

HIGHLIGHT

Inexpensive, temporary irrigation system could save newly planted trees



(Above left (L-R): Rita Hummel inserts soil water measuring tube (tensiometer) for newly planted tree (middle): Bob Riley and Susan Smith erect plastic pipes for irrigation study; (at right): the completed research area by the Center's entrance.)

There is a science to tree-planting. And, in urban areas, where trees have a short lifespan, the care for the newly planted tree and the timely application of water lays the foundation for tree health and survivability. Scientist Rita Hummel and her research team of Bob Riley and Susan Smith are testing a method of watering early plantings, by monitoring the results of three different irrigation methods: trickle irrigation pipes that infuse the root zone; hand-watering; and no watering except for natural rainfall. The trickle irrigation pipes are filled at 3 different intervals, biweekly, weekly and twice weekly. Unlike tree plantings in natural landscapes or forests, urban trees are continually impacted by automobile emissions, heat and large amounts of pavement and concrete that funnel natural rainfall away from the tree's roots.



If the trickle pipe is successful, the results of this applied experiment will enable groundskeepers for cities and parks to quickly improve their success rates for newly planted trees. Watering crews that move around to water flowers and hanging plant baskets can incorporate this irrigation method into a regular routine until the trees' roots are established.

(Inset (top): close-up of trickle irrigation pipe with screen protector top; (bottom): tensiometers for measuring soil water.)

WSU Puyallup: Solutions for the Region; Programs for Its People

Highlights is provided by the people and programs of WSU Puyallup from February through December. For story ideas for upcoming Highlights, please contact either Tanyalee Erwin, terwin@wsu.edu, 253-445-4504, or Jon Newkirk, jnewkirk@wsu.edu, 253-445-4568. If your email is set to text messages only and you wish to see the graphical version of this Highlight, please email Tanyalee.