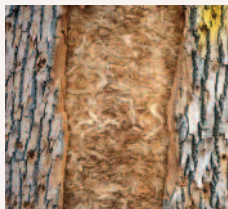


CANOPY THINNING & DIEBACK



Smaller, paler, and fewer leaves and dieback of branches in a tree's canopy indicate serious rootzone problems, insects or disease.



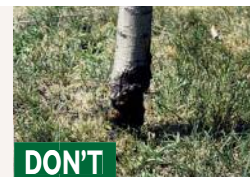
Emerald Ash Borer may be the cause. Look for D-shaped holes and loose bark covering S-shaped tunnels made by larvae. Find out if your valuable ash trees should be treated.

LAWN MOWER DAMAGE



DO

Even a narrow band of mulch near the trunk (but NOT up against it!) will keep grass and weeds from growing, making it unnecessary to mow close to the trunk.



DON'T

Hitting the bark at the base of the tree with lawn mowers and weed whips causes wounds that lead to trunk decay, root rot and death.

EXPOSED ROOTS



Roots become exposed as they thicken and the soil washes away when the grass dies in the tree's shade.



DO NOT cut exposed roots or cover them with anything except 3" of organic mulch. Added soil will gradually kill the tree. The soil on the trunk will cause decay.

GIRDLING ROOTS



DO

Trees planted at the proper depth show a gradual transition from trunk to roots called the "root flare".



DON'T

Planting too deeply and circling roots hide the root flare making trees look like telephone poles at the base.

DAMAGED BRANCHES



In both winter and summer, ice, heavy snow and strong winds can break branches especially if they are already weak due to poor tree structure or neglect.



A broken branch should be pruned back to where it attaches to the next branch, at the proper angle and without leaving a stub. Repair damage soon after it happens.

PROPER PRUNING



DO

When needed, make pruning cuts where the branch meets another branch, at the proper angle without leaving a stub. Wound treatments are not recommended.



DON'T

DO NOT allow "topping" in order to lower a tree's height. It causes weak branches and decay. Professional arborists never top trees.

MULCH THE ROOTZONE



DO

The entire rootzone benefits from 3" of organic mulch to keep roots cool and moist.



DON'T

DO NOT put mulch on the trunk - it will rot the bark. Start the mulch several inches away from the trunk.

TRUNK WOUND TREATMENT



DO

Trees possess the ability to restrict internal decay and heal even large wounds. Any treatments we make only serve to breakdown the tree's natural defenses.



DON'T

DO NOT paint, cut, scrape, or fill trunk wounds. Just remove dangling wood and bark - nothing more. This wound requires no treatment.

For More Information

UW-Extension Horticulture Websites

<http://hort.uwex.edu> • 1-877-WIS-PUBS

<http://learningstore.uwex.edu>

UW Extension Publications:

Chlorosis (XHT1002)

Conifer Diseases Quick Reference (XHT1025)

Deciduous Tree Leaf Disease Reference (XHT1190)

Homeowner Guide to Emerald Ash Borer Treatments (XHT1181)

Prune Deciduous Shrubs (XHT1015)

Prune Deciduous Trees (XHT1014)

Prune Evergreens (XHT1013)

Salt Injury to Landscape Plants (A2970)

UW-Extension Horticulture Help Lines

Milwaukee County

414-256-4664

Waukesha County

262-548-7779

UW-Extension Horticulture Center

at Boerner Botanical Gardens

in Whitnall Park, Hales Corners, WI

Become a Master Gardener Volunteer

Milwaukee County UW-Extension Office

414-256-4600

<http://milwaukee.uwex.edu>

9501 W Watertown Plank Rd., Building A

Wauwatosa, WI 53226-3552

Waukesha County UW-Extension Office

262-548-7770

<http://www.uwex.edu/ces/cty/waukesha>

515 W Moreland Blvd., AC-G22

Waukesha, WI 53188



Graphic Design by Connie Reeves,
SEWMG Milwaukee/Waukesha Counties



UW Extension
Cooperative Extension



SouthEast Wisconsin Master Gardeners

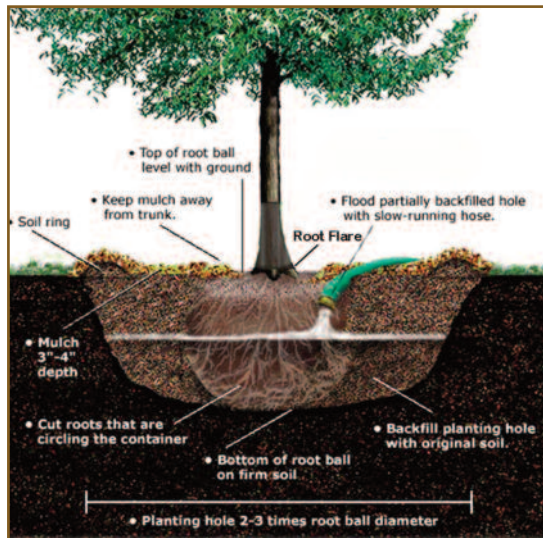
PLANTING

The most important 10 minutes of a tree's life!

1. First, find & expose the root flare. It may be covered by several inches of soil.
2. Dig the hole no deeper than the depth of the root ball up to the flare. Make it 2-3 times wider than the root ball.
3. Place the tree in the hole gently. Avoid carrying it by the trunk.
4. Cut away as much twine, burlap, and wire basket as possible without disturbing the root ball.
5. Fill the hole using the same soil you removed.
6. Settle the soil with water NOT by stepping on it.
7. Starting at least 3" from the trunk, cover the entire planting area with 3" of shredded bark mulch.

DO NOT PUT MULCH AGAINST THE TRUNK.

8. On windy sites, loosely support the tree with 2 stakes and webbing held straight out from the trunk.
9. Water new trees weekly with a soaker hose, more often if it's hot and windy.



WATERING

Most of a tree's water and nutrient absorbing roots are in the top 6 - 12" of soil. Mature trees need watering. They do not get water from deep in the ground.

- Watering is critical when it's hot and dry and during droughts. A tree's roots extend well beyond the "drip line."
- Grass in a tree's rootzone competes for water.
- A 3" layer of shredded bark over the entire rootzone will help hold moisture in the soil.



KEEP MULCH AWAY FROM THE TRUNK

- Trees need 60 gallons of water per 100 sq. ft. of root zone per week.



For young trees:

- Use a soaker hose and water weekly or more often if it's hot and dry.

How to water:

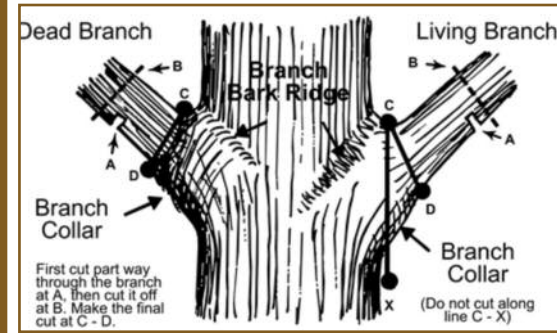
- Soaker hose over the rootzone
- Garden hose on trickle moved around the rootzone
- Oscillating sprinkler
- Root feeder that attaches to a garden hose inserted 6 - 12" deep



By Sharon Morrissey, Consumer Horticulture Agent
Milwaukee County UW-Extension

PRUNING

When to Prune: November thru March



Use a 3-step cut so bark doesn't tear (A, B, C, D)

What to Prune:

- Dead
- Damaged
- Diseased
- Watersprouts
- Rootsuckers
- Conflicting Branches
- Competing Leaders

Exceptions:

- Spring flowering trees - prune after you've enjoyed the flowers
- Dead, damaged, diseased - prune anytime
- Rootsuckers - prune several times a season
- Watersprouts - prune in early August
- Oaks between November and March only!
 - Otherwise, the sap attracts sap beetles that can spread oak wilt disease
 - April thru October, wounds from damaged branches should be treated with wound dressing.
- "Bleeders" elm, maple, birch, black walnut - prune in late spring when sap slows
- Conifers - prune only if necessary

WOUND DRESSING IS NOT RECOMMENDED EXCEPT WHEN OAKS NEED REPAIR

FERTILIZING

Do not fertilize for the first 3 years after transplanting.

Then fertilize young trees to encourage growth.

- Apply 1 lb. of nitrogen (N) per 1,000 sq. ft. of rootzone
- In early June (or split into 2 applications - the second in early August).
- At least half the N should be slow release (water insoluble).



How to Apply Fertilizer:

- Lawn fertilizer spreader in the area under tree canopy
- Root feeder 6 - 8" deep throughout area under canopy
- Spray foliage for quick but short-lived deficiency treatment

Mature Trees Seldom Need Fertilizing

- They rely mostly on nitrogen stored from the previous year.
- Only fertilize mature trees to:
 - Increase flowering, fruiting or growth
 - Increase vitality of trees in stressful conditions
 - Correct deficiencies (nitrogen, iron, manganese)
- Symptoms of deficiencies are small, pale leaves; slow growth; yellowing or chlorosis (only veins are green).



Do Not Over Fertilize

- Become more susceptible to some pests.
- Do a soil test to determine what's needed.