DataBank
The Vault's Always Open

Need Sales Leads?
Search For Valuable Lists, Directories And Articles

Find It. Download It.
Sort It. Use It.
And Reap The Benefits.



# An all-natural remedy for yellow-leaf disease

By Jules Marie

**September 4, 2009 --**

BOULDER - A casual observer might mistake the golden leaves on their red oak, silver maple, aspen or birch trees as early signs of autumn. Closer inspection, however, reveals leaves that are yellow, scorched or lacey-looking as they're being slowly starved by iron chlorosis, a soil condition that results when trees don't have enough nutrients to synthesize all the chlorophyll they need.

The word Colorado, based on the Spanish word "color rojo," meaning "color red," is reflective of Colorado's red soil and red rock formations - both contain a high level of iron.

One major drawback to the high iron content is that it creates an alkaline environment rendering the iron insoluble and unavailable to many plants and trees.

Organo-Lawn of Boulder has an answer for the sick trees. Founder Brad Wolfe helped develop an all-natural intravenous solution called "Tree IV" to treat iron chlorosis.

Chlorosis causes the tree to pull chlorophyll from the leaves - slowly choking the tree to death. A liquid concentrate of chelated iron and magnesium is injected into the tree, which allows the tree to produce chlorophyll.

Rick Roehm, president of the Colorado Association of Lawn Care Professionals, said tree injections are the most effective way to treat chlorosis. He's also seeing turf and shrubbery that's been affected and needs to be treated topically.

"It's easier to fix chlorosis in a lawn than in a 15-year old tree. Chlorosis is a function of chlorophyll production, or lack of it, and if the proper nitrogen, iron, water and air needs aren't being met, the plant whether turf, marigold or a tree won't produce enough chlorophyll," Roehm said.

Commercial growers test the soil's pH and amend the soil prior to planting. But the reality for the average homeowner or property manager is that they won't be able to amend the soil or adjust the pH enough to significantly change the soil profile. Roehm said there are only a few tree species native to Colorado's high plains - cottonwoods, pine, and spruce - so the ash, maple, honey locust and elms planted for ornamental purposes are better suited to other climates.

Rapid identification and treatment is paramount to saving the tree and extending its life span. The more severe the chlorosis the lower the survival rate. Trees are rated on a scale of one to 10; a one to six rating yields a 95 percent chance of recovery with Tree IV; seven to nine indicates it may or may not revive and a rating of 10 means it has one to two years before it dies and only a 25 percent chance of recovery with Tree IV treatment.

Theron Hreno, Organo-Lawn's branch manager in Boulder, said the conditions causing the chlorosis are natural to the area.

"The ideal range of soil pH is 5 to 6.5 on a scale of 14; Colorado averages a pH of 7 to 8.5. Tree IV delivers a concentrated dose of nutrients meant to snap it out of its chlorotic state," Hreno said. "It can cost $1,000 to $2,000 to have a mature tree cut down. You not only lose the shade, you also lose the sentimentality of the tree."

Organo-Lawn charges $45 for a tree diagnosis, which is applied to the total cost if Tree IV treatment is needed. The cost of treatment depends on the size of the tree; a tree with a trunk diameter less than seven inches starts at $85. Depending on the stage of chlorosis, the tree may need a second treatment.

Successfully treated trees will produce green, healthy foliage the next season.

The average lifespan of a tree in an urban environment is 10 years due to air pollution, soil compaction from concrete and watering conditions. To extend a tree's lifespan, Hreno says it's imperative that trees receive normal routine maintenance which includes watering in the winter and deep-root fertilization. A healthy tree, just like a healthy lawn, is less susceptible to disease, insects and chlorosis.

Wolfe began Organo-Lawn in 1997 with the goal of offering environmentally friendly lawn-care services. It uses all-natural weed control and fertilizer products specifically designed to work in Colorado's soil conditions. Their products are plant-based and contain renewable ingredients like yucca extract, humate and corn gluten meal. Its service trucks are fueled with B100 biodiesel, while the office and shop are powered by 100 percent wind or solar energy.