



Garden Scoops

RUTGERS COOPERATIVE EXTENSION
MASTER GARDENER OF HUNTERDON
COUNTY

Sincerely, Rebecca

The evolution of garden advice

For as long as most of us can remember, gardening advice was sought by curious minds grounded in horticulture. From the Farmer's Almanac, garden blogs, magazine articles, textbooks, and apps, to a plethora of peer-reviewed, scientific literature, and everywhere in between, gardening advice could be found anywhere. As we advance through the decades, more and more outlets for gardening advice transpire (*pun intended*), are immediately accessible, and are often contradictory. Most recently, the Covid-19 Pandemic brought about a tidal wave of beginning gardeners with access to smart phones and high-speed internet. The caveat, however, is that not all garden advice is based in unbiased science. Claims of companion planting, assumptions without context, and romantic garden myths are not necessarily rooted in science, in data that has a predictive power in efficacy. Instead, perhaps, they're fun to read, satisfying with that immediate answer, accompanied by colorful photos or entertaining performances, though not necessarily best suited for problem-solving.

There are residents in our community who, in the spirit of community service and passion for evidence-based answers, have undergone tremendous amounts of training, passed exams, persevered through internships, achieved annual continuing education requirements and uphold their commitment to assisting Rutgers Cooperative Extension in its mission to deliver research-based, unbiased horticultural information to the public. They are our Rutgers Master Gardener volunteers. These articles are written by our Rutgers Master Gardeners of Hunterdon County Citizen Science Team; they are committed to verifying information and making it available to **you**.



THE SCOOP ON WHAT'S INSIDE

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Repotting an Orchid

by Karen Sferra, RMG of Hunterdon County

Gather your materials first:

- **Potting medium** (*Epiphyte orchid potting mix, coarse blend for fast draining was used. Additionally, this potting mix was doused with water and drained before use.*)
- **Pruners** (*sterilize before using – spray bottle with 91% isopropyl alcohol was used*)
- **Scissors** (*sterilize before using*)
- **Pot** (*plastic or clay should be cleaned, sterilized, and dried prior to use*)
- **Chopstick or small dowel**

The Phalaenopsis orchid shown below was purchased a couple of years ago and was outgrowing its container with roots growing through the drainage hole and wrapping up the side; good time to repot! When should you repot your orchid? Look to see whether the potting medium has decomposed and looks more like soil than wood chips, you haven't repotted it in a couple of years, or the plant has become too leggy and the stem is weak and floppy. You may repot at any time-- spring through fall-- but only after the orchid has finished blooming. What size container should be used? Make sure the new container is about 1" larger in width than the current pot. The idea is to keep the orchid somewhat pot-bound to encourage flowering

. Remember clay pots will dry out faster and roots tend to stick to the side of the pot, making repotting slightly more difficult. To repot, carefully lift the orchid from its container and make sure all the old potting medium is removed from the roots. Trim rotted or brown roots. Sprinkle bottom of container with a thin layer of potting medium and spread the roots over the medium. Fill the pot with medium keeping the stem centered and located just above the pot rim. You can use a chopstick/dowel to carefully work the medium around the roots so no air pockets remain. Thoroughly water the orchid after repotting. Always use room temperature water—never ice cubes—and allow the plant to drain completely.



**Repotted,
watered, and
happy orchid**



Notice cramped roots



Primrose

by Jean Miller, RMG of Hunterdon County

To fight the drearyThe name primrose comes from the Latin for "first rose". Its basal leaves are lobed or toothed. Clusters of flowers vary from blue, purple, red, white, to gold. Some have contrasting colored "eyes" while others are plain.

Primroses are relatively easy to care for in the home. They do well in a sunny window with temperatures around 70 degrees F during the day and 50 degrees F at night. The plants like to be moist, but not soggy. Flowers can last for a few weeks, and they do not require any fertilization while inside. Choose healthy primroses which have bright green leaves and many blooms/buds. While at home, some leaves will eventually yellow. Simply remove them. (Please note that primroses can be toxic to dogs, cats, and horses.)

In the flower beds, primroses make delightful companions to hostas, spring bulbs, bleeding hearts and hellebores, typically flowering around March and April.

But before an indoor primrose is transplanted outdoors, it needs to be acclimated. In spring, simply leave primroses outside during the day and bring them in at night until after the last frost date. Then they can be safely planted outdoors and enjoyed annually for years to come.

When planting outdoors, generally choose a moist area in partial shade. Areas that see bright sun in the spring (like under deciduous trees) and part shade in the summer are excellent choices. Lightly fertilize primroses after planting.

What can one do to fight off the dreary days of winter? Go to your local grocery store or garden center and search for a primrose (*Primula x polyantha*), or two or three. These diminutive, attractive, and quite affordable herbaceous perennials can be enjoyed now in the house and, after the last hard frost, transplanted into your flower beds.

OXALIS SHAMROCKS



"Shamrocks" are popular houseplants found in stores and nurseries, especially during the month of March. The official Irish shamrock (*Trifolium dubium* or *Trifolium repens*) does not grow well indoors so nurseries and florists have selected this similar plant of the genus *Oxalis*, from the wood sorrel family, which is native to Africa and the Americas in its place. The shamrock is a popular symbol of Saint Patrick's Day. Many believe that Patrick used the plants whose leaves have three triangular sections attached to one stem to explain a staple of Christian doctrine.

Oxalis will delight you with its petite five petaled white or pink flowers which cascade out of red or green leaves that open and close according to its internal circadian clock. Opening its leaves during the day seems obvious to receive more sunlight but there are no definite explanations for the folding of leaves at night. Decreasing moonlight on its inner clock and protection against nocturnal insects are two possibilities. Whatever the reason, catching this morning ritual is very fascinating.

Oxalis grow from tubers and prefer bright light, well-drained soil, as well as being pot bound. During a flowering stage a fertilizer at half strength may be used. Do not be discouraged if your foliage turns yellow and dies back as this is the beginning of a dormant phase which can last from one up to three months. When this occurs, relocate the plant to a cool, dark place and stop watering until new growth begins.

***By Judy L.,
RMG of Hunterdon County***



"Shamrock" is derived from the Gaelic seamrog, which means "little clover." The three leaves are said to stand for faith, hope and love. The four leaf clover... rare to find... lucky to have! Luck comes from the fourth leaf.

Jack-in-the-Pulpit by S. Haake



As NJ State and County parks have re-opened, be on the lookout for this unique woodland native. The bloom consists of a striped hood that conceals a spadix - or jack - which is covered in numerous tiny green to purple flowers. Common pollinators are fungus gnats, which are attracted by the "fungal" odor.

Male plants - usually smaller than female plants - have a small hole at the bottom of the spathe which allows pollinators to escape more easily. Female plants lack the hole and pollinators are more likely to become trapped, leading to more successful pollination.



Glory of the Snow

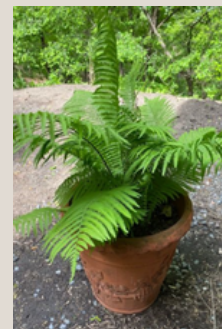
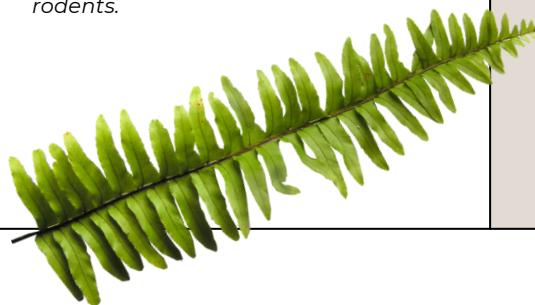
By Irene O. Sabin

Glory-of-the-Snow is an early blooming bulb which sometimes flowers while there is still snow on the ground (March/April). The common name comes from the Greek genus name Chion - snow and doxa - glory. The plants are native to Turkey and were previously grouped in the Scilla genus, which they resemble. The small, fall planted bulbs can spread and naturalize by bulb division and self-seeding under favorable conditions in USDA hardiness zones 3 - 8. In addition to the star-shaped blue flowers, there are varieties in pink, lavender and white. Bulbs are available in mixed colors. Each bulb produces a stem with 5 -10 flowers which can be cut for tiny bouquets. The plants grow to a height of 6 to 10 inches and the mid-green, grassy leaves should be left to fade naturally so that they can produce energy for the following spring bloom period.



Culture:

Plant bulbs three inches deep and three to four inches apart in average, moist but not soggy soil in sun to part shade. Plant collected seeds in the fall. If started indoors, seeds need to undergo a period of cold stratification to bring them out of dormancy before planting. Glory-of-the-Snow flowers make excellent companions around other early bloomers. They can naturalize in deciduous woodlands or around individual trees, in rock gardens, and even lawns, if left unmowed until the foliage fades in late spring. They can add early color to perennial gardens because they will be dormant before the garden plants start to grow. Chionodoxa plants are usually tolerant of deer, black walnut trees (juglone), and rodents.



Ostrich Fern

By Susan H.

Ostrich Ferns (*Matteuccia struthiopteris*) are native to the Eastern North American woodlands. They will perform well in cool, shady, moist areas and will grow over 3' tall. They are among the select few plants that may grow under walnut trees and are considered deer resistant.

Hardy to Zone 2, they spread by underground rhizomes, come up in the spring, and will form a mass planting in a few years.

They also make great container plants and can actually overwinter outside in the container. Pretty soon, you'll be digging them up and giving them away as they transplant easily since they have such shallow roots but be careful as the tall fronds break easily.

SEED CATALOG VARIETIES

BY KATHY ROHRABACHER



During the cold months of January and February, we get a welcome sign of spring with the arrival of seed catalogs. Paging through the myriad of selections gets us into the spirit of spring planting; eager to fulfill our garden plan. However, determining your “choice” selection of plants can be overwhelming. In one catalog alone, there can be over 100 choices of tomatoes and over 25 choices of lettuce. In fact, there are over 1000 different tomato varieties.

Note, a variety, within the taxonomy of plants, is the rank below that of species and sub-species. A variety is determined by a common grouping of characteristics including plant size, color, shape, bloom season time (e.g., early, late), use, disease resistance, seed type (e.g., heirloom or hybrid), etc. Different species may include additional and/or different characteristics that are used to determine a unique variety. When selecting a variety for your garden you should consider the following in making your choice:

- Your preferences including color, size, and use (e.g., making sauce, slicing, etc.)
- Bloom and growth habits (days to maturity, early or late season bloom, etc.)
- Climate and location (select varieties that do well in NJ and in your planting location)
- Disease resistance



Bark for Winter Interest

by Tricia Deering, RMG of Hunterdon County

Most residents don't think of winter when selecting plant material, but trees and shrubs with interesting bark can really add interest to your landscaping especially when the weather is cold and dreary. Bark can have intriguing color, texture, and even shine. A well-placed tree or shrub with beautiful bark will make you smile when you walk past it or view it from your window on a winter day. And observing tree bark can make a winter walk in the woods much more rewarding.

River Birch, *Betula nigra*: a medium size, disease resistant native deciduous tree easily grown in average, medium to wet soils in full sun to part shade, often multi-stemmed with exceptional exfoliating bark.

Japanese Red Pine, *Pinus densiflora* 'Umbraculifera': a slow-growing, multi-stemmed, shrubby, vase-shaped selection of Japanese red pine with long, dark-green needles, a heavy show of tiny seed cones, a flattish parasol-like top, and reddish-orange exfoliating bark.

Paper Bark Maple, *Acer griseum*: a small, deciduous, oval-rounded tree with slender upright branching particularly noted for its exfoliating copper orange to cinnamon reddish/brown bark and its showy orange to red fall color.

Red Twig Dogwood, Red Osier Dogwood (*Cornus sericea*): a multi-stemmed U.S. native shrub with white berries and red winter stems.

Kousa Dogwood, *Cornus kousa*: a small, deciduous flowering tree or multi-stemmed shrub that typically grows 15-30' tall. It has bark which peels off in irregular patches, revealing a mosaic of mottled colors underneath.

Sycamore, *Platanus occidentalis*: a large, deciduous, moisture-loving, single-trunk tree with horizontal branching and a rounded habit. The signature ornamental feature of this huge tree is its brown bark which exfoliates in irregular pieces to reveal creamy white inner bark. Sycamores are common near stream banks in Hunterdon County.



THERE ARE A LOT OF GREAT CHOICES FOR TREES AND SHRUBS WITH WINTER INTEREST.

Armchair Gardening

It is seed catalog time! Beginning in the New Year, every gardener looks forward to opening their mailbox to find a plethora of catalogs. February is the start of "armchair gardening" for those of us who are anxiously awaiting spring so we can start digging in our gardens again.

The volume of catalogs received may be daunting but even more so are some of the words and terms that may be unfamiliar, especially to the new gardener.

Plant name: Generally grouped by their type (vegetables, annuals, perennials, herbs, etc.). Within those groups, the plant name is listed alphabetically by genus, species and variety. For example, Echinacea (genus), Coneflower (species), and Delicious Candy (variety or cultivar).

Growing requirements / conditions: This is where we'll find plant spacing, height of grown plant, soil requirements, sun/shade requirements, moisture requirements, drought and heat resistance, pollinators and deer/rabbit resistance.

Hardiness Zone: Zones designating areas the plants will withstand the minimum temperatures at a specific location.

Frost date: The average date for a light freeze or frost (29°F to 32°F) in a given location. The average frost-free date in Hunterdon County is typically around May 12th.

by Layce G., RMG of Hunterdon County.



Days to germinate: The number of days it takes for a seed to sprout.

Days to maturity or days to harvest for seeds: The number of days it takes for a sprouted seed to grow to maturity / harvest. For transplants, from the time planted.

Note: Days to germinate / harvest is meant as a guideline to determine if there is enough time to grow a plant and bring it to harvest before frost.

Early, midseason, late season: These terms are sometimes used instead of "maturity." They refer to approximate harvest times during the growing season.

Germination rate: An estimate of the ability of seeds in a typical packet to sprout and survive. Also called Viability.

Bare root: The plants are grown at the nursery then at the appropriate time dug up, roots washed of soil and wrapped for shipping. Bare root plants are often less expensive to buy than those in containers.

Open-pollinated seeds: Seeds collected from plants that were pollinated from natural sources i.e., insects, birds, wind, etc. Plants grown from open-pollinated seeds remain true to type. That is, they exhibit the same traits as their parent plant.

Heirloom: An open-pollinated seed variety that has been passed down for at least 50 years. All heirloom seeds are open-pollinated but not all open-pollinated seeds are heirloom.

Hybrid seeds: Seeds that are the result of cross-pollinating two varieties of the same species of plant. This is done to produce desirable traits in a plant, such size, color or disease resistance. For example, seedless watermelons. Hybrid seeds are typically unstable and should not be saved since successive generations may not be true to the parent traits.

F1: This designation indicates the first generation of a hybrid seed.

AAS: A variety that won an All America Selections award for outstanding performance in the garden.

Bolting: The process called bolting is when lettuce, spinach and other cool-weather crops quickly flower and go to seed in hot weather. Bolting usually causes the produce to become bitter.

Determinate and indeterminate: These terms refer to the growth habit of tomatoes. Determinate tomatoes have a compact, bush-like growth habit, reaching a maximum height of about 4 feet with no staking required. Most of the fruit matures in one month.

Continued on next page...

(Armchair Gardening,
continued)

Treated seeds: Treated seeds have been coated with fungicides, antimicrobial chemicals or insecticides to minimize disease and insect pressure. The coating is visible on the seed to indicate treatment.

Organic seeds/crops (OG): Seeds from plants grown without the use of OMRI-approved pesticides. To be certified organic, suppliers must meet standards issued by the government or certifying body. Sustainable, chemical free, or pesticide free are terms used for seeds from small farms that are not certified nor regulated but still adhere to their own principles.

Direct Seed or Direct sow: Seeds that should be directly planted in the garden due to long taproots or sensitivity to transplant shock.

Disease resistance codes: Most hybrids have been bred to resist diseases that are common to that specific variety. Some catalogs use abbreviations or codes to indicate to which disease the plant is resistant. Some examples include:

A=Anthracnose; B=Bacterial Wilt; BB=Bacterial Blight; BBS=Bacterial Leaf spot; LB=Late Blight; R=Common Rust; S=Scab; V= Verticillium Wilt; W=Common Wilt; WR=White Rust

Pussy Willow

by Lori C., RMG of Hunterdon County

What early spring deciduous shrub has silky flowering parts? If you guessed pussy willow, you are right. Those fuzzy gray catkins are actually keeping the reproductive parts of the plant warm. The catkin is a slim, cylindrical flower cluster resembling the pad of a cat's paw. Pussy willows are dioecious meaning male and female catkins appear on separate plants. Before the leaves emerge, the male displays pearl gray silky catkins; the female has smaller, greenish ones. You know you have a male plant when the catkins turn yellow with pollen.

The pussy willow (*Salix discolor*) is a North American native found in hardiness zones 4 to 8. It grows to a height of 6 to 15 feet with a spread of 4 to 12 feet. It grows well in average, medium to wet, well-drained soil in full sun to part shade. Pruning should be done in late winter to early spring. The shrub can be cut to the ground every 3-5 years to keep it small.

Pussy willows can be propagated by sticking a twig in damp soil. It should quickly root and become a new shrub.



Pussy willows can be propagated by sticking a twig in damp soil. It should quickly root and become a new shrub.

If you want to dry the male catkins for indoor decoration, cut a few twigs before pollen appears. Bring them inside, but do not put in water. The twigs will dry and last for a number of years. Because the pussy willow blooms so early, it is a valuable pollinator nectar source. Birds are attracted to those insects for early protein. Some birds, such as hummingbirds, use the soft catkin fibers to line their nests.

The pussy willow hosts several species of butterfly. The viceroy butterfly looks very similar to a monarch, but does not migrate to Mexico. The female lays eggs on the edge of the willow leaf. When the egg hatches, a tiny caterpillar appears. If the weather is getting cold, the little caterpillar rolls itself in a leaf and stays with the leaf when it falls to the ground. In spring, the caterpillar climbs back up the shrub to feed. Another butterfly that feeds on the pussy willow is a mourning cloak, which has dark brown and maroon wings with cream-colored edges. The mourning cloak overwinters as an adult butterfly in some areas.

Pussy willows can have problems with diseases such as blights, powdery mildew, leaf spots, gray scab and cankers. Insects such as aphids, scale, borers, lacebugs and caterpillars may also be pests.

AFRICAN VIOLET

by Lori C., RMG of Hunterdon County



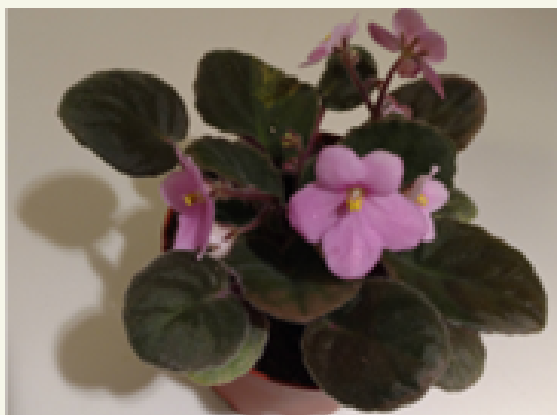
The African violet is a popular houseplant identified by its rosette of fuzzy leaves. Long stems called petioles hold showy flower clusters of pink, red, violet, purple, white and blue. Flowers can be single, double, semi-double, bicolored or edged in white (Geneva). The plant was discovered in 1892 by Baron Walter von Saint Paul in Tanzania, East Africa. The native plant was violet-colored, but hybridization has expanded its color palette. Originally included in the Saintpaulia genus, it has since been reclassified to *Streptocarpus ionanthus*.

African violets prefer a bright area of the home away from direct sunlight in a well-drained soil mix. They can also be grown under fluorescent light for 14-16 hours per day. If the plant is not forming flower buds, it is likely not receiving sufficient light. Commercial African violet soil mixtures are available or you can mix your own of equal parts peat, vermiculite and perlite. Keep the plant slightly rootbound to promote blooming.

The plants favor a temperature between 65 and 80 degrees F with high humidity. To provide sufficient humidity, place pots on a tray filled with gravel and water. Avoid drafts and temperature/humidity fluctuations.

Use room-temperature water and water the plant from the bottom so water is not splashed on the leaves, which can cause damage. Ideally place the plant in a saucer of warm water for 15 to 30 minutes. Water will be absorbed through the drainage hole. Self-watering pots are also available. The glazed outer pot is filled with water; the inner non-glazed pot can absorb water when inserted.

Since African violets are susceptible to crown rot, avoid overwatering, watering into the plant's crown (section of the plant at soil level) or watering at night.



For fertilizing, use either a specially-formulated African violet fertilizer once a month when the plant is in bloom (following label instructions) or use a liquid fertilizer diluted to 1/2 to 1/3 (to prevent damaging the roots) every time you water. Do not over fertilize. Clay pots may accumulate fertilizer salts, which can damage the leaves. To prevent this problem, do not over fertilize, create a barrier between the leaves and the pot to prevent contact or use a glazed ceramic or plastic pot.

To create new plants, cut leaves from the mother plant leaving 1 inch of the leaf stem (petiole) attached to the leaf. Plant the stalk and up to 1/4 inch of the leaf in a wet sand/vermiculite mix. Cover lightly with plastic and keep the mix moist. In 2 to 6 months, new plants will form; separate these carefully and plant individually.

Two pests cause problems for African violets:

Cyclamen mites are one of the more serious problems. They are not insects, but more closely related to spiders. So small they can't be seen with the naked eye. They feed by sucking sap from new growth. The leaves in the center of the plant may show signs of leaf stunting along with possible leaf curl.

Mealybugs are about 1/4 inch long with soft bodies covered with a cottony-looking white waxy material. They feed by sucking sap from the leaves. A light infestation can be controlled by removing them using a cotton swab dipped in isopropyl alcohol.

SNOWDROPS

BY KATHY TRARBACH, RMG OF HUNTERDON COUNTY



Each stem only contains one bell-shaped flower, but planted in drifts, they become a welcome sign that spring will come.

They are hardy in horticultural zones 3-8. The giant snowdrop (*G.elwesii*) grows 14-16" high. Only hardy to zones 4 or 5, it does better than the common in warmer climates.

Snowdrops grow best in part shade to full sun in rich soil, but they are adaptable. The bulbs are planted 2-3" deep in fall. Often used in rock gardens, plants are also massed under trees and sometimes planted within lawns. After blooms fade, the foliage should be left on the plant till it dies back in May. Clumps of snowdrops will grow over time to naturalize in woodlands, but they are not considered invasive. And good news for Jersey gardeners: deer and rabbits avoid them since if ingested, the foliage is poisonous to mammals.

So, what if the yard is covered with snow and spring seems far away? Snowdrops don't care. Right now, the hard tips of two pointed, modified leaves are protecting each snowdrop flower bud, getting ready to push out of the soil. Often the first flowers to bloom in our yards, snowdrops are welcomed by gardeners and honey bees alike!

The common snowdrop (*Galanthus nivalis*) is a member of the amaryllis family. Native to the Mideast and Europe, it typically blooms in February-March in NJ. Only 3-6" tall, the common snowdrop blossom has 6 petal-like structures called tepals: the 3 outer ones are longer than the 3 inner ones, which are sometimes marked with green. (If botanists can't clearly characterize a structure as either a petal or a sepal, they call it a tepal! Its job is to attract pollinators.)





BEGONIAS AS HOUSE PLANTS

BY LAYCE G., RMG OF HUNTERDON COUNTY

At this time of year, we start thinking about planting flowers in our outside gardens. One of the favorites for both their flowers and showy foliage is the begonia. There are over 1300 species in the genus Begonia. They include annuals, perennials, shrubs and climbers. Most have fleshy stems and some produce underground tubers or rhizomes. Begonias are mostly frost tender (hardy to Zones 10-12) and are treated as annuals outdoors in NJ. They are also grown indoors as house plants. This post focuses on rhizomatous begonias since they are most commonly used as houseplants. A future post will cover begonias as annuals.

Generally, rhizomatous begonias make excellent houseplants, the most common being the rex begonia. Begonia rex-cultorum is a name applied to a group of cultivated begonias known as rex begonias, a perennial rhizome native to India, southern China and Vietnam. Most rex begonias grow from a rhizome, a thickened stem structure. Rex begonias are a widely hybridized and cultivated flowering plant but mostly known for their showy foliage.

Rex begonia leaves range widely in color, texture, and size. The leaves can be spattered in red, pink, purple, brown, russet, bronze, maroon, plum, green-gold, white or olive green usually with silvery markings. The top edges and bottoms of the leaves are usually thick with long red hairs. Most have large, heart shaped leaves that tend to face in one direction.



Rex begonias generally require high humidity, a porous planting mix, a shallow pot, fertilization during growth, and care to avoid overwatering. Begonias grown indoors are especially susceptible to root rot and overwatering. They can be set on humidifying trays and soil should be kept barely moist at all times. They like bright indirect light. Night temperatures should not go below 60 degrees F. Plants can be fed with half-strength fertilizer every month or two but taper off in the fall and stop in winter. They can be repotted in potting soil when roots become compacted. They have shallow roots that spread out rather than down, so use a pot that is shorter than wide.

Most Rex begonias don't need pruning unless they are "upright" cultivars, or the rhizome has grown too long for its container and/or has unsightly bare sections. Just cut the rhizome and root the cutting to grow another plant. It will develop new leaves and may even branch. Rex begonias can also be propagated by stem cuttings. Leaf cuttings are another means to propagate rex begonias since they have the ability to sprout new plants from the veins of their leaves.

Wax begonia (*B. semperflorens*) is commonly used as a flowering annual but can be lifted in the fall, potted and grown indoors as a house plant. Wax begonia will be discussed further in a future post on using begonias as annuals.

BLUE JAYS

by Irene O. Sabin, RMG of Hunterdon County

The blue jay (*Cyanocitta cristata*) is native to the eastern part of North America. It is in the large Passeriformes order of perching songbirds and the Corvidae family which also includes crows, ravens, rooks, and magpies. These corvids are known for their intelligence and their ability for problem solving.

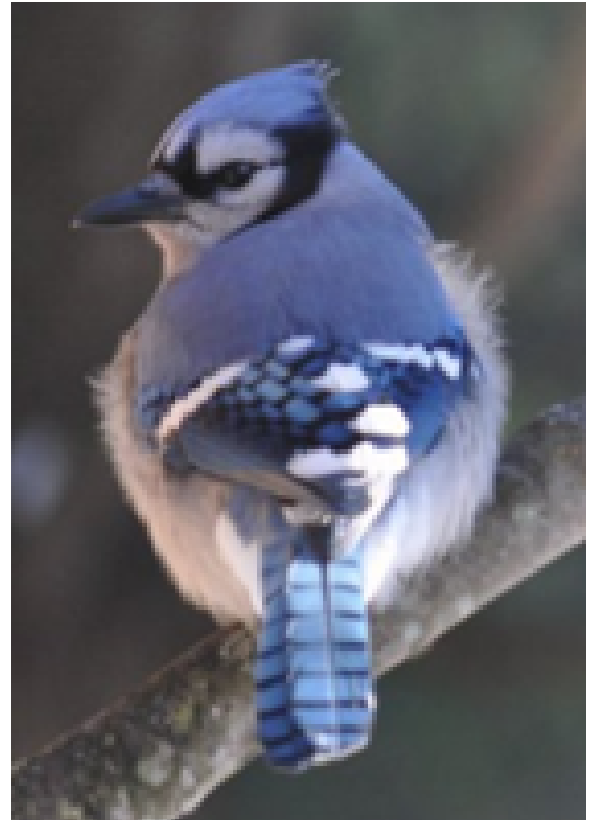
Blue jays are colorful, crested birds with white or light gray feathers underneath and various shades of blue, black, and white on top. The genus/species name describes the bird. *Cyanocitta* means blue, chattering bird or jay (after the “jay-jay” sound the bird often makes) and *cristata* means crested or tufted. There are four sub-species of *C. cristata* and nine other species of jays in North America. There are forty species of jays world-wide.

The pigment in the feathers of blue jays is melanin which is brown. The blue color comes from structural, not pigmented, coloration. Light passes through and scatters across modified cells on the birds' feather barbs which function as a prism and refract blue light. If the feather is backlit or its structure is damaged, the blue color disappears. The black markings across the face, nape, and throat of each bird vary greatly. These markings may help blue jays recognize other birds in their species, according to the Cornell Lab of Ornithology. Male and female birds usually mate for life and form close social and family bonds.

Sexual Monomorphism: It is difficult to distinguish male from female blue jays because their general appearance is very similar. Courting and brooding behavior is the best way to tell the difference. When looking for a mate, a group of males follows a female while displaying their feathers and bobbing their heads to get her attention. Both parents build the nest, but the female is the one who incubates the eggs and broods the new nestlings while the male brings food. When working quietly around the nest, blue jays keep their crests flat against their heads. They raise the crests when they are alarmed, aggressive or vocalizing. In late summer, blue jays go through a molt and their heads are often bald. Feathers usually grow back within two weeks.

Vocalizations: Blue jays use body language and vocalizations to communicate with their group and with other birds. They can mimic the calls of other animals, especially their predators: red tailed and the red-shouldered hawks, and a cat's meow. The birds may use these calls to alert others of danger, to see if predators answer and are, therefore, in the area, or to intimidate other birds as they approach feeders. In addition to birds, blue jays can imitate the human voice and mechanical sounds.

Habitat and Food: In the wild, blue jays usually build nests in the outer edges of forests especially near oak, beech, and conifer trees. They forage in trees, shrubs and on the ground and cache food for winter. They prefer acorns and nuts and have strong beaks to crack them open. They hold a nut in their feet while pecking at it with their beak to remove the shell. They also eat grains, fruits, small animals, and insects. The birds exhibit an unusual behavior called “anting” before they eat ants. They pick up an ant in their beak and rub it against their feathers. The ant's main defense is formic acid which is bitter. The bird removes the formic acid before it eats the ant. Contrary to belief, blue jays do not often prey on other birds' eggs and nestlings, especially if food is plentiful. The average longevity for blue jays is 6 to 8 years in the wild. The oldest banded blue jay died at the age of 26 years 11 months after becoming trapped in fishing gear.



Ecological Importance of Blue Jays

Blue jays may have helped to spread oak trees after the last glacial period. Dr Douglas Tallamy, University of Delaware, writes that there is an “ancient mutualism” between blue jays and oak trees. Acorns are the perfect size and shape for jays to eat and the birds have a hook on the end of their beak to rip open the acorn husks. The birds are excellent dispersers of the seeds because they carry the acorns over a mile away from the source to store them for winter. The jay's gular pouch (or expanded esophagus) makes it possible to carry five acorns while in flight which they deposit in different sites. A blue jay can bury up to 4500 acorns each fall but can only remember one fourth of the cache by spring so many oak seedlings are planted as a result.

Asparagus

by Kathy Trarbach, RMG of Hunterdon County



Few vegetables can be planted only once and then harvested for 20 years. But a patch of asparagus will come back again and again. And fresh asparagus, like corn on the cob, is definitely best when you eat it the very day you snip it out of your garden.

But getting to that harvest takes planning and quite a bit of patience. Now is the time to start thinking about it.

First, order your asparagus roots. You want disease free, one year old crowns. Many growers prefer only male plants, which are more prolific. Females use some of their energy to produce berries and seeds. Rutgers has developed many disease resistant asparagus varieties suitable for NJ, such as Jersey Giant and Jersey Knight.



Since asparagus will grow in the same spot for a long time, site preparation is crucial. Asparagus will grow in horticultural zones 3-10. Pick a well-drained spot that is not prone to early frosts. It should be at least 4 feet wide with 8 hours of sunshine daily. A soil test can tell you which nutrients to add. Ideally, prepare your site well in advance, even a year ahead. Remove all weeds, roots and rocks from the site. Then work a generous layer of compost, manure, and any amendments into the top 6" of soil.

When your crowns arrive, plant them 2-4 weeks before the last frost date in your region. Soak the crowns in water for about 20 minutes. Dig a trench at minimum 6" deep and 12" wide. Plant the crowns 18"-24" apart and spread the roots out over a little mound of soil in the trench. Backfill the trench to cover the crowns by several inches. When you see signs of new growth, backfill another couple of inches of soil, and repeat until the trench is completely filled in. Asparagus plants do not like competition, so apply several inches of mulch to suppress weeds.

Keep your asparagus weeded and watered, but don't pick any spears the first year. The second year, you can harvest a few spears for about 2 weeks, but let the rest mature. Finally, the third year, feel free to harvest all the spears during the first two months of the season. Then let the rest grow their ferny foliage out to feed the root system.

Asparagus is bothered by few pests, but asparagus beetles may appear. They can be hand-picked and dropped into a can of soapy water.

In fall, don't cut the foliage back until it turns yellow, which in this Hunterdon County garden is during December. Chop the stalks down to about an inch, and mulch well to protect the crowns in winter. The foliage should be discarded to prevent disease and pests from overwintering in your patch.

SKUNK CABBAGE

BY IRENE O. SABIN, RMG OF HUNTERDON COUNTY

Eastern skunk cabbage, *Symplocarpus foetidus*, is a perennial plant in the Araceae or arum family and is native in our Mid-Atlantic region. Its natural habitat includes muddy bogs, swamps, the edges of wet deciduous woods or any seepage of water and some dappled shade. The plant can withstand some flooding but cannot survive underwater for long periods of time. It does not tolerate dry soil, drought, or hot afternoon sun.

Skunk cabbage plants bloom from February through April placing them among the first spring flowers available for early pollinators. Their flower buds can push through frozen ground and snow because they generate their own heat through a chemical process called thermogenesis. The heat is a byproduct of cellular respiration releasing energy from large, rhizomatous roots as the plant grows. Temperatures can reach 50-70°F. Skunk cabbage lives up to its name by giving off a fetid smell of rotting flesh which, in addition to the warmth, attracts flies, gnats, beetles, honeybees, native bees and other insects.

The emerging plant parts are composed of a spathe and a spadix. The reddish-purple spathe, sometimes mottled with chartreuse, is open on one side like a protective tent, and contains the ovoid spadix with its reproductive organs. To prevent self-pollination and maintain genetic diversity in the plant population, female flowers on the spadix develop first and are pollinated by visiting insects. Heat production is at its highest during the female stage. Male flowers emerge later and provide pollen for other plants. Pollinated plants produce berry-like fruit containing seeds. When the fruit is ripe, the spathe disintegrates, and green leaves grow and unfurl around the crown in its place. The leaves are large and established plants can be 3 or 4 feet high. The leaves provide larval food for some species of moths. By late summer, these leaves wilt and the plants disappear underground.



Skunk cabbage has a huge contractile root system. The roots contract and pull the plant deeper into the earth each year. This helps to prevent heaving when the ground freezes and thaws. The large root system stores nutrients for thermogenesis and for producing foliage the following year. Established plants are almost impossible to dig out because the roots are so deep and widespread. Propagation is usually by seeds which must stay wet to be viable.

Forcing Branches for Early Bloom

by Nancy M., RMG Hunterdon County



Place the stems in water as soon as possible after pruning. Arrange the branches in a sturdy container that accommodate the weight of the branches. Change the water each week, or when you notice the water starting to discolor. Keep the branches in a bright room but away from direct sunlight and away from any direct heat source, which will dry out the buds and branches and reduce overall bloom color and quality.

It is easy to bring some spring blossoms indoors early every year by forcing branches of flowering shrubs and trees into bloom. Once they flower, they can be used in flower arrangements around your home or just kept in a vase for a bit of early spring joy.

Flowering shrubs or trees need at least six weeks of cold weather before they can be cut to bloom indoors. In some winters that means you can cut stems as early as February and all the way until they bloom outdoors. The buds on many flowering shrubs or trees form in the previous year and are dormant over the winter months. When you bring the branch indoors it simulates warming weather that encourages the flower buds to break dormancy and bloom. This process happens very quickly for some branches like forsythia but can take a few weeks for other branches. Either way, bringing the stems indoors will give you flowers earlier than you would get if you waited for the plant to bloom outdoors.

Prune the branches on a day when the temperature is above freezing. The milder temperatures help ease the transition the plants must make from outdoors to indoors. In fact, if the outdoor temperature is already rising and you see that the buds are beginning to swell, snip the branches and they should flower in a few days.

Select branches that are not essential to the form of your shrub or tree, in a crowded section, or towards the back of the plant. Only choose branches for forcing that are less than 1/2 inch in diameter and cut them to the length you desire. Collecting branches when you do your annual winter pruning is an option also. Choose a branch with lots of buds when possible.

Remember proper pruning! Cut branches using clean, sharp pruners and make proper cuts to protect the rest of the plant you are leaving behind.

If you try to force a particular plant into bloom and it doesn't work, it may be too early. Try it again in a couple of weeks. By cutting several branches each week as winter turns to spring, you can have a continuous show of blooms.



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