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Features

Schools sees trees as a cool solution for hot classrooms

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Studies have found that trees such as this monkeypod at Palolo Elementary can lower temperatures of the surrounding area by 10 degrees, a fact not lost on coordinators of the state's "Cool Your School" program.

At Palolo Elementary School the generous branches of a monkeypod tree provide shade for a seating area below that has become a comfortable gathering spot for students.

Creating more spaces like this is the goal of the state's Kaulunani Urban and Community Forestry Program, which is offering a new "Cool Your School" cost-share grant program. The program is accepting applications to help fund tree planting projects designed to help cool school campuses.

"We did research on different studies here in Hawaii and across the country showing all the different benefits of trees," said program coordinator Jolie Wanger.

"Trees provide not just environmental, but also social and health benefits. We thought this is a great way for us to make an impact on the community and encourage schools to get as much cooling as they can from trees and nature."

Studies have shown that trees can cool a classroom by up to 10 degrees by blocking direct sunlight, reducing ambient temperatures. Through the process of transpiration, as water evaporates from leaves, the trees also cool the surrounding air.

In addition, Wanger said, studies have shown trees have a calming effect that can result in lower levels of stress, better concentration and fewer disciplinary problems.

The average amount of money granted through the cost-share program is between \$500 and \$3,000 but can range up to \$10,000 for larger-scale projects, according to Wanger.

Schools must raise matching funds, which can be in cash or through sweat equity or services. Typically, the schools work with an arborist or landscaper to select the tree and plant it in the right place on campus in consultation with Kaulunani.

At Makiki Christian Church Preschool, director Sandra Ishihara-Shibata applied for grants last fall to plant five kou trees in a lanai area outside a classroom that used to be too hot to use.

The school also spent some of its own budget to change rubber surfacing to artificial turf and installed some planters. The area will be used as an outdoor classroom once the trees, which are now about 15 feet tall and starting to grow leaves, provide full shade.

"We couldn't use the area because it was too hot," she said. "Prior to summer starting, it would go up to 100 degrees outside."

Ishihara-Shibata, former principal at Kawananakoa Middle School, was familiar with the Kaulunani grant program because she had applied before to plant trees there.

Kawananakoa is home to more than 25 new native trees, including kou, ohia lehua and milo, that students and volunteers planted throughout the campus over the past five years, thanks to the grants.

The Kaulunani Urban and Community Forestry Program, established in 1991, focuses on improving the health and viability of trees in Hawaii communities. It has always

provided tree-planting grants, but launched the "Cool Your School" program last fall. Funding comes from the U.S. Department of Agriculture's Forest Service.

To apply for a grant, visit dlnr.hawaii.gov/forestry/lap/kaulunani/grants.