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PREPARING YOUR GARDEN FOR WINTER

The days are getting shorter, the nights longer, and trees are turning color and dropping their leaves. We are nearing the end of the growing season, which means you need to prepare your garden beds for winter soon.

Start with a clean up. Remove dead annual flowers and vegetables, and if not diseased or insect infested, add them to the compost pile. Till your soil to expose insects and insect eggs to the surface so they are open to the winter elements. Fall tilling also makes it easier to work your soil in the spring. If you have never had a soil test, or haven’t for several years, you might consider taking one this fall. Take several samples of soil from your garden, usually a sample from the corners and a few in the middle, mix them together in a bucket, and take at least two cups to your county extension center. The soil will be sent to the University of Missouri soil testing lab and you should receive a report typically within 10 days.

After you remove spent plants from your raised beds, work up the beds and add compost if needed. This will make spring planting easier. If you have a row cover or small greenhouse, consider extending your season by placing it over a raised bed. You can grow cool-season crops like lettuce, spinach, kale and other greens well into December. Then you can cover them with straw and they will perk up again in February as the days get longer and warmer.

Cut back faded or dead foliage on perennials after the first hard frost, unless they add color to your garden in winter, or if you want to leave the seed heads for the birds. Leave dead foliage on chrysanthemums. Research has proven that mums not cut back, over-winter better than those that were cut. Apply a 2-4 inch layer of mulch around your perennials, bulb beds, trees and shrubs. It will help suppress weeds, hold in moisture, and give some protection from the elements of winter. You can use shredded leaves from your lawn or other loose materials like pine needles, wood chips, bark chips or coarse gravel. Do not use un-shredded leaves or other matter that compacts easily because it will mat down and suffocate the plants. Bulb beds can be covered with evergreen boughs.

Modern, bush-type roses (hybrid teas, floribundas, and grandifloras) require protection during the winter months. Exposure to low temperatures

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and rapid temperature changes can severely injure and often kill unprotected roses. Hilling or mounding soil around the base of each plant is an excellent way to protect bush-type roses. Mound the soil 10 to 12 inches high around the base of the canes. Place additional material, such as straw or leaves, over the mound of soil. A small amount of soil placed over the straw or leaves should hold these materials in place. Prepare modern roses for winter after plants have been hardened by several nights of temperatures in the low to mid-twenties. Shrub roses like ‘Knockout’ or ‘Carefree Beauty’ do not need this type of protection.

Strawberries are susceptible to winter injury. Temperatures below 20°F may kill flower buds and damage the roots and crowns of unprotected plants. Repeated freezing and thawing of the soil through the winter months can heave unprotected plants out of the soil and cause considerable damage. Apply a 3-5 inch layer of straw mulch over your strawberries in late fall. Allow the strawberry plants to harden or acclimate to the cool fall temperatures before mulching the bed.

Rake up and compost fallen leaves on the lawn. Before the ground freezes, water evergreens, especially broad-leaved ones deeply, and spray them with anti-desiccants if they are planted in exposed, windy areas. If necessary, protect them with burlap screens to minimize heaving, desiccation, scalding from intense sun, and other winter damage.

Wrap young trees, especially recently planted trees or thin, smooth-barked trees like maples and crabapples. I even wrap my young fruit trees. Wrap from the base of the trunk to the first branch, allowing some overlap to allow water to escape. Secure the ends with electrician’s tape or duct tape. During the winter months, rabbits often gnaw on the bark of many woody plants. Heavy browsing can result in the complete girdling of small trees and small branches clipped off at snow level. Apple, pear, crabapple, and serviceberry are frequent targets of rabbits. Small trees with smooth, thin bark are the most vulnerable. The best way to prevent rabbit damage to young trees is to place a cylinder of chicken wire around the tree trunk. The cylinder should stand about 1 to 2 inches from the tree trunk and 20 inches above the ground. The bottom 2 to 3 inches should be buried beneath the soil. Small shrubs, roses, and raspberries can be protected with chicken wire fencing also.

Cover containers that will remain outdoors to prevent them from filling with water, freezing, and cracking. Clean terra-cotta pots and concrete containers, and store them in the garage or potting shed to protect them from the elements. Drain your water hose and bring it in so it doesn’t freeze. Clean and store tools, ceramic pots and birdbaths. Putting them away before the harsh weather starts will prolong the life of these garden essentials.

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**MASTER GARDENER ONLINE TRAINING**

Missouri Master Gardener training is now available online with two classes offered each year. The fall class begins the first week of September whereas the spring class begins the first week of February. Online training is a 14-week learning experience designed to equip future Master Gardeners with the knowledge necessary to serve as effective volunteers. Each week, students study a different chapter in the Master Gardener core manual on topics related to horticulture. For the sake of this course, chapters in the core manual have been organized into learning modules with specific learning objectives. Each module includes an online presentation (using MOODLE as a software platform), web resources, and other learning tools. Typically, there are two different types of students who enroll in the online training course.

**Master Gardener trainees** are preparing themselves to volunteer as University of Missouri Extension Master Gardeners. In addition to successfully completing the course, Master Gardener trainees must complete 30 hours of volunteer service in order to become certified. These volunteer hours are supervised by the Extension Specialist with Master Gardener responsibilities for the county in which the Master Gardener trainee resides.

**Individuals** seeking to enhance their horticulture knowledge for personal fulfillment also enroll in the course. A certificate of completion is issued to these individuals when they satisfactorily finish the course.

For more information and to enroll in the online training go to [http://mg.missouri.edu/](http://mg.missouri.edu/).
MISSOURI PECANS

As the holidays approach many of us will use various nuts in baking holiday goodies. Or, maybe you have kids or grandkids that like cracking open nuts just for the fun of it. My boys love to crack open nuts, make a mess on the kitchen floor, and maybe even eat a few. I have two nutcrackers so there's no fighting over who gets to crack the nuts. I usually buy a bag of mixed nuts, and they seem to like them all, but my favorite is the almonds and pecans. Did you know we grow pecans here in Missouri? Southwest Missouri, near Nevada, is known as the pecan growing area of the state. There are some pecans grown around the Bucklin area in northern Missouri, and there are people with a tree or two in the backyard. I've had reports from people in Clark and Macon counties this fall that their pecan trees did well and they have a good crop.

Missouri pecans grow naturally in the rich river bottom soils of Missouri, in the northernmost region of pecan production. Although slightly smaller than pecans grown in the south, the unique sweetness and higher oil content of these pecans result in extremely flavorful nutmeats preferred by many.

For best quality, select clean, unshelled nuts free from splits, cracks and holes. Nuts in the shell should be heavy for their size, indicating a fresh, meaty kernel. Nutmeats that rattle in their shell are usually stale. Crisp, plump and meaty nutmeats indicate high quality; limp, rubbery or shriveled nutmeats indicate poor quality. Unless you plan to use nutmeats as a garnish, they do not need to be uniform in size. Suppliers often sell cracked nuts in the shell in plastic bags. Remove cracked nuts from plastic bags immediately and spread them out on trays in an airy location until you can shell and store them properly.

Nuts provide protein, fiber and some vitamins and minerals in varying amounts. The fat in nuts is mostly unsaturated and nuts contain no cholesterol. Unless salted, nuts are low in sodium. Even tough nuts are "nutrient dense", which means they supply many nutrients along with calories, they are not a low calorie food.

Pecans are harvested in the fall. For year-round use, store nuts as soon as they are thoroughly dry. Rich in oil, nuts will quickly become rancid or stale if not stored properly. Although unshelled nuts take up more room, they have a much longer shelf life than shelled nuts. Properly dried unshelled nuts will keep for several weeks at room temperature. Store unshelled nuts in airtight containers in a cool, dry, dark location, below 70 degrees F to ensure good quality for about four months. Whole, shelled nutmeats remain fresh longer than nuts in pieces—so chop nuts just before you plan to use them. Unsalted nuts keep longer than salted nutmeats.

You will need a heavy-duty hammer or nutcracker and plenty of extra time to shell black walnuts and hickories. Pecans are fairly easy to shell. In Missouri, most suppliers sell black walnuts shelled, pecans either cracked in the shell or as shelled nutmeats, and hickories either unshelled or as shelled nutmeats. Most Missouri nut growers do not recommend soaking nuts before cracking because it toughens nutmeats, adds moisture and encourages mold growth. Nutty Math—One pound of unshelled nuts yields: 2 1/4 cups pecan halves; ¾-1 cup black walnuts; 2 cups chopped pecans; 1 ¼ cups hickory nuts. For long-term storage, package unshelled or shelled nuts in moisture/vapor proof containers and store in the refrigerator or freezer—the lower the storage temperature, the longer the shelf life.

Old-Fashioned Pecan Pie

3 eggs beaten   ½ cup margarine, melted
¾ cup sugar    1 teaspoon vanilla
½ cup white Karo syrup ¼ teaspoon salt
½ cup dark Karo syrup 1 unbaked pie shell
1 cup Missouri Pecans

Mix eggs, sugar, syrups, vanilla, salt and margarine together. Spread pecans on bottom of pie shell. Pour in filling. Bake at 350 degrees for 30 minutes or until filling sets. A knife inserted in the middle should come out clean.


Information provided in cooperation with University of Missouri, University Extension and Missouri Department of Agriculture.
GARDENING TIPS FOR NOVEMBER

Vegetables
- Any unused, finished compost is best tilled under to improve garden soils.
- Fall tilling the vegetable garden exposes many insect pests to winter cold, reducing their numbers in next year's garden.

Fruits
- Keep mulches pulled back several inches from the base of fruit trees to prevent bark injury from hungry mice and other rodents.
- Fallen, spoiled or mummified fruits should be cleaned up from the garden and destroyed.
- Mulch strawberries for winter with straw. This should be done after several nights near 20 degrees, but before temperatures drop into the teens. Apply straw loosely, but thick enough to hide plants from view.

Ornamentals
- Continue watering evergreens until the ground freezes. Soils must not be dry when winter arrives.
- Now is the ideal time to plant trees and shrubs. Before digging the hole, prepare the site by loosening the soil well beyond the drip line of each plant. Plant trees and shrubs at the depth they grew in the nursery and no deeper. Remove all wires, ropes and non-biodegradable materials from roots before back filling. Apply a 2 to 3-inch mulch layer, but stay several inches away from the trunk. Keep the soil moist, not wet, to the depth of the roots.
- Remove the spent flowers and foliage of perennials after they are damaged by frost.

Lawns
- To prevent injury to turf grasses, keep leaves raked up off of the lawn.
- Continue mowing lawn grasses as long as they keep growing.
- A final fall application of fertilizer can be applied to bluegrass and fescue lawns now.

Miscellaneous
- Now is a good time to collect soil samples to test for pH and nutritional levels.
- Roll up and store garden hoses on a warm, sunny day. It’s hard to get a cold hose to coil into a tight loop.

(Missouri Botanical Garden)

UPCOMING EVENTS

December 1: Master Gardener volunteer hours are due!
December 6 & 7: Missouri Livestock Symposium, Kirksville.
January 9-11: Great Plains Vegetable Growers Conference; contact me for more information or go to http://www.greatplainsgrowers.org.
January 28: Beekeeping Workshop, Chillicothe. No other information at this time.
April: Spring Forward Gardening Workshop, Moberly. If you would like to be a speaker on a specific topic or have speaker suggestions please contact me. We are currently working on putting this together.

MASTER GARDENER VOLUNTEER HOURS DUE DECEMBER 1

It’s time once again to begin compiling your volunteer hours for 2013. Report forms should be submitted to your club advisor at your November meeting or submit your hours online in the Master Gardener volunteer reporting system at http://report.missourimastergardener.com/, which is the preferred method. It’s very important I receive your hours in a timely manner as I include these hours in extension annual reports for each county I serve. I will start pulling reports from the online system and tally those reports on December 2. Please do not be late or your hours will not be included in your county’s report. Don’t think just because you only did 20 hours or less that your hours are not important. They are. Please remember to use the correct project codes for your activities. Also, 45 minutes is recorded as .75, 30 minutes is .5, and 15 minutes is .25. Thanks for all you do for the Master Gardener program and University of Missouri Extension! Keep up the good work!