



ArborDayHawaii

Kailua 2023

The Right Tree The Right Place

A Guide to
Selecting, Placing, Planting and Caring
for Your Tree



About Arbor Day

Trees may be the most important feature of our landscapes. They provide beauty and enjoyment through their many forms, colors, flowers and fruits. Along with the shade and beauty they provide are many less visible benefits that make trees valuable assets. They enhance our environment by producing oxygen, storing carbon, cooling streets, preventing erosion, filtering pollutants and noise. They can block wind and screen undesirable views. Attractive trees and landscaping add to a property's real-estate value.

Perhaps the most impressive benefit of trees is the dollar saved on your utility bills. Research has shown that properly located trees can reduce air conditioning costs in homes and office buildings by 30 percent or more.

Planting trees with a proper plan produces long lasting benefits to you and the community. When matching the right tree in the right place, the desired aesthetic and environmental benefits, can be achieved with avoiding unexpected liabilities and costs.

Selecting the **RIGHT TREE** for the **RIGHT PLACE** will help you get the long-term benefits, beauty and satisfaction from the trees you plant.

2023 TREE SPECIES

Availability may change.

We encourage you to have a few species in mind.

A'ali'i <i>Dodonea viscosa</i>	Mānele <i>Sapindus saponaria</i>
Alahe'e <i>Psydrax odorata</i>	Marungay <i>Moringa oleifera</i>
Blackberry Jam Fruit <i>Rosenbergiodendron formosum</i>	Na'u <i>Gardenia Brighamii</i>
Calamansi <i>Citrus x microcarpa</i>	'Ōhi'a 'Ai <i>Syzygium malaccense</i>
Curry Leaf <i>Murraya koenigii subcordata</i>	'Ōhi'a Lehua <i>Metrosideros polymorpha</i>
Gardenia "Aimee" <i>Gardenia jasminoides</i>	Pomegranate <i>Punica granatum</i>
Gardenia "Heaven Scent" <i>Gardenia jasminoides</i>	Pualoalo <i>Hibiscus arnottianus</i>
Jacaranda <i>Jacaranda sp.</i>	Rainbow Plumeria <i>Plumeria rubra</i>
Koai'a <i>Acacia koaia</i>	Royal Poinciana <i>Delonix regia</i>
Koki'o 'ula'ula <i>Hibiscus kokio</i>	Sugar Apple <i>Annona squamosa</i>
Kou <i>Cordia subcordata</i>	Tahitian Gardenia <i>Gardenia tahitiensis</i>
Lecheso <i>Stemmandenia litoralis</i>	Tree of Sadness <i>Nyctanthes arbor-tristis</i>
Ma'o Hau Hele <i>Hibiscus brackenidgei subsp. brackenidgei</i>	'Ulu (Ma'afala) <i>Artocarpus altilis</i>
Māmaki <i>Pipturus albidus</i>	Water Jasmine <i>Wrightia religiosa</i>
	Wi Apple <i>Spondias dulcis</i>

'A'ali'i

Dodonea viscosa

A versatile tree or shrub 8-22 ft tall, attractive red seed clusters. Grows in full sun to part shade in dry, moist, or wet areas. Accepts pruning well to shape.



Native

Photo by Forest & Kim Starr

Alahe'e

Psydrax odoratum

Tree or shrub typically to 20 ft (max 30 ft) with fragrant white flowers. Grows in full sun or part shade in dry or moist areas. Can use as a fragrant hedge.



Native

Photo by Forest & Kim Starr

Blackberry Jam Fruit

Rosenbergiodendron formosum

Small tree or shrub 4-6 ft tall. Fragrant white flowers, sweet tasting fruit like molasses or blackberry jam. Prefers acidic, well-drained soils; partial to full sun. May lose leaves if underwatered.



Photo by UrbanTropicals

Calamansi

Citrus x Microcarpa

A citrus hybrid also called 'Philippine lime'. Shrub or small tree 10-30 ft fruit resembles a small lime, bears turns dark green to yellow-orange, tart, used in preserves or cooking.



Photo by Philippine

Calamansi Association Inc

Curry Leaf

Murraya koenigii

A small tree 10-20 ft tall and 6-10 ft wide. Prefers well-drained soils, full sun. Tolerates partial shade. White flowers with sweet citrus scent. Leaves have spicy aroma; used for cooking.



Photo by UrbanTropicals

Gardenia "Aimee"

Gardenia jasminoides

Large shrub 4-6 ft tall and wide. Scented, white, double, roselike flowers. Full sun to light shade lover, best grown in moist, acidic, organically rich, well-drained soils.



Photo by Evans Nursery

Gardenia "Heaven Scent"

Gardenia jasminoides

Bushy shrub 3-4 ft tall and wide. Intensely fragrant, single white flowers. Full sun to light shade lover, best grown in moist, acidic, organically rich, well-drained soils.



Photo by ToGoGarden

Jacaranda

Jacaranda sp.

Fast growing shade tree 25+ ft tall and 15+ ft wide. Appreciates consistent moisture year-round in slightly acidic soil, full sun. Produces clusters of purple blooms.



Photo by Comfort Spiral

Koai'a

Acacia koaia

Reaches 20+ ft as shrub or 15-30 ft as small tree. Small yellow flowers, blooms year round in full to part sun. Drought tolerant, prefers drier conditions and well-drained soil.



Native

Photo by David Eickhoff

Koki'o 'ula'ula

Hibiscus kokio

Reaches 20 ft as shrub or 15-30 ft as small tree. Blooms year round. Full or part sun in well drained soil, water sparingly once established; drought tolerant.



Native

Photo by Forest & Kim Starr

Kou

Cordia subcordata

Small tree 15-30 ft tall and wide. Fast growing. Likes full sun and light to medium water. Tolerates drought, wind, and salt. Blooms year-round.



Native

Photo by Forest & Kim Starr

Lecheso

Stemmadenia litoralis

A small tree that produces highly aromatic white flowers. Grows well in full sun or part shade. Appreciates well-draining, moderately sandy soil. Water regularly.



Photo by Steve Turner

Ma'o Hau Hele

Hibiscus brackenrigei subsp. *brackenrigei*
Hawai'i state flower. Shrub 3-35 ft tall, 8-15 ft wide. Likes full sun or part shade, drought tolerate, does well in South and West facing sites.



Native

Photo by Forest & Kim Starr

Māmaki

Pipterus albidus

Large shrubs or small trees 5-15 ft tall. Grows well in semi-shaded areas or in full sun with moderate watering. Used to make a mild but invigorating & healthy tea. Attracts the native Kamehameha butterfly.



Native

Photo by Forest & Kim Starr

Mānele

Sapindus saponaria

Large shade tree. Grows 20-40 ft tall & wide. Produces creamy-white to yellow-white flowers. Appreciates full to partial sun, well-drained soil. Tolerates drought and wind.



Native

Photo by David Eickhoff

Marungay

Moringa oleifera

Fast-growing tree to 25-35 ft tall. All parts of the tree are edible, from seeds to foliage to roots. Appreciates full sun and moist but not soggy soil. Prefers slightly acidic, loamy, well-drained soil.



Photo by Wendy Cutler

Na'u

Gardenia brighamii

A large shrub or small tree 4-12 ft tall. Small white flowers that resembles a puakeniken flower, smells like nonnative gardenia but with a hint of coconut oil. Grows well in full sun; well-drained soil.



Native

Photo by Paul Santiago

'Ohī'a 'Ai

Syzygium malaccense

A large tree 40-50 ft tall, 20-30 ft wide. Edible apple-like fruits. Also known as 'Mountain Apple'. Appreciates moist-loamy, well-draining soils and full sun.



Photo by Lianne Rozzelle

'Ohī'a Lehua

Metrosideros polymorpha

Variable small to large tree up to 50+ ft, slow growing. Likes full sun to part shade in well-drained soil, dry to medium water. Avoid pruning.



Native

Photo by Paul Santiago

Pomegranate

Punica granatum

A small tree or shrub 12-16 ft tall. Produces sweet, edible seeds full of antioxidants. Grows in most soil types, but must be well-drained. Full sun.



Photo by

Polynesian Produce Stand

Pualoalo

Hibiscus arnottianus

A shrub or small tree 6-10 ft tall. White fragrant flowers. Grows well in well-drained soil; full to partial shade. Protect from strong winds.



Native

Photo by Forest & Kim Starr

Rainbow Plumeria

Plumeria Rubra

A shrub or small tree 15-25 ft tall & wide. Colorful and fragrant flowers. Appreciates full sun or partial shade, regular watering, well-drained soil. Pause watering when plant is dormant.



Photo by Jim Little Plumeria

Royal Poinciana

Delonix regia

Large tree, up to 40 ft tall, 70 ft wide with a spreading umbrella-shaped canopy and abundant showy blooms from spring-fall. Best in full sun and well-drained soil.



Photo by The Outdoor Circle

Sugar Apple

Annosa squamosa

A small fruit tree 10-20 ft tall. Produces fragrant, yellow-green flowers and sweet, aromatic, and creamy flavor fruits. Grows well in well-drained soils, partial to full sun. Tolerates drought.



Photo by Louie's Nursery

Tahitian Gardenia

Gardenia taitensis

Small flowering tree 10 ft tall & wide. Thrives in full sun or partial shade. Cream-colored petals, pinwheel shaped, rich floral scent, similar to tuberose. Thrives in lightly acidic soil.



Photo by

Polynesian Produce Stand

Tree of Sadness

Nyctanthes arbor-tristis

A shrub or small tree 6-20 ft tall. Produces fragrant white flowers. Grows well in full sun or partial shade, organic material-rich, moist, well-drained soil.



Photo by dushyantdhari

'Ulu (Ma'afala)

Artocarpus altilis

Fruit-bearing tree 20-25 ft tall & wide. Thrives in deep, fertile, well-drained soil, partial sun. Water thoroughly. Prune to keep tree to a convenient size for harvest.



Photo by

Hawai'i 'Ulu Cooperative

Water Jasmine

Wrightia religiosa

Small tree 6-10 ft tall. Appreciates moist, well-drained soil, full sun or partial shade. Produces fragrant white flowers that bloom throughout the year.



Photo by chingchailah

Wi Apple

Spondias dulcis

Large tropical fruit tree or shrub up to 50 ft tall. Produces fruit with flesh that has a distinct mango-pineapple smell and flavor. Prefers well-drained, mildly alkaline soil, partial to full sun, and regular watering.



Photo by Ken's Nursery

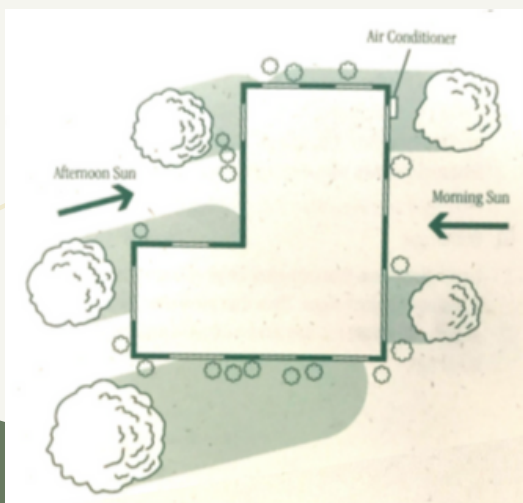
SELECTING THE RIGHT TREE

Planning ahead is the most important step you can take to ensure that the time and money you invest in planting a new tree is well spent. The key to successful landscaping is to plant the right tree in the right place.

What will the tree look like when it is mature? Above all, find out how tall and what shape your tree will be when it is fully grown to make sure that fits in the space and purpose you have for the tree.

The following checklist will guide you in the selection of the right tree. Use this guide along with a good resource, such as your favorite nursery or plant book, or websites, to prepare a list of trees that will meet your needs. Then go through each successive item in this guide and eliminate trees that do not conform to site restrictions or condition. If the guide is followed carefully, the final list should provide you with the best tree for your specific landscape.

Plan your residential landscape: Save money on utility bills by planting a large tree to shade the air conditioner. Other trees are carefully located to shade windows from the morning and afternoon sun. Shrubs planted on all sides of the house help reduce the temperatures of the soil and walls. Be sure to prune shrubs under windows so they don't block cooling tradewinds.



THE CHECKLIST

1) WHAT DO YOU WANT THE TREE TO DO?

(Can pick more than one)

- Shade
- Wind screen
- Visual screen
- Accent
- Colorful fruits
- Flowers
- Focal point of landscape
- Grow fast
- Grow slow
- Grow tall
- Stay small

2) HOW MUCH SPACE DOES THE TREE NEED TO GROW? ARE THERE OBSTACLES AROUND?

• Overhead power lines?

If you are planting near power distribution lines that run through residential areas, the most important thing to remember is the 30-FOOT RULE: Trees and plants within 30 feet of powerlines should not be higher than 30 feet tall when fully grown. Consult your nursery or landscape professional for trees whose mature height does not exceed 30 feet.

• Buildings?

Don't plant trees that can grow large enough to contact buildings or block signs. Trees that grow over roofs and rain gutters can create maintenance problems and damage buildings.

Select trees and plants within 30 feet of power lines that grow to less than 30 feet. You do not want your shade trees to interfere with safe, reliable electrical service.

- **Underground utilities?**

Do not dig or plant until you identify all nearby underground utilities. Including telephone lines, cable lines, sewers and powerlines.

Do not plant trees with invasive roots near underground utilities where their roots can damage the facilities.

- **Pools?**

If trees will be near a pool, select trees that do not drop leaves that will fall or blow into the pool.

- **Other plants?**

Ensure that large trees will not grow over and shade out smaller trees, shrubs and groundcovers.

- **Views**

Ensure that the tree will not grow tall enough to block a desirable view.

- **Driveways/roadways/sidewalks?**

Select trees that have a high clear trunk or that can be practically pruned so as not to obstruct safe travel.

- **Walls?**

Do not plant large trees near walls such that their roots may cause damage.

- **Property boundaries?**

Do not plant trees such that roots can invade and damage neighboring properties.

- **Maintenance?**

Does the tree drop lots of leaves, nuts or fruit? If cleanup is a concern, don't plant trees that are deciduous or messy. How much water and pruning will the tree need?

- **Others?**

It is important to identify and avoid any obstacles. They could restrict the canopy and root growth of your tree, or be damaged by your tree. Identify any situation where your tree could create a safety hazard or nuisance.

If obstacles are near the site, how far away from the planting site are they? They must be far enough so that the top, canopy or roots of the tree do not interfere with these obstacles when the tree is at its mature size and maximum growth range. It's important to know that roots can extend 3 to 4 times beyond the canopy. With most trees, however, the major potentially damaging roots are generally found within the area under the canopy.

3) HOW ARE THE PLANTING CONDITIONS?

- **Natural water:**

Dry?
Wet?
Moderate?

- **Soil:**

Heavy clay?
Sand?
Nice topsoil?

- **How deep is the soil?**

Make sure there is enough soil to support the tree's root system. Most of the trees roots are confined to the top 3 feet of the soil layer.

- **Sunlight:**

Direct all day?
Filtered by overhead obstacles?
Shade?

- **Salt air?**

If near the beach, is the tree salt tolerant?

- **Strong winds common?**

If the site is windy, are the trees sensitive to damage by strong winds?

- **How is the soil volume?**

Roots won't be able to grow in compacted soil. Make sure your area has uncompacted, functional soil

4) WILL THE TREE GROW WELL IN YOUR AREA?

One easy way to answer this question is to take a look around your neighborhood. See how others have used trees in their landscaping design and find out what kinds of trees are growing well. Your local plant nursery can also suggest appropriate trees for your climate and soil conditions.

Trees have been proven to improve physical and mental health. Green spaces lower stress!

HOW TO PLANT THE TREE

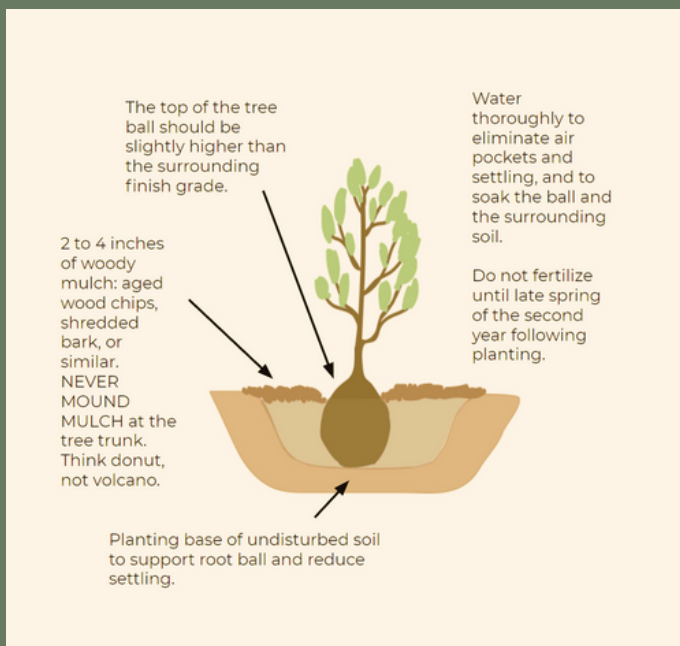
DIGGING THE HOLE:

The hole should be dug to be as large as practical, but at least 2-3 times the width of the root ball. The hole should not be dug too deep.

The hole should be slightly shallow so the top of the root ball is 1 to 2 inches above the final grade. The planting base of the hole should be undisturbed natural soil. Do not fill the bottom of the planting hole.

REMOVING THE TREE FROM THE CONTAINER:

Before planting, the tree must be carefully removed from the container. In many instances, the tree will have been kept in the container for an extended time causing the roots to grow into a dense, circling mass packed into the container.



In these instances, the root mass should be sliced vertically around the root ball, in 3 to 4 places with a sharp knife, to allow you to separate the roots and cause them to grow out.

Roots that grow across and around the ball will not provide adequate support for the tree and will eventually girdle and strangle the tree.

SETTING THE TREE:

Use care when handling the tree to minimize damage to the tiny, fibrous root system and stem. Handle the tree by the root ball, not by grabbing the trunk or branches. After the tree is set in the hole, check the height of the root ball to ensure that it is not too low. Remove all tags and labels so they do not girdle the tree.

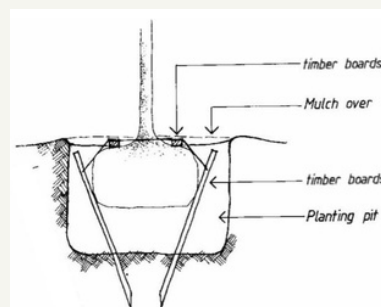
BACKFILLING THE HOLE:

It is better to backfill the hole with the soil on the site. Research has shown that soil amendments do not assist in tree establishment and growth.

Work the soil around the ball and firm it in to ensure that no air pockets are present. Do not pack the soil! Another proven method is to water thoroughly while backfilling to help eliminate air pockets. Ensure that the top of the root ball is slightly above the final filled grade, as the tree will settle. Do not plant the tree too deep!

STAKING:

Do not stake trees unless absolutely necessary to support or protect the tree from damage. If staking is required, support tree with a root support system.



Use untreated wood stakes inserted 4 stakes along the outside of the rootball. Drill two stakes horizontally across the vertical stakes along the top of the rootball to stabilize the rootball, but still allowing the tree to have movement. The stakes will decompose over time and the tree will grow structurally stronger.

CARING FOR THE TREE

MULCH:

After proper planting, the single best thing you can do for any tree, just planted or older, is mulch. The best mulch to use is fresh wood chips. Organic mulch is used and not particularly effective or helpful. Mulch retains moisture, protects trees from damage from lawn mowers and weeders, moderates soil temperatures. It provides a natural fertilizer, interchange of nutrients, controls weeds and eliminates competition for space, nutrients and moisture from grass.

Mulch zones should encircle the tree from the trunk to a distance of at least 3 feet and enlarged to approximately 50% of the radius of the tree.

WATER:

The most important criteria is to select a tree, is appropriate and tolerant natural water levels of your neighborhood. Water management is based on the size and type of plant, air temperature, humidity, amount of sunlight and wind and soil type. Supplemental water should only be required in extreme conditions.

When watering is performed, it should be done in the early morning. This will minimize water loss from evaporation and allow time for the leaves and soil to dry, which helps prevent fungal problems. Watering, when required, should be performed infrequently and slowly, in a manner so that it percolates deeply into the soil. This encourages better root distribution. Water should be distributed evenly to as much of the root system as possible. Water should not be applied to foliage or the trunk.

FERTILIZATION:

If you think your tree needs fertilizer, consult a Qualified arborist, test soil and only fertilize based on test. Fertilization is generally not required for landscape trees and will often cause problems.

PRUNING:

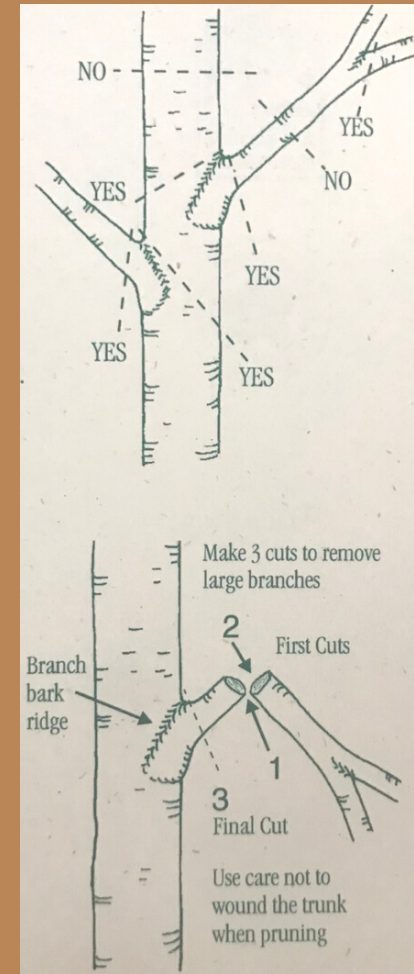
Pruning should be performed to remove dead, damaged, diseased and crossing limbs, to reduce crowding of branches and to eliminate hazards. Pruning can also be performed to prevent or clear infrastructure conflicts, shape trees and prevent or enhance flowering and fruiting. The key to pruning is to select the correct limbs for removal and make the proper pruning cut.

Usually cut at nodes. Do not top trees. Nodes are where branches meet other branches or the main trunk.

Avoid removing more than 25% of the foliage at any single pruning. Do not remove more than 60%

Always make proper cuts. Proper pruning cuts use the branch bark ridge as a guide. Start the cut next to the top and beside the bark branch ridge. Do not cut the ridge. The final cut should be approximately equal and opposite angle to the bark branch ridge. This will remove the target limb without damaging the branch collar, which will enable the tree to effectively compartmentalize the wound and protect itself from rot and disease.

Do not paint cuts. Wound dressings do not help the tree and can actually cause harm by inhibiting wound closure and providing a warm, moist site for decay, fungus, and organisms.



"The **best time** to plant a tree
was 20 years ago...
The second best time is **now.**"

ADDITIONAL *Resources* RESOURCES

**For additional, species specific care information,
please explore some of the following resources:**

arbordayhawaii.org

selectree.calpoly.edu

plantpono.org

[www.SmartTreesPacific.org
/ArborDay](http://www.SmartTreesPacific.org/ArborDay)

The Arbor Day Kailua 2023
Tree Adoption is presented by
Smart Trees Pacific in partnership with
Lani-Kailua Outdoor Circle.

Mahalo to our sponsors, Alexander & Baldwin.

With additional support from Aloha Arborist
Association, Waimea Valley Botanical Garden, Hui
Kū Maoli Ola, FETCH, Trees for Honolulu's Future,
Healthy Climate Communities, SelecTree, and
Arbor Day Hawaii

Content prepared by Kevin Eckert,
Arbor Global, LLC
Designed by Morgan Luongo,
Smart Trees Pacific



ALEXANDER & BALDWIN
PARTNERS FOR HAWAII

