

This article is part of a weekly series published in the Batavia Daily News by Jan Beglinger, Agriculture Outreach Coordinator for CCE of Genesee County.

## Master Gardener Corner: Dawn Redwood

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I've been trying to figure out a place in my yard for a Dawn Redwood (Metasequoia glyptostroboides) ever since I saw a cultivar of one, with gold foliage, on a garden tour. It was such a striking plant, glowing in the landscape. Since then, I've seen a few more dawn redwood trees, here and there in WNY. Not your typical landscape plant. Actually, they were thought to be extinct until the 1940's when they were discovered growing in Szechwan Province of China. The fossil remains of dawn redwoods have been found in Asia, Greenland and North America. Harvard University's Arnold Arboretum sent an expedition to China in 1947 to collect seed. The seed was distributed to universities and botanical gardens around the world. As there were only around 1,000 wild trees left, this probably saved the dawn redwood from extinction. It is listed as endangered in the wild, but thanks to those collected seeds, by 1951 it had entered the U.S. horticultural market and was being planted in landscapes.

When you hear redwood, you may think of the Giant Sequoias (Sequoiadendron giganteum) which are found growing in California's Sierra Nevada mountain range, or possibly the Coast Redwoods (Sequoia sempervirens) which grow along the Pacific coast. Both of these giants are related to the dawn redwood. It is also closely related to the bald cypress (Taxodium).

While it is the smallest of the three redwoods, in the landscape they typically grow 50 to 60 feet tall, but are capable of growing over 100 feet tall. A single, very straight trunk with many branches, gives the tree its pyramidal shape. As the tree matures the trunk becomes broad at the base, potentially up to 7 feet wide. The trunk can also develop elaborate buttresses which is quite attractive. The bright reddish orange bark is also striking. As the bark matures it looks papery and may peel off in long strips. The spreading branches will start to droop with age.

The dawn redwood is a deciduous conifer. Unlike most conifers, it drops its needles/leaves in the fall. The feathery, fern-like foliage emerges a light green color in spring. It becomes a deeper green as it goes into summer and will turn an orange-brown or red-bronze color in the fall. The fine-textured needles are soft to the touch and about half an inch long.

A monoecious plant, the dawn redwood contains male and female flower parts on separate cones but in the same tree. The yellow-brown male cones hang in groups up to 12 inches long, while the yellow-green female cones hang individually. The tree produces cones which are rounded and hang on long stalks up to 1.5 inches long. Initially the cones are green and mature to brown in late fall. Each mature cone contains small winged seeds. Since many trees are planted as solitary specimens, this could be leading to low genetic diversity among cultivated trees since the trees are self-pollinating.

Dawn redwood is easy to propagate using hardwood or softwood cuttings from branches. Cuttings taken in the spring can be planted in the fall. If propagating via seed, they need to be stratified, simulating winter conditions.

In China the dawn redwood is refered to as "water-fir" or "water pine" because it was found growing in low-lying areas near streams and rivers. It prefers to grow in average to wet soils and will even tolerate some standing water. In the landscape they grow best in consistently moist, humusy soils with good drainage. They do not like dry soils. They prefer slightly acidic soils and are intolerant of alkaline soils. Give them full sun. They are moderately tolerant of salt spray and are tolerant of air pollution.

Dawn redwoods have minimal pest and disease problems, but Japanese beetles will eat the foliage. They are susceptible to spider mites if grown on dry soils. They can tolerate deer browsing. Dawn redwoods need very little pruning, remove dead branches as needed. They are considered to be hardy in USDA Zones 4 to 8. Some of the cultivars are not as hardy as the species.

A tree for the next generation, under ideal conditions it can be expected to live to a ripe old age of 100 years or more. Some trees have a lifespan of 400 years.

Dawn redwoods need adequate growing space. Considered to be a fast-growing tree, it can grow at a rate of 18 to 24 inches annually. It can reach 50 feet tall in just 15 years. Definitely not one to plant under power lines or close to the house. Give it plenty of room!

If you decide to add it to your landscape you should be aware that it grows late into the season. An early fall freeze can damage the growth, so avoid planting it in frost pockets or low-lying areas. A thick layer of mulch around the root zone will help to protect it during the winter if planted in an exposed area.

There are a few cultivars available in the trade although they may be hard to track down. 'National' and 'Sheridan Spire' have narrow forms and grow to about 60 feet tall and a third as wide. 'Ogon' and 'Gold Rush' are two gold-foliaged forms. (They may actually be the same plant with different names.) This is probably the dawn redwood that I saw as they have foliage that is a bright yellow when the tree is young. Growth is slower than the species and it has a narrower habit. Maturing at 50 feet tall and 20 feet wide they are more suitable to the home garden.

Resources: Arbor Day Foundation, Missouri Botanical Gardens, Save the Redwoods League, University of Connecticut and University of Minnesota.

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