# Native Plants in the Year Round Food Garden

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More than
Beauty &
Pollination

# Native Plants in The Year-Round Food Garden

- Introduction
- *The Permaculture Design Concept*
- The Organic Food Garden Year Round
- Native Plants & Ecological Soil Improvement
- Native Plants and Water Improvement
- Native Plants & Ecological Pest Control
- Native Plants and Hurricane Protection
- Native Plants and Leopold Benefits

# Urban Harvest's Permaculture Classes

*Bountiful Gardens*

*Green Homes & Communities*

*Restored Nature*

PERMACULTURE combines hundreds of ideas for designing sustainable and satisfying human habitats. It harmonizes our gardens, homes, communities and ecosystems.

# *Permaculture Design*

- **What Permaculture is:**
- **The effort to design thoughtfully so that food production, homes, and communities support nature and vice-versa.**
- **Some permaculture ideas derived mainly from forest ecology:**
- **multiple function—in space, energy, materials**
- **beneficial connections—plants, people, structures,**
- **Design of sector, edge and free wild energies—light, heat, rain, dew, wind, noise, visuals, weeds…**
- **System recycles waste**
- **Applied to anything—even organizations!**

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# WINTER QUARTER HARVEST
# DECEMBER TO FEBRUARY

# Carrots

## Danvers

## Amsterdam Forcing

## √√Nantes

## Imperator

## Purple Haze

## Kuroda

## Chantenay

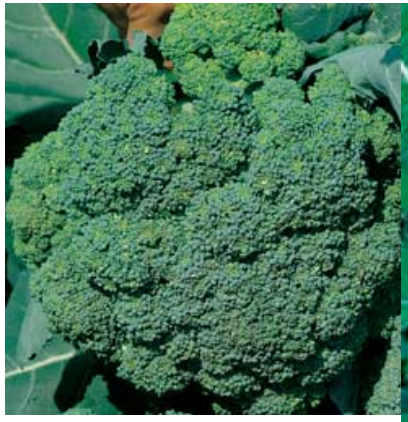
# Lettuce

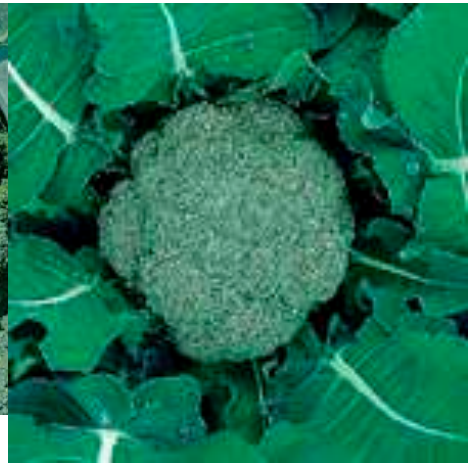
# Sugar Snap,

# Snow Pea

# Petit Pois

# Broccoli





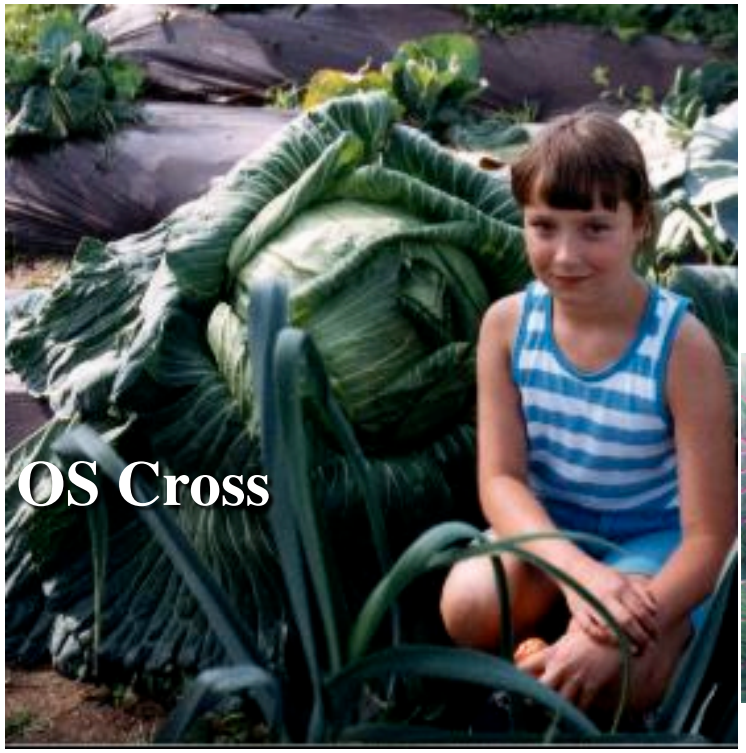
# Collards

# Kale

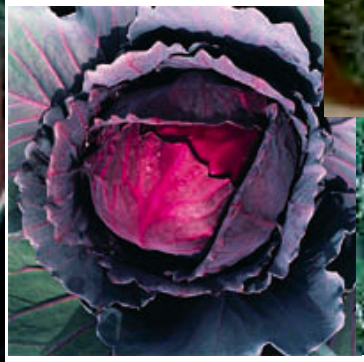
# Cabbage

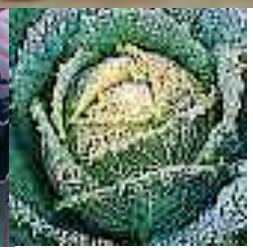
Tropic Giant

**Early Jersey Wakefield




Late Flat Dutch





Savoy King

Colorsa Savoy TM

# Cauliflower

## Violet Queen

## Snow Crown

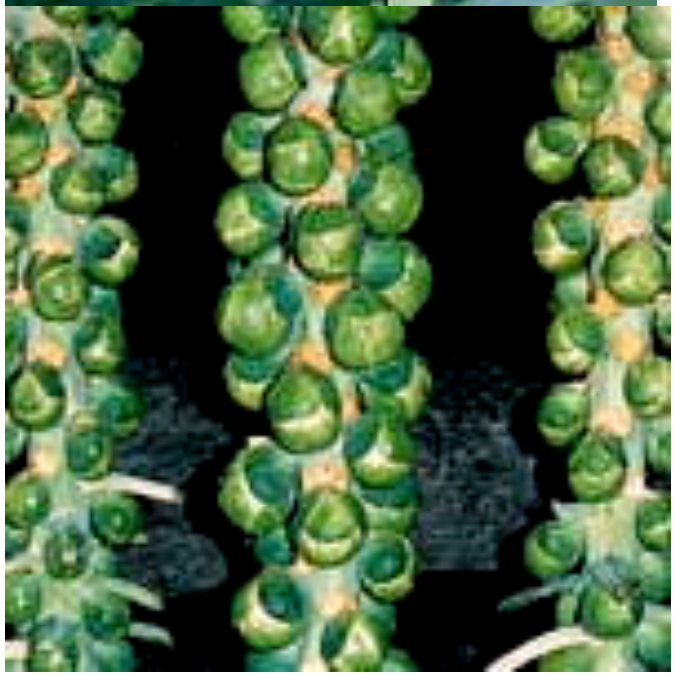
## Purple Graffiti

# Romanesco

**A French Variety**

**Veronica F1 (Johnny's)**

# Brussels Sprouts



**Catskill

Oliver

Jade Cross

# Kohlrabi

Kolibri

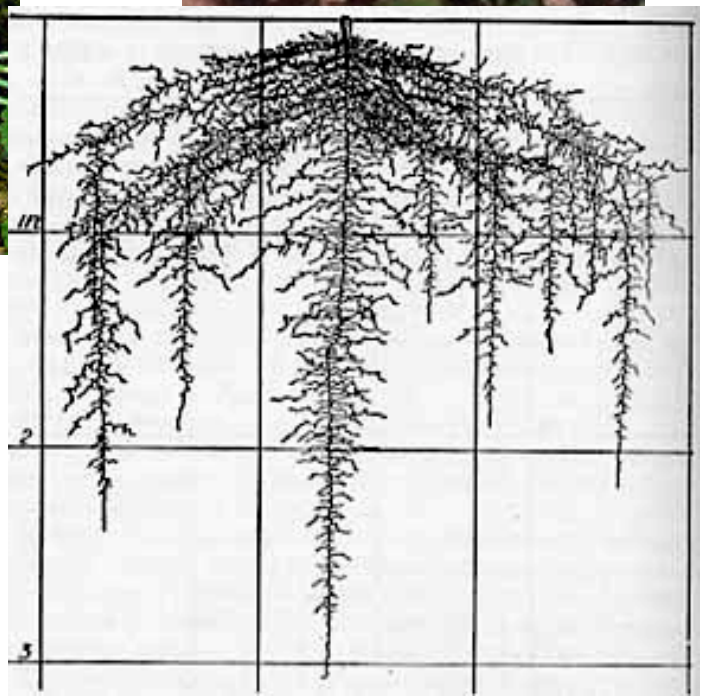
Early Purple & Early White Vienna

# Gai Lan (Kailan)
# (Chinese Kale or Broccoli)

**Blue Star (Evergreen Y.H.)**

# Rutabagas

**Laurentian**

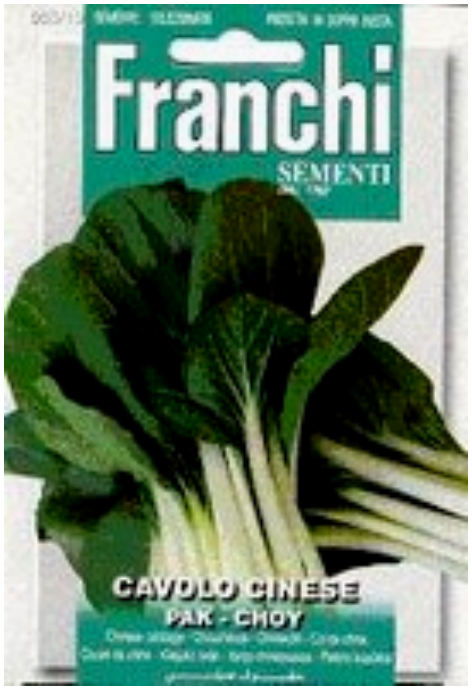



**American Yellow Purple Top**

# Bok Choys

Chinese

Mei Quing Choy




Joy Choy

Tatsoi

# Turnips

Seven Top

Purple Top

Tokyo Cross

Scarlet
(Heirloom)

Easter Egg

Beauty Heart / Shinrimei

Miyashige

Garden Cress

Nasturtiums

Upland Cress

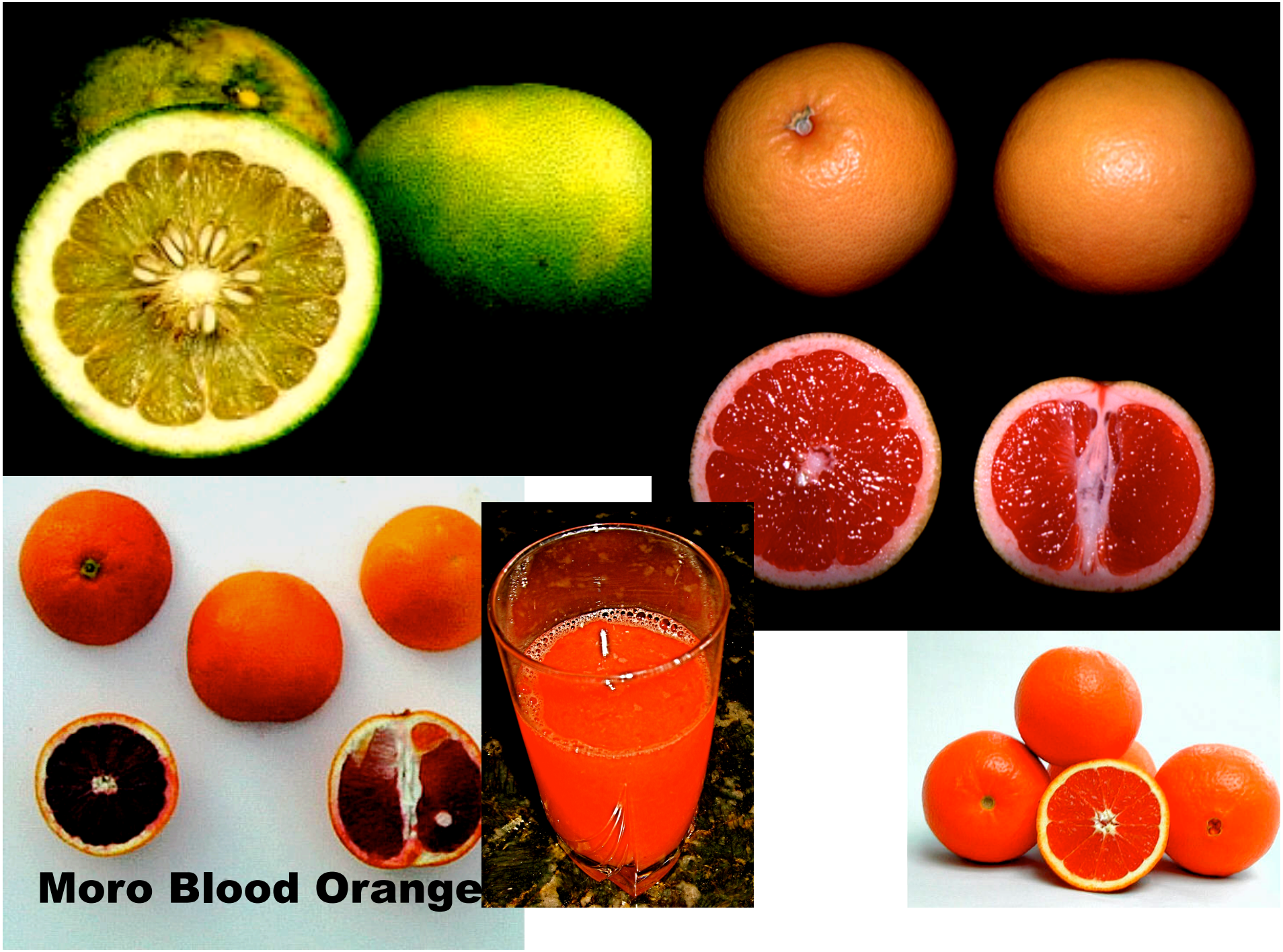
Garden Curly Cress

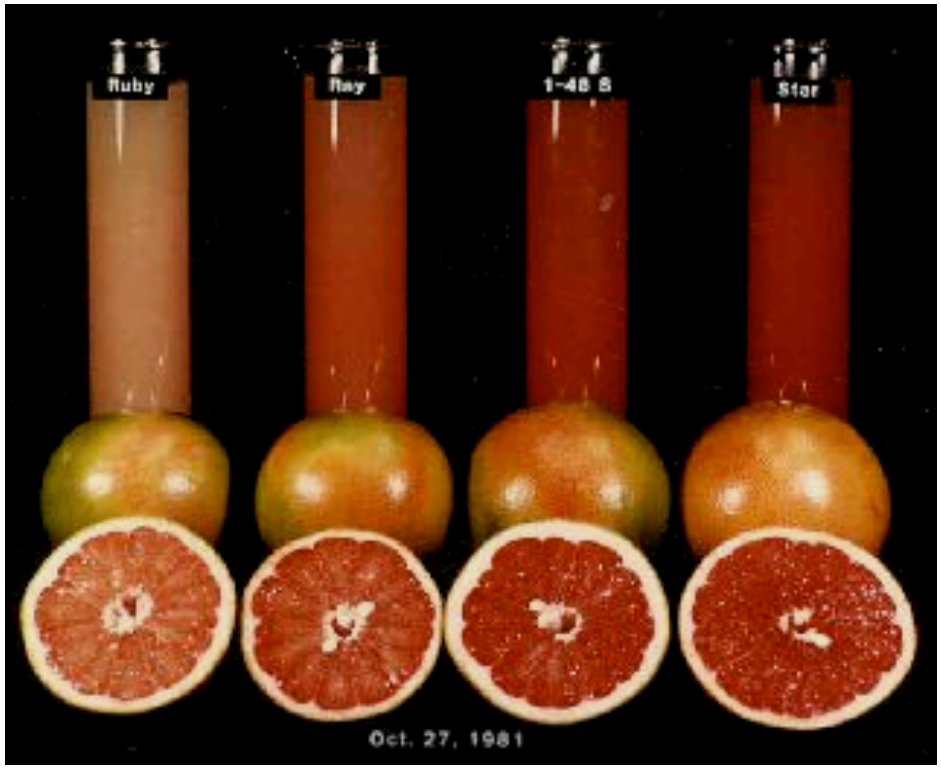
Watercress

Garlic Chives

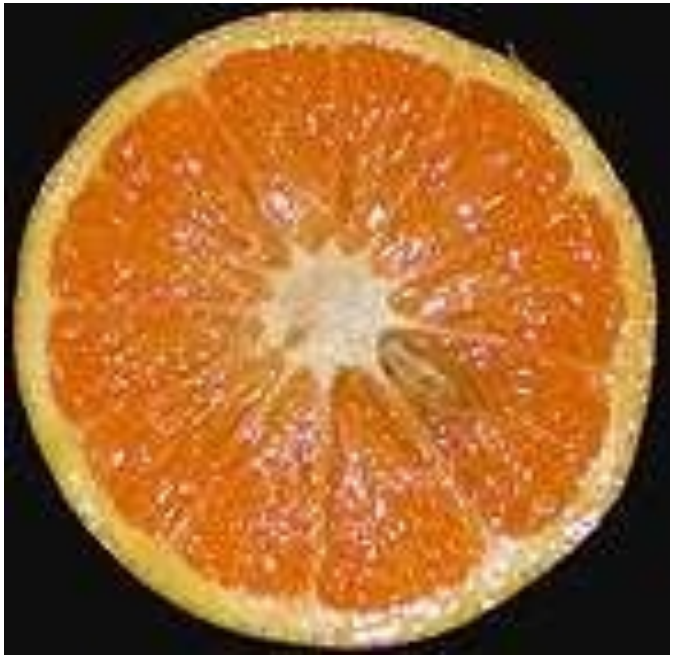
Leeks

Multiplier Onions


Moro Blood Orange


Ruby
Ray
1-48 8
Star
Oct. 27, 1981

Bloomsweet



# Unusual Fresh Citrus

Ujukitsu

# SPRING QUARTER HARVEST
# MARCH TO MAY

# Beets

Celery

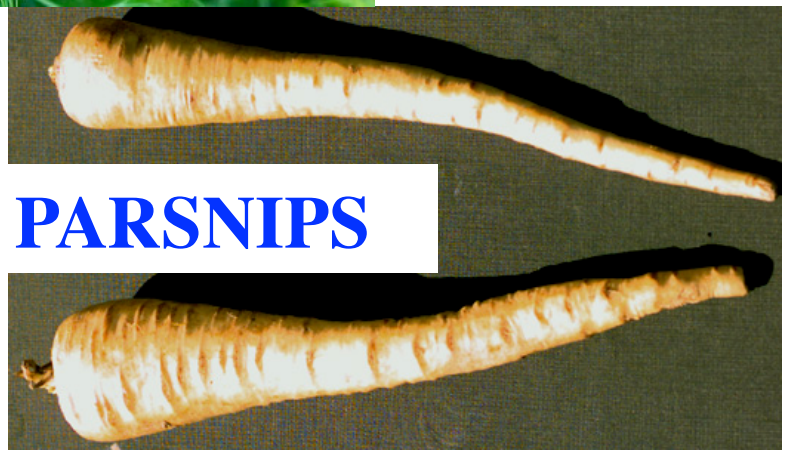
Italian Parsley

Florence Fennel

Other Carrot Family Relatives

Dill

Cilantro



PARSNIPS

# Onions

Garlic

Creole Red

Burgandy

Heirloom Tomatoes

German Johnson,
Green Zebra,

Caspian Pink,
Principe Borghese

French & Russian banana fingerlings and Peruvian blue

Yukon Gold

Late, heat tolerant

Norgold

early, heat tolerant

# Pakistan Mulberry

# Blueberries

# Meiwa Kumquats

# Lychee

# Low Chill Cherries

# Kiowa Blackberry

# SUMMER QUARTER HARVEST
# JUNE TO AUGUST

Napoleon Sweet
Orange Bell
Alma Paprika

# Eggplant

# Okra Varieties

Try
www.rareseeds.com
www.southernexposure.com for varieties

- ‘Stewart’s Zeebest’ smooth pods edible at 6”-8”; Bob’s fave
- ‘Texas Cowhorn’

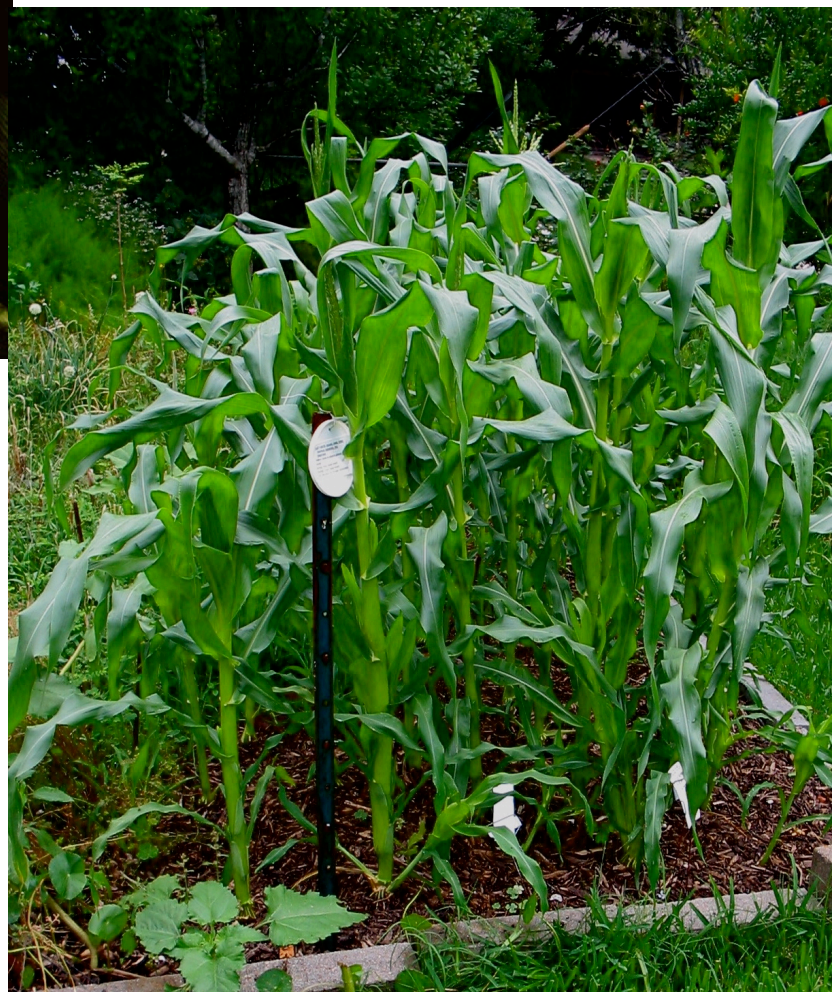
  Keeps longer once picked;

# Cucumbers

**Southern Delight Japanese Hybrid from Kitazawa Seed**

**Garden Oasis cukes from Reneés Seeds www.reneesgarden.com .**

# Sweet Corn



## Long Beans

## Lima Beans

## Snap Beans

**Left:**

**Zipper Cream Peas (lower) & Speckled Butter Peas (upper), Top: Purple Hull Peas, Fava, Red Lima, Right: Edamame**

**Clockwise: Sweet basil, chocolate mint, rosemary, Greek oregano, creeping thyme & lemon balm**

## Asian Squashes

Opo

***Luffa* (Sponge Gourd or Chinese okra or ridged luffa) *is good to eat***

**Winter Melon & Fuzzy Gourds**

**Bitter Squash (Bitter Melon)**

# MELONS

Orange

Galia

Honeydew

Ambrosia

Watermelon

# Apples

# Peaches

- Midpride
- Red Baron in Cold Zones
- Tropic Snow

# Plums

# Figs

# Pears

**European**

- Tennessee
- Southern Bartlett
- Southern Queen
- Acres Homes

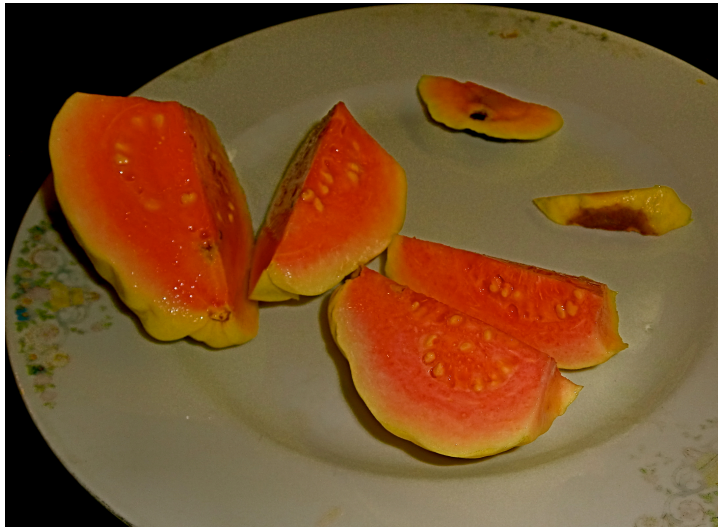
**Asian X European**

- Meadows
- Tennosui

**Asian in Cold Zones**

- Hosui
- Shinko

# Guava Family: Common Guava



# Guava Family: Jaboticaba

# Mango

# Sugar Apple

# Darlene Muscadine & Mortensen Bunch Grape

YUM!

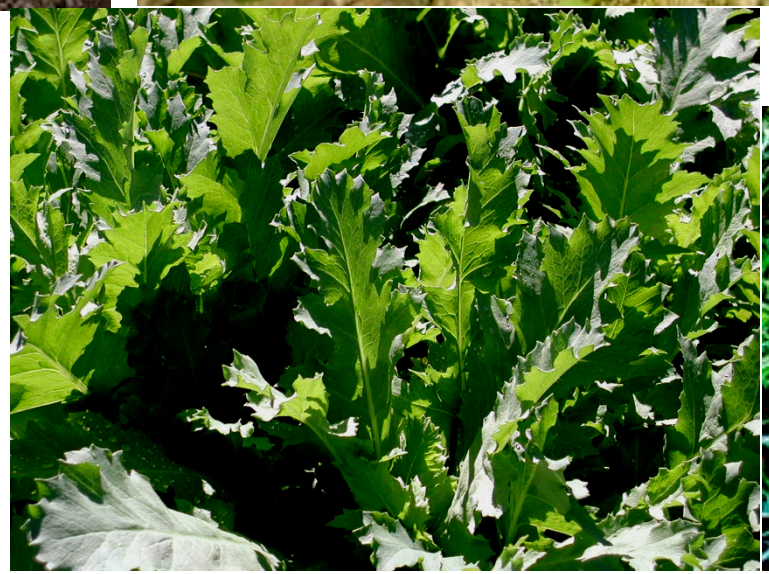
- Fruit is 24% sugar

# Jujube (Chinese Red Date)

# Pomegranate

# FALL QUARTER HARVEST
# SEPTEMBER TO NOVEMBER

# Salad Mustards



# Hibiscus sabdariffa

- Common Names: Jamaican Sorrel, Florida Cranberry, Flor de Jamaica or just Jamaica; Red Shield; Red Zinger Plant
- Popular Tea made from the calyces (singular, calyx)

Powdered- Red Zinger Tea

- Leaves are rhubarb-like
- Seeds to make flour
- High calcium, riboflavin & iron
- Tastes exactly like cranberries in sauce

Pingtung Long

Antigua

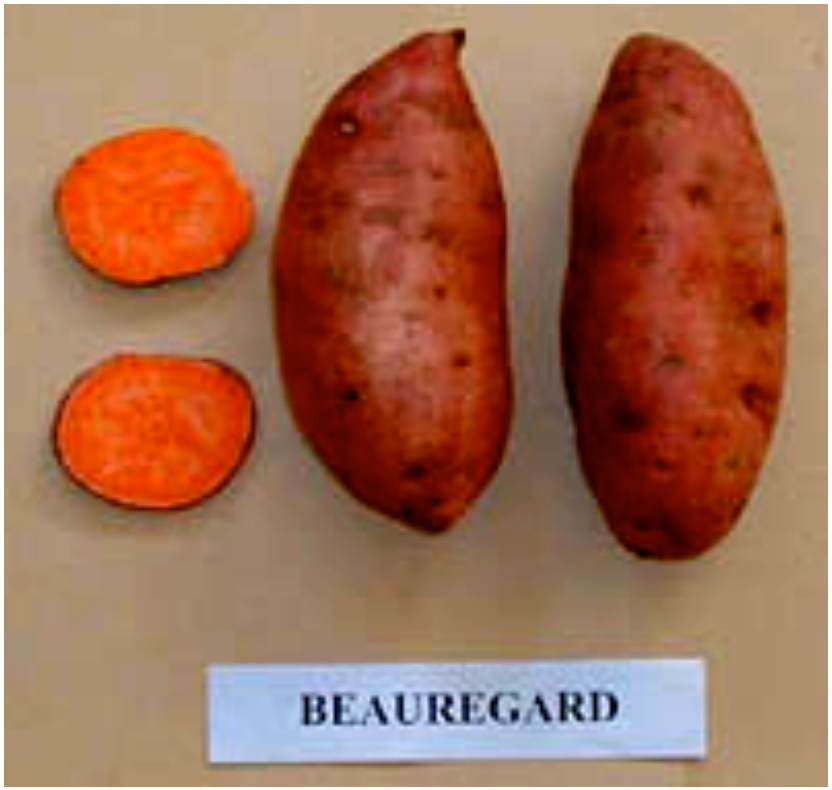
Louisiana Long Green

Neon Eggplant Best?

Listada de Gandia

# *Hibiscus acetosella*

- Common names: Cranberry Hibiscus;
- False Sorrel
- Full sun
- 4’ tall & wide
- Acidic leaves
- Edible leaves and roots
- Propagate: cuttings or seeds



# Sweet Potatoes

# Squash

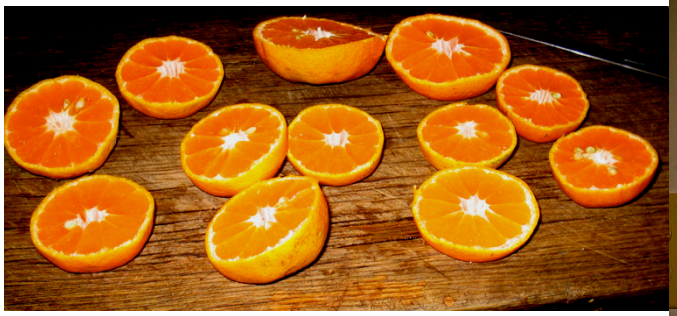
## Peanuts

## Jicama

# Papayas & Bananas

# Avocado

# Pummelo

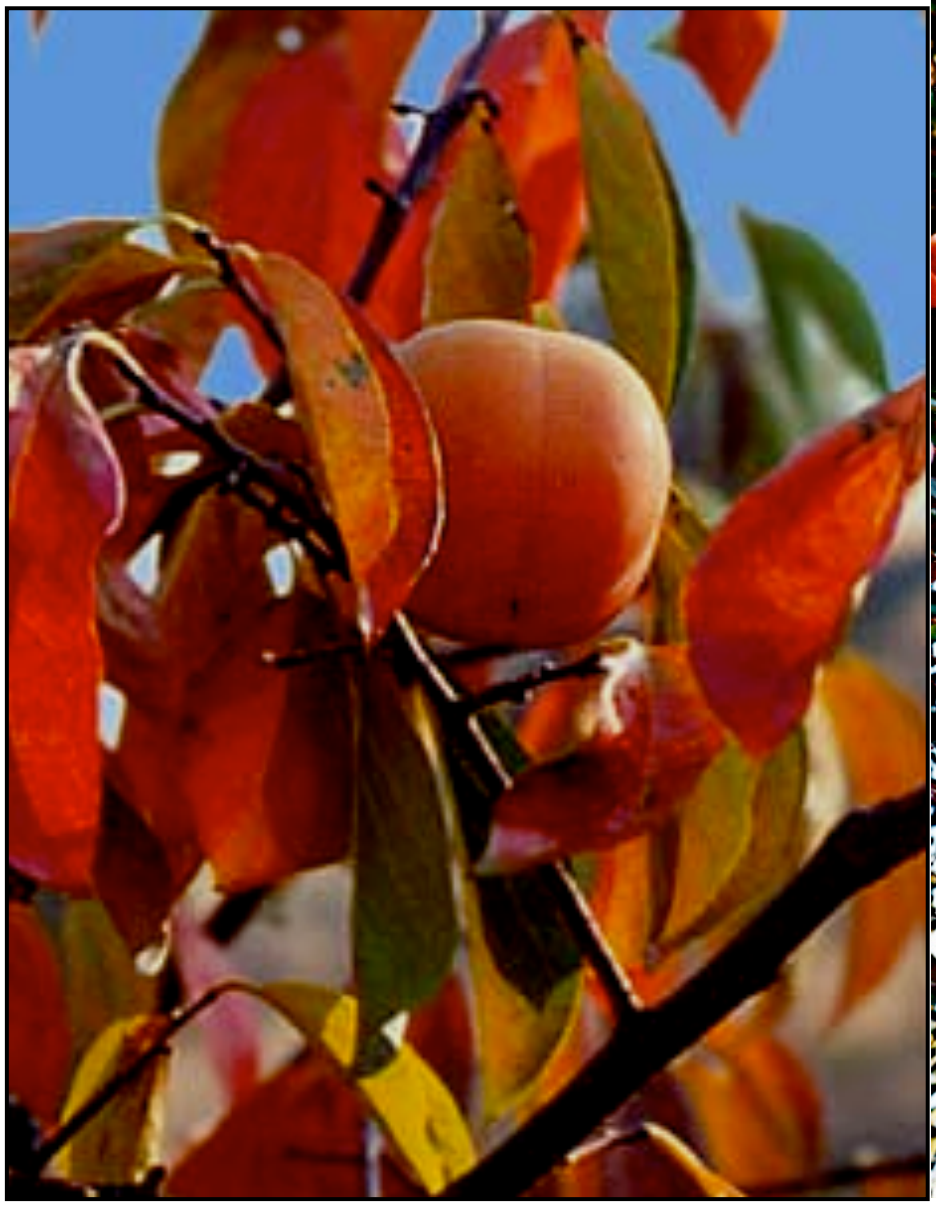


**Satsuma Mandarins and Honey Mandarins**

# Yummy Satsuma Juice!

# Carambola or Star Fruit

# Persimmon



# Pecan

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# Native Plants & Soil Improvement Benefits

- **Nitrogen fixation:** wax myrtle, coralbean, redbud, Texas mountain laurel, Bauhinia, Baptisia.
- **Soil retention**: inland sea oats & coralberry for shade; Ruellia, Maximilian sunflower for sun.
- All native plants attractive to birds for any reason provide quality phosphorus and nitrogen **rich manure.**
- You can even use dewberries and other sharp, dense or noxious plants to **discourage soil compaction**

# *Native Plants & Soil Improvement Benefits*

- **Building the Soil Food Web**
- **Dead leaves and dead branches feed fungal and bacterial organisms that are *extremely important* for**
- **Soil Fertility,**
- **Soil Texture,**
- **Plant Disease Suppression,**
- **Etc.**

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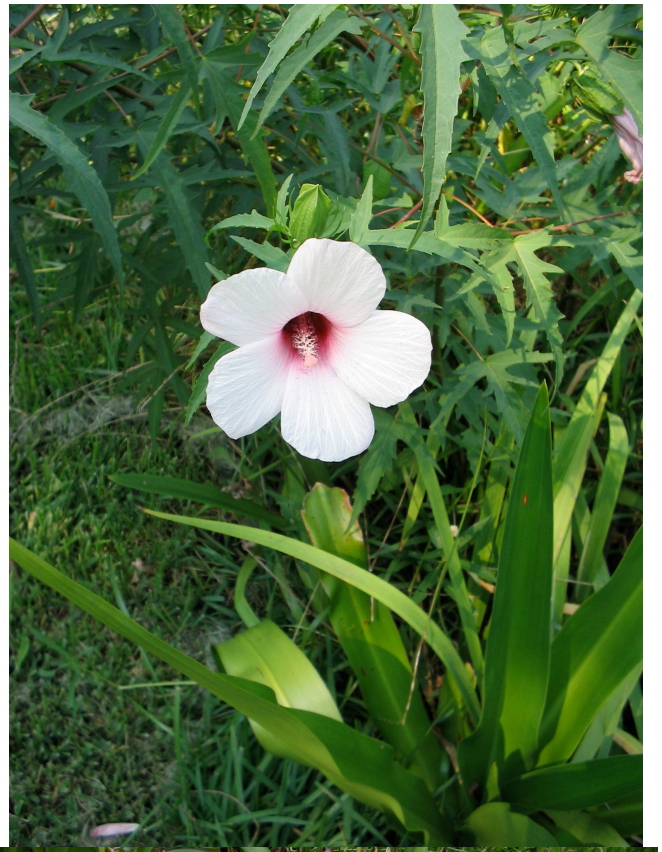
# *Native Plants and Water Improvement Benefits*

- **Any plant that has a fibrous root system and reduces soil erosion on slopes probably retains water also.**
- **All native trees and shrubs that create leaf litter that is allowed to remain as mulch increases the ability of the soil to soak up storm water.**
- **Tree branches also reduce the force of rainfall on earth and through shade reduce evaporation.**
- **Many natives—like Halberd-leaved Hibiscus thrive in rain gardens. These improve the water table and drainage for food plants simultaneously.**



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# *Native Plants & Ecological Pest Control Benefits*

- **"You don't have a snail problem. You have a lack of ducks problem!"**

  **—Bill Mollison**
- **"The pests need to have pests."**

  **—Bob Randall**
- **In a well-balanced ecosystem, there are hundreds or even thousands of insects, mammals, amphibians, arachnids, birds, and even mollusks that prey upon insects and other plant eating creatures.**
- **Some instead parasitize them or become parasitoids by laying eggs in them.**

# Duh….

**Native plants attract native insects and other native creatures.**

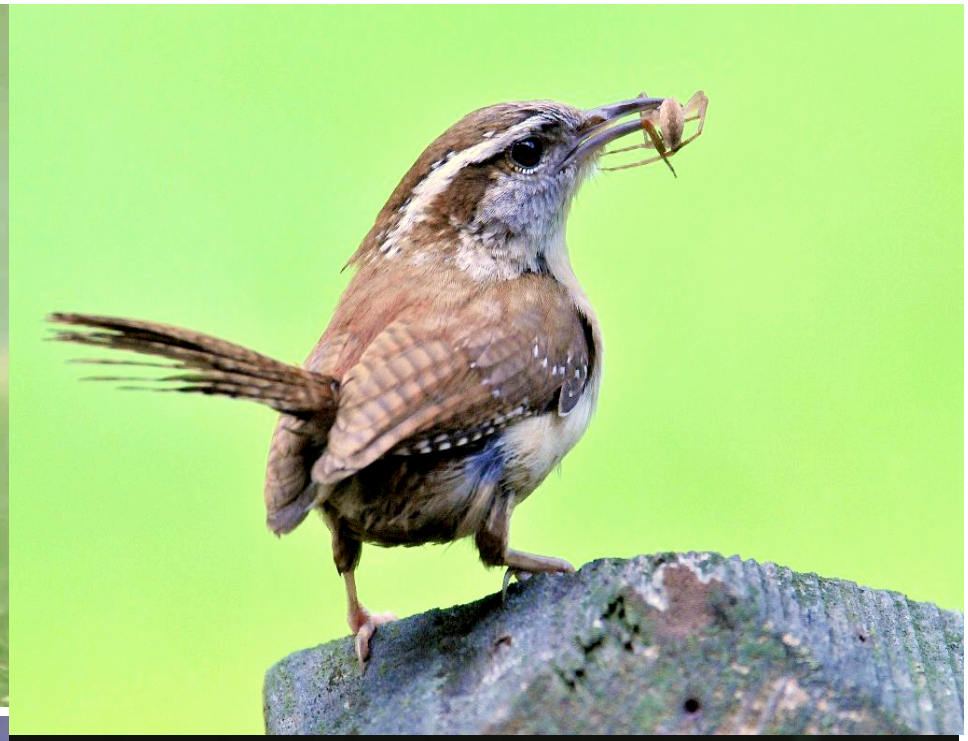
**These destroy native and non-native pests!**

# *Ecological Pest Control*

- **The more diverse the garden ecosystem, with the more habitats and niches, the more likely that something will keep populations of food plant pests under control.**
- **Just as an example, I frequently find Vespid paper wasp nests in my *Salvia coccinea*. They are diligent consumers of just about any meat in the food garden.**
- **Plants in the mint, daisy/ sunflower, and carrot families have flowers that attract pest-destroying wasps, flies, and bugs.**

# *Ecological Pest Control*

- **Virtually any plant that provides food or shelter for birds, provides pest control.**
- **Most (all?) birds feed their young insects.**
- **Some adult birds mainly eat insects.**
- **Many birds eat weed seeds constantly.**
- **So native plants that provide shelter or food sources or reproduction opportunities enhance the ability of the food garden to resist pests.**
- **I haven't sprayed a food crop since 1986!**



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# Native Plants and Hurricane Protection Benefits

- **No area site can be fully protected from hurricanes, but wind resistant native trees placed 40 feet or so from dwellings can do a lot to prevent damage.**
- **Choose plants for wind resistance to breaking or toppling, that will serve as a windbreak to reduce wind speeds.**
- **My site has been attacked by Alisha from the south, Rita from the north, and Ike from the west (at 100 mph?). Thanks to my laurel cherry & grape-fruit trees, Ike got no tomato plants or roofing!**

# Qualities of Hurricane-Resisting Trees and Shrubs:

- **Native species of slow-growing hardwood, with a low center of gravity, and deep penetrating radial roots…**
- **With an open branching character and heavy, stout trunks and flexible limbs.**
- **With short leaf branches and small, fine-textured, deciduous leaves.**

***From LSU Landscape Professor D.G. "Buck" Abbey's Top 10 Hurricane-Resistant Trees.***

# Best LSU Hurricane Trees

## #Top 10 Hurricane-Resistant "Survivor" Trees

- **Bald Cypress, Black Gum, Ironwood, Winged Elm**
- **Live Oak, Swamp Chestnut Oak, Shumard Oak**
- **Sabal Palm, Windmill Palm, Mexican Fan Palm.**

## Other Good Wind-Resistant Tree Species:

- **American Elm, Black Locust, Catalpa, Cherry Laurel, Green Ash, Hackberry, Osage Orange, Sycamore, Pond Cypress, River Birch, Southern & Sweet Bay Magnolias, Sweet Gum, Tulip Tree.**
- **Holly: American, Dahoon, Savannah**
- **Oaks: Cherrybark (S. Red Oak) , Willow, Nuttall**

**Shrubs:** **Wax Myrtle**

10601

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# “Leopold Benefits”

**“The last word in ignorance is the person who says of an animal or plant, *"What good is it?"***

**If the land mechanism as a whole is good, then every part is good, whether we understand it or not.**

***If the biota, in the course of eons, has built something we like but do not understand, then who but a fool would discard seemingly useless parts?***

***To keep every cog and wheel is the first precaution of intelligent tinkering.”***

**— Aldo Leopold (1940),**

***Round River: From the Journals of Aldo Leopold***

# What Good Are Native Plants in the Food Garden?

- They balance the ecosystem so that I can grow food easily.
- So I live lightly on the planet.
- By helping me, they encourage me to care for them by improving their habitat and that of the whole earth.
- They help me and I help them.
- And we both fight too much lawn & concrete.