

## Horticulture 2012 Newsletter No. 3 January 24, 2012

Video of the Week: [Attracting Birds to the Backyard](#)

### UPCOMING EVENTS

#### PLANET Student Career Days set for March 22 – 25



The 36th annual Professional Landcare Network (PLANET) Student Career Days will take place March 22 – 25 at K-State, Manhattan, Kan. The annual three-day competition and networking event is for students enrolled in interior and exterior horticulture programs at two- and four-year colleges and universities. K-State's Horticulture, Forestry, and Recreation Resources Department will welcome approximately 900 college students from 65 colleges and universities for this horticultural event that also features the

world's largest green industry career fair. The event brings together green industry leaders and professionals with top horticulture students. A different school hosts the event each year, which gives participants a chance to see different parts of the country and increases the level of difficulty for outdoor competitions. In 2011, 62 college teams and a total of 876 students participated in 28 individual and team competitions, including tree climbing, paver/hardscape installation, wood construction, plant identification, sales presentation, exterior/interior design, irrigation troubleshooting, landscape construction and maintenance estimating, skid steer, personnel management, and small engine repair.

The event requires approximately 250 volunteers. Local and regional turf and landscape professionals are being asked to help. Volunteers are needed to serve in a variety of capacities, from directing students to various events to setting up competitive events such as irrigation assembly, paver installation, and wood construction. PLANET is an international association serving lawn care professionals, landscape management, design/build/installation professionals, irrigation and water management and interior plantscapers. PLANET Student Career Days would not be possible without the support and sponsorship from numerous industry leaders. To learn more about this event and to register as a volunteer, visit the website:

<http://www.hfr.ksu.edu/p.aspx?tabid=1021> Direct questions to Greg Davis, 785-532-1417, [gdavis@ksu.edu](mailto:gdavis@ksu.edu) or Cathie Lavis, 785-532-1433, [clavis@ksu.edu](mailto:clavis@ksu.edu).

# ORNAMENTALS

## Plants for Kansas: Deciduous Holly



Deciduous holly (*Ilex decidua*) is a shrub that looks great all year. Most hollies are evergreen, but this one loses its leaves in the fall to reveal a stunning berry show. Deciduous holly is a native plant that grows about 8 to 12 feet high at maturity, but gets there fairly slowly. It can be grown as a multi-stemmed shrub or as a small tree. It has dark, glossy green leaves in the summer, which turn yellow in the fall, and after leaf drop reveals a stunning crop of bright orange to red berries lasting September through April. Deciduous holly

can certainly take our harsh conditions: high pH soil, clay soil, heat and drought, in addition to USDA Hardiness Zones 5-9 winter temps. In this species, male and female reproductive structures are on separate plants, so you will need both a male (pollinator) and female (berry-producing) plant. They do not have to be directly next to each other in the garden, but should be relatively close (about 50 to 75 feet) for good berry set. In the garden center you may find *Ilex decidua* as the straight species or as a cultivar. 'Red Escort' is a pollinator and 'Warren Red' is a widely produced cultivar that has bright glossy red fruit and can get quite large at maturity. There are also yellow-fruited cultivars, but they are less available. For a shrub with stunning berries that provides long-lasting winter display, try a deciduous holly in your garden this year. (CB)

## Start Trees Off Right



Research from K-State's John C. Pair Horticultural Center has quantified the effect of controlling grasses around newly planted trees. Jason Griffin, William Reid, and Dale Bremer conducted a study to investigate the inhibition of growth of transplanted, seedling trees when lawn grasses were allowed to grow up to the trunk. There were five treatments, including three with different species of grass:

1. Bare soil maintained with herbicides.
2. Area under tree mulched 3 inches deep.
3. Tall fescue allowed to grow under tree.
4. Bermudagrass allowed to grow under tree.
5. Kentucky bluegrass allowed to grow under tree.

All treatments were applied to Eastern redbud seedlings as well as to pecan seedlings. All trees were fertilized according to recommendations and watered during the growing season with up to 1 inch of water if rainfall was deficient. At the end of two years, trees were measured and harvested. Data was taken on

caliper (diameter) 6 inches above the ground, weight of aboveground portions of the tree, leaf area, and leaf weight.

There were no differences in any measure between the mulched treatment and the bare soil treatment for either tree species. All measures showed significant growth increases if lawn grasses were controlled around the tree. Results include the following:

1. Caliper: Caliper measures 6 inches above the soil surface were twice as large for plots without grass than for those with either fescue or bluegrass, but only 50% larger when compared to the bermudagrass plots.
2. Top growth weight: Redbuds showed a 300% weight advantage for plots with grasses controlled than those without. Pecans showed a significant 200% increase.
3. Leaf area and leaf weight: Leaf areas were 200% larger in plots without grass competition and leaf weight showed a 300% increase.

The obvious conclusion from this study is that grasses must be controlled under a newly transplanted tree to get the best possible growth. How far from the trunk should the grasses be controlled? Try a minimum of 3 feet. (WU)

## MISCELLANEOUS

### Companion Planting: Does It Work?



Companion planting is a procedure that is sometimes recommended to naturally reduce pest problems by planting two types of plants close to one another. For example, planting catnip with cabbage is supposed to reduce worm damage on the cabbage. Controlled studies are needed to determine whether such a practice is effective. We now have results from two studies that give some insight into companion planting.

The University of California looked at the effect of planting cabbage with catnip, nasturtium, marigold, summer savory, and basil. The cabbage-catnip plots had reduced cabbageworm eggs and larvae but the amount of worm injury was the same. Also, the average weight per cabbage head was reduced probably due to competition from the catnip for sunlight, water, and nutrients. The other cabbage companion plantings also failed to show positive results.

The University of Georgia studied companion plantings of beans-marigolds, cucumber-nasturtium, cabbage-thyme, eggplant- catnip, tomato-marigold, and tomato-basil. None of these combinations prevented insect damage from the major garden insect pests.

What about cover crops of marigolds and nematodes? Dutch researchers looked at the effectiveness of more than 800 varieties of marigolds on nematode populations. (This is not companion planting because two crops are not interplanted.) It seems that nematodes are attracted to marigold roots but are killed when they try to feed due to the release of ozone from the damaged root. But this only occurs on living marigold roots. Once the marigolds have been tilled in, there is no further benefit. Also, the full benefit is only achieved when the whole area is covered with marigolds. In the Dutch test, cover crops of marigolds reduced the numbers of the very common root-lesion nematode (*Pratylenchus penetrans*) enough in one growing season that other crops susceptible to that pest could be grown for two or three years without suffering. The French marigold (*Tagetes petula*) proved to be the most effective, with the variety known as 'Single Gold' providing the greatest control —almost 99 percent. (WU)

### Ashes in the Garden



You may have heard that using wood ashes on your garden can help make the soil more fertile. Though ashes do contain significant amounts of potash, they contain little phosphate and no nitrogen. Most Kansas soils are naturally high in potash and do not need more. Also, wood ashes will raise the pH of our soils, often a drawback in Kansas where soils tend toward high pH anyway. In fact, wood ashes add little benefit and may harm many Kansas soils. In most cases it is best to get rid of them. But one possible use for ashes is as an addition to compost.

Compost is normally acidic, and the ashes help neutralize the pH. (WU)

### Bird Feeding



Severe winter weather is not only hard on people but can be a life and death struggle for birds. Though birds require water and shelter, food is often the resource most lacking during cold weather.

Many different bird food mixes are available because various species often prefer different grains. One seed that has more universal appeal than any other: black oil sunflower. If you are new to the bird-feeding game, make sure there is a high percentage of this seed in your mix. White proso millet is second in popularity and is the favorite of dark-eyed juncos and other sparrows as well as the red-winged blackbird.

As you become more interested in bird feeding, you may want to use more than one feeder to attract specific species of birds. Following is a list of bird species with the grains they prefer.

- Cardinal, evening grosbeak and most finch species – sunflower seeds, all types.
- Rufous-sided towhee – white proso millet
- Dark-eyed junco – white and red proso millet, canary seed, fine cracked corn.
- Many sparrow species – white and red proso millet.
- Bluejay – peanut kernels and sunflower seeds of all types.
- Chickadee and tufted titmouse – peanut kernels, oil (black) and black-striped sunflower seeds.
- Red-breasted nuthatch – oil (black) and black-striped sunflower seeds.
- Brown thrasher – hulled and black-striped sunflower seeds.
- Red-winged blackbird – white and red proso millet plus German (golden) millet
- Mourning dove – oil (black) sunflower seeds, white and red proso plus German (golden) millet.

Extended cold periods can also make water unavailable. A heated birdbath can be a tremendous draw for birds during times when all other water is frozen. Energy use is usually less than what most people expect IF the heater has a built-in thermostat.

If you would like more information, Chuck Otte, Agriculture Extension Agent for Geary County has a series of backyard birding guides at <http://gearycountyextension.com/NRMW.htm> (WU)

### **Bringing Houseplants Down to Size**



We sometimes receive calls from gardeners who wish to donate houseplants that have outgrown their location. In most cases, we don't have room to accept plants and suggest that people bring them down to size by air-layering. Air-layering is a process where a branch or the main stem is encouraged to form roots while still attached to the parent plant. After rooting, the original plant is discarded and the newly rooted one is potted as a replacement. Though this propagation technique cannot be used on all houseplants, it does work

well on many that tend to outgrow their boundaries including croton, dracaena, dieffenbachia, Norfolk Island pine, rubber plant and schefflera.

Choose wood that is about 1 year old. Older or more immature wood often roots poorly, if at all. Any place on the stem that is of the proper maturity can be used, but a convenient location is often about 12 inches from the tip. Following are the steps required for air-layering:

- Leaves should be removed around the area to be air-layered.
- Wound the stem. This can be done by making a slanting cut upward, an inch or more in length and halfway through the stem. Place a portion of a toothpick in the cut so it cannot close and heal. If the stem is seriously weakened, use a stick "splint" to prevent breakage. Another method

that works well is to strip the bark completely around the stem in a band 1/2 to 1 inch wide.

- Apply rooting hormone to the wounded surface of the cut or the stripped portion of the branch.

- Pack a baseball-sized wad of moist, unmilled sphagnum peat moss around the wounded area so it forms a ball. This is where new roots will form. It is important to use the long, stringy unmilled peat moss rather than the more common milled material so peat moss does not fall away from the stem when released. Even unmilled peat moss may need to be secured with string to keep it in place.

- Wrap the ball of sphagnum peat moss with clear plastic wrap. Be sure to use enough wrap so that the plastic overlaps and prevents the ball from drying out. Secure the top and bottom edges of the wrap closed with electrical tape, string or other convenient fasteners.

Roots may appear in as little as a month though it may take much longer for the plant to be ready for transplanting. Check periodically to be sure peat moss remains moist. Water if needed. When roots have filled the peat moss, the plant is ready to be severed from the parent and transplanted. (WU)

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