

NewsBytes

The weekly e-newsletter for Sonoma State University faculty and staff



NATURE'S WAY

Two Porches Looking for a House

by Lakin Khan



In the lee of the small conifer copse on the east side of the Ponds, tucked between some large native shrubs, stand two small structures, each framed in sturdy 2x4's and sheathed entirely in dark polyethylene shade cloth. These are the Native Plant Propagation Shadehouses, the physical manifestation of a unique arrangement among the University, the Sonoma County Water Agency and the Laguna Foundation. The principle players and beneficiaries in this arrangement are professors and some students, many volunteers, several organizations, a whole slew of native plants, and the Laguna de Santa Rosa, that soggy heart of Sonoma County, and thus, by extension, all of us.

At the end of January, I find Karen Tillinghast, lead gardener for SSU, weeding with an assistant along the fire road near the far end of the Butterfly Garden. The day is bright and nerve-wrackingly dry; a few errant clouds scud across the sky, too high and fast to be carrying much rain. She pulls off her gloves, sticking them in a back pocket as we walk back along the fire road to the shadehouses. "These were built in 2001 by the Sonoma

County Water Agency,” Tillinghast says, “as a way to support both education and restoration projects.”



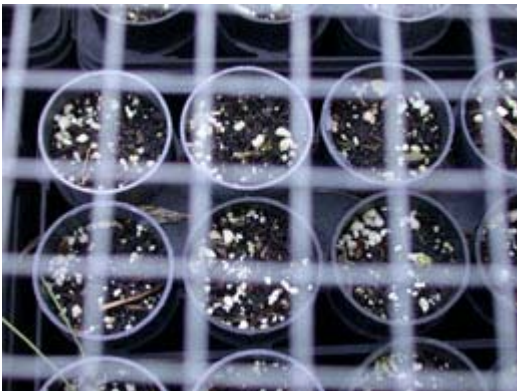
Sitting just off the fire road, the shadehouses with their canted rooflines resemble two screened-in porches looking for a home to glom onto. At the closest little house, Tillinghast pushes open a door built of plywood with two large circular cut-outs like large portholes, one on top of the other, backed by the dark mesh. “Here we have mostly soap plant and basket sedges,” she says, “about 800 that will all go to the Laguna.” Inside, waist high benches with a shelf above them run along the long wall in front of us and across the short wall down to the left. Every surface is chock-a-block with flats of seedling plugs, some with spiky little green Mohawks (the sedges), some with thick flat stalks cropped short (soap plant), others simply filled with dirt, waiting for their sprouts.

The Native Plant Propagation Shadehouse Project was started in 2001 by Dr. David Stokes, then a professor in the ENSP Dept, to give students the hands-on experience of plant propagation and habitat restoration. In a fine bit of management, Stokes arranged to have the Sonoma County Water Agency support the project by funding the shadehouses and part of the instructor’s salaries in exchange for the plants each spring. In turn, the plants, thousands of them each year, are given by the Water Agency to various restoration projects around the county. For the past two years, the Laguna Foundation has received the bulk of the plants from the shadehouses, almost 5,000 plants, counting trees, shrubs, rushes and sedges that were deployed to the Middle Reach of the Laguna.



The Laguna (laguna meaning lagoon in both Italian and Spanish) is really a series of low spots and declivities in the middle of Sonoma County that capture and contain winter rains and back-flow from the river. Covering 30,000 acres between the hills to the east and the Russian River to the north and west, the spongy grounds in its natural state can absorb much of the winter rains that might otherwise roll onward to the river, contribute to flooding. As we build highways and homes, we pave over, build up or block off the wetlands, losing this natural water management system that has evolved over millions of years.

In the fall, students in the Native Plant Propagation Class (ENSP 326B), co-taught by Tillinghast and Robin Burton, go on foraging expeditions to the Laguna to identify and collect seeds and acorns. They then ready the plants for propagation in flats and long white conical transplanting plugs, designed to encourage the growth of the long tap root needed to access the lowering water table over the dry summers. Tillinghast maintains the watering schedule over the winter. In the spring semester, the class will complete the cycle by returning to the Laguna with the seedlings to plant in areas designated by the Foundation. It's one of those win-win-win situations: Environment-oriented students gain real-time experience in propagation and restoration, the water agency gains a measure of flood control through natural, less expensive and less invasive means and the Foundation is assisted in restoring the Laguna to its proper purpose of absorbing and retaining the winter rains.



We step over to the second shadehouse. In here, benches and shelves are thick with 800 Valley Oak (*Quercus lobata*) seedlings in the long cone-shaped plugs, all destined for the higher and dryer ground in the vast Laguna. But wait, there's more; Tillinghast takes me behind the shadehouses where several wire-topped long boxes, resting on over-turned white five-gallon buckets, contain another 1200 oak seedlings. All told there are close to 3,000 plants in the shadehouses on their way to the Laguna. These students will be very, very busy this spring. In fact, Catherine Cumberland, Restoration Project Supervisor at the Foundation, predicts that this season they will finish the restorative planting along the Middle Reach, due in no small part to the efforts of the SSU Shadehouse program. "There are about 700 Laguna oak trees in the SSU shadehouses right now - try finding that anyplace else! It's irreplaceable."

After that first visit to the shadehouses, it rained almost every day for several weeks. Copeland Creek now rushes out to the Laguna, and in the shadehouses, small dots of



green are visible in the small white conical cups. But even with these rains, we are well below normal and the reservoirs aren't close to capacity. The role of these basket sedges and soap plants, once placed in their future home, seems more important than ever, their growing roots and stems providing another measure of containment for our dwindling water supplies.

Suddenly I'm very grateful for this triple-win arrangement that places these tender plants where they can best protect the watery heart of our county. To learn more about the Laguna, visit the [Laguna de Santa Rosa website](#).