

# Plant Wise

IOWA STATE UNIVERSITY  
Extension and Outreach

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## When is it too Late to Treat for Bagworms?

By Donald Lewis  
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For many areas in southern Iowa ("bagworm territory"), it is now too late to treat for bagworms. If the caterpillars are no longer visible and feeding, and if the bags are no longer moving, then it is too late to treat. When the caterpillars have tied the bag to the twig and sealed it shut, they are pupating inside and no further feeding will occur.

The photos below from Madison County Extension and Jeromy Baumbach show the difference between what bagworm bags look like when the caterpillars are active, and what they look like after the caterpillars are done feeding and growing for the summer. Note the sealed end and the silken strap that connected the bag to the twig in the second photo.



*Bagworm with caterpillar exposed.*

When the caterpillars are no longer feeding, the tree will not experience additional damage beyond what has already occurred, and most importantly, spraying after that point is a complete and counterproductive waste of time and money.

Even if caterpillars are still visible, spraying this late in the season may not be effective. Trees should be protected from bagworm defoliation by spraying in late-June to mid-July.



*Bagworm bags after caterpillars are finished feeding.*

One method for finding the best time to treat is to frequently and thoroughly inspect trees that were infested the previous year, beginning in mid-June. This will take time and diligence as the newly emerged caterpillars and their bags are quite small. Also, bags are made of silk and bits of plant foliage. Newly-constructed bags with fresh plant bits are effectively camouflaged in among the needles and are hard to find. You don't want to spray too early, so wait until you actually see the presence of caterpillars and tiny bags. If they are present, **then** is the time to spray.

## Propagating Annuals from Cuttings

By Cindy Haynes  
Horticulture Department  
Iowa State University



By now many of our annual plants in the garden are gorgeous to overgrowing! It will be hard to watch these prized flowers die after the first frost. Fortunately, some annuals can be propagated from cuttings and brought indoors during the winter. This is a great way to extend their beauty inside and reduce the cost of annual flowers for next spring.

Annuals such as sweet potato vine, coleus, geranium, impatiens, begonia, and plectranthus are easy to root from cuttings. Below is a brief outline of the process.

1. Remove a 2 to 4 inch stem tip with a clean, sharp knife.
2. Gently remove the leaves from the lower half of the cut stem or cutting.
3. Dip the cut end into a rooting hormone, if available. Many garden centers will sell rooting hormones. Rooting hormone is not required for all cuttings.
4. Carefully, insert the cut end into a container filled with moist perlite (available at garden centers). Several cuttings can be placed in a 6-inch container.
5. Water lightly.
6. Cover the container with a clear plastic bag to create a tent over the cutting or cuttings. Secure the plastic with a rubber band around the base of the container.
7. Place covered containers in a location receiving indirect light for several weeks. Some condensation should form inside the plastic.
8. Check the perlite regularly to ensure that it stays moist. Water lightly if needed. Remove any leaves or cuttings that are discolored or moldy.

Most cuttings form roots in 4 to 6 weeks. Gently tug on the stem tips to see if they are rooted. If there is some resistance during the "tug test", the cuttings may have formed fine roots. When the roots are at least 1 inch long, they are ready for transplanting into individual containers. After transplanting move rooted cuttings into well-lit locations for optimal growing.

## Choosing a Less Palatable Pallet of Bulbs

By Kim Hilgers  
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We've all experienced it – the frustration of planting tulips in the fall with anticipation of spring blooms – only to find that they have become fodder for furry fiends. Crocus and lilies are often disturbed or eaten as well. There are various methods to prevent animals from digging or eating spring bulbs, but you can save some effort by selecting bulbs that are less palatable. While we would like to claim that the following bulbs are rabbit, deer or rodent-proof, the unpredictability of such wildlife forces us to say they are simply your best bets.

**Daffodils (*Narcissus* spp.)** are an old favorite that are long-lived and naturalize well in the landscape. They come in several flower shapes and color combinations of yellow, white, orange and pink. Daffodils range from 4 to 24 inches in height. Most bloom in early spring, prefer partial to full sun and are cold-hardy in USDA Hardiness Zones 3-9. As with all bulbs, be sure to allow the foliage to die back or yellow naturally before removing as they need time to replenish energy reserves in the bulbs.



**Snowdrops (*Galanthus nivalis*)** are 4 to 6 inch tall plants with white, nodding flowers in late winter to early spring. They can be found in single or double flower forms and do well in partial to full shade in Zones 3-9. The bulbs are small, so plant them in groups of a dozen or more.

**Winter aconite (*Eranthis hyemalis*)** makes a cheerful addition to the late winter/early spring landscape with its bright yellow, buttercup-like blooms. The flowers sit atop a collar of green leaves on 2 to 4 inch tall plants. They are great for mass plantings in partial shade in zones 4-9. Because they are one of the first bulbs to bloom, their foliage dies back quickly.

**Snowflakes (*Leucojum vernum*)** are very similar in flower form to snowdrops, but bloom a little later from early to mid-spring and are a bit larger at 6 to 12 inches tall. They prefer partial to full sun and are hardy in Zones 4-8. Both snowflakes and snowdrops naturalize well in the landscape and work well under deciduous trees and shrubs.

### Glory-of-the-Snow

**(*Chionodoxa luciliae*)** is also very early to bloom as the name suggests. It is a dainty plant only 4 to 6 inches tall with upward-facing, star-shaped flowers. The blooms are most often bright blue, but can also be white or pink. They do best in full sun in Zones 3-9.



**Siberian Squill (*Scilla siberica*)** grows 4 to 6 inches tall with nodding blue flowers in early spring. It is another small but colorful bulb that naturalizes well and looks stunning in large masses. Plant them in full sun to part shade in Zones 2-7.

**Grape hyacinths (*Muscari armeniacum*)** produce dense clusters of urn-shaped, purple to blue flowers that resemble clusters of grapes. The flowers also come in pink and white and a double form. The flower spikes are 6 to 8 inches tall and bloom in mid-spring. These vigorous bulbs prefer full sun and are hardy in Zones 2-9. Once established, the grass-like foliage may appear in fall as well as alongside the blooms in spring.

**Hyacinths (*Hyacinthus orientalis*)** are available in a spectacular range of colors including white, pink, red, blue, purple, peach, and yellow. Clusters of highly fragrant tubular flowers are borne on 8 to 12 stems in mid-spring. They do well in full to part sun. While the bulbs are hardy to Zone 4, flower performance declines rapidly. It is recommended that they be replanted every 2 to 3 years.

**Fritillaries (*Fritillaria* spp.)** vary greatly by species in size, form, color, bloom time and cold hardiness. They can be 12 inch tall like the spring blooming guinea-hen flower



(*Fritillaria meleagris*) with unique purple checkered blooms, or 2 to 3 feet tall like the crown imperial (*Fritillaria imperialis*). Crown imperial blooms in early summer with nodding clusters of orange or yellow flowers topped with a crown of green leaves. The unpleasant musky odor of the bulbs and blooms keeps away both humans and animals. So admire these from afar. Most fritillaries do well in full sun to part shade.

**Ornamental onions (*Allium* spp.)** (pictured by title) bloom in late spring to early summer depending on the species or variety. They range in height from 6 inches to 4 feet and come in purple, pink, white and yellow. Flower forms can vary as well but typically consist of round clusters of star-shaped flowers atop tall stems like the popular Giant Allium (*A. giganteum*) or Stars of Persia

(*A. christophii*). Most prefer full sun and are hardy in Zones 4-10.

With fall quickly approaching, now is the time to purchase spring-blooming bulbs. Many of these bulbs can be found at your local garden center or ordered through specialty catalogs, many of which offer online sales as well.

## Puffballs and Stinkhorns and Fairy Rings, Oh My!

By Paula Flynn  
Extension Plant Pathologist  
Iowa State University



A walk through the forest at this time of year may lead to the discovery of what appear at first glance to be giant marshmallows. A closer investigation reveals that the spheres are composed of a soft spongy material – rather than a soft sticky material. These objects are puffballs, produced by certain soil-dwelling fungi. There are a number of different species of fungi that form puffballs and they can be found growing on the ground in forests, pastures and lawns.

Giant puffballs are typically the most exciting to discover. They can grow to be well over a foot in diameter and weigh more than 10 pounds. Like marshmallows, puffballs are considered tasty by some. They are edible when young and tender, and can be grilled, sautéed or fried. Some people liken the taste to tofu. Young puffballs can look similar to other fungi, including the poisonous amanitas. Cut open puffballs to be sure they do NOT have gills on the inside. The inside texture of a young puffball should be uniformly spongy.

Always be sure to be certain of the identity of a fungus without any doubt before eating it. Even those fungi that are classified as edible can cause adverse reactions in some people. It is a good idea to eat only a small portion if trying an edible fungus for the first time.

As puffballs mature, the outer layers turn light brown. The interior fills with trillions of fungal spores that are released in a cloudy puff when the mature structure bursts open, hence the name puffball.



Another fungus that is quite common near the end of summer and early fall is one that you may find by following your nose – a stinkhorn. Stinkhorns are appropriately named because they give off a foul odor. They are not poisonous or harmful to plants or people. Their

offensive smell would keep one from even considering edibility.

There are several species of stinkhorn fungi found in Iowa. They live off dead organic matter and are especially common on mulch used in the landscape. Stinkhorns start off as an egg-like structure in the soil, about the size of a golf ball. As the fungus develops, a stalk grows upward and is topped with a slimy cap coated with a mass of olive-green to brown spores. The putrid smell of the stinkhorn cap attracts flies and other insects that crawl on the stinkhorn, get covered with slime and spores, and fly away to land somewhere else, disseminating the spores. Stinkhorns range from about 4 to 8 inches in height.

Some people find the smell and appearance of stinkhorns offensive. Given time, stinkhorns will wither away and disappear. This process can be hurried along by raking or breaking off the above ground structure of the fungus. Stinkhorns often appear in the same areas year after year.

A final example of a fungus often found near the end of the growing season is a fairy ring fungus. Fairy ring fungi can often be spotted from a distance, even from the window of a fast-moving car. The primary symptom of a fairy ring is the presence of a circle or arc of dark green or brown grass. Fairy ring circles can be many feet in

diameter, as they tend to grow outward slowly over time.

Although once believed to be caused by fairies dancing in a circle during the night, we now know that fairy rings are caused by an assortment of fungi that feed on



dead organic matter in the turfgrass and soil. As the fungi break down this organic matter, the nutrients released may lead to a darker area of turfgrass. If the fungal structures are very dense and interfere with the movement of water to the turfgrass roots, circles of dead grass may occur. Some fairy ring fungi produce mushrooms in the circle at certain times of the year, often in late summer or early fall.

A mycologist (fungal expert) would likely recommend treating a fairy ring as an interesting curiosity rather than a problem. Fairy rings are difficult to eradicate from an area. Fungicide products are not usually very effective, which leaves removal of the soil in the affected area the primary means of control. This may not be feasible if the fairy ring has a large diameter.

Puffballs, stinkhorns and fairy rings are just a few examples of the intriguing fungi that make their appearance at this time of year.

## Upcoming Horticulture Events of Interest:

**Fall 2011 Seminar Series  
Presented by the Mills County Master Gardeners**

### *“Fresh Ideas for Holiday Decorating”*

**Date:** Monday, September 19

**Time:** 7:00 – 8:00 PM

**Place:** Glenwood Resource Center

Visitor’s Center Conference Room

**Cost:** \$2.00

Looking for new ideas for decorating for the holidays this year? Want to decorate without spending a lot of cash? Suzanne Schraft is a Mills County Master Gardener Intern with lots of experience in creating decorative arrangements from materials found right outside your doors. She’ll share many ideas for “sprucing” up your home this holiday season. Suzanne will also include tips on overwintering some of your favorite annual and tropical plants.

### *“Growing Cactus & Succulents”*

**Date:** Monday, October 3

**Time:** 7:00 – 8:00 PM

**Place:** Glenwood Resource Center

Visitor’s Center Conference Room

**Cost:** \$2.00

Succulents are easy to grow and come in a vast array of colors, shapes, and sizes. Kathy Bokelman, president of River City Cactus & Succulent Society, Master Gardener, and assistant editor of Hobby Greenhouse magazine, will introduce you to the fascinating world of these plants and share her expertise in successfully growing them, inside and out (yes, there are many winter hardy cactus that can be grown in our area!)

### *“Flooding Effects on Trees & Shrubs”*

**Date:** Monday, October 17

**Time:** 7:00 – 8:00 PM

**Place:** Glenwood Resource Center

Visitor’s Center Conference Room

**Cost:** *This seminar is FREE*

Are you concerned about how the flooding will affect trees in the area’s parks and on your property? Dr. John Ball, SDSU Extension Forestry Specialist, will address the factors that will play a role in the short and long term health of area trees that have been inundated by the flooded river and higher water tables underground.

# Ask the ISU Extension Gardening Expert

## When should you harvest onions?

Onions should be harvested when most of the tops have fallen over and begun to dry. Carefully pull or dig the bulbs with the tops attached.



## What is the proper way to store onions?

After harvesting the onions, dry or cure the onions in a warm, dry, well-ventilated location, such as a shed or garage. Spread out the onions in a single layer on a clean, dry surface. Cure the onions for two to three weeks until the onion tops and necks are thoroughly dry and the outer bulb scales begin to rustle. After the onions are properly cured, cut off the tops about 1 inch above the bulbs. As the onions are topped, discard any that show signs of decay. Use the thick-necked bulbs as soon as possible as they don't store well. An alternate preparation method is to leave the onion tops untrimmed and braid the dry foliage together.

Place the cured onions in a mesh bag, old nylon stocking, wire basket or crate. It's important that the storage container allow air to circulate through the onions. Store the onions in a cool, moderately dry location. Storage temperatures should be 32 to 40 degrees Fahrenheit. The relative humidity should be 65 to 70 percent. Possible storage locations include a basement, cellar or garage. Hang the braided onions from a rafter or ceiling. If storing the onions in an unheated garage, move the onions to an alternate storage site before temperatures drop below 32 F.

## What is the best way to store carrots?

After harvesting the carrots, cut off the green tops one-half to one inch above the roots. Small amounts can be placed in perforated plastic bags and stored in the refrigerator. Large amounts can be buried in sand or sawdust and then stored in a cool, moist location. Storage temperatures should be just above freezing. Surplus can also be canned or frozen.

## What is the proper way to divide peonies?

September is the best time to divide peonies. The first step is to cut off the peony stems near ground level. Then carefully dig up the plant. Gently shake the clump to remove loose soil from the root system. Using a sharp knife, divide the clump into sections. Each division should have at least three to five buds (eyes) and a good

root system. Smaller divisions will require several years to develop into attractive plants.

When planting a peony, dig a hole large enough to comfortably accommodate its entire root system. Position the peony plant in the hole so the buds are 1 to 2 inches below the soil surface (peonies often fail to bloom satisfactorily if the buds are more than 2 inches deep). Fill the hole with soil, firming the soil around the plant as you backfill. Then water thoroughly. Space peonies 3 to 4 feet apart.

## Is fall a good time to plant chrysanthemums?

Unfortunately, fall planted garden mums usually don't survive the winter even when given winter protection. Flowering mums purchased in late summer or early fall should be regarded as temporary additions to the landscape. Spring is the best time to plant mums in Iowa. Spring planted mums have the entire growing season to get established and usually survive the winter much better than those planted in fall.

## Can perennials be planted in fall?

Late summer and early fall is an excellent time to plant many perennials. It also is a good time to move or divide perennials, such as peony, daylily, garden phlox and oriental poppy. Perennials planted in late summer or early fall should be mulched with 4 to 6 inches of straw, pine needles or other materials in late fall. Mulching helps prevent repeated freezing and thawing of the soil that can heave plants out of the ground. Plants heaved out of the soil may be severely damaged or destroyed due to the drying of the exposed plant crowns and roots.

## When is the best time to sow grass seed?

Late summer (mid-August to mid-September) is the best time to seed new lawns and overseed existing lawns. Late summer planting has several advantages over spring seeding. The seeds of cool-season grasses germinate quickly in the warm soil of late summer. The warm days and cool nights of early fall promote rapid turfgrass growth. The growing grass also has less competition from weeds as few weed seeds germinate in the fall.

After seeding, keep the upper 1 inch of soil moist with frequent, light applications of water. Most turfgrasses should germinate in two to three weeks if the seedbed is kept uniformly moist. Gradually reduce the frequency of watering, but water more deeply, when the turfgrass reaches a height of 1 to 2 inches. Mow the grass when it reaches the height of 3 to 3 ½ inches.



## How do I over-winter my caladiums indoors?

Carefully dig up the caladiums when the foliage begins to yellow with the onset of cool weather or wait until after the first frost. After digging, place the plants in a cool, dry location for 1 or 2 weeks to cure. Later, cut off the dry foliage and bury the tubers in dry peat moss or vermiculite. Store the caladiums in a cool (60 to 65 degrees F), dry location.

*Everybody needs beauty as well as bread,  
places to play in and pray in, where nature  
may heal and give strength to body and soul.*

~John Muir

## SEPTEMBER GARDENING TO DO LIST



- Take geranium, coleus, and other annual cuttings and root them indoors. (see article on page 2 of this issue)
- Continue to water newly established trees, shrubs, and perennials.
- Harvest winter squash before hard frost. Skin of the squash should be tough with deep, solid color. Some cultivars will show an orange blush when mature.
- Check trees for bagworms and fall webworms. Hand prune and destroy.
- Prepare thin and dead areas of lawn for renovation. Mid-August to mid-September is the best time of the year to seed lawns.
- Control dandelions and other perennial weeds in established turf with a broadleaf herbicide.
- Stop deadheading roses after the final wave of flowers in late September. This allows rose hips to form and plants to start hardening off for winter.

- Place orders for fall planting of spring-flowering bulbs.
- Plant spring-flowering bulbs in mid-September. Planting too early can cause bulbs to sprout top growth before winter. However, allow at least four to six weeks before the ground freezes for good root formation.
- Remove dead leaves and debris from garden ponds and water features.
- Plant balled and burlapped deciduous trees.
- Check houseplants for insect pests before bringing indoors before the first frost.
- Harvest all full-sized tomatoes and peppers before frost.
- Make homemade salsa with garden fresh ingredients!

### Resources for Horticulture information

ISU's Hortline at (515) 294-3108  
(Monday-Friday, 10 a.m.-noon, 1-4:30 p.m)

ISU/Mills County Extension: 712-624-8616  
[www.extension.iastate.edu/mills/yardgarden.htm](http://www.extension.iastate.edu/mills/yardgarden.htm)

### **Iowa State University Publications**

- PM 2079 Flowering Plants for the Late Summer Garden  
RG 319 When to Divide Perennials  
PM 1943 Deciduous Shrubs  
RG 601 Gardening for Butterflies  
PM 731 Harvesting and Storing Vegetables  
PM 534 Planting & Harvesting Times for Garden Vegetables (Free)  
RG 320 Growing and Over-wintering Garden Geraniums  
RG 304 Late Season Perennial Flowers  
NCR 129 Mushrooms and Other Related Fungi

**Horticulture Publications on-line**  
<https://www.extension.iastate.edu/store/ListCategories>

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