

# Homeowner's Guide to Landscaping, Lawn and Pest



**By Anthony Carver**

**Grainger County Extension Agent**

## Tree & Shrub Care

### New Plantings Recommendations

#### *Watering*

Water is the most critical factor in transplanting success! Keeping the soil moist, but not wet, through watering is the best avenue to ensure survival and growth of your transplanted tree. Different species of trees and different soils make a general, overall watering recommendation unrealistic. When watering a tree, apply enough to thoroughly soak the soil in the root zone. Transplanted trees require more water than they did in the nursery. Frequent watering of transplants provides more benefit than applying large volumes of water infrequently because of the smaller root system. This is in direct contrast to the recommendation for established trees, where large water volumes are considered better than light, frequent applications (Gilman 1994). Drip irrigation systems and water reservoir devices can facilitate watering. Proper water management is the key for establishing transplants quickly.

#### *Mulch*

Apply mulch 2 to 3 inches deep on the surface of the planting hole and extending perhaps 2 or more feet beyond the perimeter of the hole. Organic mulch will conserve water in the soil, allow better infiltration of water into the soil during rainfall events or watering and helps to prevent weeds. Do not place mulch against the tree trunk or apply mulch too thickly.



Wayne K. Clatterbuck

#### *Size of Planting Hole*

The planting hole should be at least 2 or 3 times as wide, and in some cases, where soils are compacted, up to 5 times as wide as the root ball. Wide, shallow holes encourage horizontal root growth, by decreasing the resistance for root penetration into the native soil. The larger planting hole and loosened backfill expedites root growth. The sooner the roots are able to penetrate and grow into the native soil, the sooner the tree will become fully established after transplanting.

#### *Score Root Balls*

If roots are circling around the root ball exterior, cut through the roots in a few places. Circling roots are usually found in container stock. Cutting helps prevent circling roots from eventually girdling the trunk. Cutting roots will also initiate root regeneration and growth that increases the probability that roots will grow from the container medium into the native soil.



Sara Clatterbuck (both photos)

### General Health Information including Disease & Insect Control

A healthy plant is less likely to have a disease or insect problem occur. Correct moisture, fertility and pruning is key. A root system that stays wet will always have problems. Plants should be placed in a well-drained area. Over watering is just as bad as a drought. Also, feeding the plant small amounts in the growing months will encourage growth/health of the plant. A good complete fertilizer to have on hand is 10-10-10. It is wise to check pH of the soil every 3-4 years, too. Most trees and shrubs grow well between pH of 6.0 to 7.0. Azaleas, blueberries and pines like the pH less than 6.0. Pruning is covered in the next section. Some fungicides and insecticides to have on hand in case a problem arises are Mancozeb, Fung-onil (disease control), Liquid Sevin and Malathion (insect control).

## Pruning Recommendations

Pruning is one of the most important cultural practices in landscape management. Proper pruning helps keep plants' attractive and vigorous and will add years to the plants usefulness. Many people are apprehensive about pruning, but knowing how, when and why to prune will end these fears.

1. Early spring (before bloom and leaf set-on) or late fall (after sap has gone down) is the best time to prune. Evergreens can be pruned year round, but best at the above times.

2. Prune to maintain plant health. Remove dead, damaged or diseased plant tissue to maintain plant health and vigor.

3. Remove water sprouts. Water sprouts are new, rapid growth branches that go straight up from another branch. They are using all the nutrients up from your blooms and or fruit.

4. Remove any branches going straight down or back towards the middle of the tree. This will open up the canopy to encourage wind movement and sunlight penetration. A dense canopy could mean more disease and insect problems.

5. Prune to train plants to a particular size or shape. It's ok to prune off limbs that are hard to mow under.

6. Prune to rejuvenate old, overgrown shrubs and restore plant density, shape and vigor. Large-habit plants in the wrong place, like hollies, privet and photinia planted in front of windows, should be replaced. When cut back or pruned severely, the large root system that remains helps these plants quickly resume their original size.

7. Prune to remove misshapen, crowded and rubbing branches and branches with narrow crotch angles. These pruning cuts eliminate problems before plant damage occurs.

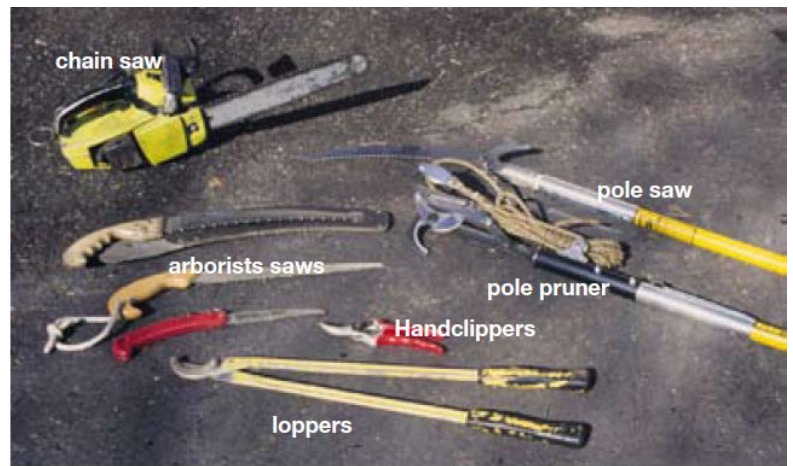
8. Prune to increase flowering and fruiting. More flower buds will be formed for the following season if old flowers are removed when they lose their attractiveness, a practice called *dead-heading*.

9. Be SAFE!!! Hard hats, gloves, safety glasses are helpful safety gear to wear. If you are on a ladder, be sure someone is there to hold it.

Trees and shrubs should be examined every year to determine if pruning is needed. Too many homeowners neglect their plants and fail to prune for several years. Shrubs in particular become overgrown and lose vigor. When this overgrowth occurs, heavy pruning or severe renewal pruning is needed to reduce plant size. Never hesitate to cut tall, fast-growing or unsightly limbs. Remember, if the terminal bud on a new shoot is lightly pruned, lateral growth will produce a fuller plant.

For more information on pruning see "Landscape Pruning" on the Grainger County Extension website.

Common tools of pruning.





# Lawn Care

## Tips for the Turf

1. Mow often. Remove no more than one-third of the leaf blades each time. Mow tall fescue at a cutting height from 2 to 3½ inches, most other varieties need to be lower. Set the mower at the recommended cutting height. Also, change mowing direction each time when possible.
2. Maintain sharp mower blades. Sharpen blades (and bedknives of reel mowers) at least once each year. This will reduce the potential for disease.
3. Fertilize based on soil test results and the nutrient requirement of the turfgrass being managed.
4. Consider using a fertilizer with extended-release nitrogen. Applying too much fertilizer with highly water-soluble nitrogen can injure turfgrasses.
5. Seasonal fertilization works best. Time fertilizer applications based on turfgrass growth rate. Spring & fall for cool-season and summer for warm season grasses.
6. Check pH every 4 years. pH should be 6.0 to 7.0. Do not apply lime without soil testing first. Do not apply more than 50 pounds of lime per 1,000 square feet per application.
7. Irrigate in the morning, applying at least ½ inch of water each time the lawn is watered.
8. Dethatch the lawn when more than ½ inch of thatch accumulates on the surface of the soil. Thatch is an Intermingled layer of dead and living leaves, stems and roots located between the green foliage and the soil surface.
9. Core aerify heavily compacted soils. Aeration improves soil drainage and encourages worms, and other organisms that improve soil quality. Aeration is simply punching holes in the lawn.



Torn leaf edges and injured tissue. Plants with ragged edges are prone to attack by fungal pathogens.



### Dethatching & Core Aerifying Schedule



Tall Fescue



Bermudagrass



J

F

M

A

M

J

J

A

S

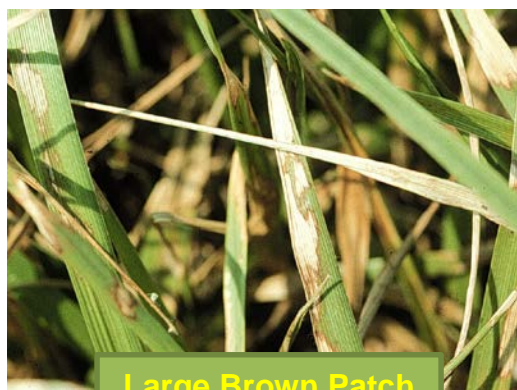
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N

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Month

10. Monitor the lawn often. Identify and correct problems before they become severe. Below are 3 examples of such problems. A chemical recommendation is under each.



**Large Brown Patch  
Fung-onil**



**White Grubs  
Liquid Sevin (water it in)**



**Smooth Crabgrass  
Acclaim Extra**

11. Reseeding brings new and healthy plants to the lawn. Makes the lawn thicker, with less bare spots. Cool-season: seed mid – February til late March & late August til mid-October.  
Warm-season: seed May through mid-June.

**The recommended seeding rate and the seed germination interval of several turfgrasses.**

Species	Recommended Seeding Rate (Pounds Per 1,000 Square Feet)	Approximate Number of Days to Germinate
Cool-season		
Bluegrass, Kentucky	1½ to 2	14 to 21
Fescue, chewings	3 to 5	6 to 14
Fescue, red	3 to 5	6 to 14
Fescue, sheep	3 to 5	6 to 14
Fescue, tall	5 to 8	6 to 12
Ryegrass, annual	4 to 6	3 to 7
Ryegrass, perennial	4 to 6	3 to 7
Warm-season		
Bermudagrass, common - hulled <sup>a</sup>	½ to 1	10 to 20 <sup>b</sup>
Centipedegrass	½ to 3	10 to 20
<i>Zoysia japonica</i>	½ to 3	10 to 14

<sup>a</sup> The seeding rate should be doubled when using unhulled seed.

<sup>b</sup> Unhulled seed often requires 14 to 21 days or longer to germinate.



## Weed ID



Broad Leaf Plantain



Carolina Geranium



Common Chickweed



Henbit



Purple Deadnettle



Goosegrass



Bermudagrass



Dallasgrass

## Post Weed Control (When Weeds are Present)

Always read label carefully. This chart is subject to change by 2012.

Target Weeds	Herbicide	Rate per 1000sq.ft.	Other comments
Common Bermudagrass	Fusilade II Or Acclaim Extra	.04 to .14 fl. oz. .46 fl.oz.	Requires precise application
Crabgrass, Goosegrass, other grasses	Vantage Or Acclaim Extra	.5 fl.oz. .3 to .9 fl.oz.	See label
Dallasgrass, Crabgrass, Goosegrass	DSMA Crabgrass Killer Or Other Crabgrass Killers	8 fl.oz. Read label	See label
Broadleaf Weeds	Confront Or Weed-B-Gon	.37 to .74 fl.oz. 2.5 to 5 fl.oz.	See label
Chickweed	(Ortho)Chickweed & Clover Control	3.3 fl.oz.	See label

# Home Insect Control

## Steps to Prevent Pests in Homes

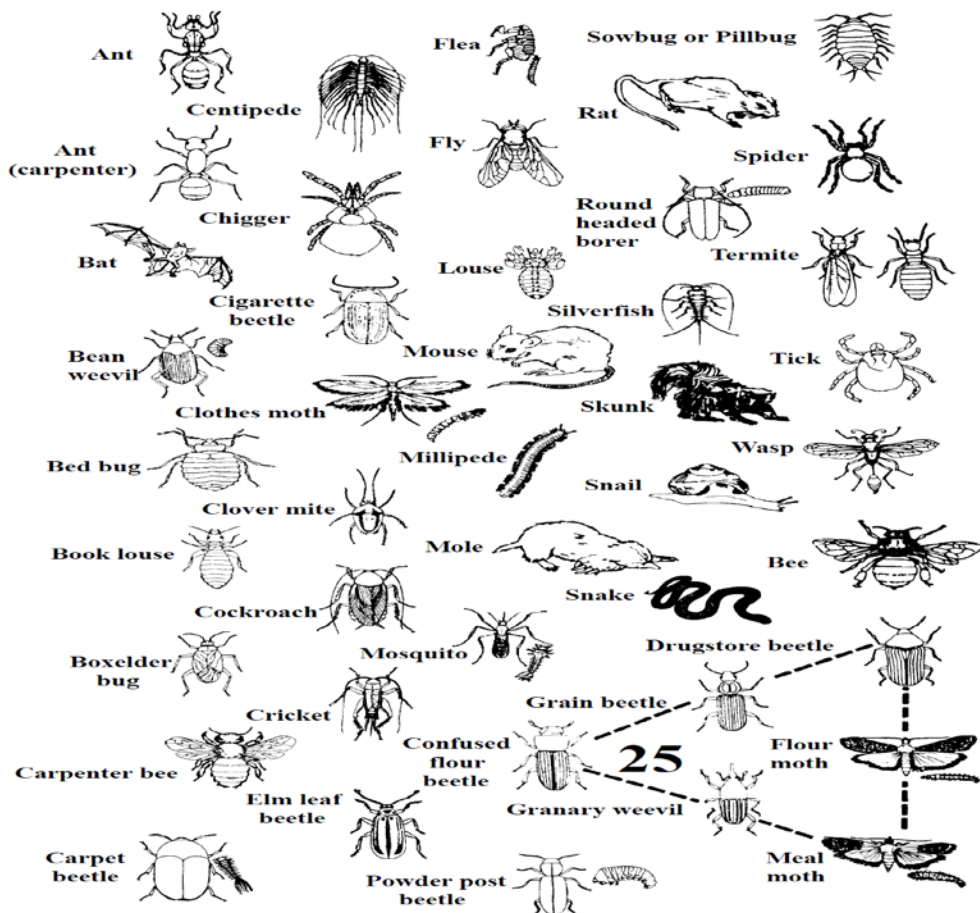
All pests need access to food, water, shelter and most often a warm environment. By removing their access to these necessities, you can prevent or decrease pest populations dramatically. This can be achieved through sanitation and exclusion practices, as well as other modifications of the environment.

### Tips for Prevention

1. Remove food sources – no excess pet food (only feed pets what they will eat at a given time), timely garbage disposal, table scraps should be disposed of at least 50 ft away from the house
2. Remove water sources - fix leaks and drips from all faucets and plumbing, vent crawl spaces and attics.
3. Exclusion - Caulk to seal holes and cracks, check all windows and doors for entry areas, place sweeps on doors, fix any opening to crawl spaces.
4. Lighting - Sodium vapor lights are much less attractive to insects. Use yellow bug lights or sodium vapor lights near doorways, driveways and sidewalks. Zapper lights can be used as an alternative control method.
5. Traps – There are several types of traps – sticky boards, snap traps, insect bait traps. Each trap needs to be matched to the type of pest. Most traps have instructions on where to place and how to use.
6. Pesticides – Pesticides are used to prevent and/or control present pest. The list on the next page has several of the more common one used today.

### Pest ID

Identifying which pest is the problem is the first step to fix the problem. The chart to the right has many household pests. A positive ID should be first priority. If you cannot identify the specimen yourself, bring it to your local county Extension agent. After the pest has been identified, you can determine where it lives, what it prefers to feed on, if it can cause structural damage or is a health threat, or if it is just a nuisance. If it is determined that control is necessary, several approaches may be used, including sanitation and exclusion practices, vacuuming, trapping and the careful use of pesticides.



Pest	Control Methods
Ants	<p>Indoors:</p> <p>Baits:</p> <p>Terro Ant Killer II, Combat Superbait Ant Baits, RaidMax with sulfluramid, Hot Shot Maxattrax, Raid Ant Baits with abamectin</p> <p>Outdoors:</p> <p>Bait traps &amp;</p> <p>Combat Ant Killing System Sprays:</p> <p>Ortho Home Defense Indoor &amp; Outdoor Insect Killer</p> <p>Bayer Advanced Home Pest Control Indoor &amp; Outdoor Insect Killer</p>
Carpenter Bee	<p>Apply dusts into the gallery openings:</p> <p>Zep Pest Termite and Ant Killer</p> <p>Sprays:</p> <p>Bee/Wasp Killer Aerosols,</p> <p>Ortho Termite and Carpenter Ant Killer</p>
Cockroaches	<p>Baits:</p> <p>Combat Roach Killing Gel, Combat bait stations, Roach Ender baits, Raid Max Roach Bait V and Egg Stopper in cracks and crevices.</p> <p>Baits for large roaches:</p> <p>Combat roach bait stations, Combat gel baits, others. Do not spray near baits because cockroaches will be repelled.</p> <p>Lightly dust voids with</p> <p>boric acids: Orthoboric Acid, Boracic, RoachPrufe 80% Plus</p> <p>Sprays:</p> <p>Bayer Advanced Home Pest Control Indoor &amp; Outdoor Insect Killer,</p> <p>Ortho Home Defense Indoor &amp; Outdoor Insect Killer ,Black Flag Gold ,Hot Shot, Raid Ant and Roach</p>
Mice	<p>Place snap traps, multiple catch traps and glue boards along paths traveled by mice. Traps or glue boards should be placed every 8-12 ft. Traps can be baited with: whole nuts, peanuts or peanut butter, dry rolled oatmeal, bacon squares, small wads of cotton or gumdrops. Baited traps should be set at right angles to rodent runs. Place trap at right angles to rodent pathway with trigger part of trap against the run. Poison baits is another choose.</p>
Skunks	<p>Remove food source (grub worms in lawn using liquid Sevin) Bac-Azap biological odor control or others can be sprayed to eliminate odors. Trap and remove skunks from property. Seal the foundation to prevent entry under building.</p>
Snakes	<p>Place a pile of cool, damp rags in building where snake was last seen. Snake will be attracted and can be removed. Large glue boards can trap snakes. Mouse-proof building. Mow lawns and field to control grass, weeds and brush. Remove boards, flat rocks, trash piles and other debris.</p>
Spiders	<p>Dusts:</p> <p>DeltaDust, Zep Pest Termite and Ant Killer, Tempo 1D</p> <p>Residuals:</p> <p>Demand CS, Tempo 20 WP, Demon WP, Suspend, Talstar ,</p> <p>Ortho Home Defense Indoor &amp; Outdoor Insect Killer,</p> <p>Bayer Advanced Home Pest Control Indoor &amp; Outdoor Insect Killer Space or aerosol: pyrethrins</p>
Termites	<p>Some year round sprays help to repel termites, but professional services should be used to prevent.</p>

Always read the label.



*Web Sites:*

Grainger County UT Extension:

<https://utextension.tennessee.edu/grainger/Pages/Agriculture-and-Home-Owner-Information.aspx>

UT Extension Publications for Homeowners:

<https://utextension.tennessee.edu/publications/Pages/householdInsects.aspx>

UT Extension Weed Science:

<http://www.tennesseeturfgrassweeds.org/Pages/default.aspx>

*Information Sources include:*

Post-Planting Tree Care: Fallacies and Recommendations SP 574

Best Management Practices for Pruning Landscape Trees, Shrubs and Ground Covers PB1619

Managing Pests Around the Home PB1303

UT Weed Science Web Site

For more information contact:

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