Pruning Trees and Shrubs

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Pruning is the intentional removal of parts of a plant for a purpose.
Pruning Equipment

Pruning Shears
- Scissor Action
- Anvil Action
- Scissor Action

Lopping Shears

Figure 2. Combination pole saw pruner

Figure 4. Pruning saws
(folding saw and bow saw)

Figure 3. Hedge shears
(manual and power)
Why Do We Prune Plants?

- To remove damaged/broken branches
- To remove rubbing, crossing, inwardly growing branches
- For visibility & safety considerations
- To train young plants
- Control plant size
- Rejuvenation of plants
- Increase flowering, fruiting and vigor
Removing Branches

- Locate the branch collar
- Make first cut from below
- Make second cut from above and outside of first cut
- Make final cut to preserve branch collar
Pruning Basics
Heading vs. Thinning
Branch Angles and Removal

- 45 to 60 degrees is a good angle
- The branch you cut back to should have a diameter of at least half that of the branch to be removed
Branch Spacing

- Vertical spacing should allow for radial branch growth
- Radial spacing should be as balanced as possible
Pruning Basics

- Never remove more than 1/3 of the canopy in any given year
- If the plant requires frequent pruning, then it may not be the best suited plant for that situation
- Usually best done in the early life of the plant
- Shearing is a lot of work and generally unnecessary
Topping trees is bad because:

1. It is a source of invasion by rot-causing organisms.
2. It reduces the food producing capacity of trees.
3. New limbs that originate near the cuts are weakly attached and break easily in the wind. A re-grown limb never has the structural integrity of the original limb.
Topping trees is bad because:

4. Thick re-growth of suckers or sprouts has greater wind resistance leading to more storm and wind damage.

5. Topping does not help in keeping a tree smaller or lower in height

6. It’s expensive to have the tree re-topped every few years due to rapid thick re-growth of branches.
Topping trees is bad because:

7. It’s ugly! The re-growth of a mass of straight suckers and shoots.

8. It makes you and your employer look bad. Informed people know that topping is not an accepted procedure.
How Can You Reduce the Size of a Tree?

Use a technique called ‘crown reduction’. Cut limbs back to laterals that are at least 1/3 the size of the parent limb.
Pruning Shrubs

- Maintenance begins at planting and pruning should begin before the plant reaches the desired size.
- **Slow growing shrubs** normally have a well-defined branch structure.
- Shearing should be avoided.
- **Fast growing shrubs** generally have many shoots originating at the base of the plant and require regular pruning.
Other Shrub Pruning Concepts

- Visualize what the plant will look like with the branch in question removed.
- Never remove more than 25-30% of the old branches annually.
- If the plant must be drastically reduced in size, reduce it over a 3-4 year period.
- Make cuts on shrubs at varying lengths in order to leave the shrub with a textured natural look.
- Fast growing plants such as Oleander can be pruned to within 6 inches of the ground and will re-sprout rapidly.
Hedges

Choose evergreen plants with small leaves, short internodes, dense branching and that are able to sprout from old wood.

Keep the number of hedges to a minimum because they are labor intensive.
How to Prune Shrubs

1. Know the flowering period for the shrub
2. Prune after bloom period
3. Try not to remove major branches which will open up the plant to sunburn
4. Keep pruning to a minimum
5. If you find that the shrub requires continual pruning, consider removing the plant and replacing with a slower growing species
6. Remove dead flowers ‘deadheading’ as soon after bloom as possible to reduce seed production and litter

7. If possible, attempt to cut above a bud on the stem
Alternate Buds

Opposite Buds
Pruning summer and fall flowering shrubs

Previous seasons growth
Prune back early in spring

New growth in late spring and summer
Flowers bloom on new growth
Pruning spring flowering shrubs

Previous seasons growth

Flowers bloom in spring

Flowers fade, set seed

Prune back after flowering

New growth in summer
Why Not Shear Shrubs?

1. It looks unnatural
2. Flower production is decreased
3. It is very labor intensive
4. Plants soon become woody on the interior
5. Height is more difficult to control
6. Design intent is lost
How to Avoid Shearing Shrubs

1. **NEVER** use hedge shears.
2. Selectively cut branches, cut just above a bud or side shoot.
3. Remove stems throughout the plant.
4. Cuts can be as severe as you desire.
Naturalistic Shrub Pruning
1. Cut branches back to a rough globe shape.
2. Cut every other branch back 6-9 in. to the first large V.
How to Rejuvenate Large Shrubs

1. Cut shrubs to 6-12 inches above ground.
2. The ‘stumps’ will re-sprout in several months.
3. Thin out the number of shoots the second year and reduce the overall height by half.
4. The result will be a full, vigorous, rejuvenated shrub.

5. Not all species respond positively to this treatment.

This technique does not work with all shrubs. Typically fast growing plants respond to this radical pruning.
Pruning grasses

Cut back to 6 in. Above ground in late winter when grass is dormant.

Plants produce vigorous new growth in spring.
Rejuvenation

Removing old or crowded stems from multi-stemmed shrubs
Pruning roses

When?
• Prune in late winter when buds begin to swell.

What?
• Remove dead wood.
• Remove crossing branches rubbing against others.
• Remove old, unproductive canes.
• Remove one third to no more than one half the length of previous season’s growth.
• Remove suckers.
• Keep center of shrub open.
Hybrid tea and grandiflora

Hybrid teas have large flowers, one per stem, and are 2-6 ft. tall. Most popular. Grandiflora (hybrid tea x floribunda) have hybrid tea-type flowers, good for mass color.

• Leave 5-8 canes, more on vigorous shrubs.
• Cut back to a height of 18 to 24 in.
• Cut back new canes by one third.
Floribunda

*Floribunda* (hybrid tea x polyantha) produce flowers in clusters on vigorous, bushy plants. Good for mass color, hedges, informal borders.

- Leave as many strong new canes as plant has produced.
- Cut back previous season’s growth only by one fourth.
- Can be pruned to hedge effect.
The Bad and the Ugly