

Trees with Multiple Stems

Carl Whitcomb, Lacebark Inc. Stillwater, OK

Trees of some species and large shrubs with multiple stems are particularly in demand in some geographic areas. Species of oak, birch and particularly crapemyrtle are either grown as standards (a single stem) or clumps (multiple stems). The practice of using several individual liners to create multiple stemmed trees is NOT recommended and in the long run, a disservice to your customer. Having set out comparisons and watched them grow over many years, it is clear that a plant grown with multiple stems on a SINGLE root system is a much superior plant to having multiple stems on multiple root systems in what functions as a plant.

The primary problem is the fact that when multiple individual liners are used, one or two become dominant and the other one or two become runts. If your objective is to grow crapemyrtle or river birch with four to five stems, ----- when multiple liners are used, often by the time plants reach market size there are only two or three well-developed stems. What do you do now? It is too late to plant another two or three liners to improve appearance of the plant. It is too late, in most cases, to remove one or two of the stems and turn the plant into a high quality standard. When all factors are considered, the wise thing and the most economical practice is to use a single good quality liner, prune it to stimulate multiple branches very close to the ground and select the best three, four or five branches and remove the rest. Once a plant gets the desired number of stems well under development and on a single root system, these stems will continue to grow at a similar rate indefinitely. Only rarely does one stem exert dominance over the others. When that does happen, a plant autopsy shows a poor root system on the plant to begin with and there was one vigorous root supporting the vigorous stem and providing little support to the others.

Timing is important in cutting back a single stem in order to stimulate multiple stems. If the stem is cut back too close to the soil surface or surface of the container, there may be only a few buds present and only be one or two new stems develop. If the stem is cut back too high, there may be 10 or more new stems to choose from, but this requires considerable time for pruning out the extras. The exact time and stage of growth for cutting back single stems in order to create multiples depends on growing conditions, seasonal conditions and other factors. Late winter or very early spring and before spring growth begins is generally the best time. Remember that once the initial stem is cut off, there will be little root growth for several weeks, so avoid cutting off plants when under stress from recent transplanting or other factors.

With crapemyrtle, the best development of 3, 4 or 5 multiple stems can be created when selecting cuttings to propagation. If terminal softwood cuttings are taken in mid-spring, evaluate the number of branches on the main stem of the cutting, count up four or five from the bottom and remove any above that point. Following rooting, the plant will consistently develop the number of branches selected before the cutting was rooted. The alternative also works. Stick softwood cuttings during the prime rooting period for crapemyrtle (this ideal window is between the time spring growth begins and extends to just before flower bud development, but earlier is better), then select the number of stems desired just before or after transplanting into larger containers. This procedure is so easy, predictable and economical that it is difficult to follow the reasoning by anyone sticking and wasting 3, 4 or 5 cuttings in the same propagation container or bothering to root multiple liners and then space them around a larger container following rooting.

In selecting multiple stems to leave, keep in mind distribution of the stems around the circumference of the base stem and their relationship one to another. The key word is "anticipate." Consider the placement of several stems to choose from and anticipate what the relationship between the stems will be when they are 2, 3, 4 or more inches in diameter. It is important to avoid branches where at some increased diameter in the future, one stem will be pressing on another much like bending a stick across your knee. It is also important to select stems relative to one another to avoid entrapped bark and weak narrow "V" forks. Trees and large shrubs with multiple stems can be very attractive and structurally sound and long lived in the landscape when developed properly at the nursery.