TreeDiaper®

Smart Watering Mats

Superior technology with case study after case study showing its effectiveness.

Provides irrigation, insulation and weed barrier protection all while conserving water.

Grow healthy trees while using 99% less water.



What it is doing:

EMBRACING MOTHER NATURE

TreeDiaper is left out year-round and refill itself with natural precipitation - both rain and snow. With 1" of rain, it will last 30 days before needing additional water



Lasts 30 days with no filling. Super absorbent polymers hold 500x their weight in water for unparalled water storage and irrigation efficiency

ELIMINATES COMPETITION

Works as a weed barrier to eliminate weeds and plants from competing for water in the root zone

PROMOTES ROOT GROWTH

Irrigation is provided to an area away from the tree's trunk to a depth of 12 inches, which encourages roots to grow outward helping young trees establish

SOIL INSULATION AND MOISTURE STABILIZATION

TreeDiaper keeps the root zone at a more consistent temperature and moisture which helpsroots thrive due to experiencing a reduction in extreme temperature and moisutre level variances







TreeDiaper®

URBAN FORESTRY CASE STUDY



Introduction

Richmond performed a street tree planting project on Jefferson Davis Highway around in 2012-2013. On August 2013, on the road median a block south of Maury Street, TreeDiaper 36" was installed and covered with mulch. Adding the mulch on the top of TreeDiaper 36" can prevent vandalism and keep natural looking outside. On the road median a block of north side of Maury Street, standard tree watering bag remained installed on the trees planted there.

Overview of Case Studies

Annual natural precipitation in Richmond of Virginia is generally above 40 inches, but a seasonal drought occurred on July 2014 (\sim 1" rainfall) and August 2016 (\sim 1" rainfall) and severe winters occurred 2013-2014 (-15 °C) and 2014-2015 (-10 °C).

Since the installation of TreeDiaper 36" and by the end of 2016, trees on south side of Maury Street, have not been provided any maintenance services such as watering and de-weeding (grass mowing around the trees were kept as normal). The north side of Maury Street received regular maintenance services.

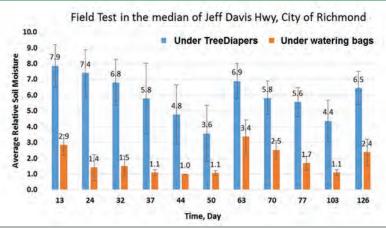
Results

Trees with TreeDiaper® AdvancedHydration System survived and thrived, growing green and strong as of June 2016 as shown by Google Street View Images.

- Trees with standard watering bagsdied (July 2014, and was removedbetween April-July 2015 as demonstrated by the Google StreetView Images (back side of sheet).
- The trees that had the TreeDiaper installed were free of maintenance during the testing period.
- Investment on trees (~\$250/tree) from City has been saved by using TreeDiaper advanced hydration system.
- The Soil Moisture under theTreeDiapers was much higher than those under watering bags (Figure 1)
- Soil temperature is maintained at a higher temperature during winter storms (Figure 2) and maintained at a cooler temperature during hot summer days.

Urban Forestry Dept. Richmond, VA

SOIL MOISTURE RESULTS



I fgure 1. Soll moisture of Tree/Plaper® mats compared to watering bags in the road modian of Jefferson Davis Hwy, Richmond VA.

SOIL TEMPERATURE RESULTS

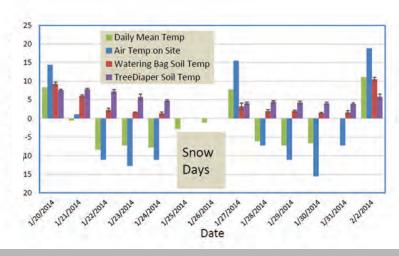


Figure 2. Soil temperatures (3" below soil surface) on Jefferson Davis Highway of City of Richmond in January-February 201/1.

TreeDiaper not only eliminated any maintenance costs, it protected the investment of the new trees, helping them establish.

Save Water • Save Trees • Save Labor • Save the Planet

For More Information:

Visit: www.ecoturfmidwest.com Email: info@ecoturfmidwest.com

