plants by sucking plant sap which makes the leaves look faded, or yellow, or lightly speckled. A regular misting with room-temperature water is a good deterrent. Mites are very tiny; inspect the leaves with a magnifying glass and wash the leaves with soapy water if you see early evidence. Use a mild dish detergent without fragrance or other additives; add about 2 tsp. of soap to a gallon of water.

Red Spider Mite

Often called red spider mites, mites may also be green or yellow. The two spotted spider mite is one of the most common mites to attack houseplants, but the mite is too small for us to see its spots. Its eggs can hatch in as little as 3 days, and become sexually mature in as little as 5 days. One female can lay up to 20 eggs per day and can live for 2 to 4 weeks, laying hundreds of eggs. It is useful to understand this life cycle for treatment applications.

If plants have become infested, spray sturdy plants forcefully with water, including the undersides of leaves, to dislodge mites and break up their webs. Plants also can be sprayed with an insecticidal soap suitable for houseplants. Follow label directions for safe use. It is often necessary to spray with water or with insecticidal soap every 2-3 days to break up the life cycle.

Holiday Plants

Poinsettias, *Euphorbia pulcherrima*, are synonymous with holiday decorating, but these beauties are subject to a great variety of pests including: spider mites, aphids, thrips, fungus gnats, and more. Look for wilting or yellowing leaves, stippled leaves, white webbing, and other signs of damage. Either isolate the plant until you diagnose the problem or discard the poinsettia so that other houseplants are not affected. Although poinsettias can be kept year round, they require very specific light conditions for reblooming the following year.

Stored Bulbs

If you are over-wintering bulbs, make sure they are plump and free of mold. If they look shriveled, spray just

enough water to barely moisten them. Make sure they are protected from freezing.

Now that you've checked off your list of outside and inside tasks, it's time to curl up again with a good garden book or seed catalogue or a list of try-me-first plant descriptions. Enjoy your rest, because before you know it, February's issue of *The Garden Shed* will bring another set of Tasks and Tips to your inbox! (If you're feeling especially energetic and would like additional Tasks and Tips for January, the source list below includes links to three previous articles from 2015-2017.)

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Interpreting Plant Tags

By Patsy Chadwick | January 2018 - Vol. 4 No. 1


Grown Specially for
Kula Ace Hardware & Nursery
MINNESOTA SNOWFLAKE
MOCKORANGE
(Philadelphus x virginalis 'Minnesota Snowflake')
Sweet scented, very double white flowers adorn this vigorous fountain-like shrub in late spring. Tall grower to 6-8 feet with 5-6 feet spread.
12/28/06
1304240
999
Flowers
Fragrance
Butterflies

With the garden lying fallow, January seems like the perfect time to brush up on your Latin and Greek. Why? Well, imagine for a moment that it's spring and you're in a garden center where you see a grassy-looking plant that interests you. The plant tag identifies it as *Sisyrinchium angustifolium*. If you are intimidated by strange-sounding scientific names such as this one, relax. You're not alone. Horticulturists use scientific names instead of common names to identify or define a particular feature of a plant. In the case of this plant, it happens to be a narrow leaved blue-eyed grass. The botanical term *angustifolium* describes the plant's narrow leaves, thus setting it apart from other blue-eyed grass species, such as white blue-eyed grass, stout blue-eyed grass, slender blue-eyed grass, or Montane blue-eyed grass, to name just a few.

Scientific names are usually in Latin or Greek and are well documented in scientific publications. The important thing to remember is that they are standardized worldwide and are accepted by botanists in all countries. In other words, no matter where you live on this planet, a birch tree will always be correctly identified as such when it is referred to by its scientific name, *Betula*, rather than its common name.

Common names, on the other hand, are not standardized and can vary from person to person, area to area, or country to country. For example, as a child, I remember hearing my mother refer to a favorite shrub as a "snowball bush." The plant may have been a *Hydrangea* or possibly a *Viburnum*. Both have been called snowball bushes, but they are two entirely different species.

To help you crack the code on commonly used botanical terms, here are a few that describe specific features of plants, such as their leaf shapes, plant shapes, unique features, and colors as well as countries of origin. Note that many of these terms have "masculine" or "feminine" endings depending on the gender of the root word. For example, *Helianthus angustifolius* is masculine whereas *Lavendula angustifolia* is feminine.

Shapes of leaves – Many scientific plant names refer to the size and shape of the leaves. Some commonly cited leaf shapes include:

- *Angustifolia* – narrow leaved. Example: *Zinnia angustifolia* (narrowleaf zinnia)
- *Lanceolata* – lance shaped. Example: *Coreopsis lanceolata* (lanceleaf coreopsis)
- *Longifolia* – long leaved. Example: *Phlox longifolia* (longleaf phlox)
- *Macrophylla* – large leaved. Example: *Magnolia macrophylla* (big leaf magnolia)
- *Microphylla* – small leaved. Example: *Rhus microphylla* (littleleaf sumac)
- *Palmatum* – hand-shaped. Example: *Acer palmatum* (Japanese maple)
- *Rotundifolia* – round leaved. Example: *Smilax rotundifolia* (roundleaf greenbriar)
- *Verticillata* – thread leaved. Example: *Coreopsis verticillata* (threadleaf coreopsis)

Shapes of plants — Some plants are named for the shape of the plant or the shape of the flower. Aster, which is Latin for star, refers to the plant's star-shape flowers. Some other commonly used terms referring to plant shapes include:

- *Arborescens* – tree-like. Example: *Hydrangea arborescens* (smooth hydrangea)
- *Elegans* – elegant, slender. Example: *Salvia elegans* (pineapple sage)
- Fruticosa – shrub-like. Example: *Potentilla fruticosa* (shrubby cinquefoil)
- *Humilis* – low-growing. Example: *Sarcococca hookeriana* var. 'Humilis' (sweet box)
- *Nana* – dwarf, miniature. Example: Juniperus procumbens 'Nana' (Japanese garden juniper)
- *Pendula* – drooping. Example: *Picea abies* 'Pendula' (weeping Norway spruce)
- *Procumbens* – prostrate. Example: *Gaultheria procumbens* (Eastern teaberry)
- *Pumila* – low-growing, dwarf. Example: *Ficus pumila* (creeping fig)
- *Repens* or *reptans* – creeping. Example: *Mazus reptans* (creeping Mazus)

Unique features of plants – Still other terms refer to specific or unique features of plants, such as:

- *Contorta* – contorted growth habit. Example: *Coryllus avellana* 'Contorta' (Harry Lauder's walking stick)
- *Cordata* – heart-shaped. Example: *Pontederia cordata* (pickerel weed)
- *Grandiflora* – large flowered. Example: *Magnolia grandiflora* (southern magnolia)
- *Laevis* – smooth. Example: *Symphyotrichum laevis* (smooth Aster)
- *Maculata* – spotted. Example: Phlox maculata (spotted phlox)
- *Millefolium* – thousand-leaved. Example: *Achillea millefolium* (common yarrow which is also known as thousand leaf)
- *Multiflora* – many-flowered. Example: *Rosa multiflora* (multiflora rose)
- *Officinalis* – used as. Example: *Salvia officinalis* (culinary sage)
- *Semperflorens* – everblooming. Example: *Begonia semperflorens* (wax begonia)
- *Sempervirens* – evergreen. Example: *Gelsemium sempervirens* (evergreen Carolina yellow jasmine)
- *Spectabilis* – spectacular. Example: *Penstemon spectabilis* (showy penstemon)
- *Superbum* – superb. Example: *Lilium superbum* (Turk's cap lily)
- *Variegata* – variegated. Example: *Vinca Major* 'Variegata' (variegated greater periwinkle)
- *Vulgaris* – common. Example: *Syringa vulgaris* (common lilac)

Colors of flowers or foliage – A good many plant names refer to color, including:

- *Alba* – white. Example: *Quercus alba* (white oak)
- *Argenteus* – silver. Example: *Thymus argenteus* (silver thyme)
- *Aurantiaca* – orange. Example: *Agastache aurantiaca* (orange hummingbird mint)
- *Aureus* – golden. Example: *Epipremnum aureus* (golden pothos)
- *Azureus* – sky blue. Example: *Salvia azurea* (azure blue sage)
- *Nigra* – black. Example: *Salix nigra* (black willow)
- *Purpurea* – purple. Example: *Echinacea purpurea* (purple coneflower)
- *Rosea* – rose. Example: *Zephryanthes rosea* (pink rain lily)
- *Rubrum* – red. Example: *Epimedium x rubrum* (red barrenwort)
- *Viridis* – green. Example: *Asclepias viridis* (green milkweed)

Countries of Origin – Still other plants are named for their geographical or regional origins such as African violet, Russian sage, Japanese anemone, American beautyberry, Mexican bush sage, and California poppy. Origin names commonly found on plant tags include:

- *Australis* – southern. Example: *Plectranthus australis* (Swedish ivy, which, despite its common name, is native to south Africa)
- *Borealis* – northern. Example: *Linnaea borealis* (twinflower, which is distributed throughout Canada and the northern United States)
- *Canadensis* – From Canada or America. Example: *Amelanchier canadensis* (Canadian serviceberry)
- *Chinensis* – From China. Example: *Dianthus chinensis* (Chinese pinks)
- *Germanica* – From Germany. Example: *Iris germanica* (German Iris)
- *Japonicum* – From Japan. Example: *Cercidiphyllum japonicum* (Japanese katsura tree)
- *Virginiana* – From Virginia. Example: *Magnolia virginiana* (sweetbay magnolia)

Plants named for people – In addition to unique features described above, plants are often named for people. It's not uncommon for a plant to be named in honor of the person who discovered it or bred it. Here are just a few examples:

- *Amsonia hubrichtii* – Named for Leslie Hubricht (1908-2005), a biologist who discovered the

plant growing in Arkansas in 1942.

- *Astilbe x arendsii* – Named for George Arends (1862-1954), a German plant breeder who introduced 74 cultivars of astilbe.
- *Clematis x jackmanii* – Named for George Jackman (1837-1887), a 19th century British horticulturist and nurseryman who focused his work on clematis hybrids.

These are just a sampling of botanical terms to pique your interest and perhaps take some of the mystery out of the scientific names given to plants. Now, having brushed up on your plant nomenclature, sit back and take a long, hopeful look at that garden catalog that just arrived!

Recycled Seed-Starter Containers

By Cleve Campbell | January 2018 - Vol. 4 No. 1

The seed catalogs have been rolling in over the past several weeks, packed full of perfect pictures of vegetables, and to the gardener this means indoor seed starting season is just around the corner. And that means it's time to start collecting seed-starting containers. Some of my gardening friends are ingenious at transforming ordinary used packages into seed-starting containers. Naturally, you can purchase seed starter kits, plastic trays, peat and plastic starter pots from any big box store, nursery, or online gardening retailer. But some of my frugal and ecological-minded gardening friends take that ole saying "a penny saved is a penny earned " to a higher, even a professional level. And it makes sense — why send a container to the landfill or the recycling center when it can be reused. Here are a few container tips that I have picked up over the years.

- **Tin cans** have been recycled into seed-starting containers for many years. Simply punch a few holes in the bottom and fill with a soilless or peat-lite mix and they become an instant seed-starter container.
- **Yogurt cups, paper coffee cups, styrofoam cups, plastic cups**, and **plastic glasses** are just a few common household items that end up in the trash bin that can be recycled into seed-starter containers. Just punch a few holes in the bottom, add your soil mix, seeds, and water, and you're all set.
- **Need a mini-greenhouse?** Those "to go" containers often used to package salads and pastries make perfect miniature green houses. Fill the bottom portion with soil, plant your seeds, and

just pop the lid closed in between watering. These throw away containers create a warm, safe and humid environment for your little seedlings to flourish.

- **Egg containers** made of Styrofoam and paper-mâché are old favorites. Punch a hole in the bottom of each egg socket. The lid can be removed and placed under the starter container to catch excess water.
- Cut the bottom 2 to 3 inches from a **plastic milk jug** or a 1-liter **plastic beverage bottle**. Don't to forget to punch holes in the bottom for drainage. The remaining part of the jug or bottle can be used as a funnel or placed over tender plants to protect them from the cold, or cut into strips and used for plant markers

- If you have **old newspapers** lying around, they can become one of the most eco-friendly starter pots imaginable: newspapers can be found pretty much everywhere, and a few simple folds are all that's needed to create perfect little pockets for nurturing your seeds. Once folded, fill the "pots" with soil, pop in your seed(s), water, and place in a sunny spot.
- Another method for making biodegradable pots is to cut strips of heavy paper, such as **grocery bags** to match the height and diameter of the pot you want. For example, a 2-inch-square pot would require a strip 2 inches wide and 8 inches long. Add approximately 1 inch to the length for overlap. Glue the strips in circles to form bottomless pots. Fit these paper pots into a wooden or plastic flat with sides high enough to give good support before filling them with potting soil.
- Cut paper towels, bathroom tissue, or gift paper rolls into 3-inch lengths. Set vertically in a tray for bottomless seed containers.
- Make a **mini-greenhouse** from a milk carton, a plastic bag, and a wire coat hanger or other stout wire. Staple the carton shut and cut away one side. Fill with potting media, plant seeds, and add water. Cut the wire into 8-inch lengths and bend into arches. Place three or four wire arches in the carton so as the seedlings grow, they will not touch the plastic. Place the carton in the plastic bag and seal. Avoid using dry cleaning bags as they cling easily and can be dangerous to small children. Keep the mini-greenhouse in a warm, bright location out of direct light. Open the bag daily to check on seedlings. Add water when necessary.

Regardless of the type of container chosen, fill it three-fourths full with seed-starting mixture and sow the seeds. Cover to the specified depth and water the mix. If your home is dry, it may help to cover the containers with plastic wrap to maintain a steadier moisture level. Seeds and seedlings are extremely sensitive to drying out. They should not be kept soaking wet, however, since this condition is conducive to "damping-off," a fungal disease deadly to seedlings. Damping-off can be prevented or diminished by sprinkling milled sphagnum moss, which contains a natural fungicide, on top of the soil.

Seed-Starting season is still a month or two away, but what better way to get a jump on the gardening season than to begin to collect containers headed to the land fill or recycling center that can be recycled into a seed-starting container? It not only saves a little money, it's the ecofriendly thing to do.

Thanks for dropping by The Garden Shed. We hope to see you again next month.

Sources:

“Recycle to Start Seed Indoors,” by Diane Relf, Extension Specialist, Consumer Horticulture, Department of Horticulture, Virginia Tech, in The Virginia Gardener Newsletter, Volume 11, Number 2.)

“How to make Origami Newspaper Seeding Pots,”

http://www.forgreenies.com/origami-newspaper-seedling-pots

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In the Vegetable Garden- January

By Cleve Campbell | January 2018 - Vol. 4 No. 1

Well, 2017 has come and gone. While in the midst of cleaning out the garden back in October, the seed catalogs began to show up in the mail box; now there's time to look them over. Can spring be far behind? For the vegetable gardener, winter is a time to look back and to look forward. What's that old saying? — "Don't put off until tomorrow those things you can do today." January brings an opportunity for reflection and to get prepared for a new year with new gardening opportunities. Following is my to-do list for January:

- **Look back and learn from 2017**. This means: get rid of all those 2017 seed catalogs, review old seed order forms as a reference for new seed orders. and review the garden journal for what worked and didn't work. What! –no garden journal? Make a New Year's resolution to start a 2018 garden journal. This can be a valuable tool in planning the new garden and deciding what varieties to plant. Remember that when it comes to a garden journal, the more information noted in the journal, the better.
- **Complete seed catalog orders now** before specific desirable varieties sell out. Order early in the month to take advantage of promotional offers of free seeds or discounts for early orders. As you review seed catalogs choose disease-resistant varieties., They not only make gardening easier and more enjoyable, they reduce expenses and environmental pollution from pesticides.
- **Perform seed inventory** and **run a germination test on "old" seeds stored** from previous years to see if they still sprout. A little online research located numerous sites, including various seed companies that offer information on home seed germination testing. One such siteOregon State University, offered basic and simple instructions for "How to Test Your Stored Seed for Germination". Handle seed packets carefully. Don't try simply rubbing the packet to determine a "feel" count as this can break the protective seed coating, thus reducing germination.
- **Begin collecting containers** that can be used for transplants, such as styrofoam cups and yogurt and sour cream containers.
- **Clean crusty clay pots** with a vinegar/bleach solution. To make the solution: add 1 cup each of white vinegar and household bleach to a gallon of warm water and soak the pots. For heavily-crusted pots, scrub with a steel wool pad after soaking for 12 hours.
- **Clean and inventory seed flats**; soaking flats in a **bleach solution — a ratio of 10 parts water to 1 part bleach —** will kill disease-causing microorganisms.
- If you are **spreading the ashes from your fireplace** or wood-burning stove in your garden, be aware that, over time, you are **raising the pH of your soil**. It may be time to have your soil tested for the pH before applying more wood ashes. For more information on wood ashes, check out our Garden Shed article titled "Wood Ashes" .
- Review All-America Selections web site for new 2017 vegetable winners for possible planting candidates.
- Save plastic mesh bags in which onions and oranges usually come; they make idea storage sacks for air-drying onion, garlic and shallots

Thanks for stopping by **The Garden Shed.** We are looking forward to your visit next month. In the meantime, we wish you and you family and safe and happy new year.

Stuffed Acorn Squash

By Cate Whittington | January 2018 - Vol. 4 No. 1

“Bowls” are in–rice and other grains, topped with veggies and a protein, are having their day in the culinary sun. This month’s recipe is for a squash dish formed from its own organic bowl. The large cavity of acorn squash, plentiful during the winter months, begs to be filled. I have stuffed it with apples and cinnamon for a sweet accompaniment to ham, and no doubt you have had success with other delectable fillings for this and other squash. The recipe that follows is adapted from Rebecca Katz’s book, The Cancer-Fighting Kitchen. I like to serve this dish during the winter months as it offers a delicious way to use highly nutritious, seasonal ingredients. Pure comfort food on a cold winter night. And it is truly as easy as one, two, three.

Ingredients

2 acorn squash

1 Tablespoon olive oil

1 Tablespoon maple syrup

1/4 teaspoon sea salt

1/4 teaspoon ground allspice

1/4 teaspoon ginger

1/4 teaspoon ground cinnamon

Pinch of red pepper flakes

Filling:

1 cup quinoa, rinsed well under cold running water

1 Tablespoon olive oil

2 shallots, finely diced

1/4 teaspoon ground cumin

1/4 teaspoon ground coriander

2 cups vegetable broth

1/4 teaspoon sea salt

2 cloves garlic, minced

1/2 cup dried cranberries or raisins

6 cups steamed and chopped Swiss chard or kale, in bite-sized pieces

Directions

Preheat oven to 350ºF and line a sheet pan with parchment paper.

ONE: PREPARE THE SQUASH

Cut each squash in half and scoop out the seeds and strings. Cut pointy ends off the squash so that they will stand when filled.

Mix the olive oil, maple syrup, salt, allspice, ginger, cinnamon, and red pepper flakes together in a bowl; then spread the spice mixture over the inside of the squash. Place squash, top side down, on the prepared pan and roast for about 45 minutes, until soft.

TWO: PREPARE THE FILLING

While the squash is roasting, make the filling: Heat olive oil in pan, add shallots, cumin and coriander, and sauté until soft. Stir in the quinoa, broth, and salt. Cover and bring to a boil; then reduce the heat and simmer for 15-20 minutes, until the quinoa has absorbed all the liquid. Remove from heat and fluff with a fork.

THREE: PREPARE THE GREENS

While the quinoa is cooking, heat olive oil in large sauté pan over medium heat. Add garlic, red pepper flakes and cranberries/raisins. Add chard/kale and sauté until greens are tender. Remove from heat and add a squeeze of lemon juice.

Assemble the dish by spooning the quinoa mixture into the squash and topping with a scoop of greens. These are large servings and may easily be divided to use as a side dish, if desired.