



Nick Pettit with Gold's orange tree and a new tree created by grafting.

Citrus tree has deep roots in UConn history

In the corner of a hallway in a campus greenhouse sits an orange tree that dates back to the beginnings of UConn. The tree belonged to Theodore Sedgwick Gold (1818-1906), an early advocate for agricultural education in Connecticut. In 1881, he also helped establish Storrs Agricultural School, the first incarnation of what that would eventually become UConn. Gold was one of the original members of the institution's board of trustees and was responsible for shaping its organization and curriculum. Members of the Department of Plant Science and Landscape Architecture (PSLA) hope to share this piece of UConn history, and Gold's legacy, by propagating additional orange trees, possibly making them available for sale in the future.

"Most of the department knows about the tree, but I don't know how many other people do," says Nick Pettit, plant growth facilities manager. Pettit has cared for the tree during his twenty-seven years with the University. "I make a point of mentioning the tree to

anybody who's with me when we walk by it. There's a tree that's as old as the University."

The tree is a *Citrus aurantium* and while it bears very bitter fruit, the flowers are extremely fragrant. It currently rests in a large container on a pallet. The tree looks damaged, despite Pettit's constant tending. The bark on the trunk crumbles easily at the touch and many of the leaves have blemishes and spots.

"It's seen better days but a lot of this is cosmetic," says Pettit. "The bark is very old so it comes off easily, but you can see there's healthy bark underneath. It also gets all the common greenhouse pests: scales, aphids, whitefly, you name it. It's problematic and does need care, but we spray it and it's honestly doing pretty well after all these years."

Orange trees have an average lifespan of fifty years but can live for over a century, like Gold's tree, if the conditions are right and it receives proper care.



Pettit inspects the orange tree.



Pettit shows a bud in the axil of a leaf.

Though Gold's background and contributions to the founding of UConn are known, the origins and history of his orange tree are not clear, including its exact age. Pettit notes that the written account and oral record diverge in a number of ways and chalks up some differences to grandiose storytelling.

"One story I heard is that it was on the porch and would be moved in and out of the house. It's a marmalade orange tree, so the fruit is really sour. They would take the pulp out of the fruit, add a ton of sugar to make it palatable, and spread it on their toast in the morning. Having fresh marmalade off the tree as a kind of novelty. It's a fun story and maybe there's some truth there, but I put more faith in the researched story," says Pettit.

Pettit refers to PSLA Associate Professor Emeritus Walter Harper's information regarding the tree. The tree started from seed and was tended by Gold. It may have resided in the greenhouse attached to Gulley Hall. The tree was formally donated to the University by Gold's family in 1955 and it remained in the Floriculture Building for several decades.

"It stayed there for over fifty years until the Floriculture Building was renovated. The lobby had a glass entryway then, and it did quite well with all the sun. When the lobby was renovated, we moved it to the hallway into the ABL [Agricultural Biotechnology

Laboratory] greenhouse," says Pettit.

"In ABL it's kind of living in a greenhouse environment. For the first few years, I moved it outside in the summer. It definitely loved being out in the sun. It's gotten a too big now to be moving it around constantly without accidentally breaking branches off."

Orange trees are not low-maintenance plants, says Pettit, and they require constant attention. Maintaining its well-being is especially important in order to propagate the tree. Pettit can create new trees using the seeds produced by the fruit and the original tree's buds by grafting onto the new tree's rootstock.

"I've grown one tree using a seed and grafting from the Gold plant. It's producing a lot of fruit and we collect all the seeds. You start the seeds in soil and wait for them to grow. Then you take the bud in an axil of the leaf of the original tree and graft it onto the new tree. If it was a true seedling, it wouldn't flower for years, so this is a quicker process. It's the roots of its own seedling so they are very compatible," says Pettit.

This process is known as budding. Orange trees grown from seed bear fruit after about decade. Budding lets the tree mature faster, allowing it to produce fruit after only a few years.

"I can grow lots of seedlings and graft them. It



wouldn't take long to make a couple hundred of these trees. We're just not sure if there's interest or demand for something like this."

Richard McAvoy, professor and department head, has expressed interest in using tissue culture or micropropagation techniques to produce more trees and using them as a fundraiser.

"We'd want to make them available when they are in flower since they are irresistibly fragrant at that stage," McAvoy says.

Propagating the tree would create a new physical reminder of Gold and his contributions to Connecticut's agricultural history and UConn's formative years.

A dormitory used to bear Gold's name. Gold Hall was built in 1890, but burned in 1914.

Gold was passionate about farming and education all his life. The Gold family worked on Cream Hill Farm in West Cornwall and were notable not only for their practices and products, but for the Cream Hill Agricultural School, which Gold started with his father, Samuel, in 1845. The boys' school operated until Samuel's death in 1869, focusing primarily on teaching agriculture and science.

Gold created a Connecticut Farmers' Club in 1842

and was its first secretary. He also helped form the Connecticut Agricultural Society in 1852. Gold served as secretary of the Connecticut Board of Agriculture from its founding in 1866 until 1901 and wrote the Handbook of Connecticut Agriculture.

From 1866 to 1875, Gold served as secretary of the orphanage that occupied the land that Augustus and Charles Storrs would donate to the state to start the Storrs Agricultural School. Walter Stemmons, in his early history of the Connecticut Agricultural College (Storrs Agricultural School was renamed in 1893 to the Storrs Agricultural College, then renamed again in 1899), noted that the newly established agricultural school was quite similar to the Golds' school at Cream Hill.

For Pettit, the orange tree is a reminder of Gold's commitment to agricultural education and plant science that helped build UConn into what it is today.

Says Pettit, "This tree outlasted at least one building it was in and we'll have to see if it outlasts the next one. I say that my career will be a success if I can retire and this tree is still alive. I suppose since I've been saving the seeds from its fruit and made another tree, it's kind of guaranteed now."

by Jason M. Sheldon