

You're a what?

ARBORIST

by Olivia Crosby

The eucalyptus trees in Phoenix, Arizona, were dying fast. And it was Jeff Walton's job as an arborist to find out why.

After examining the trees and researching plant diseases, he identified the culprit: the eucalyptuses were infested with a fungus. Jeff injected the trees with a specially formulated fungicide and prescribed a watering regimen. The trees survived, together with the shade they gave the Arizona desert.

"Arborists are really tree doctors," says Jeff. As tree doctors, arborists diagnose and treat tree diseases, nutrient deficiencies, and structural problems. "Trees are living organisms," he says. "They are constantly growing and changing."

Working as a consultant for a tree care company, Jeff helps people understand and care for their trees. "One of the things I like most is education—explaining how the anatomy of a tree works, how diseases affect trees, and how a tree's immune system functions," he says. "I like convincing people that their trees are living and growing and need to be kept healthy."

Jeff drives to customers' houses

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and examines their trees. He checks the bark for signs of decay or damage. Then, he checks the leaves for abnormal changes in color or texture.

Sometimes, he removes dirt at the base of the tree to examine the root structure. Like most arborists, he uses binoculars to inspect the upper branches of a tree or climbs into the canopy of branches for a closer look.

When an illness is hard to diagnose, Jeff takes tissue samples, snipping off leaves or small branches. He sends the samples to arborist specialists for analysis.

If Jeff finds viruses, bacteria, fungi, or harmful insects, he recommends a course of action. He might spray the tree with pesticide or fungicide or inject medicine into its bark. After treatment, he might prescribe a special watering or fertilizer regimen, as he did in the case of the dying Arizona eucalyptuses.

Often, he cuts diseased or infested branches off the tree to save the others, a process called pruning. He also prunes branches that rub together and those that are not well supported by the rest of the tree. Pruning a tree correctly takes skill. Arborists climb onto a tree's branches using ropes and hanging seats called climbing saddles. They carefully remove branches with chainsaws, shears, and

tiny clippers. If a branch is diseased, arborists sometimes dip their tools in disinfectant before cutting another branch to prevent the spread of infection.

Jeff, like all arborists, uses mathematics to analyze a tree's structure before he decides which branches to cut. "We use equations to decide how structurally sound a tree is," says Jeff. "We measure the tree's circumference, and we can figure out a tree's height without climbing it." Some arborists use computer programs to calculate the forces and weights within a tree.

A tree's structure can be a matter of life and death for the people who live near it. Weak, diseased, or unsupported branches can crack and fall, crushing cars, houses, or people beneath them.

Despite all the treatments available, some trees cannot be saved. "People don't look up at their trees often enough," Jeff explains. "It's not until a tree is screaming for attention that most people notice there's a problem. We can't always save trees that are already very sick."

Removing a dead or dying tree can be tricky. To remove a poplar tree from a customer's yard, for example, Jeff needs a climbing saddle, ropes, chains, and a 200-ton crane—along



with the help of other arborists and landscape workers.

Tree care and removal is dangerous work. While balancing in climbing saddles high above the ground, most arborists use chainsaws to cut branches. Avoiding injuries takes practice and training.

Even without a traumatic injury, arbor care can be strenuous. "You're carrying heavy wood," Jeff says of downed trees and branches. "This work can be hard on your back."

Not every arborist's job is as physically demanding, though. Some arborists help clients decide which trees to buy and where to plant them. Conditions vary from region to region and even from one part of a backyard to another. Arborists understand which trees will thrive in which environment.

Other arborists preserve trees growing on construction sites. They mark where roots begin and design temporary enclosures to protect them during building. An arborist can do this kind of work without ever climbing a tree.

The Bureau of Labor Statistics does not collect employment data on arborists. But according to the International Society of Arboriculture, there are more than 12,000 certified arborists in the United States and

thousands more who aren't certified.

Most arborists work for tree care companies. Others work for State and local governments, caring for trees on roadsides and other public properties. And some work for themselves as private consultants.

Earnings increase with experience and responsibility. Ground workers, who chop and carry away fallen branches, earned an average of \$9.50 an hour in 1999, according to a survey by the National Arborist Association. Climbers earned an hourly average of \$13, and crew leaders averaged \$15. Arborists who diagnose and treat specialty trees can earn more.

Still, like most arborists, Jeff didn't choose his career for the money—although he says the field can be financially rewarding to people who are good at their jobs.

Drawn to his work by a love of the outdoors, Jeff changed his career path to work with nature. "I was in college studying for a business degree, but at the same time I was working at a landscaping company," he says. "I realized that with a business degree I might end up in a cubicle, watching the outdoors from a little window. If I worked in landscaping, I could be outside all day in the natural environment." He stopped studying business and started working full time at a plant nursery.

Over time, Jeff's interest in trees grew. He took classes in tree anatomy, physiology, and disease treatment while working at the plant nursery. After gaining more than 3 years of field experience, he took the Society's certification exam and became a certified arborist. He still takes classes to maintain his certification and to keep up with scientific advances in tree care. "We need people who are curious. There are always new things to learn about trees," he says.

Some arborists combine coursework with experience, as Jeff did, to enter the occupation. Others enroll in formal degree programs, earning an associate or bachelor's degree in horticulture, botany, or forestry. Still others continue their education, earning a master's or doctoral degree. Those with advanced degrees sometimes become researchers or expert witnesses in court cases involving trees.

Hands-on tree work is still the kind of arbor care Jeff likes best. "It's an honor to work with these majestic living organisms," he says. "To be able to understand what makes them strong and healthy is amazing." 