The ABC's of Young & Small Tree Pruning

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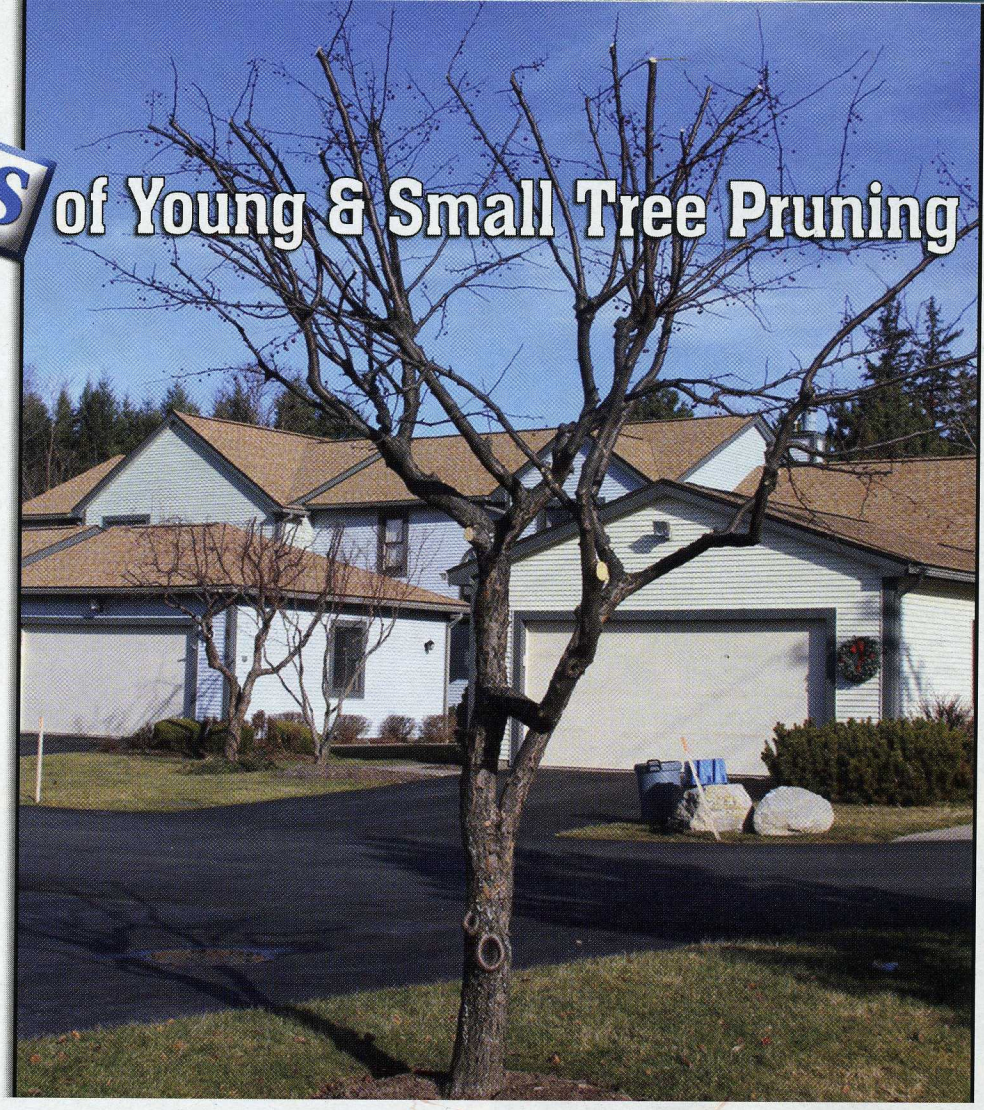


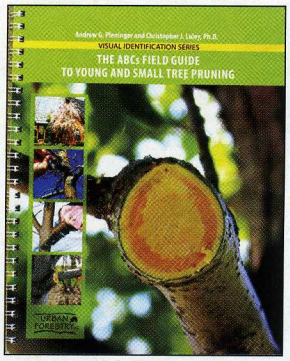
Poor pruning is a common sight in the landscape. All images courtesy of the authors.

Training young trees is arguably the most important tree care management treatment we have to prolong the lifespan of a tree. It is also likely the most cost effective. In spite of these facts, it is a treatment that is overlooked by professionals or, even worse, not completed properly.

We see examples of poor pruning practices on young trees every day. Why is this?

Most young and small tree pruning is not completed by the professional, rather it is completed by laypeople such as public works personnel, grounds maintenance staff and homeowners. Regardless who is completing the pruning, professionals and laypeople alike, it is in most cases not being completed properly, so perhaps it is how pruning is taught and presented that is the problem.

One of the limitations of the pruning methods taught today is the awkward blend of art and science. We're sure you have heard the saying, "pruning is an art." We believe that one of the most difficult concepts in teaching pruning is asking that the pruner visualize or imagine what the tree should look like when the pruning is finished or in the distant future. How are you at predicting the future!?



The ABCs Field Guide of Young & Small Tree Pruning.

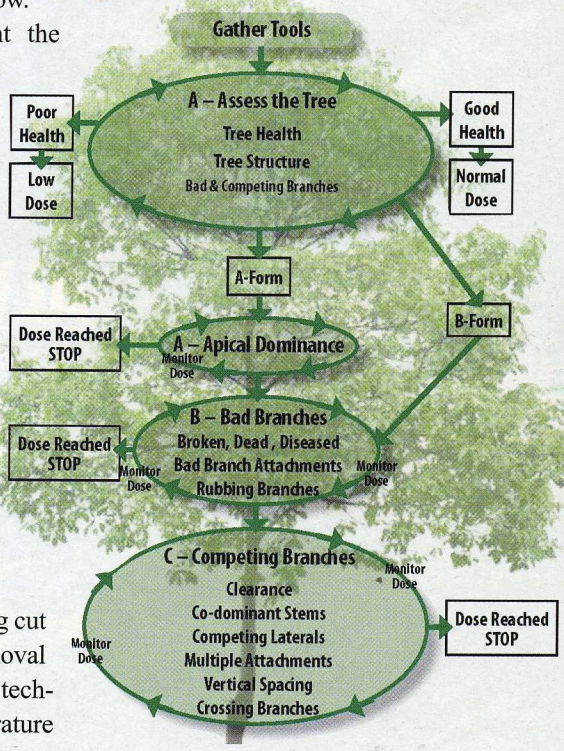
Enter *The ABCs Field Guide of Young & Small Tree Pruning,* illustrating our new method to pruning young and small trees. The ABCs uses an acronym system to lead you through the pruning process that is easy to recall. Forget trying to imagine what this tree "should" look like tomorrow or 10 years from now; the ABCs directs you to prune the tree based on indicators that are on the tree that is front of you right now.

The following pointers highlight the basics of the ABCs.

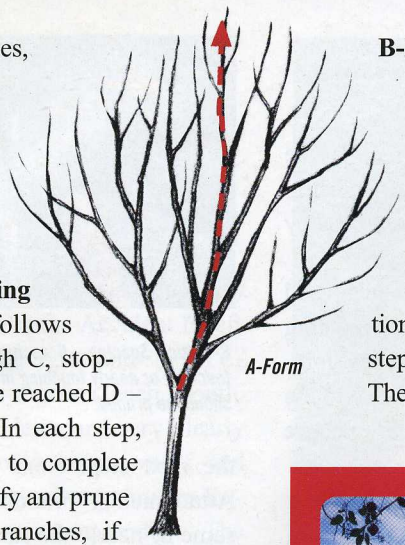
Bring your tools

A sharp hand pruner, lopper, handsaw, pole pruner and clip should be it, right? Well, in addition to reviewing these needs, you need to understand pruning cut types and the objectives for making these cuts as "tools" required to complete proper pruning. In the *ABCs Field Guide*, pruning cut methods and objectives are clearly illustrated and defined. Several "rules of pruning" are standardized for repeatability throughout the pruning process. For example, pruning cut angles and the live branch area removal percentages, which are a melding of techniques from scientific research literature

ABCs Flow Chart



and industry practices, are standardized across various applications for ease of recall and use.


A-Form

The ABCs of pruning

Our method follows each step, A through C, stopping when you have reached D – a prescribed dose. In each step, you will be asked to complete specific tasks, identify and prune specific problem branches, if they are present on the tree, with a brief description, pictures and illustrations. We have built redundancy into the pruning process, so all problem branches will be addressed to some degree, provided the prescribed dose will not be exceeded as you complete a step.

A – Assess the Tree

The first step is to evaluate the health of the tree. Visual indicators such as twig elongation, leaf color and size and crown density will result in specifying a prescribed dose of low, normal or high. The pruner will be asked to measure the dose as pruning proceeds and stop when the dose is reached.

The second assessment step asks the pruner to assign the tree to one of two pruning forms based on the tree's present branching structure: A-Form or B-Form. As arborist, we know that different tree species have a genetic code that directs the tree toward being an excurrent or decurrent form. The truth is, though, that the individual tree in front of us is telling us its natural form based on the environment it is living in and its own genetic signature. As a result, we suggest pruning the tree based how it is presently expressing growth. If the tree is an A-Form the pruner proceeds to Step A-Apical Dominance. If it is a B-Form, tree the pruner skips the apical dominance step and proceeds to the B-Bad Branches step.

A-Apical Dominance

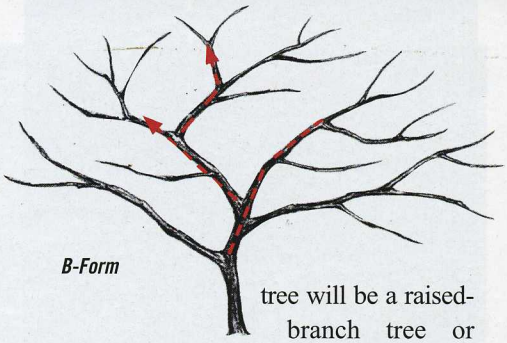
A-Form trees will be pruned to a single central stem. In this step, the pruner will select a central stem and suppress any branches competing for apical dominance with the central stem using heading cuts.

B-Bad Branches

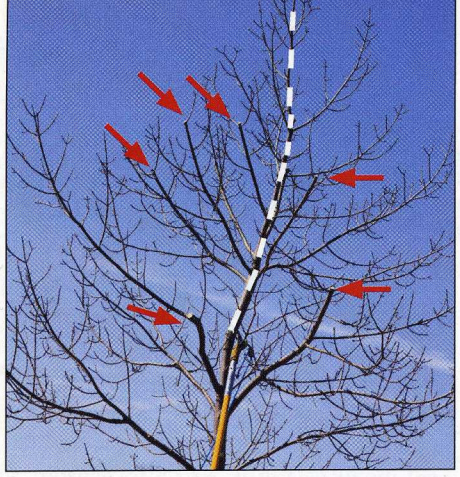
Branches that are dead, damaged, diseased, rubbing or have bad branch attachments will be identified and pruned.

C-Competing Branches

The competing branches section includes the largest number of steps beginning with Clearance. The pruner is asked to decide if the


B-Form

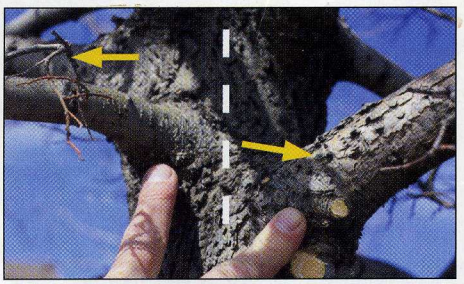
tree will be a raised-branch tree or remain a low-branched tree. For raised-branched trees, branches in the lower one



Apical Dominance - A central stem is selected and any branches competing with the central stem are suppressed with heading cuts.

third of the total height of the tree may be removed for clearance purposes. Branches above this height will be suppressed if they are causing clearance issues.

Next, codominant stems are identified and removed or suppressed. Competing laterals, which are lateral branches competing by virtue of their size relative to the central stem or symmetry on the tree, are



C-Vertical Spacing – Branches whose branch collars are touching or nearly touching in the same vertical plane should be pruned.

the next step. Next is Multiple Branch Attachments, branches attached at the same or nearly the same point on the central stem, followed by Vertical Spacing. Rather than specifying a spacing requirement that is challenging to recall, branches whose branch collars are touching or nearly touching in the same vertical plane are addressed. Finally, branches that are crossing but not yet touching will be pruned to complete the ABCs.

The final two sections of the field guide provide additional guidance, including the time of year to prune, a more detailed illustration of determining branching height, the "Don'ts" of pruning, and before and after photos of trees pruned using the ABCs.

We have been pruning trees and training people to prune trees for many years. There are numerous good guides to pruning trees available today. It has been our experience and observation that in spite of this information, trees are most often over-pruned, over-raised and critical defects, such as codominant stems, are left, resulting in subsequent problems. Perhaps in our interest to be thorough, the industry has inadvertently blinded our trainees with science and they can't see the trees for the forest.

The ABCs is a simpler approach, blending just enough science and presenting the pruning task in a format that addresses the pruning needs of most trees in the landscape in a manner that is logical and is easy to repeat and recall.

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