

**Plant Aloha** <http://hawaiiansanctuary.com/plantaloha>

Thursday, August 10, 2017

Wade Bauer of [Malama Aina Permaculture](#) facilitating



## **How to Grow a Complete Diet with Permaculture Principles:**

**Tropical Subsistence Gardening.** 24 part class series

### **Perennial Greens & Vegetables** Part 18 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:** These perennial vegetables are long lived and easy to grow. Work where it counts, plant once, and harvest for years. Learning to use these crops will save you tons of time and effort over growing annual greens!

#### **Edible Hibiscus**

**Anatomy:** 8 ft tall sprawling bush can spread to 15 ft wide or more, extremely large leaves.

**Niche in a Food Forest:** sun to shade, prefers rich moist soil and partial shade, does well under bananas.

**Varieties:** red stem, green stem, cut leaf, oval leaf forms are on island. Green stem form seeds more freely.

**Propagation:** tip cuttings, 6" to 6 ft long, (soft interior 'pith' in stems is prone to rot if left exposed)

**Harvest:** snap off tips of plant, keeps low and easy to harvest, and provides a cutting to replant.

**Usage:** raw or cooked, nutritionally similar to kale, mucilaginous when raw, not when cooked 15min.

#### **Cranberry Hibiscus**

**Anatomy:** Upright bush usually 8ft tall by 4 ft wide, bright red foliage, highly ornamental

**Niche in a Food Forest:** full sun to partial shade,

**Varieties:** red leaved and green leaved forms exist on island

**Propagation:** seed or cuttings, plants tend to be more hardy if grown from seed.

**Harvest:** individual leaves

**Usage:** tangy taste like sorrel, eat raw in moderation, or cook, beautiful addition to salads.

#### **Moringa**

**Anatomy:** open tree up to 20-30 ft, usually frequently pruned back to keep harvestable.

**Niche in a Food Forest:** requires full sun, casts light shade under which many other plants can thrive.

**Varieties:** Moringa oleifera (most common) Moringa Stenopetala

**Propagation:** seed or large 1"+ diameter woody cuttings, can allow a few days to heal over before planting.

**Harvest:** cutting back tips achieves harvest and pruning simultaneously, leaves, flowers and pods edible.

**Usage:** extremely nutritious, horseradish taste in raw leaves, edible raw or cooked, very short cook time

#### **Chaya**

**Anatomy:** maple shaped leaves, bush up to 15ft wide + tall, prune frequently, white latex sap

**Niche in a Food Forest:** sun to shade, can multiply from dropped cuttings easily, around larger trees, as hedge.

**Varieties:** spineless form most commonly grown, spiny form leaves shaped like papaya leaf and grows larger.

**Propagation:** tip cuttings 6"- 6ft, may help to let heal over in dry shade 1-3 days before planting to prevent rot.

**Harvest:** Sap may irritate skin, wear gloves while harvesting, young leaves and plant tips.

**Usage:** Must be cooked. Poisonous raw (contains hydrogen cyanide) dissipates when cooked 10 min.

## **Katuk**

**Anatomy:** columnar shrub, 3ft wide by 8ft tall, can fall over and form thicket. White berries with red bract.

**Niche in a Food Forest:** sun to deep shade, thrives under dense canopy of many trees.

**Varieties:** only one variety in Hawaii

**Propagation:** from brown woody cuttings 6” or longer or from seed, can be self seeding, naturalized.

**Harvest:** harvest tips to keep low, whole stem of shade grown plants can be cooked as “tropical asparagus”

**Usage:** very high in protein, sweet/nutty, raw or cooked, eat raw in moderation, do not juice (may cause toxicity).

## **Okinawa Spinach**

**Anatomy:** tender (non woody) sprawling and semi climbing groundcover, 2 ft tall by 6ft+

**Niche in a Food Forest:** Sun to partial shade, good ground cover-living mulch around many plants.

**Varieties:** green leaved form is more aggressive. Purple leaved form adds nice color and orange blooms.

**Propagation:** easily from cuttings

**Harvest:** leaves young or old remain tender.

**Usage:** said to reduce cholesterol, unique taste, raw or cooked, wash thoroughly, very quick cook time.

## **Brazilian Spinach**

**Anatomy:** slowly spreading groundcover, 6” to 1 ft in height, crinkly leaf.

**Niche in a Food Forest:** prefers partial shade, low growth protects soil and excludes weeds around other plants.

**Varieties:** one variety

**Propagation:** easily grown from cuttings, 4-12” long, high fertility and Nitrogen increase leaf size.

**Harvest:** individual leaves or tips, inspect thoroughly for slugs due to low dense growth.

**Usage:** recommend to cook briefly 3-5 min, raw leaves high in oxalic acid, vinegar or lime marinade may suffice.

## **Chayote**

**Anatomy:** Vigorous climbing vine, up to 60+ feet. In squash family, pear shaped fruit and young leaves edible.

**Niche in a Food Forest:** ideal on large non-fruiting trees, careful to not smother tree, can grow on trellis or fence.

**Varieties:** light green and white forms exist on island.

**Propagation:** plant entire fruit by sitting large end on ground, if in full sun cover with dry leaves to prevent burn.

**Harvest:** can use pole picker to harvest, or allow ripe fruit to fall on own. Young leaves easier from trellis.

**Usage:** young fruit raw or cooked, crisp in salads, lightly cooked like zucchini, older fruit excellent steamed.

## **Perennial Collards**

**Anatomy:** leaves look like traditional annual collards, but plant is branching/sprawling up to 6ft tall and wide

**Niche in a Food Forest:** full sun to partial shade, likes moringa shade, rich soil, and mulch,

**Varieties:** also known locally as “Portuguese cabbage”

**Propagation:** from cuttings, make plant to field, prefer nursery at start, regular watering and shade till rooted.

**Harvest:** individual leaves, leave a bit of stem on plant so that the leaf union can heal over, or stem may rot!

**Usage:** as kale or collards, way easier to grow than kale and lives for many years. My most frequently eaten green.

**Secondary Greens:** leaves of several root crops are edible. **Taro leaves** must be cooked 45min to 1 hr to be edible but are excellent, **Cassava leaves** have a similar long cooking, **Sweet potato leaves** have 5-10 min cook time.

**Next Class:** Thursday Aug. 17th **Locally Adapted Annual Vegetables**

Become a member of the new Puna Chapter: Hawaii Farmers Union United

[www.hfuuhi.org](http://www.hfuuhi.org)

**Malama Aina Permaculture:**

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