



**Cooperative Extension Service** 

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### What Is Mistletoe?

By Robert Brockman Boone County Extension Agent for Horticulture

With the Christmas season upon us, it is time to finish decorating homes and continue traditions that have been passed from generation to generation. One tradition that is very popular during the Christmas season is that of kissing underneath the mistletoe. Mistletoe is a symbol of life, love, and even fertility. However, have you ever stopped to think what mistletoe is and where it comes from?



Mistletoe is an evergreen that grows out of

tree limbs. It is hidden by tree leaves for most of the year but balls of mistletoe become very apparent after leaves have fallen in late fall. Mistletoe is a hemi-parasitic plant that grows out of many tree species. Unlike fully parasitic plants, mistletoe has the ability to make its own energy stores which it takes up through photosynthesis. Mistletoe does, however, rely on its tree host for water and other nutrients. To get the nutrients it needs from its tree host, and to cling to the tree, mistletoe uses specialized roots called haustoria which penetrate the tree tissues and hold it in place.

As mistletoe is hemi-parasitic, it can weaken trees by siphoning off water and other nutrients. Most trees can withstand these mistletoe freeloaders without any negative effects. However, trees that have large numbers of mistletoe plants within them, or trees that are stressed from other factors, will weaken over time. If your

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Consider leaving some fallen leaves in an out of sight area of your yard. Overwintering bumblebee queens and many other insect pollinators will spend the winter in protected locations such as these.

# Cooperative Extension Service

Agriculture and Natural Resources
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tree is weak and you are afraid that mistletoe will be the straw that breaks the camel's back, it may be time to remove mistletoe. To properly remove mistletoe, you must prune out the branch that it has been colonized to the point where you remove all visible shoots and the largely invisible mistletoe roots. Simply removing mistletoe shoots from the tree branch will leave the roots which can re-sprout, just like weeds in the garden. It is, however, unnecessary to remove mistletoe from every tree in sight as that mistletoe is an important part of the ecosystem.

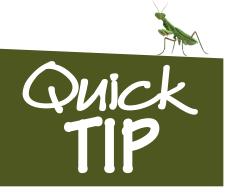
Mistletoe relies on birds and mammals to spread from one location to another. Animals eat the white berries of mistletoe and later excrete those seeds while they are up in trees. While birds are the most common animal taking advantage of the berries, there are many other animals and insects that use mistletoe. Birds will nest within the mistletoe, bees use nectar from mistletoe flowers, and the great purple hairstreak butterfly relies on mistletoe for its larvae's sole food source. Most mistletoe is found high in trees where birds rest or roost after eating mistletoe berries. Getting this mistletoe out of trees can be very challenging and has become a tradition in itself.



There are many species of mistletoe that live on different species of trees and inhabit varied regions of the United States and world. While there are many species, North American mistletoe is broken down into two main groups. Dwarf mistletoes are largely leafless and tend to colonize species of pine, firs, and other conifers. Dwarf mistletoe is in the genus *Aurceuthobium* and is generally not used for our holiday traditions. The leafy American mistletoe species are within the genus *Phoradendron* and tend to colonize many deciduous tree species such as oaks, maples, ash, hickory, and elms. *Phoradendron leucarpum* is the mistletoe species found in the southeast and can make beautiful Christmas decorations.

Similar to poinsettia, mistletoe leaves and berries are mildly toxic if ingested. Mistletoe clippings from the yard and mistletoe decorations should be kept away from curious children and pets. If ingestion occurs, contact a poison center helpline immediately.

Now is a good time to take soil samples. Results will come in with plenty of time for you to correct soil pH and fertility issues before spring planting.



# Spring Flowering Bulbs for Kentucky Gardens

By Robert G. Anderson, Extension Specialist in Floriculture

Hundreds of different kinds of flower bulbs are available for fall planting. You may obtain them from mail order bulb companies, garden centers, supermarkets or department stores. Some are familiar and others have long, hard-to-pronounce names. Generally, spring flowering bulbs do very well the first spring after they are planted. Yet, many home gardeners want the bulbs to come back year after year or naturalize in their home landscape.



#### **Planting Site**

Well-drained sites are essential.

Established gardens and beds or newly cultivated areas are fine. The soil pH should be 6.0 to 7.0. Bulbs will not do well in heavy clay soils, so poor soils should be amended with compost, peat moss or other organic matter. Most bulbs prefer a site that does not receive full sunlight in the middle of the day. This reduces water stress on hot spring days to extend flower life and allows the bulbs to mature properly after flowering. Only bulbs that flower very early in the spring should be planted directly in the lawn. All other bulbs perform best and are easier to maintain when planted in mulched beds. Flower bulbs should be planted in groups so the mass of color increases visibility. Small bulbs should be planted in groups of at least 10 to 12 while large

Grape Hyacinth bulbs can be planted with as few as 5 to 6 bulbs in a group. Bulbs that flower at different times can be inter-planted in the same area. If you desire "perennialization" or naturalization of your bulbs, avoid planting near heated basements. Bulbs can be used as annuals or perennials in beds, in ground covers, in rock gardens or under trees and

shrubs.



If soil samples indicate that your trees or shrubs need fertilizer, the best time to fertilize is after they go dormant in late fall.

#### **Fall Planting Techniques**

Plan to plant spring flowering bulbs between October 15 and Thanksgiving. Start by cultivating and cleaning the planting site. Small sized bulbs (about 1 inch) should be planted in holes 5 inches deep and 1 to 4 inches apart. Large bulbs (2 inches or more) should be planted in holes 8 inches deep and 4 to 8 inches apart. These planting depths will help protect the bulbs from frost, animals and physical damage due to hoeing. Thoroughly loosen the soil under the bulbs and mix in one handful of bone meal per square foot (1 oz/sq ft). Place bulbs

upright in the hole (generally pointed side up) and cover bulbs with half of the soil removed from the hole. Water the bulbs thoroughly and replace the remaining soil. Fertilize the soil surface with 10-10-10 (N-P-K) at a rate of 3 to 4 pounds per 100 square feet. Cover the bed with 2 to 3 inches of mulch and water thoroughly again. If the fall weather is dry, water the area as needed.

#### **Spring Care**

As soon as the plants emerge in the spring, fertilize the area with 10-10-10 (N-P-K) fertilizer at a rate of 1 to 2 pounds per 100 square feet. After the flower petals fade or fall off, remove the flower organs with a scissors or knife. Allow the remaining foliage to die naturally. Bulbs will not mature properly when the foliage is removed prematurely. When early to late flowering bulbs are planted directly in the lawn, the foliage generally cannot be removed when the grass is first ready to mow. This can create an unsightly area and a maintenance nuisance. Splitting or harvesting bulbs is generally not advised, yet many home gardeners have been successful with these procedures for years. If the bulbs flowered satisfactorily in the spring, do not disturb them. If they need to be moved, dig them when the foliage has yellowed and died. Store the bulbs in a relatively dry and ventilated location until fall planting time.



#### **Bulb Selection**

Many spring flowering bulbs are successful garden flowers in Kentucky. Over 100 cultivars and species were evaluated from 1969 to 1973 in our trial gardens. To select flower bulbs for your garden, consider flowering time, flower color and plant height. Crocus, daffodils and grape hyacinths are common plants that grow readily and naturalize in most gardens. Tulips and hyacinths are also common and available but these will naturalize only in the better garden locations as described above. The specific conditions to assure naturalization of tulips have not been identified so tulips will generally have to be replaced every 2 to 4 years. Many other unfamiliar bulbs will naturalize readily in Kentucky gardens. These bulbs will become more familiar to Kentucky gardeners as people try them and have success with them.

Adapted from: Hort Facts 52-04 by Robert G. Anderson, UK Extension Specialist in Floriculture; https://horticulture.ca.uky.edu/sites/horticulture.ca.uky.edu/files/5204springbulbs.pdf

Beds of spring flowering bulbs can be protected from squirrels and other rodents by burying chicken fencing below the mulch surface.





### Coastal Georgia Botanical Garden

By Joe Smith Boone County Extension Horticulture Technician

Earlier this summer I visited a real horticultural gem of the Southeast ,the Coastal Georgia Botanical Gardens. This site was formerly a USDA Plant Introduction Station, and known by locals as "The Bamboo Farm," which was internationally known collection of bamboo species, as well as many other rare plants. The CGBG has extensive displays of native and imported plants recommended for the coastal regions of Georgia & the Carolinas. Many of the plants in their collection are rare specimens for North America and some of the oldest specimens found in the United States.

CGBG is run by the University of Georgia College of Agricultural and Environmental Sciences and there is an Extension office on site with it's facilities available for public use. Included is an educational building with a demonstration kitchen seating 100 people, and a huge open-air pavilion that seats 300 people, plus an educational classroom for Master Gardeners and school groups.

Being a plant geek I really enjoyed some of the rare and out of the ordinary species that they have in their collection. For example, they had many magnolia species. One that caught my eye was *Magnolia maudiae*, AKA 'Smiling Monkey Forest Tree". They, of course, have a huge bamboo collection with species from across the world as well as a hardy palm collection that is second to none.

So, if you happen to be in the Savannah Georgia area, stop in to check out these lovely gardens. Also, with the camellia blooming season right around the corner, they have the Judge Arthur Solomon Camellia Trail located onsite as well. Please check out what they have to offer. Believe me, you won't be disappointed!

https://coastalbg.uga.edu/







## 10 Ways to Kill a Tree/ 10 Ways to Make Your Tree Love You

By William M. Fountain Retired Extension Horticulture Specialist

### 10 Ways to Kill a Tree:

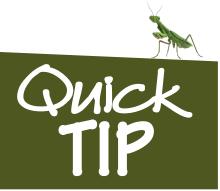
- 1. Plant large trees in small spaces.
- 2. Choose a tree just for its flowers.
- 3. Buy the cheapest plant.
- 4. Dig a small planting hole.
- 5. Plant it deep.
- 6. Water it every day.
- 7. Pile lots of mulch around the trunk.
- 8. Add fill soil over the roots or trench through roots.
- 9. Top it.
- 10. Make flush pruning cuts.

# 10 Ways to Make Your Tree Love You:

- 1. Select for 4-season appeal.
- 2. Match the plant with the site.
- 3. Buy healthy, quality plants.
- 4. Dig wide planting holes and plant no deeper than it was growing.
- 5. Remove synthetic burlap, twine, etc.
- Mulch lightly and keep equipment away from the trunk.
- 7. Water during dry weather.
- 8. Inspect often for diseases and insects.
- 9. Avoid trenching and adding fill soil.
- 10. Practice natural target pruning.



Apply dormant oil on warm days in early November (Indian Summer) to control scale insects on trees and shrubs, especially the deciduous magnolias.



# for More Information...

For more information or to register for any of our classes, visit our website at boone.ca.uky.edu. Click "Online Class Registration" or call us at 859-586-6101.

# Upcoming Horticulture Events Please Register

### Please Note:

► For most Horticulture classes, registration opens one month prior to the class.

# Foolproof Landscape Plants for Northern Kentucky

▶ November 4, 2:00-4:00pm Boone County Enrichment Center Learn about trees and shrubs adapted to difficult site conditions in Northern Kentucky such as clay soils, urban landscapes, drought, etc.

# It's Time to Put Your Garden Tools to Bed

► November 21, 10-11:30am Boone County Enrichment Center Learn the proper techniques to clean and sharpen your garden tools.

### **Holiday Houseplants**

▶ December 5, 6-7:30pm

Boone County Enrichment Center

Do you love houseplants during
the winter but don't know how to
care for them? Come and learn
what your holiday houseplants
need. A few of the species that
will be covered include holiday
cacti, poinsettia, cyclamen, and
kalanchoe.

#### Soil Fertility 101

▶ January 14, 6:00pm

Boone County Enrichment Center

Have you ever wondered how

much fertilizer your soil needs, if
your soil is healthy, or how to
help your soil out? Come and join
us as we explore the building
blocks of a healthy garden.

# **Growing and Propagating Houseplants**

► January 16, 1-2:30pm

Boone County Enrichment Center

Learn which houseplants are easy to grow and propagate.

#### **Garden Planning 101**

▶ January 28, 6:00pm

Boone County Enrichment Center

This program will be about how to pick the optimum gardening site and what to do with a garden site that may be suboptimal.



Master Gardener Volunteer "Dig Day" at the Boone County Extension Enrichment Center



### **Extension Campus Location Key:**

Find us here...

Virtual via Zoom, Must register to receive Zoom link **Extension Service office,** 6028 Camp Ernst Rd., Burlington Enrichment Center, 1824 Patrick Dr., Burlington Farmers Market, 1961 Burlington Pk., Burlington

Environmental and Nature Center, 9101 Camp Ernst Rd., Union Boone County Arboretum, 9190 Camp Ernst Rd., Union; Register at: www.bcarboretum.org/

### The Beginning **Gardener Series**

By Robert Brockman Boone County Extension Agent for Horticulture

Have you ever seen the Master Gardener Training and thought that it would be great but were too intimidated to take it? If so, this series is just for you! During this series, we will teach you the skills you need to make your thumb a bit greener. This series will take place at 6PM and will last one and a half hours. Programs will be held on the second and fourth Tuesday of the month and will run from January through April for a total of eight classes. A few of the topics during the training will include understanding soil fertility, how to read a fertilizer label, site selection, plant selection, propagation, and much more! Register for all the classes or just the ones you need more knowledge on. All classes will be held in the project rooms of the **Boone County Enrichment** Center.

# **Kale and Potato** Soup

- 4 teaspoons olive oil
- 1 chopped yellow onion
- 3 cloves garlic, minced
- 1 box (48 ounce) low-sodium chicken broth
- 6 red potatoes, diced
- ½ cup chopped carrot
- 4 cups shredded kale
- ½ pound cooked chicken breast, shredded
- ¼ teaspoon black pepper

In a large saucepan, heat the olive oil over medium heat for 1 minute. Add chopped onion and garlic and cook uncovered for 5 minutes. Add chicken broth,



potatoes and carrot; cover and bring to a boil. Reduce heat and simmer for 20 minutes. Mix in the kale, chicken and black pepper. Cover and simmer for 15 minutes or until kale is tender.

Yield: 6, 11/2 cup servings. Per Serving: 270 calories, 5 g fat, 1 g saturated fat, 25 mg cholesterol, 210 mg sodium, 43 g carbohydrate, 5 g fiber, 15 g protein.

Source: https://fcs-hes.ca.uky.edu/recipe/kale-and-potato-soup

# Kentucky Kale

SEASON: May through June and September through November.

**NUTRITION FACTS:** Kale is a good source of vitamins A and C. A half-cup serving contains 20 percent of calcium needed daily. It is low in calories, sodium and contains no fat.

SELECTION: Choose dark colored, small to medium sized leaves. Leaves should be fresh. young and tender. Avoid greens with coarse stems or yellowed, dried, limp leaves.

STORAGE: Store kale and other greens in the coldest part of the refrigerator for no more than 2 or 3 days.

PREPARATION: Wash leaves in lukewarm water. Remove roots, rough ribs and center stalks if they are large or fibrous.

To cook: Add washed greens to a medium-sized

saucepan with ¼ inch of water. Bring water to a boil. Cover and cook until tender. Crisp and tender leaves may require 5 to 10 minutes.

To freeze: Wash young, tender green leaves thoroughly and cut off woody stems. Blanch greens for 2 to 3 minutes, cool, drain, and package. Leave 1/2-inch headspace, seal, label and freeze Greens can be stored for up to 1 year.

#### KENTUCKY KALE

Kentucky Proud Project
County Extension Agents for Family and Consumer Sciences University of Kentucky, Dietetics and Human Nutrition students

March 2013

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