



TREES IN DROUGHT STRESS

Ideally, trees should be watered by soaker hose or drip irrigation. Water the soil directly beneath the tree canopy. Do not water beyond the drip-line and do not water closer than 3 feet to the trunk base on established trees. Use a light organic mulch to conserve moisture and decrease competition from the roots of other plants. Remember to leave several inches between the mulch and the trunk to prevent crown rot.

Trees require 1 to 3 inches of water per week to maintain good health. Five gallons per square yard (3 foot by 3 foot) is about 1 inch of water.

Water shortages are especially hard on young and old trees -- but also lead to problems for otherwise healthy trees. Drought conditions cause tree decline, pest problems and irreversible damage. Trees weakened by drought conditions are also more susceptible to wood borers -- such as pine bark beetles whose infestations are more severe during dry conditions.

Tree problems do not develop overnight. Some of the more common tree issues are root compaction caused by parking or driving over roots, mechanical damage caused by lawn equipment and improper pruning.

These continued issues often manifest in years with low rainfall. Established trees will recover on their own by dropping old leaves and putting on new growth. However, the newly established and older trees might not be able to pull out of the decline.

SOLUTION:

1) Installation of Hollow Sand Columns two inches wide and two feet deep spaced every two feet around the drip line of the tree.

- a) Absorbs immediate rainfall and irrigation and takes it down to tree roots with minimal watering
- b) A normal 20 minute watering(without sand columns) which has to percolate through the soil layer now occurs with less water and less time(less than 5 minutes), a super highway to the root zone has been established
- c) We are recharging the clay soil with these tree columns
- d) As we recharge the clay, we also utilize the clay to store moisture for the tree roots as the moisture from the clay is translocated up the column to the tree roots in time of drought till the next watering
- e) We make oxygen available as the sand absorbs water it pushes out oxygen. As the water is taken up by the tree, it pulls in oxygen making the soil more microbial friendly which also helps the tree in drought.
- f) Ideally a drip system is installed at each hollow sand column and feeds 5-20 gallons a week of water to each column.

2) Addition of Humectant to the sand columns

- a) A humectant is used to pull humidity out of the air and turn it into water droplets in the soil
- b) These water droplets are translocated down the column to add additional moisture for the tree roots.
- c) We actually manufacture water each day for each sand column.

3) Addition of ArborVive to the sand Columns

- a) ArborVive has a proven track record of taking one year of tree growth and allowing the tree to double its growth.
- b) The Hollow sand columns suspend the ArborVive inside the column and continually generate recovery by feeding it to the plant roots for weeks until the product is all used by the tree.
- c) Can take a frozen tree and revive it 5 ½ months later
- d) Has a special hormone and vitamin enriched formula of 50 vitamins.

- e) Nurserymen agree that if any life is left in the tree, ArborVive will bring the tree or plant back to health
- f) ArborVive is not a fertilizer, but it works well with fertilizer.
- g) **ZERO LOSS, 3,000-ACRES TRANSPLANTS FOR U.S.D.A. using ArborVive versus 3% Survival ratio for non treated trees**
- h) Planted 10,000 Trees, Seattle World's Fair, WITH ZERO LOSS
- i) Biggest Transportation of Landscape Materials, California to Florida, to Plant Disney World.® NO LOSS.
- j) 1200 TREES WITH 4" CALIPER TRUNKS BARE-ROOTED IN DESERT JUNE. NO LOSS. - Tucson, Arizona, City Parks Department
- k) Non-toxic even in concentrate, as testing-laboratories certified
- l) USED BY HUNDREDS of U.S. GOVERNMENT AGENCIES, THOUSANDS of STATE, COUNTY, CITY, UNIVERSITY, CAPITOL Grounds

IF YOU NEED HELP WITH YOUR DROUGHT STRESSED TREES

CALL US TO HELP YOU SAVE THEM

IF YOU DO NOTHING – THEY WILL SLOWLY PERISH



