en students from the University of Hawai’i (UH) at Mānoa entered LICH’s 1st Student Poster Competition during the 13th Annual LICH Green Industry Conference and Trade Show. Their posters were displayed during this daylong event, and the student authors were on hand to discuss their findings and answer questions about their landscape and nursery-oriented research.

Two top posters tied and were awarded first prize based on five judging criteria, which included an assessment of utility to the landscape industry. Jay Bost’s poster entitled, “Investigating the agronomic and landscape potential of Hawaiian heirloom sweet potato (‘uala) varieties,” (authors: Jay Bost and Ted Ravdich, Department of Tropical Plant and Soil Sciences, UH Mānoa), is a wonderful example of the intersection between culture and food, with an eye towards utility in landscaping and a reconnection of people to plants.

“We are assembling the many varieties of ‘uala, including Hawaiian heirloom and others that are being grown across Hawai‘i,” said Jay. “So far, we have collected and planted around 90 varieties in a plot in Waimanalo, and we are documenting being done on heirloom taro and bananas, but not much on ‘uala.’”

Thinking ahead a couple years, Jay envisioning hosting a field day in Waimanalo to showcase the different ‘uala varieties, have a discussion about the project and encourage people to plant ‘uala. He said, “The more people that can grow these, the better!”

Sharing first place with Jay was Nathan Ortiz’s poster presented by his adviser, Austin Stankus, Roxanne Adams. Department of Tropical Plant and Soil Sciences, UH Mānoa, Buildings and Grounds Management, UH Mānoa. This poster provided a look at how a mapping and data inventory project can help quantify time and cost of landscape maintenance and present an environmental value of that landscape, while also serving as an accessible information tool for all.

For this project, Google Earth™ was used to provide the map and satellite image of the 257-acre UH Mānoa campus. Nate and his colleagues digitally outlined each plant canopy on the map and identified all 1,555 plants on campus to the species level using information provided by Drs. Rich Criley and Gerald Carr. They then developed a searchable web-interface that allows the public to display plants by location, species name or inherent characteristics (e.g. medicinal, native, endangered, etc.). Lost freshmen on campus can even click on the “Where am I?” button to display their current location.

“Thats a cool feature,” said Nate, “But this was also set up as a management tool. Roxanne really wanted to quantify the man-hours and resources needed for each area. We are severely understaffed and there is a hiring freeze, yet this is a big campus with a lot of trees, bushes, hedges, grass and irrigation, and everything need care and attention if we want to have respect as a University.”

The internal data associated with this project allows the UH Mānoa Buildings and Grounds Management staff to plan ahead for additional work. “There are different needs for different species, and even a seasonality for fruiting trees such as monkey pods, where we spend a lot of time keeping the pathways swept off sticky pods and seeds certain times of the year,” said Nate.

“Because we had all of the tree data mapped and identified, we were able to assess the environmental value of a portion of the campus tree inventory using i-Tree, the USDA’s urban tree analysis and benefits assessment software tool,” said Nate.

Managers of hotel grounds and golf courses know how long it takes and what it costs to maintain different parts of the landscape at different times of the year, but quantifying and passing the information along is key.

“There are so many other pieces of information that we are keeping. For example, we have a map of storm drains and waterways, which we use for maintenance to avert another campus flood,” said Nate.

When asked what sort of training he had for this job, Nate laughed. “I’m a non-traditional student. I’ve worked in solar, had my own business automation, and got my own business automat-

‘uala leaves by Jay Bost
Taro and bananas, but not much on 'uala. "The more people that can grow these, the better!" said Nate. "I love the idea of having plant diversity in people's gardens. It is a much better way to preserve diversity, especially of heirloom gardens. It is a much better way to look at how a mapping and data inventory project can help quantify time and cost of landscape maintenance and present an environmental value of that landscape, while also serving as an accessible information tool for all. For this project, Google Earth™ was used to provide the map and satellite image of the 257-acre UH Mānoa campus. Nate and his colleagues digitally outlined each plant canopy on the map and identified all 3,155 plants on campus to the species level using information provided by Drs. Rich Criley and Gerald Carr. They then developed a searchable web-interface that allows the public to display plants by location, species name or inherent characteristics (e.g. medicinal, native, endangered, etc.). Lost freshmen on campus can even click on the "Where am I?" button to display their current location.

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LICH Board members Christy Martin and Orville Baldos are the organizers of the 1st Student Poster Competition at the 2013 LICH Green Industry Conference & Trade-show.