Pruning Ornamental Trees

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Reasons for Pruning

Have one!
Reasons for Pruning:

1. Remove dead wood
2. Remove diseased wood
3. Eliminate structural problems (e.g. Crossing branches, tight crotches in trees)
4. Eliminate hazards (e.g. pedestrian conflicts)
5. Increase light levels in interior
6. Reduce plant size
7. Aesthetics
Pruning for Health

- Removing diseased or insect-infested wood
- Encourage trees to develop strong structure and reduce the likelihood of damage during severe weather
Pruning For Health

- Thinning the crown to increase airflow
- Removing broken or damaged limbs encourages wound closure
- Reduce some Pest Problems
Pruning For Safety

- Could interfere with lines of sight on streets or driveways
- Could grow into utility lines
Pruning for Safety

- Branches could fall and cause injury or property damage
Pruning For Safety

• PREVENTION: Plant the right tree for the right place!
Pruning for Form: Thinning & Spacing

- Evenly spaced lateral branches should be 8-12 inches apart in a young tree.
- This is a good rule of thumb to help assure an ideal “ladder” effect at maturity.
- Solution: Remove portion of the limbs that compete for space and light.
Pruning for Form:
Ingrowers, Protruders and Crown Ratio

• For dense crowns, look for limbs that turn inward and those that extend beyond the “natural” outline of the tree

• As always, be careful not to over-prune
Pruning for Strength: Branch Angles

- Ideal angle is 10 or 2 o’clock
- Narrow angles signal a future point of weakness
- Neither branch has sufficient space to add wood
Pruning for Strength: Branch Angles

- Constantly growing against each other
- Effect is similar to hammering in a wedge
- Solution: Remove one of the two branches
Reasons for Pruning:

Tight ‘V’ crotches in trees
Reasons for Pruning:

Rubbing branches
Reasons for Pruning:

Backcrossing limb
Reasons for Pruning:

Co-dominant leader

Common in opposite leaved trees like maple & ash
Pruning for Strength: Branch Size

- Lateral branches should be no more than \( \frac{1}{2} \) to \( \frac{3}{4} \) the diameter of the trunk.
- Will cause co-dominant stems; weak attachments.
- Solution: Remove branches that are larger than \( \frac{1}{2} \) to \( \frac{3}{4} \) the diameter of the trunk.
Problem with co-dominant leader

Buildup of non-structural bark between tight ‘V’ crotch
Proper pruning will save you money and give you a safer more beautiful, healthier, and easier-to-maintain tree. Remember what you do to your tree in its first few years of life will affect its shape, strength, and even its life span.
Tree Pruning Steps

At Planting:

Leave as much of the entire leaf surface as possible to manufacture food that will build a larger root system. Roots will be larger after one year if left unpruned.

Do prune the following year and trim close to the trunk:

- Broken branches.
- Branches competing with the leader.
- Swollen branches from insect eggs or stings.
- Remove tree tags.
Pruning for Strength—Young Trees

• When planting or transplanting, leave the tree alone OR prune very modestly
• 1st objective with young trees - strengthen and expand root system
• Therefore, leaf surface area is critical
• Only dead or damaged limbs should be removed.
Pruning for Strength—Young Trees

AFTER One Year

• After the tree has had one year to establish its roots, pruning should begin in late winter

• Pruning for strength avoids weak branches later on in life
Tree Pruning: After 3 to 4 Years

- Root growth should be well on its way
- Cut off root suckers and sprouts in the crown.
- Thin excessive branches to reduce competition for light, water, and nutrients.
- Remove co-dominant leader.
- Remove a few of the lowest limbs but other are temporarily left to help the trunk develop more taper and strength.
- Eliminate branches that rub or growing in an undesirable direction.
- Remove narrow angled branches.
Tree Pruning: After 5 to 7 Years

Now it is time to make a good tree even better.

- Prune lower limbs for human heads to fit under. The center of a branch at 5 ft. will always be at 5 ft.

- Cut back a few of the higher up branches so they don’t protrude beyond the graceful outline of the crown.

- Inspect tree to see if you need to remove a branch here or there for even spacing.
Tree Pruning: 15 Years & Beyond

With proper pruning at the beginning of your trees life your tree will have a better chance of surviving conditions such as wind storms, ice, and drought.

Early each spring, look for dead or damaged limbs. If you do have dead or damage limbs remove using proper pruning methods.
Pruning for Aesthetics

• Enhances the natural form and character of trees
• Stimulates flower production
• Especially important on open-grown trees that do very little self-pruning
WHEN to Prune:

- When to prune depends largely on WHY to prune.
- Light pruning and removal of dead wood can be done any time of the year.
- Guidelines may differ by species.
Time of year to prune trees

1. In general, just before rapid growth in early spring (tree dormant). Easy to see structure, less weight w/out leaves, and past season with ice/snow damage.

2. ANYTIME for diseased/dead wood
When to Prune:

In Summer

- Prune after seasonal growth is complete
- Results = slow growth, “dwarf” development of new branches
- Reduces leaf surface area (i.e., food makers)
When to Prune:

In Winter

- Pruning during dormancy is the most common practice
- Easy to see all branches of tree
- Results = vigorous burst of new growth in the spring
- Best to wait until coldest part of winter has passed
When to Prune: not in Fall

• Best NOT to prune in Fall
• Decay fungi spread their spores profusely in the fall
• Healing of wounds seems to be slower on fall cuts
When to Prune: Flowering Trees

- To enhance flowering:
  - Summer Bloomers: Prune in Winter
  - Spring Bloomers: prune when flowers fade
Pruning Techniques

1. Crown thinning
2. Pollarding
3. Topping or heading back
Crown thinning can be used to reduce the overall size of a tree and yet maintain the overall natural shape of the tree.
Crown thinning involves selectively removing the entire branch back to the point of attachment. (This may be back to a lateral branch or to the main trunk.)
Crown thinning
Pollarding
Topping

in contrast to thinning, is an arbitrary cutting back of tree limbs with no regard for position relative to the branch origin.

(basically a hair-cut)
Topping
How to recognize **where** to prune?
Trunk/branch with bark removed.
Trunk

Transition region between trunk and branch called the branch collar
The ideal cut is just beyond the branch collar.
In a few cases the tree actually tells us where to make the correct pruning cut (as though it came with its own dotted cutting line), however, in the majority of cases we make an educated guess where the proper pruning cut should be made.
Branch collar
Pruning cut
Oops, where is the collar?
Branch bark ridge

Pruning

cut
Probably cut too close on the bottom
Avoid leaving stubs
A stub is essentially a foreign object that the trunk needs to deal with.
Proper pruning cuts can be identified later by uniform, healthy wound closure.
The process of successfully removing a large branch from a tree involves 3 pruning cuts.
HOW to Prune: Larger Branches

Proper Pruning Cuts

- Make a second cut from above several inches out from the first cut, to allow the limb to fall safely.

- Make a partial cut from beneath, at a point several inches away from the trunk.

- Complete the job with a final cut just outside the branch collar, the raised area that surrounds the branch where it joins the trunk.
Cut #1:

8-12” from the main trunk and starting from the bottom, cutting upwards
Cut #2:

1” further out on the limb and starting from the top, cutting down
After first 2 cuts, left with a short piece that is easier to handle.
Cut #3:
Why the Three-Cut Rule is Best
Better luck with your day job!
TIP:

Remember -- limbs do NOT move upward as a tree grows in height!
Proper Pruning…YOUR Choice

A neglected shade tree

The work of a poorly chosen arborist

The work of a competent arborist
Pruning vs. No Pruning
Topping Vs. Proper Pruning
Proper Pruning Vs. Topping
Proper Pruning Wins!
Treating pruning cuts

(Except for roses, do not use any pruning paints or sealers)
Hiring an Arborist: Professional Tree Worker

- Check in phone-directory under Trees, Tree Service, etc.

- BEWARE of door-knockers (especially common after storms...potential to earn some quick money)
How to Hire an Arborist

• Is the Arborist certified through the International Society for Arboriculture?

• Is he or she a member of a professional tree organization?
How to Hire An Arborist

• Ask for certificates of insurance, including proof of liability for personal property damage, and workman’s compensation.

• You may want to phone the insurance company to make sure the policy is current.

• Ask for local references
How to Hire An Arborist

• Never pay in advance and don’t be rushed by “bargains”

• Get estimates and opinions by several tree care workers.

• Do they offer a wide range of services (pruning, fertilizing, cabling/bracing, pest control, etc.)?
How to Hire an Arborist

• A good arborist will NOT recommend topping a tree

• Make sure they do NOT use climbing spikes on your live trees

• BEWARE if they are eager to remove a healthy, live tree…this should be done as a LAST resort
The Big Picture: COST

- Tree care costs money.
- However, consider that trees can contribute up to 15% of your property value!
Review:
Seven Keys to Good Pruning

• 1. Prune early in the life of the tree so pruning wounds are small and so growth goes where you want it to go.
Seven Keys to Good Pruning

• 2. Begin your inspection at the top of the tree and move downward.

• 3. Identify the best leader and lateral branches before you begin pruning and remove defective parts before pruning for form.
Seven Keys to Good Pruning

4. Don’t worry about protecting pruning cuts. There is no evidence of preventing or reducing decay.

IF anything is put on the tree, use ONLY a latex-based paint, Other types are toxic to the tree.
Seven Keys to Good Pruning

• 5. Keep your tools sharp. One-hand pruning shears with curved blades work best for young trees.

• 6. Make safety a number one priority. For high branches, use a pole pruner. A major job on a large tree should be done by a professional arborist (be sure they are certified!)
Seven Keys to Good Pruning

- 7. When cutting a large branch, use the three-cut method. Otherwise, cut smaller branches just outside the branch collar.
  - Do not leave a protruding stub
  - Do not strip the bark
When to make the call?
Is this how you want to be known in the neighborhood?