CONSERVATION Showcase

Tallpot and Hydrogel Technologies Team Up in Semi-Desert Climate

Sometimes the ventures of the Natural Resources Conservation Service's Los Lunas Plant Materials Center sound like make-believe stories you tell the little ones or missions impossible. Planting shrubs alongside a semi-desert road near Santa Fe, then only watering them twice and expecting them to thrive sounds like one of those tall tales. Yet, that is exactly what this group of innovators is doing.

The technology the Plant Materials Center has developed is the secret. That is their job – to develop native plant materials that can be applied to conservation uses and the technology necessary to make those applications work. The particular technology the Plant Materials Center is using on a six-mile stretch of the Old Las Vegas Highway near Santa Fe includes tallpots and hydrogel.

The Old Las Vegas Highway was recently rehabilitated and in the process a center turn lane was developed which resulted in the removal of vegetation along the roadside. The Plant Materials Center has worked with the New Mexico Transportation Department before in planting xeric (dry desert) demonstration sites near Santa Fe, so it was natural that they be called on again to do a demonstration along the Old Las Vegas Highway.

The challenge with such roadside sites is installing plants that can survive without expensive and impractical irrigation systems. Tallpots and hydrogel respond to that need.

A tallpot is a container that is more than 30 inches high. They encourage deep root growth of seedlings, and in this case accommodate the growth of tap roots that are characteristic of xeric plants. When developing tallpots, the Plant Materials Center initially used sewer pipe that had two split seams which ran most of the length of the pot and encouraged spiraling roots to grow downward. Later, they were able to secure a manufacturer who now supplies them with a more ready-made version.

Hydrogel absorbs and retains water about 200 times its own weight. A two-gallon application of hydrogel is enough to sustain a plant for one full year.

So, native shrubs grown in tallpots with a watering tube in the tallpot to carry the hydrogel down to the roots of the plant are use in this kind of roadside application. The Plant Materials Center has learned they can water with hydrogel one time in the spring for the first two years after planting, then walk away and experience a high survival rate.

The Plant Materials Center is routinely making breakthroughs in riparian restoration, mine land reclamation, and erosion control. Enhancement of our roadsides is just one more application of the plants and technology they are developing.

For more information about the Plant Materials Center, tallpots, and hydrogel contact Greg Fenchel, manager at (505)865-4684 or go to www.nm.nrcs.usda.gov

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