

EMBRACING SMARTER WATER MANAGEMENT WITH COST SAVING

Introduction

Unlike watering bags, the patented TreeDiaper™ Advanced Plant Hydration System provides multifunctional protections for plants. It catches rain and then super slowly releases it back to plants as needed. This product can keep young trees and other plants hydrated for weeks or even months at a time. It also offers protections against extreme weathers, reduces erosion and pollution, retains stormwater, and controls weeds. All these functions are combined into one low-cost package. It saves labor, water, herbicide costs, while saving plants from drought conditions. It offers a great tool for landscapers to achieve more with less cost, and provide the impressive ROI to property owners and managers.

Overview of Case Studies

This urban orchard project was started in June 2013 partnering with Chesterfield County Virginia. Two groups of ten fruit trees were planted on a field without irrigation. One group trees were installed with TreeDiaper™ system and the other group trees were installed with watering bags. Watering (with water trucks) schedules and natural rainfall were recorded during the testing period.

Results

In May 14, 2016, Plant Map published a featured article "Virginia's Chesterfield County transforms turf into an urban orchard", in which it stated: "TreeDiapers — which have proven effective at keeping young trees adequately watered without as much maintenance and added water as typical tree bags—are still used in the orchard. The landscape has since been expanded..."

Table 1. Watering cost estimation for two year maintenance.(2013-2015)

Cost Item, for 10 trees	TreeDiaper™	Watering bags
Irrigation water, gallon	\$0	~\$1200
Cost of watering devices (retail price)	\$250	\$220
Water cost	\$0	\$20
Water delivery cost	\$0	\$300
Labor cost for watering	\$0	\$600
Total	\$250	\$1440

Not all the costs are from actual because of accounting reasons. So some of the above figures are estimated based on available information and the standard practices and weather in Richmond, Virginia. There are possible differences with the actual cost. It may also vary with different regions as rainfall and drought conditions may vary.



TreeDiapers™ in Charleston Ridge Apartments, Ashland, Virginia



TreeDiapers™ in Richmond International Airport, Virginia