

Plant Wise

IOWA STATE UNIVERSITY
University Extension

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Putting Your Flower Garden to Bed

By Rashelle Matthiesen-Anderson
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It might sound crazy, but autumn is my favorite time of year for gardening. What could be better? There are no mosquitoes, the temperature isn't scorching and the weeds are at bay. So, preparing my flowerbed for winter can be quite enjoyable; however, it is also a necessity. There are several steps to successfully preparing your flowerbed for the winter season, therefore ensuring a healthy bed in the spring.

The removal of annual and herbaceous plant debris from the flowerbed is very important. Proper sanitation decreases the chance of disease and insect problems in the spring. Diseases and insects like to use debris as over wintering "hiding places" and they can then cause serious damage to plants in the following growing season.

Diseased debris should be discarded and not placed in a compost pile because temperatures in most compost piles do not get hot enough to kill all pathogens.

Another good idea is to remove annual flowers after a killing frost. In addition, perennials that show signs of disease should be cut back in the fall. Healthy perennials can be cut back in the fall or spring. Perennials that provide winter interest, such as ornamental grasses, should be cut back in early spring.

Cutting back in the spring has some advantages, which include providing winter protection and preventing premature plant growth. Most perennials can be cut at ground level. Cutting perennials back to ground level does not harm the plant because, in the fall, perennials transfer their nutrients to the roots.

After removing the plant debris, the soil in annual flowerbeds can be improved by applying and incorporating organic matter, such as compost or well-rotted manure. Using a rotary tiller when adding compost can improve annual flowerbed health because it reduces compaction, increases drainage and increases organic matter. Although tilling can be time consuming and strenuous work, it does provide a wonderful way of incorporating organic matter into the flowerbed.

Tilling perennial beds or a mixed annual and perennial bed is not recommended as tilling could damage perennial root systems, which could slow or prevent plant growth in the spring.

If using a rotary tiller is not feasible or the flowerbed contains perennials, applying 2-3 inches of mulch to the flowerbed also is beneficial. Newly planted perennial beds should be mulched in late fall. Pine needles and straw can be used as winter mulch for newly planted perennials to prevent damage from freezing and thawing conditions, which may heave poorly established plants out of the ground. Plants heaved out of the ground may be severely damaged or destroyed. However, most well established perennials do not require protective winter mulch. If desired, wood chips or shredded bark can be applied as permanent mulch to well-established perennial flowerbeds.

Before applying mulch, remember to remove all diseased plant debris and weeds from the flowerbed. Adding mulch to the flowerbed ensures roots systems are covered and better protected for the winter. In the spring, remove most of the mulch from annual flowerbeds and incorporate approximately 1 inch of mulch into the soil. Mulch adds organic matter to the soil, which creates a healthy environment for plants. Winter mulch should be removed from perennial flowerbeds in late March or early April.

Finally, water perennials when the weather in late summer and fall is dry. Even though the temperatures are dropping, plants are not dormant yet. In the fall, humidity usually drops and the air becomes dry. These conditions combined with a stiff wind can quickly dry out soil. So, remember to water before the ground freezes if conditions are dry.

Although fall might seem like the time to just sit back, relax, and enjoy football games or walks in the park, don't forget that your flowerbed needs you. By taking the time now, you are ensuring the good health of your flowerbed in the spring and years to come.

Consider the Art of Bonsai

By Tivon Feeley
Forester
Iowa State University
Extension



The art of bonsai is one of the oldest plant dwarfing techniques used. The practice of bonsai is attributed to the 14th century Chinese, who transplanted naturally dwarfed trees from the wild into containers.

The most prized plants grew in high altitudes on very poor soils with a contorted growth pattern formed by the harsh conditions. Human appreciation for bonsai plants has grown over the years earning them prestigious spots in gardens and homes.

The word bonsai is a Japanese word that literally means "tray gardening." The concept is simple: restrict the growth of the plant's roots and shoots, while allowing the trunk to grow. The end result is a dwarfed plant that needs occasional pruning and shaping to maintain its size and appearance.

Most bonsai trees can take years to develop depending on the tree selected. Currently, there are many bonsai trees that are more than 100 years old. The most commonly used trees are red maple, Japanese maple, elm (Chinese and Siberian), birch, mulberry, pine and junipers.

To start a bonsai tree, purchase a seedling or rooted cutting and plant it in a shallow 4 inch container. Line the container with a layer of very small rock. Next, selectively root prune the tree with by-pass hand pruners to fit into the container. After the tree is situated, fill the container with a well-drained potting soil and water the plant well. After planting, place the bonsai tree in sunny location.

Bonsai trees tend to dry out rapidly due to the relatively small amount of soil and remaining root system. The plants need to be monitored on a daily basis to make

sure that the soil has not completely dried out. When the soil feels dry to the touch, irrigate the tree thoroughly. Placing the planting container on a tray that can hold the excess water will help reduce the watering frequency. Be careful not to over water the plant to the point where it sits in the water on the tray for over one day. Fertilize with a diluted balanced fertilizer (10-10-10) once a month to maintain the plant health.

There are many styles of bonsai. The simplest is to allow the trunk to grow straight and prune the tree periodically to maintain a symmetrical form. A more challenging method is to braid two branches together and manipulate where they grow using copper wire to guide them. To accomplish this, loosely wrap the end of the wire around the branches, position the branches at the angle desired, and gently wrap the wire around the trunk to hold it in place. Over time the branches will maintain that growth pattern and the wire can be removed.

After planting, care is fairly simple. Prune or pinch back any errant branches to keep the plant in its desired form and remove any dead or dying leaves. If the bonsai tree starts to wilt, even with proper watering, simply remove a few healthy leaves to reduce the demand on the roots for water and nutrients.

Bonsai trees generally require repotting to the next size container every two or three years. Repotting in too large of a container will result in rapid growth, making it difficult to maintain the trees form. Early spring is the best time to repot indoor and outdoor bonsai trees in Iowa.

Bonsai trees make a great family winter project. Check out books at your local library for more tips and ideas on growing and shaping bonsai trees. Many of the prime bonsai tree species (maple, elm and mulberry) can be found growing in your own backyard and along fence lines.



Disclaimer: Artist's conceptual rendering
Bag Color, Ink Color and Logo Placement may vary a bit from concept.
Your artwork will be printed on 6"W print area on a 15.5"W x 13.5"H bag

Going Green with Mills County Master Gardeners

You can purchase a "green" bag from the Mills County Master Gardeners for \$2.00. Or buy several – they're great to take to stores, eliminating the need for so many plastic bags! Available at the Extension Office

Upcoming Horticulture Events of Interest:

Public Seminar Sponsored by the Mills County Master Gardeners

“Adventures in Water Gardening”

Date: Monday, November 1

Time: 7:00 – 8:00 PM

Place: Glenwood Resource Center
711 S. Vine St., Glenwood
Visitor’s Center Conference Room

Cost: \$2.00

There are few elements you can add to your landscape that will offer you as much reward as some type of water feature. Local Master Gardeners, Tracey and Denise Fikes, will share their experience of installing several different water features themselves. They will walk you through the process so that you can start plans for adding and enjoying your own water feature next year!

Refreshments served!

Plenty of Aphids Around as Seasons Change

By Donald Lewis
Extension Entomologist
Iowa State University



As we glide through late summer and into fall on our way to winter, several different species of aphids are making their presence known. None are incredibly important, but they are noticeable.

One of the noticeable aphids filling the air right now is the soybean aphid, so now everyone has a chance to get up close and personal with this aphid, not just farmers. The soybean aphid has an interesting life cycle that forces it to move from one part of the landscape to another two times each year. Soybean aphids that started the summer on buckthorn trees and shrubs flew to the soybean fields in early June. Now that the beans are ripening, winged aphids produced in the fields are migrating back to the trees. It is the return movement of billions (could it be trillions?) of aphids that people have noticed, as clouds or swarms of aphids pass above lawns, sidewalks trails, bike paths and the landscape in general. The annoyance caused by swarms of aphids is

widespread but spotty, with calls from around Iowa and neighboring states.

The bad news is that the aphids are a nuisance and get into the mouths, noses and eyes of joggers and bike riders. The good news is they are not dangerous to you, your pets or other animals or your landscape. They can't bite, they don't carry diseases to people and they can't sting. They do not attack garden vegetables, fruits or landscape plants.

These swarms of aphids are a temporary problem and as the weather changes and as the aphids either die or reach their destinations and start mating and laying eggs, the problem will subside. Though we may see winged aphids flying around until the end of October, the worst is probably already over.

Flying Fuzz Balls

Woolly aphids live on several different trees and shrubs. The name describes what is peculiar about this group: The body of the aphid is covered with a white fluffy wax that resembles wool. In late summer you may notice colonies of woolly aphids clustered on the twigs and shoots of hawthorn and crabapple trees. Infestations are sporadic and vary from trees to tree, variety to variety and place to place.

Woolly aphids on hawthorn and crabapples feed on sap from the plant but are more alarming than damaging, especially late in the season. Parasites, predators and even heavy rainfall will help reduce the populations. If you believe the natural population controls need your help, you can use a forceful stream of water from the garden hose to dislodge the aphids or prune and remove selected, heavily infested stems and water sprouts. Spraying with insecticide is rarely justified.

Earlier in the season there were woolly aphids of another species on the leaves and shoots of maple trees. In most cases the sap loss from aphid feeding is not significant to the plant and control is not practical. In some cases infested leaves may droop or shrivel and drop prematurely. This does not reduce the vigor of healthy trees.

When the woolly aphids disperse from one host to another, as described above for soybean aphid, the winged forms are still capable of producing the white, waxy strands on their body. This produces the hallucinogen-like, unmistakable sight of small cottony white fuzz-balls flying through the air under their own power. If you are deft enough to gently catch one of the apparitions you see a plump bluish-black body and transparent wings pulling the cottony tuft through the air. These flying fuzz balls, like the aphids on the twigs, may cause alarm, but there is no permanent damage. The flying woolly aphids are a wonderment. They are intriguing, not harmful. Relax and enjoy the fascination of Nature.

Autumn is a Great Time for Tool Maintenance

By Denise Fikes
Horticulture Assistant
Mills County Extension



No doubt about it, there are plenty of garden chores that need to be done this time of year – everything from harvesting, to removing frost-killed plants, to storing away plant supports, to incorporating compost into your beds. Somewhere at the bottom of your fall garden “to-do” list should be the entry, “garden tool maintenance”. The placement at the **bottom** of your list has much more to do with what makes the most sense chronologically rather than reflecting the importance of this particular chore! Buying good quality tools, and then keeping them well maintained will mean less work for you in the long run (not to mention fewer blisters and backaches). Taking good care of your tools will help them to last a lifetime, saving you money as well!

Spending a little time maintaining your tools before putting them away for the winter just makes sense. The main enemies of all garden tools are moisture (because it causes rust) and poor or inadequate maintenance that prevents them from doing their job properly or causes them to wear and break. Removing built up rust, dirt, and grime before the cold and damp of winter sets in will assure no additional corrosion will occur and your tools will be ready to go next spring.

First Things First- Prepare a workspace (table, work bench, garage floor). Cover it with protective newspaper, plastic sheeting, or a drop cloth. Gather the following supplies along with all of your tools to be worked on: Work gloves and safety goggles, a bucket filled with hot water and detergent, steel wool pads or a wire brush, light oil, Linseed oil, sandpaper (medium and fine grit), 8-10” bastard file, sharpening stones, and rags or cloths.

Clean Your Tools - Put each tool to be cleaned into the warm, soapy water and let it soak for a minute or so. Wearing nitrile gloves, use a bristle brush or pot scrubber to clean off the accumulated dirt and garden debris. Let the tool air dry or dry it off with an old soft cloth or bath towel. As you are cleaning each tool, now is the time to inspect it for broken parts. Don't try to glue or tape a handle on shears or a shovel – replace it and avoid accidents! Test to make sure all working parts on

pruners and trimmers are working properly (have a few twigs handy for testing).

Removing Rust- Even tools that are washed and dried on a regular basis are susceptible to rust when exposed to oxygen. In fact, as a general rule, the better the grade of steel used, the more vulnerable it is to rusting. A light coating of rust can be removed with 80-grit sandpaper. For a heavier coat of rust, a stiff wire brush can be effective. For badly rusted steel surfaces, the quickest and most sensible option is an electric drill with a wire-brush attachment. Before using any kind of wire brush on a tool, always put on a pair of safety goggles. The rust particles or the wire bristles can fly off in unpredictable directions.

Sharpen Your Tools – Digging tools need to be kept sharp so they're easy to work with. Use a flat bastard file or sharpening stone to sharpen the edges of those tools having need of sharp edges. Wear protective leather palm gloves to avoid injury to your hands. Each tool has an edge, beveled or flat, ground on it when it was made. It is the best angle or bevel for the tool. Use this edge as a guide when sharpening. The key to successful sharpening is keeping the tool steady and holding the file at the proper angle. When sharpening a tool with a file, work by drawing the cutting teeth in one direction over the edge being sharpened. For shovels, start at one side and hold your file at a 45-degree angle to the edge of the shovel. Point the file towards the middle and make four or five strokes. Move your file in an inch or two towards the center and repeat the motions until you get to the middle of the shovel. Once you reach the center, move over to the other outside edge and once again work your way back into the middle of the shovel. Sharpen hoes in the same way, working from one edge to the other.

There are two basic styles of pruner, bypass or anvil. While both have a single cutting surface, the cutting blade on bypass pruners slides past a blunt edge, while on anvil pruners the cutting blade butts into a flat solid surface. Good quality pruners are easy to take apart for cleaning or sharpening. They usually have a screw at the base of the jaws that can be removed. Once removed, the cutting blade can be sharpened using a whetstone or even a kitchen knife sharpener. Follow the manufacturer's directions for use.

Protect Your Tools- After cleaning and sharpening, it's important to apply a thin layer of oil to stop the oxidization process and prevent rust from forming. Wipe all over the surface with a cloth.

Ask the ISU Extension Gardening Expert

How do I keep multicolored Asian lady beetles out of my house?

The multicolored Asian lady beetle is one-third inch in length, dome-shaped, yellowish-orange to red with variable black spots on the back. Deep orange is the most common color. The 19 black spots may be faint or missing. There is a black “W” shaped mark on the thorax.

Asian lady beetles follow their instinctive behavior and fly to sunny, exposed surfaces when preparing to hibernate through the winter. The time of beetle flight varies but is usually from mid-September through October (depending on weather). Light colored buildings and walls in full sun appear to attract the most beetles.

Sealing exterior gaps and cracks around windows, doors, eaves, roofs, siding and other points of access before the beetles appear can prevent unwanted entry. Experience suggests, however, that comprehensive pest proofing is time-consuming, often impractical, and usually not 100 percent effective. For large infestations with intolerable numbers of beetles, spraying pyrethroid insecticides such as permethrin or esfenvalerate to the outside of buildings when the beetles appear may help prevent pest entry. Homeowner insecticides other than pyrethroids usually do not provide satisfactory prevention.

The most practical control for beetles already inside is to vacuum or sweep them up and discard. Indoor sprays are of very limited benefit. Interior light traps are available.

How do you force daffodil bulbs indoors?

To successfully force daffodils indoors, you'll need high quality bulbs, a well-drained commercial potting mix and suitable containers. Containers for forcing can be plastic, clay, ceramic or metal. Almost any container can be used as long as it has drainage holes in the bottom.

Begin by partially filling the container with potting soil. Then place the daffodil bulbs on the soil surface. Adjust the soil level until the tops of the bulbs are even or slightly below the rim of the container. The number of bulbs to plant per pot depends on the size of the bulb and container. Typically, three to five bulbs are appropriate for a 6-inch-diameter pot. However, a 6-inch pot will usually accommodate five to seven bulbs of miniature varieties.

Once properly positioned, place additional potting soil around the bulbs. However, do not completely cover the bulbs. Allow the bulb tops (noses) to stick above the potting soil. For ease of watering, the level of the soil mix

The wooden handles of rakes, hoes, and shovels need maintenance as well. Over time, the wood will dry out and begin to splinter. You can ensure the wooden handles of your garden tools don't ever do this by sanding the handles with medium grade sandpaper (100 grit) and then rubbing the handle with linseed oil. Cold air tends to draw moisture out of the wood so the extra protection through winter provided by the linseed oil keeps the handles from drying out and splintering.

Store Your Tools Properly – Your tools will last longer and serve you better if you store them properly through the cold, damp conditions of winter. It's important to store them in a dry and secure location where they will not be bumped around in severely cold weather which can cause any plastic parts to crack and break. A dry location is important to prevent rust and corrosion. It's best to store your tools off the ground, so hang them up by their handles. You can drill a ¼ in. hole through the handles of rakes, shovels, hoes, and other long-handled tools so they can be hung up. Keeping the business end of the tool toward the floor will help prevent accidents when pulling the tool down off the wall. Keep a few cleaning towels or cloths nearby so that you can always dry your tools off before putting them away.

Now that you've reached the last item on your garden chore list for the year it's time to sit back, relax, and enjoy a few weeks with no weeding, watering, mowing, transplanting,.....but wait! Now it's time to get started on that **inside** “to-do” list!

2011 Garden Calendar Says Good Health is a Gardening Bonus

Gardeners, novice and experienced, will be inspired by Iowa State University Extension's 2011 garden calendar. The full-color, 12-month calendar is filled with stunning photography and information. Monthly “gardening is good for you” messages and health tips have been added to the gardening tips traditionally featured in the extension garden calendar.



Gardening is GOOD for you – is available for \$6 from the ISU Extension online store or from the Mills County Extension office.

Extension programs are available to all without regard to race, color, national origin, religion, sex, or disability.

should be 1/2 to 1 inch below the rim of the container. Label each container as it is planted. Include the name of the variety and the planting date. After potting, water each container thoroughly.

In order to bloom, daffodils and other spring-flowering bulbs must be exposed to temperatures of 40 to 45 F for 12 to 16 weeks. Possible storage sites include the refrigerator, root cellar, or an outdoor trench. During cold storage, water the bulbs regularly and keep them in complete darkness.

Begin to remove the potted daffodil bulbs from cold storage once the cold requirement has been met. At this time, yellow shoots should have begun to emerge from the bulbs. Place the daffodils in a cool (50 to 60 F) location that receives low to medium light. Leave them in this area until the shoots turn green, usually four or five days. Then move them to a brightly lit, 60 to 70 F location.

Keep the plants well watered. Turn the containers regularly to promote straight, upright growth. On average, flowering should occur three to four weeks after the bulbs have been removed from cold storage. For a succession of bloom indoors, remove pots from cold storage every two weeks.

My Christmas cactus doesn't bloom well. Why?

The Christmas cactus requires proper environmental conditions to flower. Critical factors in flower initiation are day-length and temperature. The Christmas cactus is a short-day plant. In short-day plants, the vegetation grows during the long days of summer and produces flowers when days become shorter in the fall. The Christmas cactus will not bloom properly if exposed to artificial light at night in fall. Flowers also may fail to develop if the plant is exposed to temperatures above 70 F. Night temperatures of 60 to 65 F, with slightly warmer daytime temperatures, are ideal for flower formation.

In late summer, place the Christmas cactus in a cool location that receives bright light during the day, but no artificial light at night. An unused bedroom or basement may have the proper environmental conditions. To avoid flower bud drop, do not move the plant during flower bud development. The Christmas cactus can be moved and displayed in another room when the first flowers begin to open.

OCTOBER GARDENING TO DO LIST



- Stop fertilizing houseplants.
- Continue to water newly established trees, shrubs, and perennials.

- Plant spring flowering bulbs.
- Remove plant debris from the vegetable garden to protect next year's planting from insect and disease build-up.
- Dig tender garden flowers for winter storage. Gladiolus corms should be dug when leaves begin to yellow. Caladiums, geraniums, tuberous begonias, and calla lilies should be lifted before a killing frost or after a light frost has browned the foliage. Allow to air dry, then pack in dry peat moss or vermiculite, and store in a cool location.
- Continue to mow your lawn until the grass stops growing – when temperatures are consistently below 50°.
- Carefully blow or rake tree and shrub leaves off your perennial gardens. Large leaves get wet, mat down, and provide poor insulation for your plants. Shred fallen leaves and use them as a soil mulch or amendment for new plantings. Or rake and bag them for use in next year's garden.
- Remove stakes and supports as plants decline. Clean and store for next year's garden.
- Leave asparagus growth in place over winter.
- At the end of this month, pot up amaryllis bulbs so that they will be blooming during the holidays.

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

Iowa State University Publications

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| RG 308 | Growing Holiday cacti (free) |
| RG 316 | Poinsettia Care (free) |
| PM 731 | Harvesting and Storing Vegetables(\$1.00) |
| RG 311 | Growing and Over-wintering Tender Perennials (free) |
| RG 320 | Growing and Over-wintering Garden Geraniums(free) |
| RG 312 | Suggested Daffodil Cultivars for Iowa (free) |
| RG 401 | Ornamental Grasses with Winter Interest |
| RG 304 | Late Season Perennial Flowers (free) |

Horticulture Publications on-line

<https://www.extension.iastate.edu/store/ListCategories>