ENH1138

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Crapemyrtle Pruning[1]

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"Crape Murder?"

Pruning is one of the most controversial aspects of maintaining crapemyrtle. Traditionally, many crapemyrtles were routinely topped, leaving large branch and stem stubs. This practice has been called "crape murder" because most people dislike the winter appearance, and many professionals believe the practice impacts crapemyrtle health and structural integrity. University of Florida research has clarified the effects of various crapemyrtle pruning practices and resulted in the recommendations in this publication.

Properly placed, crapemyrtle is a low-maintenance plant needing little or no pruning. Problems with overgrown, misshapen, or misplaced crapemyrtle can be greatly reduced with proper selection of crapemyrtle cultivars, proper plant selection at the nursery, and proper placement in the landscape. Unfortunately, landscape professionals and homeowners often must maintain crapemyrtles that others planted and so must deal with the consequences of poor cultivar selection and/or placement.

Why Prune?

Crapemyrtle may need little or no pruning if planted in full sun away from walkways and roads and in areas with room for plant growth. In these locations, trees form a round canopy that often extends to the ground (Figure 1).

Figure 1. Crapemyrtles form a round canopy when planted in full sun with room for plant growth.

Reasons for pruning crapemyrtle (or any plant) are to improve plant structure and alter plant size, shape, and appearance according to human perceptions and landscape function. (For more information on pruning trees and shrubs, see Circular

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853, "Pruning Landscape Trees and Shrubs," by Edward F. Gilman and Robert J. Black; http://edis.ifas.ufl.edu/MG087.) Lower limbs of crapemyrtle are removed to increase clearance for pedestrians or vehicles. Stems are cut to increase branching. Other pruning may be conducted to direct growth away from structures, stimulate flowering, and remove spent flowers, seed capsules, and dead or damaged branches and twigs.

Thinning the interior twigs and branches was recommended prior to the introduction of disease-resistant cultivars. This allowed better air movement that would keep foliage dry and prevent or reduce powdery mildew disease. This practice is unnecessary for modern, disease-resistant crapemyrtle cultivars.

Types of Pruning

If pruning crapemyrtle is necessary, recommended types of pruning include tipping and pollarding. Another pruning method, topping, is not usually recommended. Topping is the drastic removal of large-diameter wood (typically several years old), with the end result of shortening all stems and branches. Topping is also known as heading, stubbing, rounding, and dehorning (Figure 2).

Tipping (or tip pruning) is similar to topping, except cuts are made through smaller-diameter branches (typically one year old) on the outer edge of the plant canopy (Figure 3). Tipping is sometimes called “rounding over” or “pencil pruning” because cuts are made through stems about the diameter of a pencil. Tipping is very time consuming, but it creates an attractive tree.

Pollarding involves initially making cuts through branches up to about three years old and then annually removing all or most sprouts back to the original cut. Over time, woundwood and dead branch stubs form a "pollard head," a swollen area at the end of the branch where sprouts are removed each year (Figure 4). Pollarding was used extensively in Europe to maintain trees at a small size. Pollarded trees are cut back to exactly the same size each year because cuts are made back to the pollard heads. The pollard head contains abundant stored energy with little decay and should not be removed.

Figure 2. A crapemyrtle that has been topped. "Crape murder" consists of topping at position 1 (in the photo above) the first year, position 2 the second year, and position 3 the third year, whereupon topping in the fourth year often occurs below position 1 and repeats the sequence in subsequent years.

Figure 3. Crapemyrtles that have been tip pruned.

Pollarding, done correctly, can allow a crapemyrtle to be maintained at a given height (the height of the pollard head) indefinitely. But once started, pollarding requires annual pruning to remove regrown sprouts, increasing the maintenance required on an otherwise low-maintenance plant.

Topping and pollarding are considered "hard pruning" because of the larger-diameter pruning cuts that result.

Figure 4. A crapemyrtle that has been pruned using the pollarding method.

Crapemyrtle Response to Pruning During the Growing Season

Crapemyrtle may be tip pruned during the growing season to promote flowering or to remove spent flowers and seed capsules. Tip pruning promotes flowering because dormant buds below the cuts are stimulated to grow, and flowers form at tips of new growth.

This practice is often unnecessary with newer cultivars because most have been selected for long seasons of bloom without repeated pruning. Also, tipping is impractical with large plants. Hard pruning during the growing season usually is not recommended because of the impact on plant growth.

Crapemyrtle Response to Winter/Dormant Pruning

Flowering

Topping and pollarding typically delay flowering up to one month compared to unpruned crapemyrtle. On some cultivars, topping and pollarding also shorten the season of bloom. In contrast, tip pruning does not affect flower timing or duration.

With some cultivars, the greatest number of flowers occurs on unpruned crapemyrtle. The number of flowers decreases as pruning severity increases (i.e., as pruning cut diameter increases). However, pruned crapemyrtles may produce slightly larger flower panicles than unpruned plants.

Plant Shape and Appearance

Crapemyrtle shape becomes more upright as pruning severity increases (i.e., as pruning cut diameter increases). Although pruned plants are smaller than unpruned plants, new growth is extremely vigorous following hard pruning (Figure 5).

Figure 5. Crapemyrtle shape becomes more upright as pruning severity increases.

Hard pruning (topping and pollarding) stimulates crapemyrtle sprouting from roots, upper stems, or the base of main stems. Most people dislike the appearance of sprouts on tree-form crapemyrtle, and these sprouts typically are removed one or more times during the growing season. If basal and root sprouts are not removed, one or more may form woody stems that eventually compete with existing main stems. These additional or competing stems may result in poor form and structure, such as stems that rub against each other. Hard pruning may indirectly increase maintenance requirements of an otherwise low-maintenance plant as a result of the need to prune

resulting basal and root sprouts. Unpruned crapemyrtles form the fewest sprouts.

Long-stem sprouts emerge just below large-diameter cuts that result from topping and pollarding. These sprouts usually develop into upright, unbranched stems that eventually flower, often bending under their own weight. Rain or wind storms can cause extreme bending of these long, unbranched stems; some will break because they are weakly attached to the main stem, or because they are too slender.

Tip pruning dormant crapemyrtles to remove seed capsules is a personal aesthetic choice. Tip pruning does not induce sprouting or reduce flowering. However, this practice becomes increasingly labor intensive and impractical as a crapemyrtle grows large. The presence of seed capsules in winter will not affect flowering the following growing season. Wind and rain eventually knock seed capsules off plants, usually prior to the growing season.

Spanish moss can be removed from the tree at any time to improve appearance. Although Spanish moss does not directly cause decline in the plant, heavy infestations can block sunlight from foliage, which could impact health.

Plant Size

Pruning will reduce plant size for at least part of the year. However, crapemyrtle regrowth often is so vigorous that the plant grows to its original size within a couple of years. Many years of hard pruning are necessary to result in a plant smaller than an unpruned crapemyrtle.

Plant Health

Topping removes large amounts of starches and other food reserves stored within branches because large-diameter stems are removed. Topping dramatically reduces the size of the plant canopy, ultimately decreasing the plant's ability to produce food (starches) through photosynthesis. The large branch stubs caused by topping result in large areas of exposed wood that allow access by insects and wood-rotting organisms, weakening the plant's structure. Finally, topping results in many dead stubs throughout the tree (Figure 6).

Figure 6. Large branch stubs caused by topping.

Pollarding also results in large-diameter pruning cuts, but these usually are covered by woundwood faster than those on topped trees because the pruning cuts are smaller. Pollarding produces fewer dead branch stubs and less internal wood decay than topping. Vigorous, healthy crapemyrtles have a low risk of stem decay with either of these pruning methods because crapemyrtle rapidly and effectively walls off damaged wood. However, pruning large, old plants can cause more stress and decay and could even kill the plant.

Tip pruning does not appear to significantly affect plant health.

Maintenance Time

With proper selection and placement, a crapemyrtle may need little or no pruning. Trees that remain unpruned produce few sprouts to be removed during the growing season.

Of the three pruning methods, topping takes the least time to complete, especially when conducted during the dormant season. The structure of the plant is easy to see at this time and stems can be easily removed from the tree. Topped trees produce more summer sprouts, but total maintenance time is low even when adding desprouting time.The reduced pruning time may have contributed to the apparent popularity of topping crapemrytle, despite the delayed flowering, unattractive form, weakened stem structure, and excessive sprouting that result.

Time needed for tip pruning increases each year due to annual growth in size and the increased

number of shoots that result from the prior year's tip pruning. Tip pruning requires the most time during the dormant season, and the most time overall, but very little summer desprouting is needed.

Pollarding crapemyrtle requires slightly more time than topping for dormant pruning because more cuts are required. Both topping and pollarding require about the same amount of summer desprouting time. One advantage of pollarding is that it requires about the same amount of winter pruning each year, regardless of age, because the number of sprouts remains about the same. Time to top or tip a tree increases with the age and size of the plant. This likely explains why many crapemyrtles are topped below the original topping cut after several years of annual topping. In other words, five or six cuts several feet from the ground efficiently removes the entire top of the tree, whereas topping several dozen stems takes more time.

All pruning methods generate clippings and debris. Cleanup and disposal of the numerous clippings is another maintenance consideration.

Factors other than total maintenance time may influence pruning practices. Topping requires less skill than other pruning methods, although it also results in delayed flowering, weak growth, and unattractive sprouting. Seasonally, landscape professionals and homeowners may have more time available during the dormant season than during the growing season, when mowing and other landscape maintenance practices may compete with desprouting time.

Recommended Crapemyrtle Pruning

Crapemyrtles selected to match the landscape site require little or no pruning. A crapemyrtle that requires routine pruning to fit into its surroundings should be considered for replacement with a smaller-maturing cultivar.

If pruning is necessary, use the following recommendations:

- Pruning for safety may be done anytime. This may involve removing damaged or weak branches or pruning lower limbs for pedestrian and vehicle clearance and visibility.
- Pruning to improve plant structure, redirect growth, or alter plant shape and appearance should occur when plants are leafless and dormant–typically December through February. Although this can be accomplished at any time, without leaves, the branching structure is clearly visible to more easily determine appropriate branches for pruning.
- Prune to remove crossing or rubbing branches.
- Prune dead, damaged, or diseased branches at the branch collar.
- Remove vigorous branches growing toward the center of the canopy.
- Severe pruning should be performed late in the dormant period. Pruning too early might stimulate new growth that could be damaged by low temperatures.
- Pruning to reduce plant size is best accomplished with pollarding rather than topping. Pollarding results in fewer dead stubs and less stem decay. Pollarding annually maintains crapemyrtle at a set height and results in a predictable flower display. It is also convenient to cut back to the same position each year instead of pruning at the ever-increasing height of topped trees.

Proper selection of crapemyrtle cultivars, proper plant selection at the nursery, and proper placement in the landscape may prevent the need for significant pruning. For more information on crapemyrtle cultivars and selection, see ENH 52, "Crape Myrtle in Florida," http://edis.ifas.ufl.edu/MG266, and ENH 1019, "New Red-Flowered Crapemyrtles," http://edis.ifas.ufl.edu/EP256, both by Gary W. Knox.

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