protect them from freezing weather in the early spring!

Leave the trees with their previous year’s growth over the winter and then around early March, trim them to taste. Put all of the cuttings into water and let them soak a day or two. Select the best terminal cuttings, dip them in Rootone F and plant them in mass in a large wooden box in a moist, organic soil.

Cull out the ones that are obviously dead and about mid-June plant the survivors in small rooting containers.

Grow them for one season and then pot them up in a small growth pot the next spring. The goal is to separate them and allow them to extend their roots without competition for the remainder of the growing season so that they enter the first winter with a well-developed and well-insulated root mass. In mid-summer of next year put them up in 4” pots where they will live for another couple of years. Be sure to trim the tree aggressively during this time to insure a good shape.

**Repotting:** Every second year when buds extend. Grow them in a soil that has been amended with a generous fraction of organic material to hold water. However, still allow for good drainage.

**Design and Styling:** Ideal trained as a formal or informal upright style and works very well for clump, slanting and for bonsai forests.

Their are three distinct species, two of which hold a record. The Coast Redwood (Sequoia sempervirens), holds the record for the tallest tree in the world, at about 360+ feet. The foliage resembles that of the Yew having flat needles.

The Giant Sequoia (Sequoiadendron giganteum), a.k.a the Wellingtonia, after the Duke of Wellington, has more Juniper like foliage, holds the record of being the largest living thing on the planet.

The Third of the redwoods, the Dawn Redwood (Metasequoia glyptostrobides), also has flat needle like foliage. All three will make excellent bonsai; their cultural and training needs are identical, needing an open loamy soil, perhaps a bit less grit in the compost.
The Dawn Redwood

(Metasequoia glyptostrobides)

**General Information:** The Dawn Redwood (Metasequoia glyptostroboides), is a surviving relict of a family of trees that goes back in the fossil records almost to the beginning of the Age of Dinosaurs – well over 200 million years. By about 40 million years ago, this group of trees was so successful that they enjoyed a world-wide, circumpolar distribution from the arctic to the lower mid-latitudes. But for reasons related to changes in world-wide climate, their distribution began to shrink and they were eventually pushed into isolated canyons where they survived in small groups. By 6 million years ago they had receded from North America and by 2.5 million years ago they appeared to have vanished from the Earth completely.

Metasequoias were thought to be extinct until the 1940’s when vague rumors of a mystery ghost tree caused teams of scientists from China and the United States to further investigate a small upland valley in the Szechwan province of China where a single isolated population of Dawn Redwoods was found to exist. Seeds brought back from that expedition were distributed world-wide to universities, herbaria and research facilities around the world and from those seeds a new world-wide population of metasequoia trees has emerged.

In its natural habitat, the Dawn Redwood quickly reaches heights up to 110 feet with a 25 foot spread. The original Dawn Redwood Bonsai trees are hearty conifers that have a lacy type of needled foliage on gracefully upswept branches. The needles are deciduous and quite pretty in the fall when the airy light green spray turns to yellow and then to bronze before shedding from the trees. Redwood Bonsai trees make wonderful sights and this can be attributed to the way in which the Redwood tapers away from its root flare which is broad and heavy. Dawn Redwood Bonsai trees feature trunks with reddish bark that are well grooved and strikingly straight and slim; if the trunk is especially large and heavy it will be well suited as a formal upright.

**CARE**

**Temperature:** If your Dawn Redwood Bonsai is to be an outdoor specimen, it will require ample protection from extreme cold and frost during the dormant season. Also, in the hottest part of the summer, it is wise to be vigilant about moisture levels in the air as well as in the soil. This bonsai will do best in conditions that provide ample humidity and moderate warmth.

**Lighting:** This tree will grow best in full sun outdoors, though it should be placed beneath a screen, trellis or other diffusing agent to provide a “dappled sun” environment, especially from mid-June to late Summer.

Redwood Bonsai are surprisingly well suited for growing indoors or outdoors as long as they are given plenty of abundant sunlight and southern exposure. Not to mention humidity, since the indoors is usually very dry.

**Watering:** You Dawn Redwood Bonsai will prefer moist, deep, well drained soil. Do not allow this tree to go without ample moisture as it is not drought tolerant. The biggest problem with metasequoias is that the leaf fronds are so thin and delicate that, if they dry out even once, it will likely kill the tree. They are very hardy trees but also very unforgiving to desiccation.

**Fertilizing:** Feed them once a week after new leaves appear with one-half strength fertilizer, rotating with a variety of feeds through the Spring and summer.

**Pruning / Training:** Each spring trim the roots back to a fist-sized ball or smaller (depending of course on tree size). Metasequoias do not have natural nebari (even surface root spread) so you will need to take measures to make them by taking a two or three inch piece of slate and wire it UNDER the roots, spreading the roots out laterally before repotting each spring. This splays the roots and forces them outward. The roots grow back quickly and aggressively.

Trim the tops aggressively, trying to keep the trees in a compact triangular shape. This also promotes much denser branching. Metasequoias naturally assume a flame shape in nature. The biggest thing with trimming metasequoias is that the branches grow VERY fast and bud-back is constant along the trunk. Therefore, whether you like it or not, you have to constantly and aggressively cut off your largest branches lest they quickly become out of proportion with the tree. Don’t worry they’ll bud back in profusion.

Using wire to shape this bonsai is possible when the tree is dormant from early winter to early spring. The wires are wrapped around the trunks in a counter clockwise direction and should be of sufficient thickness to hold the branch in place. Once the wires are placed, the tree’s branches and trunk can be gently bent into the desired position. Leave wire in place for 3-6 months, and make sure damage to the bark is prevented. Prune in the summer by trimming back new shoots.

**Insects / Pests:** None.

**Propagation:** Two choices: seeds or cuttings. Care must be taken to collect cones from mature trees, those that are at least 20-30 years of age. Cones should be collected when they fall and can be stored in the refrigerator. When they begin to open, put them all in a big coffee can with a lid and shake the heck out of them, liberating the seeds. Then mix the seeds with a rich organic soil like you were baking a cake, spread it out in a shallow bonsai pan and cover with 1/8” to 1/4” of very fine gravel. (The gravel helps keep the surface drier and inhibits fungal growth in the early stages of the new plant.) Put out in the sun for about two weeks and they should start sprouting. Be sure to