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Adding Color to Your Life

Pruning*

Why Prune?

- Create and maintain strong structure.
- Produce a healthy tree with a functional and pleasing form by removing as little live tissue at any one time.
- To maintain size.
- To improve flowering or fruiting.

Basic Tools

- Pruning shears, bypass or anvil. Bypass is best, less damage to tree. Shears prune up to ½” branch.
- Pruning loppers. Use for larger branches.
- Pruning saws. Use for larger branches.
- Hedging shears.

Types of Cuts

- . Reduction cuts. These are also called heading cuts.
- . Removal cuts. These are also called thinning cuts.

Biology of Pruning

- . Pruning causes injury and generates a wound response in a plant, but a good pruning cut will allow the plant to heal itself.
 - Wound dressings generally only stimulate the economy---use them if they make you feel better.
- . Cells at a cut come alive to close the wound. During cold weather these active cells can be injured.
- . Think of plants as energy banks, with the energy stored in the branches, stems, trunk and roots.
- . Pruning removes energy from the plant.
 - Improper pruning can make the energy bank considerably smaller.
 - With less energy stored, plant is more susceptible to other problems.
- . Keep energy reserves high by removing the minimum amount of live tissue to accomplish your objective.

When to Prune

- . Don't prune if you do not know why you are doing it.
- . Picking the right tree for the location is the best strategy to minimize pruning.
- . One annual pruning of trees in our climate is often adequate.
- . More and more research suggests pruning while dormant in spring just before bud swell allows for maximum healing.
- . Dead and diseased branches can be removed at any time.
- . Summer pruning after leaves harden and are dark green is also OK, but not preferred. This will retard growth.
- . Summer removal will slow root growth so do not prune heavily at this time.
- . Regular, light pruning (removing < 10%) can be performed on most species at any time. This will promote fastest growth.
- . It is better to remove a small amount of live foliage often than a lot all at once.
- . For flowering trees/shrubs, remember that when pruning you reduce the number of branch tips, which reduces the number of flower buds or potential flowers.

- . For flowering trees/shrubs, prune after flowering when leaves have hardened and are dark green but before new buds set.
- . Most fruit trees are best pruned in late dormant season just prior to bud swell.
- . Some light pruning in summer is OK for fruit trees.
- . Pears and apricots are best pruned in late fall to minimize bacterial infection, especially fireblight.
- . Maples and birches prune in winter to minimize bleeding, or sap ooze. Bleeding is not usually harmful.
- . DO NOT PRUNE in late summer. This can produce a new flush of growth that is susceptible to frost damage.
- . DO NOT PRUNE at transplanting! Removal of branches (unless damaged) reduces root initiation.

Trees

- . Trees with excurrent growth habits generally require little pruning.
- . Branches should be no larger than ½ the trunk diameter to retain strength. Phased reduction cuts for large branches.
- . If removing a branch, prune on the branch side of the branch bark collar.
- . Branch reduction should be taken to another bud or branch. Cut tangential to bud or branch direction.
- . Prune while leafless to give you a better view of the structure.
- . Pruning increases the chances for surviving a drought by reducing leaves that transpire moisture. Not a good reason to prune.
- . Prune for scaffold branches:
 - Adequate spacing 8 to 18” apart.
 - Branches should spiral around trunk.
 - Look for good crotch angles and strong unions. Prune out or correct, if possible, poorly angled branches.
- . Prune out crossing or rubbing branches. Select the best branch to keep, remove the other.
- . On excurrent trees prune to single dominant leader.
- . Let the pros handle it.

Shrubs

- . Shrub pruning much simpler than tree pruning.
- . No structural concerns, minimal risk of damage.
- . Most shrubs pruned for people reasons, not horticultural reasons.
- . The most common reasons to prune shrubs are to thin, and to maintain or reduce size.

Thinning:

- . Remove all dead stems.
- . Remove 1/3 of the older stems down to 4” to 6” long.

Maintaining Size:

- . Reduce 1/3 of the longer stems down 6” to 24” inside the canopy.
- . Repeat this process each year to maintain a uniform height.
- . Allows shrub to maintain original and more natural form without a sheared appearance.

Reducing Size:

- . Cut longer stems deep down into the canopy.
- . Leave some foliage intact to form the smaller canopy.
- . Consider performing drastic reduction in size over 2 years, doing half the stems one year, the remainder the next year.

Renovating/Rejuvenating:

- . Done on old plants, plants that have lost vigor, or plants that are too large for their site.
- . Many shrubs can be cut nearly to the ground in spring to rejuvenate them. Will take a couple years to recover.
- . Alternate method is to cut 3 oldest stems to the ground, thin/remove some younger stems. Repeat over 4-5 years.

Time of Year:

- . If pruning once/year and flowering is not a concern, do in early spring.

- . Many flowering shrubs should be pruned after flowering if you want to have a flower show the next spring. It is OK to prune these shrubs anytime if you aren't worried about the flowers.
- . Heavy pruning or size reduction should be done in the early spring.

Evergreens

- . Little pruning generally needed on upright conifers due to excurrent structure.
- . Leader pruning to a single leader is probably most common, very easy.
- . Reduce or remove upright stems or branches to eliminate double leaders or co-dominant stems.
- . Removal of lower branches is often done, branches are cut back to main trunk.
- . Emerging candles can be pruned to slow growth rate and thicken tree. Do this after candling.
- . Most junipers can be pruned anytime. For drastic pruning on branches with no live foliage, prune in spring just before new growth emerges. New growth will generally fill in.

* Information for this handout came from '*An Illustrated Guide to Pruning*' by Edward F. Gilman, and '*The Pruning Book*' by Lee Reich.