FAQ: What's the difference between TreeDiaper® technology & watering bags?

TreeDiaper® & SteadySpring®

The Quick Answer: ***<u>It's like comparing apples to oranges</u>.***

The Short Answer: Watering bags ALONE are not the solution; you must refill it with water to make it the solution when they are not clogged and not broken. TreeDiaper® ALONE can be the solution by catching & slowly release rain/irrigation water when soil dries.

The Long Answer With Side-by-Side Comparison:

Comparison Aspects	TreeDiaper®	Watering Bags
Water Release Mechanism	Primarily via Osmosis. Gravity contributes.	Gravity
Water Release Rate	Depending on soil moisture. It may be negative, meaning absorbing water back up when soil is too wet.	Depending water amount, the sizes & numbers of unclogged holes. Soil moisture doesn't affect release rate.
Charging/Recharging/ Delivery Methods	Automatic absorption of natural precipitation and/or irrigation water	Most systems rely on manual refill.
Requirements of A Water Source	It can be either natural rain/snow or a water source.	Must have a water source and often reject natural rainfall from reaching root zone.
Requirements on the Water Source	No requirements on filtering, water pumped up from rivers/lakes can be used directly without filtering	High requirements on filtering to remove particles so to prevent clogging the pin holes.
Handling of the Water above Field Capacity, i.e. soil is soaking wet	Stop releasing & start absorbing back (before reaching TreeDiaper® storage capacity). This makes use of the water that is otherwise wasted.	Do nothing. May add fuel to fire by releasing more water. Do not take up excess water. Drainage is the only solution to overwatering.
Actions during natural precipitation	Some is absorbed by TreeDiaper®; some penetrates to soil.	Block rainwater from the rootball; donut-shaped are worse than the upright version
Air permeability	Permeable	Non-permeable
Over Winter Handling	Stay outdoor	Should be removed and kept in storage
When Deicing Salt is Applied	Immediately release water to wash salt away from root zone	Not immediately available when deicing salts are used.
Availability During Winter Drought	Available	Not available
Size of the Watered Area	Rootball AND Surrounding Soil; We recommend TreeDiaper® sizes to be around double of rootball size.	Water only near emitters; most dumps water on rootball only
Soil Temperature	Cooler in summer; warmer in winter	No effect
Appearance in Landscape	Can be concealed with Mulch	Wrapped around trunk or on top of mulch
Overall Cost	<u>Low</u> with significantly reduced or eliminated watering needs	<u>High</u> considering the water/labor to refill
Production	100% Made in the USA (Ashland, VA)	All brands 100% imported from overseas

For questions, sizing, discounts (government, nonprofit, volume), or ordering contact us at:

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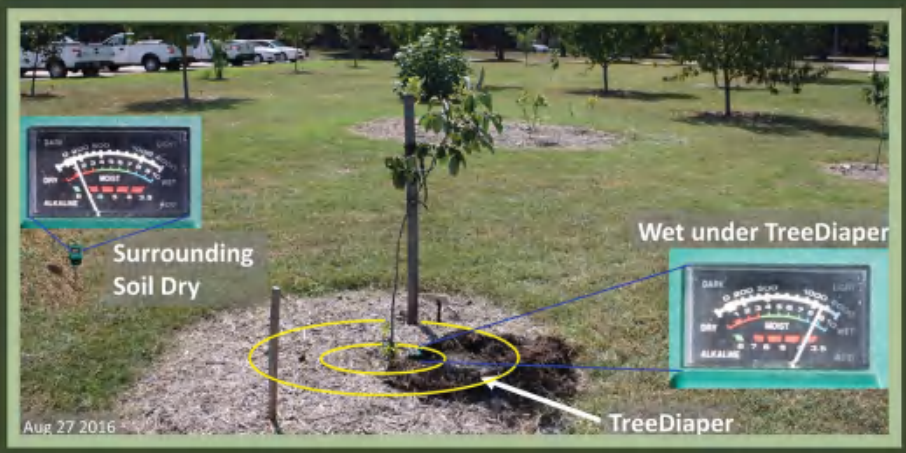
Urban Orchard

(Start 2013)



We partnered with Chesterfield County of Virginia in June 2013 for an Urban Orchard Project. Two groups of ten fruit trees were planted on a field without irrigation. One group of trees was installed with TreeDiaper® mats and the other group trees was given watering bags. Watering schedules (with watering trucks) and natural rainfall were recorded during the testing period. In May 14, 2016, Plants 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."

We calculated the cost of TreeDiaper® versus watering bags for a project like this. In the chart below, our cost estimates are displayed. **Our estimates are based on one year of tree care.** Some costs are estimated based on available information, standard practices, and weather for Richmond, VA. In the long term, TreeDiaper® is obviously the most economical choice, as it cuts back on water and labor expenses significantly. This does not include labor costs of installation/removal. TreeDiaper® is installed once during tree planting and does not require maintenance. Watering bags are installed/removed twice per year.

Cost Item for 10 Trees	TreeDiaper®	Watering Bags
Irrigation Water (Gallons)	0	1200
Cost of Watering Devices	$250	$220
Water Cost	$0	$20
Water Delivery Price	$0	$300
Labor Cost of Watering	$0	$600
Total	$250	$1140