Plant Aloha http://hawaiiansanctuary.com/plantaloha
Thursday, August 17, 2017
Wade Bauer of Malama Aina Permaculture facilitating

How to Grow a Complete Diet with Permaculture Principles: Tropical Subsistence Gardening. 24 part class series

Locally Adapted Annual Vegetables part 19 of 24

Acknowledgements: A special thanks to Hawaiian Sanctuary, County of Hawaii Research and Development and all others involved to make these classes a reality! We are still looking for support to complete and enhance this amazing FREE program. http://hawaiiansanctuary.com/donate

Introduction: While perennial plants play a large role in reducing labor and creating long lasting productivity there is still a role for annuals that are already well adapted to our Hawaii climate and are easier to grow. You can save your own seed to reduce cost and further adapt your plants to your particular microclimate. Most prefer rich fertile soil, mulch + full sun. These are often grown in a "kitchen garden" near the home to get the care they need. **All produce eaten raw should be inspected for slugs/slime and washed thoroughly to avoid RLW disease!**

Pumpkin (local land race)

Anatomy: sprawling vine to 40ft wide, ground-cover up to 2ft high but can climb.
Niche in a Food Forest: sun to light shade, prefers rich soil, excellent on new brush piles from clearing land.
Varieties: local variety is usually tan skinned orange flesh, green skinned Kobucha "squash" also grow well.
Propagation: direct seed, plant in rich mounds if can, provide room to spread. 90-120 days
Harvest: when stems turn brown, can pick somewhat early and will ripen off
Usage: can store several months, short cook-time. Seeds also edible roasted and good source of protein-fat.

Long Bean, green bean, cowpea

Anatomy: long beans are climbing, cowpeas sprawl and there are climbing and bush green beans.
Niche in a Food Forest: kitchen garden, require full sun, they are nitrogen fixers so can benefit nearby plants.
Varieties: Otan Long Bean(locally adapted 1ft long), long bean, cowpea(black eyed pea)
Propagation: direct seed, can tolerate poorer soils but prefer rich, may need trellis for climbers. 50 days
Harvest: pick beans frequently to keep them productive, if allowed to mature seeds, plants may die.
Usage: very short cook time, green beans edible raw, long bean and cowpeas can be cooked as dry beans.

Turks Cap Sweet-Pepper

Anatomy: Upright bush to 4ft tall by 4 ft wide. Small red + sweet Can sometimes live several years.(perennial?)
Niche in a Food Forest: kitchen garden, full sun. Can be grown around many other plants and young fruit trees.
Varieties: large bell varieties tend to get stung more by fruit flies. Some other sweet peppers can do well.
Propagation: start seed in pots, needs separation of 100ft from hot pepper plants or saved seeds will be a cross.
Harvest: pick when red, refrigerate to prolong storage. 70 days
Usage: just like red bell pepper, high in vitamin and minerals.

Amaranth

Anatomy: fast growing often self seeds and naturalizes, upright herb to 6 ft tall and 3 ft wide.
Niche in a Food Forest: kitchen garden or field, Full sun, disturbed soil areas, easy to grow from seed.
Varieties: Jamaican Giant Green Amaranth, red, tiger, and yellow varieties exist, some selected for leaf or seed.
Propagation: easily from direct seeding into planting area. 100-150 days till seed, can harvest leaves sooner.
Harvest: leaves young or old remain tender. Young tips of plant can also be cooked and eaten.
Usage: usually cooked, highly nutritious!

Eggplant

Anatomy: eggplant, upright bush 4ft tall, 4 ft wide, may benefit from trellis or stakes.
Niche in a Food Forest: kitchen garden, full sun, good in kitchen garden, pruning can reinvigorate older plants.
Varieties: japanese long purple are most popular locally, thai round green, large purple and more.
Propagation: start seed in pots, can graft onto turkey berry for a perennial eggplant tree that can live 6 years.
Harvest: usually harvest when change color, with clippers or sharp knife.
Usage: Must be cooked. 100 to 150 days from seed, 70 to 85 days from transplants.

Cherry Tomato

Anatomy: indeterminate, sprawling/climbing vines, best trellised, can benefit from greenhouse.
Niche in a Food Forest: kitchen garden, sun to deep shade, thrives under dense canopy of many trees.
Varieties: many varieties of cherry tomato do well here, large tomato varieties tend to get stung by fruit flies.
Propagation: from seed, usually started in pots, best in dry season, heavy rains encourage blight. 70 days
Harvest: pick when color change. **Usage:** nutritious and delicious.

Asian Greens: Mustard, tatsoi, mizuna, bok choy etc.

Anatomy: leafy herb 1-2ft wide and tall
Niche in a Food Forest: kitchen garden, sun to partial shade, good around eggplant, peppers etc.
Varieties: India mustard and giant red mustard(spicy), tatsoi, mizuna, bok choy, varieties may cross.
Propagation: direct seeded or into pots in nursery till 6in tall then planted out, heavy rains can cause rot,~40 days
Harvest: individual leaves from base of the plant,
Usage: excellent cooking greens, tatsoi, mizuna, bok choy are mild can be eaten raw.

Collards and Kales

Anatomy: upright herb to 4ft tall by 2ft wide stems can get woody and they can sometimes live 2yrs or more.
Niche in a Food Forest: kitchen garden, around young fruit trees,
Varieties: Toscano Lactino (dino kale) + red russian do well locally, avoid curled varieties due to slugs.
Propagation: usually started from seed in pots in nursery and transplanted, but can be direct seeded, 60-75 days
Harvest: individual leaves from base of plant, reccomend leaving stem stubs on plant to avoid tearing stem!
Usage: usually cooked, but can be massaged with lemon juice.

Okra

Anatomy: upright herb up to 6ft tall and 3ft wide, producing edible pods
Niche in a Food Forest: full sun , loves heat,
Varieties: green and red podded varieties exist, most do well here.
Propagation: from seed usually direct into garden, 50 to 65 days, can harvest 10-12 weeks
Harvest: young pods before they turn tough, usually 3-5 in. with clippers or knife.
Usage: usually cooked but can be eaten raw. Good thickener for soups, stews, gumbo, etc.

Daikon and Radishes

Anatomy: deep rooted, fast growing, producing edible and sometimes spicy roots from 1in to 2ft long.
Niche in a Food Forest: full sun to partial shade, good to fill in around young larger veggies,
Varieties: Short and long daikon varieties exist and both do well here, many other types of radish also do well.
Propagation: direct seed into garden, very fast growing, radish 30 days, daikon 60-70 days, harvest once
Harvest: some radishes can be ready after 30 days, or when roots become large. Don't leave too long or will rot.
Usage: raw or cooked, greens are sometimes cooked as well, excellent in kimchee

Next Class: Thursday Aug. 24th **Spices: Turmeric, Ginger, black pepper, vanilla, etc.**
Become a member of the new Puna Chapter: Hawaii Farmers Union United www.hfuuhi.org

Malama Aina Permaculture:
Edible Landscape Design, Education & Nursery
Providing consultation, design, install, maintenance & edible plants
Hawaii-Permaculture-Institute.weebly.com WadeBauer@gmail.com 248-245-9483

Malama **A**ina **P**ermaculture