

GARDENER'S CORNER

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Try Worm Composting This Winter

BY NANCY KREITH

Just because it is winter doesn't mean composting has to come to an end. Worm composting can be done indoors using a ten-gallon tote. Creating the bin is simple and inexpensive. A home-made worm bin will cost approximately \$30 with the bulk of the cost being spent on one pound of worms at \$20-25 per pound. Bulk worms can be sourced through local vendors or online.

Start with an opaque ten-gallon tote and drill about forty 1/8" – 1/4" holes on top of the lid. Next, fill the bin half way with shredded newspaper (no larger than 1/2" strips) and mix in water until the paper has the consistency of a rung-out sponge. Then add a handful of soil from the earth. Lastly, add one pound of squirming worms (approximately 1000 worms/pound). It is important use red wiggler worms (*Eisenia fetida*) because they can tolerate room temperature and do not need to burrow.



Worm compost bin.

The newspaper serves as worm bedding and a carbon-rich food source. The soil contains beneficial microbes that aid in the decomposition process and also help the worms digest food. The kitchen scraps are nitrogen-rich products high in moisture that balance the carbon-rich paper. Within this controlled system the combination of wet and dry materials maintain proper moisture levels and holes allow for good air circulation. As long as you do not overfeed

the worms, there should not be excess moisture. If you happen to overfeed them, add dry, shredded newspaper to regulate the moisture level.

It will take approximately three months for the worms to accumulate finished compost. During these three months, worms should be fed a handful of food scraps every other day. Worms can consume their weight per day, but remember that the newspaper also serves as food. Suitable kitchen scraps include apple peels and cores, banana peels, potato peels, watermelon rinds, and coffee grounds. Produce to avoid includes citrus rinds, onions, and hot peppers. Also be sure to leave out meat, cheese, bread, and oils. So, do not feed the worms your leftover salad with dressing. Additionally, burying the food waste is a MUST! Simply throwing the food on top of the newspaper invites pests, like the dreaded fruit fly.

When the compost is finished it is time to separate the worms from compost (castings). A method that has proven to be successful is the 'mesh bag migration' method. To begin, cut off feeding for a week, then introduce fresh food that has been placed inside a mesh bag (onion or citrus bags). The worms will migrate into the mesh bag and the bag can be removed before all of the food has been consumed. The mesh bag with worms can then be added to a new compost bin. You will need to repeat this process at least five times before the majority of the worms have been separated from the castings.

Ah, yes, the finished compost, the moment you have been waiting for. When harvesting compost in the winter time, it makes a great potting soil amendment for houseplants. As early spring hits, blend the worm castings with seed starting mix or add them to garden beds. Why not reduce waste and have fun doing it! The fun comes as you watch the worms do the bulk of the work for you. Composting chores are cut to a minimum as there is no turning or watering required in this system. So, sit back and enjoy as you help the environment and make a few less trips to the dumpster.





Caring for Amaryllis

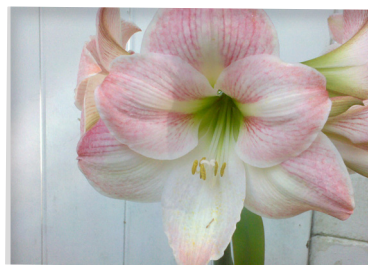
BY KEN JOHNSON

Amaryllis are popular plants, both as gifts and as decorations during the holidays. They are a great way to add a splash of color indoors. They produce large (six-to-ten-inch) trumpet-shaped flowers on long stalks (1 ½ to 2 feet long). Amaryllis come in a variety of flower colors, ranging from red, salmon, pink, purple, and white to bicolor and are often striped or mottled.

Many of the amaryllis plants available this time of year come pre-potted and are ready to go. You'll occasionally find some that have already started to grow and all you need to do is give them some light and water. However, if you buy an unpotted amaryllis bulb, there are a few things you need to do to get it growing and off to a good start.

Plant the bulb in a pot that is about two inches larger in diameter than the bulb. Make sure the pot has drainage holes. Select a soil-less (well-draining) potting mix and plant the bulb so that the top one-third of the bulb is sticking out of the potting mixture. Water the pot well and place it in a dark, warm area. Once new growth appears, move the amaryllis into a sunny location. Add water to the pot until it begins to drain out the bottom. Make sure to discard the excess water from the saucer. You won't need to water again until the soil feels dry to the touch. Once the flower buds begin to show color, move the plant out of direct sunlight and ideally into a cooler location. Moving the plant will help retain the blossoms for a longer period of time.

Like many other bulbs, you can get an amaryllis to re-bloom next year. Once the flowers begin to fade, cut them off to prevent seed formation (wait to remove the flower stalk until it yellows). Do not remove any of the leaves; this will allow the plant to create food to store so it can bloom again. Place your amaryllis in a bright indoor location and water thoroughly, but let it dry between waterings.



Amaryllis flower.

Keep your amaryllis in its inside 'home' until the danger of frost has passed. Once there is no longer a risk of frost, take it outdoors. It is best to put your amaryllis in an area that receives filtered sunlight at first, and then gradually move to an area where it will get a minimum of six hours of sunlight a day. Fertilize your plant every two weeks with a liquid fertilizer or apply a slow-release fertilizer (follow the directions on the label).

In the fall, bring the amaryllis indoors before the first frost, store the pots in a dark cool place (50 to 55°F), and stop watering. Remove the leaves after they have become yellow. The bulb will need to go through a resting period for approximately eight to twelve weeks before it can be forced to bloom again. While it is in this resting period, periodically inspect the bulb, and if it begins to grow, bring it into light. If it doesn't begin to grow on its own, you can force new growth by watering the soil thoroughly and placing the amaryllis back into a sunny location. When the bulb begins to show signs of growth, start the blooming cycle again. With a little work, the amaryllis bulb can produce a beautiful holiday plant for several years.



Amaryllis plant.

Norfolk Island Pine

BY RYAN PANKAU

The Norfolk Island pine (*Araucaria heterophylla*) is a common houseplant that is often sold around Christmas time due to its Christmas-tree-like appearance. However, in its native range, it is quite different than the one-to-five ft. houseplant we know it as, reaching heights of 150-200 ft. Although affectionately referred to as a “pine,” it is technically not a true pine (of the family Pinaceae) but rather a member of a separate coniferous family, Araucariaceae.

The tree is endemic to Norfolk Island, a small island in the Pacific between New Zealand and New Caledonia, where it thrives in subtropical coastal environments. Although its wood fiber is not known particularly for its strength, it is sufficiently flexible to withstand strong coastal winds (and sometimes hurricanes) and produce tall, amazingly straight trees.

The first known documentation of European observance was recorded by Captain James Cook in 1774, who noted value in the tall, straight trees for use in sailboat masts and yards. However, the Norfolk Island pine was not strong enough for these uses once others attempted mast production in the 1790s.

Since the bole of this tree is so incredibly straight, it has been used extensively for woodturning, which doesn't require the extreme structural strength, but values beauty and aesthetics. Hawaiian artisans have created some really remarkable artwork from this species, making everything from beautifully turned bowls to ornate furniture pieces.

Worldwide, Norfolk Island pines are more revered for their beauty than their utility. Their symmetrical, pyramidal growth habit combined with attractive, awl-like needles on younger growth has spurred extensive cultivation in suitable climates. It is now a widely distributed landscape plant across humid, subtropical climates around the globe. Here in the US, it is considered hardy in Zone 10 and 11, which limits its use as an outdoor landscape plant to southern Florida and specific locations in southern California.

Although beautiful in its youth, its symmetric growth habit tends to fade as it ages. Since it grows quickly and quite straight, it is often prone to disfiguring lightning strikes and subsequent branch failure. Therefore, it has become less recommended (or sometimes banned) in certain localities.

In the US, this species is best used as a houseplant, where it provides a beautiful array of green needles in a dense compact habit. It is one of my favorite house plants due to its adaptability and beauty. Younger needles are denser and slightly curved, whereas the older needles become somewhat contorted or twisted; thus, the scientific name “*heterophylla*” meaning “different leaves.” It is tolerant of a wide range of indoor conditions, making it a tough houseplant.

Many folks buy Norfolk Island pines around the holidays and throw them out afterwards. To me, this is such a travesty. This year, plan to keep your Norfolk Island pine happy and healthy by giving it proper care.

To keep their dense foliage and branching, these plants need ample light. They can tolerate lower light, but must be adjusted slowly to the change. Remember, your plant came from a greenhouse with full sun. If the ideal spot in your home will have less light, adjust your plant slowly by gradually weaning off light from a sunnier spot. Allow soil to completely dry out between watering. They cannot tolerate overly wet roots. Since they are tropical plants, they have little tolerance for temperatures below 45 degrees. Their ideal temperature range is 65-75 degrees, which coincides nicely with most indoor environments.

With proper care, you can enjoy your Norfolk Island pine for many Christmases to come. In fact, they make a wonderful living Christmas tree you can reuse for years.



Norfolk Island pine is a commonly sold houseplant that many discard after the holiday season, but it can offer beautiful foliage year-round when given proper care.



Norfolk Island pine plant.

Winter Watering of Trees and Shrubs

BY GEMINI BHALSOD

Despite the wetter-than-normal September in a wide area of Illinois, homeowners should still monitor soil moisture conditions. If soil is dry, homeowners should consider watering their trees and shrubs this fall and winter. Drought conditions in the late fall, along with dry air and low soil moisture, can lead to plant damage if no supplemental water is provided. Plants under water stress are more susceptible to insect and disease problems. Affected plants can also experience injury to roots or other foliage.

Before you water, be sure to check your soil moisture. You can do this by digging a small hole under your tree's drip line, just 4-6 inches is enough. Use your hands and feel for moisture. If it is dry, you need to water. Monitor the moisture levels about once a week.

To water, use a soaker hose to provide a slow stream of water. This method results in less runoff and the water is more likely to be absorbed by the root zone. If your hose is stored away and your tree or shrub is small, pour water very slowly or drill a 1/8-inch hole at the bottom of a 5-gallon bucket and fill that with water. Water at the tree's drip line and not right against the base. To conserve water, start with your newly planted trees and shrubs weekly and then your large and established trees once a month if it is a dry period.

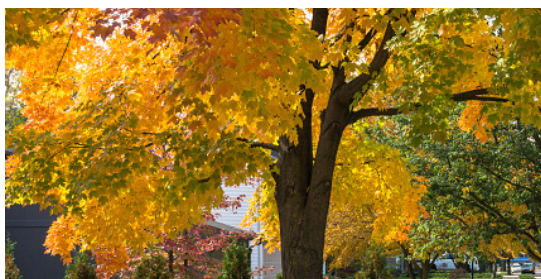
Be sure to avoid fertilizer, so you don't stimulate any late-season growth, and consider applying mulch. Apply mulch about 2-4 inches away from the base of the tree all the way to the drip line in a donut shape. Mulch can help conserve moisture over the winter months.



Evergreen trees do not go dormant in the winter.

In particular, fall-planted trees, shrubs, and perennials should be monitored and watered late into the season, since they do not have as much time as spring-planted ones to develop extensive root systems. Pay particular attention to evergreens and shallow-rooted trees. Since evergreens do not go dormant in the winter, they are still actively respiring and losing water through their needles, much more than dormant trees (which are just respiring at lower rates). Some shallow-rooted trees include birches and maples. Since soil insulates and cools down much later than air, roots are respiring at higher rates than above-ground material of deciduous trees after their leaves drop.

Soil should be moist, but not waterlogged, until it freezes. In some places that could be as late as the end of December! Be sure to stop supplemental watering after the ground freezes.



Maple tree.

As always, planting hardy species or cultivars with deep roots is best since they are more likely to be able to survive temperature fluctuations and prolonged periods of cold.



Birch trees lose their leaves in the winter.

Who Is Spending Winter in Your Garden?

BY KELLY ALLSUP

For many years, gardeners were taught to clean up their landscape in the fall to dispense of lingering disease and throw out future insect infestations. However, horticulturists, like award-winning author Heather Holm, are encouraging gardeners to leave their landscape undisturbed for the overwintering of insect good guys in the garden.

Many gardeners are developing an aversion for chemical use in their small garden retreats and realizing that complete eradication of insect pests is implausible. And fortunately, a balance of good and bad insects is actually ideal for their garden's ecosystem. As a result, their gardens extend well past blooming plants.

One way a gardener can do this is by understanding how these good guys battle the brutal temperatures of Illinois and providing a winter home for them in their landscape.

One such good guy, the green lacewing, overwinters as a pupae attached to stems and leaves. Gardeners may know them as adults, fluttering from flower to flower with their delicate wings, eating nectar and pollen. As larvae, they are ferocious aphid eaters.

Also called aphid lions, they can eat 40-60 aphids per day, using their large, curved, and hollow mandibles to grasp aphids and inject a paralyzing venom. The lacewing then extracts the juices of the aphid and throws the carcass to the ground. They may also go for other smaller-body invertebrates like caterpillar, beetle, scale, mealy bugs, leaf hoppers, thrips, and mites.



Green lacewing aphid. Photo credit: Heather Lash

Ladybugs, well-known good guys, survive the winter as adults under branches and in logs. Adults eat aphids, nectar, and honeydew as well as garden pests, but are not as voracious as the larvae. A single ladybug may eat as many as 5,000 aphids in their lifetime.

Jumping spiders, wolf spiders and some crab spiders overwinter as juveniles or adults in Illinois. They choose rotting logs, leaf debris, or bricks. Along with the bees, if spiders disappeared we would face famine, as they are avid eaters of our crop pests. Overwintering adults may stay active even in cold temperatures, but seek out shelter to stay warm. Many spiders overwinter as egg cases.

Many of our native solitary bees like leafcutter bees and mason bees overwinter as young larvae in the pith of stems or holes in stumps or logs. Popular models of insect hotels provide such services. Carpenter bees will overwinter as young adults. The overwintering lone queen of a diminished bumblebee colony will seek out crevices in your garden, too.

Many moths and butterflies overwinter as caterpillars, pupae, and even adults, in the soil surface, leaf litter, amongst dead plants and twigs, and other hiding places in the garden. Adults of mourning cloak, comma, question mark and red admiral overwinter in tree bark, logs, and leaf litter. The pupae of swallowtails, sulphurs, and cercopia moths overwinter on dead plant stems or leaf litter. Caterpillars of red spotted purple, viceroy, Baltimore checkerspot and great spangled fritillary overwinter in dead leaves from the host plant. Purplish copper overwinters as eggs in debris. Eliminating a garden's protective layers means you may be unknowingly removing the visitors every gardener wants.



Red admiral butterfly. Photo credit: Deanna Frautschi

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Houseplant Expectations During Winter

BY RICHARD HENTSCHEL

Winter can be hard on our houseplants, especially if they were on vacation outside for the summer. Houseplants get to “recharge” all summer long. Light, air and soil temperatures, and watering practices are all going to be different once inside. Hopefully, some of those changes started to occur gradually as weather conditions outside reminded us winter is coming. Nights start to get cooler, something our tropical houseplants really do not like. Ideally, houseplants are taken inside before the house furnace begins to run, gradually adapting to lower humidity levels. What happens more often is that we are outside in the dark bringing the houseplants in because there is a good chance of a frost!

Once inside, there will be changes to how the leaves look. While outside and exposed to the sun, leaves will produce a level of protection from the sun. Leaves produced while indoors do not need that protection, so they may look dull in comparison. Those same leaves exposed to the sun again will likely sunburn next summer.

Air temperatures are often not the same as the soil temperatures in the pot especially if it is sitting on a windowsill. Cool and cold air coming off the window and settling on the windowsill will be several degrees colder than

the surrounding air temperatures. This may not be a big deal for succulents; however, for tropical houseplants, this can really shut down their growth in the winter. Using the various windows in the home can be quite helpful for managing pot soil temperatures.

With the reduced light levels, expect some leaf loss as houseplants adjust. Plants are balancing how many leaves can be supported with less light. Weeping benjamin fig is a good example, dropping leaves like falling rain. We can also expect the lower and older leaves to brown and fall off, putting that energy in to any new leaves produced. Another change for houseplants is that new growth will stretch towards the light and orient its leaves to absorb as much light as possible. Leaves can be damaged by the cold if they actually touch the window glass.



Houseplants require a completely different watering strategy once they are indoors. Houseplants should be kept on the dry side. Without active growth, it is very easy to overwater them. Once the soil is too wet, it is very hard to get it dried out. Plastic pots are harder to dry out than clay pots, which are porous. To that end, using the same soil mix in all the containers makes watering easier as well. The goal for managing your houseplants is to keep them healthy until late spring and early summer when they once again leave for vacation.

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