

ASK A MASTER GARDENER

DAWN REDWOOD



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Master Gardener

Question: While visiting the Oregon State University campus, I came across an interesting tree called the dawn redwood. Why is it called dawn redwood? Are dawn redwoods rare? Can they be grown in the Umpqua Valley?

Answer: Dawn redwoods graced the landscape of the world's northern temperate regions during the time of the dinosaurs (Late Cretaceous). Fossils of this species were first discovered in 1941 in Japan.

Scientists since then have identified fossil remains of the dawn redwood in North America, Asia and Greenland. Fossils have also been discovered in the Columbia River Gorge and throughout Oregon.

The dawn redwood is the state fossil of Oregon. The Oregon legislature designated the dawn redwood as the official state fossil in 2005.

Metasequoia glyptostroboides, the dawn redwood, is the sole living species of the genus *metasequoia*, one of three genera in the subfamily *sequoioideae* of the family *cupressaceae*. The use of "dawn" in the name was an attempt to emphasize the tree's early fossil record. An ancient tree from the dawn of time, the dawn redwood is called by plant enthusiasts "a living fossil."

The tree was first revealed to Western horticulturalists through archaeological observation in the early 1940s. It was believed that the dawn redwood had been extinct for over a million years. In 1944, live trees were found in a remote valley in central China. Harvard's Arnold Arboretum arranged for seeds to be collected in China in 1947; these seeds were then dispersed to several arboreta and institutions in the U.S. in 1948.

Oregon State University was one of the recipients of the seeds and they were planted in 1948. One of the OSU trees was the first dawn redwood outside of China to bear cones in more than 60 million years.

Are dawn redwoods rare? All of the dawn redwood trees growing in this country are descended from the special seeds, which were discovered and collected during war and planted in peace.

Today, the dawn redwood tree is still considered a rare garden treasure.

The dawn redwood is a conifer with a twist: dawn redwoods' colorful leaves are one trait that separates this species from its family members. It loses its soft foliage in winter after turning



PHOTO COURTESY OF NC STATE EXTENSION

All of the dawn redwood trees growing in this country are descended from seeds collected in China in 1947.



PHOTO BY DANNY SCHISSLER/HARVARD UNIVERSITY ARBORETUM

The dawn redwood is the sole living species of the genus *Metasequoia*. The use of 'dawn' in the name was an attempt to emphasize the tree's early fossil record. An ancient tree from the dawn of time, the dawn redwood is called by plant enthusiasts 'a living fossil!'

golden-brown.

Can the dawn redwood be grown in the Umpqua Valley? Yes. Dawn redwood can be propagated from hardwood cuttings. Because the plant is very fast-growing, propagated trees can become contributing landscape specimens within a few years.

If you take cuttings in early spring, you will be able to plant the saplings by fall. Growing this tree from seed can be tough, as the germination rate is only about 5%.

If you choose to try it, plant at least 20 seeds in a peat pot, covering them only with about 1/4 inch with soil. They need good light to germinate. Keep the soil moist, and keep the pot in a cool area.

If the seeds germinate, it will happen in 30-40 days. Let the seedling become strong and grow at least 2 feet before transplanting. In our area, fall is a great time to plant trees into our home landscapes. Plant this tree in a rich loamy soil with a pH from 5-6. Be sure to add compost to the planting hole.

Choose a location with plenty of space surrounding the tree. The dawn redwood needs full sun (at least six hours of direct sunlight on most days) to reach its mature height.

The soil must stay consistently moist or plant your tree where a water source for irrigation is near at hand. Dawn redwoods will not do well in dry soil. Provide at least one to two inches of water weekly to the entire area under the branch canopy. Water whenever the soil becomes dry to the touch.

The dawn redwood naturally forms into a pyramidal shape, so little pruning is needed other than the customary removal of dead, diseased and damaged branches.

If the dawn redwood sounds a bit large for your landscape, a couple of cultivars are available, including:

Gold rush – This brilliantly gold-leaved tree reaches 15 feet in 10 years. It has bright yellow foliage in the spring and retains much of the color throughout the summer. Its fissured bark provides winter interest.

Still too big? There's also a weeping dawn redwood cultivar, *miss grace*, a small tree about 8 feet tall, with weeping branches.

Whatever your choice, the dawn redwood is believed to have existed 65 million years ago. It was thought to be extinct until botanists discovered living specimens in China during the 1940s. Today it is considered endangered, so planting one is a great move.

Do you have a gardening or insect question? Contact the Douglas County Master Gardeners at douglasmg@oregonstate.edu or 541-672-4461 or visit 1134 SE Douglas Ave., Roseburg. Douglas County Master Gardeners are trained volunteers who help the OSU Extension Service serve the people of Douglas County.