

AAA Members 2013

Individual:

- Ashlen Aquila
- Eli Blanchard
- Lance Bookless
- Larry Borgatti
- Jim Campbell
- Philip Henry Cedillos
- Eric Chun
- Michael Clark
- Steve Connolly
- Steve Ebisuya
- Kevin Eckert
- Glen Fujiwara
- Brian Fukada
- David M Gwinner
- Eileen Helmstetter
- Coursen Hoke
- Curtis Hopper
- Dudley Hulbert
- Wayne Hu
- Lester Inouye
- Loren Johnson
- Morris Kozai
- Carol Kwan
- Randy Liu
- Matt Lyum
- Elaine Malina
- Donna Mann
- Ty McDonald
- Ed Miyashita
- Maureen Murphy
- Amy Nichols
- Quintin Nilo
- Steve Nimz
- Thomas Null
- Terry Nutt
- Jose' Olvera
- Roxane Orian
- Jackie Ralya
- Bill Rector
- David Rohner
- Joshlyn Sand

- Jonel Smith
- Dean Takayama
- Michael Tobin
- Amy Tsuneyoshi
- Sergio Vasquez
- Philippe Visintainer
- Garrett Webb

Company (Tree Care):

- Aloha Arbor Care
- Hana-Hou Tree Service
- Kauai Nursery & Landscaping Inc.
- Kendall Landscape Services
- KONGstruction LLC
- LPN Landscaping
- Malafu Contractors LLC
- Paradise Landscape Maintenance, Inc.
- Tahitian Tree Service, Inc.
- The Hawaii National Landscape
- Trees of Hawaii, Inc.
- Tropical Tree Care, Inc.
- Wailea Trees & Landscape Professionals

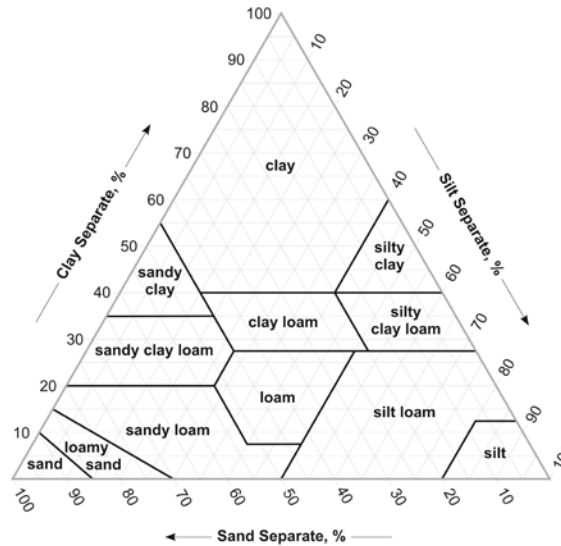
Company (Other):

- Altec Industries
- Hale Koa Hotel - AFRC
- Pacific Stihl

For more information, please visit [www.alohaarborist.com](http://www.alohaarborist.com) and [www.treesaregood.com/treecare/treecareinfo.aspx](http://www.treesaregood.com/treecare/treecareinfo.aspx).

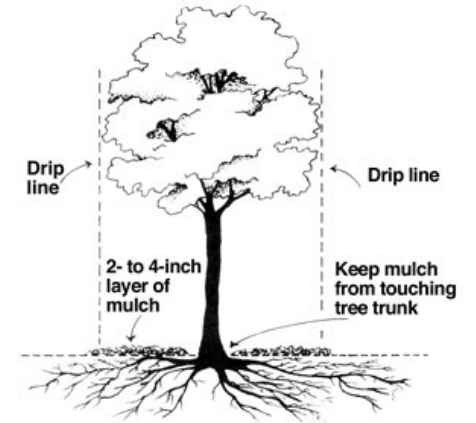
Hawaii Pest Hotline  
(808) 643-PEST

Soil Texture Triangle  
Soil Textural Triangle



Courtesy USDA Natural Resources Conservation Service

# TREES FROM THE GROUND DOWN



Courtesy International Society of Arboriculture

## AVAILABLE WATER

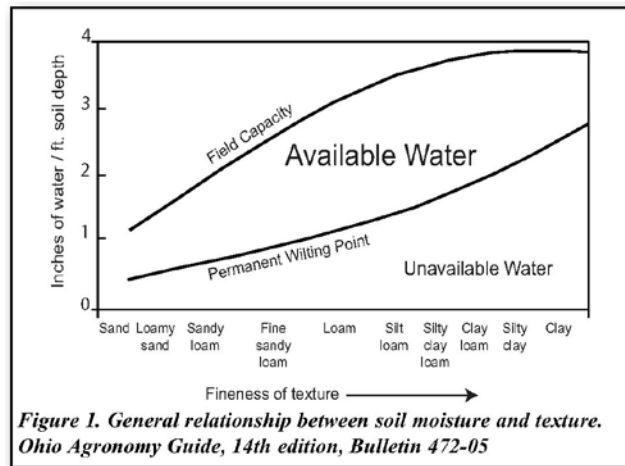


Figure 1. General relationship between soil moisture and texture. Ohio Agronomy Guide, 14th edition, Bulletin 472-05

Courtesy USDA Natural Resources Conservation Service

A workshop presented by Aloha Arborist Association (AAA) in cooperation with the Urban Garden Center



(808) 381-1342  
[www.alohaarborist.com](http://www.alohaarborist.com)

## Mulching

- ◆ Organic mulch is good for trees.
  - Reduces moisture loss
  - Minimizes weed competition
  - Improves plant growth
  - Reduces soil compaction
  - Improves soil aeration and structure
  - Increases soil fertility
  - Reduces salt buildup
  - Protects trunks and surface roots from string trimmer and lawn mower damage
  - Improves landscape appearance



"Mulch volcanoes" cause many problems for trees.

*Courtesy International Society of Arboriculture*

- ◆ Mulch materials
  - Organic materials such as composted chips from Hawaiian Earth Products, fresh wood chips, leaf litter
  - Inorganic materials such as gravel and river rock



Mulch wide—not deep.

*Courtesy International Society of Arboriculture*

- ◆ Mulch application
  - Wide, not deep, 2"-4" thick
  - Stay away from the trunk
  - Replenish as needed (annually)
  - Know your soil before applying

## SOILS

- ◆ Know your soil and plants before applying fertilizers
- ◆ Soil pH affects nutrient absorption and microbial activity
- ◆ Salt content can impair plant growth
- ◆ Texture – sand, silt, clay
- ◆ Soil texture affects drainage rates
- ◆ Hawaii has volcanic soils – vary around each island
- ◆ Compacted soils are bad for plants because roots need oxygen to function
- ◆ Soil samples can be dropped off at the Urban Garden Center for analysis by the Agricultural Diagnostic Service Center

## IRRIGATION

- ◆ Hawaii's fresh water resources are precious. Don't waste them!
- ◆ Different types of plants need different amounts of water.
- ◆ Absorbing roots are generally in the top 6" of soil, 2-3 times the diameter of the crown
- ◆ Too much water is bad for trees – anaerobic conditions
- ◆ Too little water stresses trees and makes them more susceptible to insect infestations
- ◆ Maintain good drainage flow. Avoid ponding.
- ◆ Avoid watering the trunk