

# 'Living fossil' truly is a puzzle



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Master Gardener

**Question:** When walking through my neighborhood, I came across a very unusual tree called the monkey puzzle tree. What can you tell me about it?

**Answer:** The monkey puzzle tree (*Araucaria araucana*) is an evergreen conifer with open splaying and spiraling branches. The tree can grow to 70 feet tall and 30 feet wide and forms a loose, see-through, pyramidal shape with a straight trunk. The tree is so open you can actually look through it.

The monkey puzzle tree is an endemic species of Chile (national tree) and the Andes Mountains of South America. Because of the prevalence of similar species in ancient prehistory, it is sometimes called a living fossil. The monkey puzzle tree was introduced to England by Archibald Menzies in 1795.

Menzies was a plant collector and naval surgeon on Captain George Vancouver's circumnavigation of the globe. Menzies was served the seeds of the conifer as a dessert while dining with the governor of Chile. He later sowed the seeds in a frame on the ship's quarterdeck.



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The leaves of the monkey puzzle tree, called scales, are dark green, stiff and sharp, covering the tree limbs like armor.

Five healthy plants made it back to Great Britain.

The origin of the name, monkey puzzle, derives from its early cultivation in Britain. The tree was very popular in Victorian England. Legend has it that an owner of a young tree specimen in Cornwall was showing it to a group of friends and one made the remark "it would puzzle a monkey to climb that". The popular name became, first monkey-puzzler, then monkey-puzzle. Prior to 1850, it had been called Chilean Pine even though it is not a pine. Other names include monkey tail tree, piñonero and pewen.

The tree can grow in

North America along the coastal zone from Virginia, down the Atlantic, west to Texas and up through the Pacific Northwest.

The leaves (scales) of the monkey puzzle are dark green, stiff and sharp that cover the limbs like armor. The monkey puzzle tree makes an attractive, novelty specimen for large, open yards. The tree is best seen from a bit of a distance to really be appreciated. When young, the plants look like something from the dinosaur age and that impression doubles as the trees reach their full mature size.

The tree prefers full sun and well-drained soil. It is very resilient and

adaptable to almost any type of soil, even clay, provided it is moist. Young plants need consistent, regular watering. Water monkey puzzle trees weekly whenever rainfall fails to provide them with at least 1 inch of moisture per week. Reduce the frequency of watering during the cooler fall and winter months.

Fertilize your monkey puzzle trees at planting time by incorporating compost into your soil. In addition, if your soil is poor, fertilize monthly from early spring through summer with a half-strength solution of an all-purpose, water-soluble fertilizer. For example,

mix 1/2 tablespoon of a 15-15-15 fertilizer or similar product with 1 gallon water. Avoid over fertilization, which may damage the roots of your trees.

The monkey puzzle is usually dioecious, meaning the male and female cones are born on separate trees. However, occasional individuals bear cones of both sexes. The male (pollen) cones are oblong and cucumber-shaped, 1 1/2 inches long at first, expanding to 4 1/2 inches long at pollen release. It is wind pollinated. The female (seed) cones, which mature in autumn about 18 months after pollination, are globose, large, 4-8 inches in diameter

and hold about 200 seeds. The cones disintegrate at maturity to release 1-2 inch long nut-like seeds.

The seeds are edible, similar to large pine nuts and are extensively harvested in Chile. A group of six female trees with one male for pollination could yield several thousand seeds per year. Since the cones drop, harvesting is easy.

The tree, however, does not yield seeds until it is around 25-30 years old, which discourages investment in planting orchards.

Overall, these trees are remarkably resilient, many having lived over 1,000 years. It is a highly fire-adapted species, occurring in an area where fires have long been caused by volcanic activity. They have a natural pest resistance and even borers don't bother them.

In their native country, this plant has been logged to the brink of extinction. They are now protected and the wild populations are back on the upswing.

Monkey puzzle trees are unmatched for the drama, height and sheer fun they bring to the landscape. Don't miss a chance to bring an exotic piece of South America into your home landscape.

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*Do you have a gardening question? Contact the Douglas County Master Gardeners via email at [douglasmg@oregonstate.edu](mailto:douglasmg@oregonstate.edu), by phone at 541-672-4461 or visit 1134 SE Douglas Ave., Roseburg.*