

# Native Species as Bonsai

By Randy Bennett

## Swamp Maple

*(Acer rubrum)*



In the South, we call it Swamp Maple. To the rest of the country, it is referred to as Red Maple, Soft Maple, Scarlet Maple, Carolina Red Maple, Water Maple and Drummond Red Maple. The Onadaga Indians of what is currently the state of New York, called it “ah-wah-notkwah:, which means “tree of the red flower”. It is *Acer rubrum*, regardless of whatever else it may be called and it is prolific in the eastern half of the United States.

### Habitat

Its’ range extends from southern Florida, north to Nova Scotia and from the east coast west to southern Ontario, Minnesota, Wisconsin and Illinois. Below is a range map showing where it grows in nature.

It is common to wetland areas and here, around the New Orleans area, it is as prolific in the swamp as bald cypress. Many foresters consider the tree inferior and undesirable because it is

often poorly formed and defective, especially when found growing in wetland areas, where it is in competition with other species. On good sites, however, it may grow fast with good form and quality for saw logs. Red maple is a subclimax species, which means that it can occupy overstory space but is usually replaced by other species. This is what we typically see around New Orleans, although one can observe them competing well with bald cypress. However, the cypress will ultimately overcome them with regard to height. It is classed as shade tolerant and will produce prolific sprouts.

While it is prolific in the swampland areas of the southern United States, it will not tolerate having its' trunk base constantly underwater like bald cypress. It prefers higher ridges of soil, but most assuredly like to have its' "feet" wet.



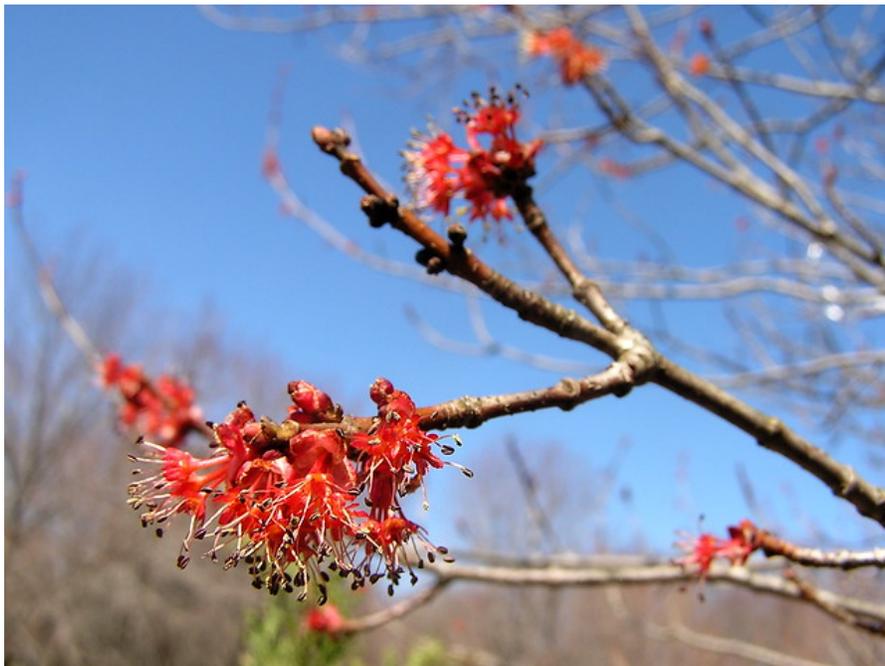
### **Characteristics**

It typically has red petioles, red twigs, red flowers and red seeds. In the fall, depending on temperature, the foliage will range between yellow, orange and red. Here in the New Orleans area, we tend to see more yellow and orange. The farther north one goes, they take on more of the bright red and scarlet hues.

In our area, it is the first sign that spring is not far off. Due to our moderate winters, Swamp maples may, in fact, flower more than once, creating what we refer to as a "false spring". We will have a period of warm weather, causing the trees to partially flower, only to be followed by

some very cold temperatures, sending the Swamp maples back into another dormancy. Then, when temperatures rise back into the 70's, more of the flowers will shoot forth.

The photo below shows the Swamp maple in bloom. In our area, this begins to occur in mid-February and continues into March. Swamp maples begin to bloom before anything else leafs out in the wetlands around New Orleans and creates a beautiful display of bright red. If you look at the photo below, you will observe that some of the flower buds have opened, while others remain closed. If warm weather persists for an extended period, all of the flowers will open. However, if the warm weather is followed by a cold snap, the remaining buds will sit tight until it warms up again.



The seeds quickly follow the flowers. They will germinate with very little light, do not require pre-germination treatment, like other maples and only require moisture. About 80% of the seeds will germinate in only 2 to 6 days. My granddaughter was playing "helicopter" with the seeds in my driveway a little over a week ago. There are now swamp maple seedlings popping up in my flower beds and in my bonsai pots!



Swamp maple initially grow in a pyramidal form when a sapling and only growing for height. However, they quickly start to spread their canopy into a more rounded shape. Mature trees tend to average between 40 and 70 feet. However, given enough room, they can grow much larger. Currently, the largest Swamp maple recorded is currently near Armada, Michigan. It is 125 feet high and over 16 feet in circumference.

The branches are ascending, which allows bonsai practitioners to use more clip-and-grow techniques while training and rely less on wiring. The exceptions to this are, of course, if you are trying to create specific bonsai styles such as informal upright, wind-influenced, formal upright, slanting, semi-cascade, etc. The natural form would be more broom-like, with a round canopy.

A couple of interesting side notes: while Swamp maples grow in a wide range of environments and climatic conditions, they are genetically pre-dispositioned to their native habitat. For example, while Swamp maples grow wild in Nova Scotia and survive temperatures of 40 degrees below zero, a Swamp maple transplanted from the southern states to the north will not survive. Another interesting observation is when Swamp maples grow in wetland locales, they do not develop tap roots and their surface roots tend to widely spread, while Swamp maples growing on drier ground will develop strong taproots.



The leaves occur in pairs, opposite of one another along the stems. They are mainly three-lobed, but may also occur with five lobes. When they occur with five lobes, the two basal lobes are much smaller than the upper three. All of the lobes are serrated and are sometimes incised. The average size of the leaves is 3 inches long and 3 inches wide. The leaf size is the biggest complain among bonsai practitioners, but the size can vary greatly among trees in the wild. There is a variety of Swamp maple occurring in northern Florida that consistently has a leaf size of 1 ½ inches! They will also reduce with leaf-pruning, but it is much better to try and find a specimen that already possesses smaller leaves. It is not difficult to find trees where the leaf size is consistently 2 inches. The trick is, if you are collecting a tree from the wild, to locate one with appropriate leaf size during the growing season and tag for collecting during the fall or early winter.



### **Cultivation**

Swamp maples, compared to other trees, are not long-lived. They typically live about 100 years and rarely exceed 150. They are fast growers and can be developed into good quality bonsai. They have a thin bark that can be easily damaged. If damage to the bark occurs, it should be sealed as quickly as possible. The same holds true with any cuts made with pruning tools.

Many cultivars of *Acer rubrum* have been developed over the years. I am familiar with 18 cultivars, but there are probably more.

### **Light**

While Swamp maples will do well in partial shade, you will find that the leaf size has a tendency to become larger in order to gain sufficient "food factories" for optimum growth. Full sun is much better and will give you greater success at leaf-reduction, provided your soil and water are correct.

### **Soil**

Swamp maples prefer a moist soil that is on the acid side with a PH of 4.5-6.5. Many people have complained to me over the years about die-back on Swamp maples and leaf burn. I recommend thinking about the soil and what soils they prefer in nature. While they will certainly adapt to traditional bonsai soil, it is my contention that typical bonsai soils dry out too quickly for this species. They like to keep their "feet wet". Use a commercially available potting mix like Miracle-

Grow Potting Mix. It is acidic, contains perlite and extensive organic material. Putting a drainage layer of haydite on the bottom of the bonsai pot is fine, but the roots need to stay wet or at least moist. When you grow water-loving species like Swamp maple, bald cypress, water elm, etc. in fast-drying bonsai soil, the trees get stressed and will often show that through leaf burn and yellowing and sometimes by sacrificing entire branches.

### **Water**

Remember that they grow along stream banks, ponds, wetland areas and around New Orleans in the swamp. They like water! And you must water thoroughly during the warmer months. The larger leaves transpire more moisture than other trees. You must keep these things in mind and if you see that your soil is drying out too quickly, consider siting your Swamp maple bonsai in a shallow container of water or at least provide a humidity tray with pea gravel during the summer months. Another option is to cover the soil surface with long-fiber sphagnum moss. This will help to retain moisture. Moreover, surface roots, if they are exposed to direct sunlight, can actually burn, causing the top of the surface root to die. So protect them in the heat of summer.



### **Fertilizer**

Swamp maples, like most maples, are not heavy feeders. Stay away from chemical fertilizers and rely instead on organic fertilizers. Chemical fertilizers can, over time, cause a build-up of salts in the soil. Swamp maples will not tolerate salts in the soil. Also remember to begin fertilizing any deciduous tree after the leaves have “hardened-off”.

When trees are initially pushing out new growth, they are using the starches and nutrients stored in the roots, trunk and branches over the winter months and are not absorbing or breaking down fertilizers that may be placed in the soil. Only when the leaves have darkened, signaling that they are now actively producing food through photosynthesis and beginning to replenish starches for the systems of growth, will the trees begin utilizing fertilizers. Before that time, any applications are wasted.

### **Potting**

Swamp maples need more room for their roots and should therefore be slightly over-potted – meaning, place them in bonsai pots that are a little deeper than the diameter of the trunk and even a little larger when considering the two-thirds rule. For example, let's say that you have a Swamp maple bonsai with a height of 18 inches and a trunk diameter of 2 ½ to 3 inches. Instead of potting it in a 12 inch pot that is 3 inches deep, pot it in a 14 to 15 inch pot that is 4 inches deep. This will help to keep the roots cooler, give them the room they need to grow and help retain more moisture in the soil.

Pot and repot Swamp maples in the late fall to early winter. Avoid repotting in the spring. Their roots develop rather quickly and they can fill up a pot in just a couple of years if the tree is healthy and putting on a lot of growth.

### **Pruning**

The best time to prune branches is in the fall. Maples are “bleeders”. Pruning them in the spring when the sap is rising, results in sap flowing from the wounds. This loss of food needed for growth will weaken the tree. Moreover, it is sometimes difficult to get the bleeding to stop. If you are pruning off a branch because it is too large for that area, but still need a branch in that location, leave the collar of the branch next to the trunk. Dormant buds are located there and a new shoot will sprout.

If you are removing a branch and do not wish for new growth to pop from that area, make a flat cut close to the trunk. As previously stated, the bark of Swamp maples is thin, so you do not want to use a concave cutter to remove the branch. Use a root cutter to make a flush cut, then smooth the cut area with the sanding drum of a Dremel tool, maintaining the contour of the trunk and seal the wound with cut paste.

If you are removing two branches that are very close to one another, it is better to join the two cuts into one. The tree will have less difficulty healing the wound.

### **Container Selection**

Because Swamp maples are deciduous, the container should be glazed. White or cream is always a good choice due to the light gray color of the bark. A pale blue would be a good second choice. Pot shape will be determined by the character of the tree, whether it is primarily masculine or feminine in its' design.

