

THINGS TO CONSIDER WHEN PRUNING

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Whenever I conduct pruning work shops, I always spend several minutes discussing the "universal responses" that plants have to pruning, you will never truly be an expert unless you understand how plants will react after being pruned.

Pruning removed leaves and buds that would develop into leaves. Two apparently opposite effects occur from pruning young plants, or those that do not produce a lot of flowers and fruit. First, invigoration is the universal response to pruning. Pruning leaves and buds allows the root system to supply each

remaining leaf and bud with more water and nutrients. The result is that individual shoots are stimulated, and these grow more rapidly and later into the season.

Leaves grow larger and are greener in color. Even though leaves are larger, the total leaf area will be less on more severely pruned trees since there will be fewer shoots overall. The leaf area of a pruned tree will transpire less water than that of an unpruned tree. While invigoration of individual shoots is a universal response

to pruning, the overall effect on young trees is stunting or dwarfing. As I mentioned,

rest of the plant's growth and for storage of reserves for the next season. The result is

less total growth. This can be easily observed or mea-

Invigorating and dwarfing effects depend upon how severely you prune.

even though individual leaves on a pruned tree may be larger, total leaf area will be smaller than if the tree has not been pruned. Shoots of pruned trees grow later in the season, using for their growth foods produced by the leaves. A pruned plant has less time after shoot growth stops to use the food produced by leaves for the

sured by the relative size of the trunks of trees that have been pruned more severely than others.

For a young plant at the end of the growing season following pruning, the following usually is the case: the top and root systems are in balance (in terms of size) and the top and roots are

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smaller than if the tree had not been pruned.. Also, there will be less stored food in the pruned plants since they will have fewer leaves to manufacture food.

Invigorating and dwarfing effects depend upon how severely you prune. Removing dead, weak and heavily shaded branches has little effect, while removing a like amount of healthy, well exposed branches has a much greater influence.

An exception to the dwarfing rule occurs when you prune mature fruit trees. Pruning off a number of flower buds leaves a fixed number of flowers to develop into fruit. The remaining leaf buds have more food available for the shoots, which will be more vigorous and have more leaves per fruit than those of unpruned trees.

Another important pruning response has to do with encouraging or discouraging branch growth. If you want to

subdue a branch within a tree, prune it more severely than surrounding branches. If you want to encourage a branch, prune it lightly or not at all.

Elm Leaf Beetle -Resistant Trees

In a recent issue of the Journal of Environmental Horticulture, (12 (4): 231-235), Miller and Ware have shown that some species of elm are significantly less attractive to the elm leaf beetle. In selecting elm replacement trees, consideration should be given to using more resistant species to this very common pest.

Feeding Preference — Elm Leaf Beetle	
<u>Elm Species</u>	<u>Damage Rating</u>
V. pumila (Siberian)	2.5
V. japonica (Japanese)	1.2
V. macrocarpa (large fruit)	0.7
V. wilsoniana (Wilson)	0.4*
V. szechvanica (Szechvan)	0.0*

*also Dutch Elm Disease resistant

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R.V.

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