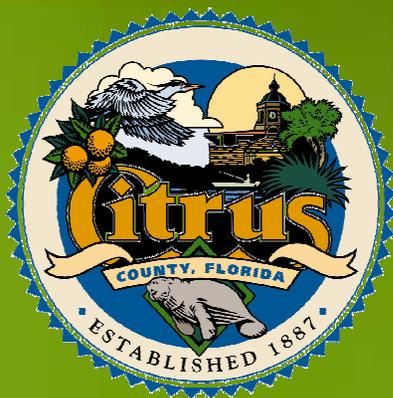




Edible Landscaping

Presented by Audrey Durr, Citrus County UF/IFAS Extension



UF UNIVERSITY of
FLORIDA
IFAS Extension

Florida
Yards & 
Neighborhoods

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Food For Thought

- The average mouthful of food travels 1,300 miles
- Wouldn't it be nice to know exactly how your food was grown and to reduce the amount of fossil fuels used for transporting food?
 - Vegetable Gardening (containerized or in beds)
 - Indoor Herb Gardening
 - Fruit Trees and Shrubs
 - Edible Native Plants



Vegetable Gardening Basics

- A site that receives at least six hours of direct sunlight
- A soil pH of 5.5 to 7.0 (5.8 to 6.3 is ideal)
- A soil test is recommended (for \$7.00 the UF Soil Testing Lab will analyze your soil for pH, lime requirement, P, K, Ca, Mg)
- Compost to amend the soil (increases water holding capacity of the soil and discourages nematodes)
- Mulch to reduce evaporative loss of soil moisture
- A slow-release fertilizer with a low middle number (% phosphorus) on the fertilizer label unless a test reveals low phosphorus levels



Seeds vs. Transplants

Seeds Advantages

- Wider selection
- More resistant varieties
- Varieties that have been tested and are found to be adapted to your area

Seeds Disadvantages

- Require a lot of care during germination
- May need a dedicated area for germination
- May produce more plants than necessary
- Must thin seedlings when they are 3-4 inches high
- Possible fungal problems

Transplant advantages

- Can obtain a small number of plants when only a few plants are needed
- Earlier harvest
- Reduces seedling decay

Transplant Disadvantages

- Some vegetables do not do well when transplanted, unless in biodegradable containers: beans, cantaloupe, corn, cucumber, okra, onions, peas, pumpkin, radish, squash, turnips, watermelon



If Using Seeds...

- Sow seeds at proper depth for their size (no deeper than two or three times their diameter)
- Check package for seed treatment with a fungicide
- “Shelf life” of seeds varies from 3-15 years if properly stored in a cool (35°-50°) dry place
- Thinning the seedlings must be done when they reach 3-4 inches high



Pest Management

- Scout for insect pests twice a week and use safer chemical alternatives when pests can not be controlled with handpicking
 - Horticultural oils (for insects)
 - Insecticidal soaps (for insects)
 - Pyrethrum (for insects)
 - Sulfur or neem (for fungal diseases)
 - *Bacillus thuringiensis* or *Bt* (for young caterpillars)



Irrigation

- Generously amending the soil with compost will help to hold moisture longer
- Maintaining a 2-3 inch layer of mulch reduce evaporative loss of moisture
- If hand watering or using overhead irrigation, keep water off the foliage to reduce fungal problems and water early in the morning (instead of late in the evening) to allow more drying time
- Consider microirrigation because it delivers water directly to the roots



Fruits & Veggies to Plant in January

- Beets
- Broccoli
- Cabbage
- Carrots
- Cauliflower
- Celery
- Chinese Cabbage
- Collards
- Eggplant
- Endive/
Escarole
- Kale
- Kohlrabi
- Crisp, Butter-
head, Leaf &
Romaine
Lettuce
- Mustard
- Bunching
(Green Onions)
and Shallots
- English Peas
- Peppers
- Potatoes
- Radish
- Stake, Ground
& Container
Tomatoes
- Turnips
- Large, Small &
Seedless
Watermelon



Fruits & Veggies to Plant in February

- Bush, Lima & Pole Beans
- Beets
- Cantaloupe
- Carrots
- Celery
- Collards
- Sweet Corn
- Cucumbers
- Eggplant
- Endive/ Escarole
- Kohlrabi
- Crisp, Butter-head, Leaf & Romaine Lettuce
- Mustard
- Bunching (Green Onions) and Shallots
- English Peas
- Peppers
- Potatoes
- Sweet Potatoes
- Pumpkin
- Radish
- Summer Squash
- Winter Squash
- Stake, Ground & Container Tomatoes
- Turnips
- Large, Small & Seedless Watermelon



Fruits & Veggies to Plant in March

- Bush, Lima & Pole Beans
- Beets
- Cantaloupe
- Carrots
- Collards
- Sweet Corn
- Cucumbers
- Eggplant
- Kohlrabi
- Crisp, Butter-head, Leaf & Romaine Lettuce
- Mustard
- Okra
- Bunching (Green Onions) and Shallots
- English Peas
- Southern Peas
- Peppers
- Sweet Potatoes
- Pumpkin
- Radish
- Summer Squash
- Winter Squash
- Stake, Ground & Container Tomatoes
- Turnips
- Large, Small & Seedless Watermelon



Fruits & Veggies to Plant

IN APRIL

- Bush and Lima Beans
- Pole Beans
- Cantaloupe
- Okra
- Southern Peas
- Sweet Potatoes

IN MAY

- Okra
- Southern Peas
- Sweet Potatoes



Fruits & Veggies to Plant

IN JUNE

- Okra
- Southern Peas
- Sweet Potatoes

IN JULY

- Okra
- Southern Peas



Fruits & Veggies to Plant in August

- Pole Beans
- Broccoli
- Celery
- Collards
- Sweet Corn
- Eggplant
- Okra
- Bunching (Green Onions) and Shallots
- Southern Peas
- Peppers
- Pumpkin
- Summer Squash
- Winter Squash
- Large, Small & Seedless Watermelon



Fruits & Veggies to Plant in September

- Bush and Lima Beans
- Pole Beans
- Broccoli
- Cabbage
- Celery
- Collards
- Sweet Corn
- Cucumbers
- Eggplant
- Endive/Escarole
- Kale
- Crisp, Butter-head, Leaf & Romaine Lettuce
- Mustard
- Bulbing Onions
- Bunching (Green Onions) and Shallots
- English Peas
- Southern Peas
- Peppers
- Radish
- Summer Squash
- Stake, Ground & Container Tomatoes
- Turnips



Fruits & Veggies to Plant in October

- Beets
- Broccoli
- Cabbage
- Carrots
- Cauliflower
- Celery
- Chinese Cabbage
- Collards
- Kale
- Kohlrabi
- Crisp, Butter-head, Leaf & Romaine Lettuce
- Mustard
- Bulbing Onions
- Bunching (Green Onions) and Shallots
- English Peas
- Radish
- Spinach
- Strawberry
- Turnips



Fruits & Veggies to Plant in November

- Beets
- Broccoli
- Cabbage
- Carrots
- Cauliflower
- Celery
- Chinese Cabbage
- Collards
- Kale
- Kohlrabi
- Crisp, Butter-head, Leaf & Romaine Lettuce
- Mustard
- Bulbing Onions
- Bunching (Green Onions) and Shallots
- English Peas
- Radish
- Spinach
- Strawberry
- Turnips



Fruits & Veggies to Plant in December

- Beets
- Broccoli
- Cabbage
- Carrots
- Cauliflower
- Celery
- Chinese Cabbage
- Collards
- Kale
- Kohlrabi
- Crisp, Butter-head, Leaf & Romaine Lettuce
- Mustard
- Bulbing Onions
- Bunching (Green Onions) and Shallots
- English Peas
- Radish



Indoor Herb Gardening

- Mint, rosemary, chamomile, lavender, basil and oregano thrive indoors. (Mint tends to take over, so give it its own pot).
- Parsley, thyme, cilantro, dill, sweet marjoram, chives, savory and sage also do well indoors.



Indoor Herb Gardening

- Select a south or west window to maximize the amount of light that the herbs receive. Different herbs have different light requirements, but most need a sunny location.
- Supplement with fluorescent lighting, if necessary.



Indoor Herb Gardening

- To extend the life of herbs indoors:
 - Use a liquid fertilizer at half strength
 - Don't overwater. About once a week is sufficient, but only water to the point of keeping the soil slightly moist. Water that pools in the bottom of the pot causes root rot.
 - Use a potting soil with good drainage
 - Prune occasionally
 - Repot annually with a mix of two parts sterilized potting soil and one part coarse sand or perlite



Cold Protection Basics

- Typically, first frost is in November.
- Typically, last frost is in February, but occasionally last frost is as late as April.
- A sudden decrease in temperature in late fall or early winter usually results in more damage than the same low temperature in January or February.



Cold Protection Basics

- Take advantage of microclimates in your yard. The following features add extra cold protection
 - Southern exposures
 - Higher elevations (cold air settles in low spots)
 - Tree canopies elevate minimum night temperature under them by reducing radiant heat – but this only works for plants that are adapted to shade or partial shade
 - Windbreaks: fences, buildings, shrubs, etc.
 - Pavement, large rocks and water bodies all absorb heat during the day and reradiate it back at night



Cold Protection Basics

- Watering landscape plants before a freeze can help soil absorb more heat that will reradiate during the night.
- Mulch helps to protect plant roots. It can be applied thicker than normal and around the trunk during cold snaps, but should be redistributed after the cold threat has passed to prevent rot. (Citrus is an exception, however, and there should be no mulch or vegetation allowed under its canopy, even in the winter).
- Do not prune off damaged plant parts (leaves and trunks) until spring because they'll help to insulate what's still alive.



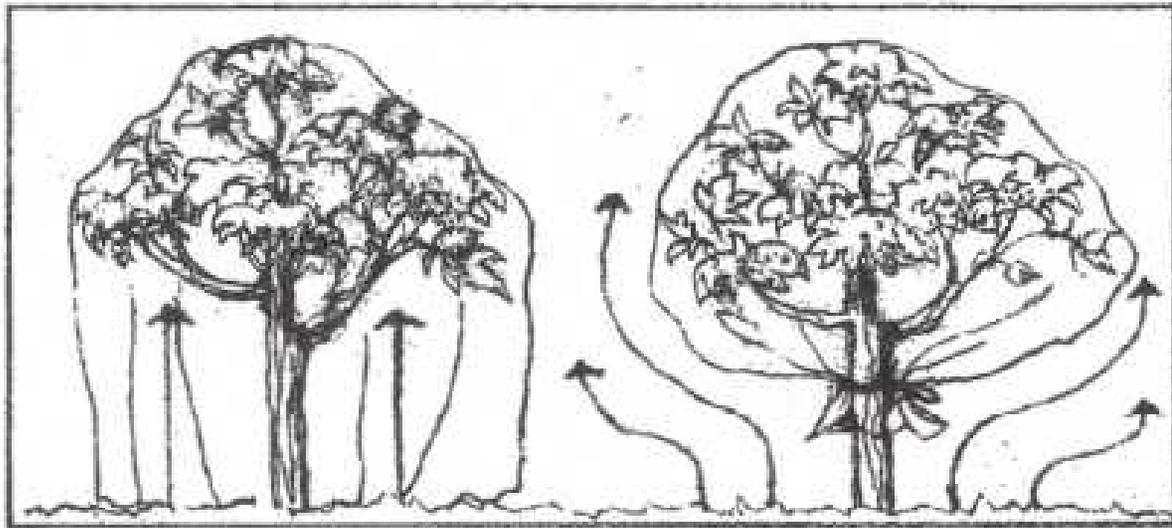
Cold Protection Basics

- Coverings

- Provide protection more from frost than from extreme cold
- Should extend to the ground to capture and direct heat upwards
- Should not come in contact with plant foliage because foliage can be injured from the heat transfer from the foliage to the colder cover

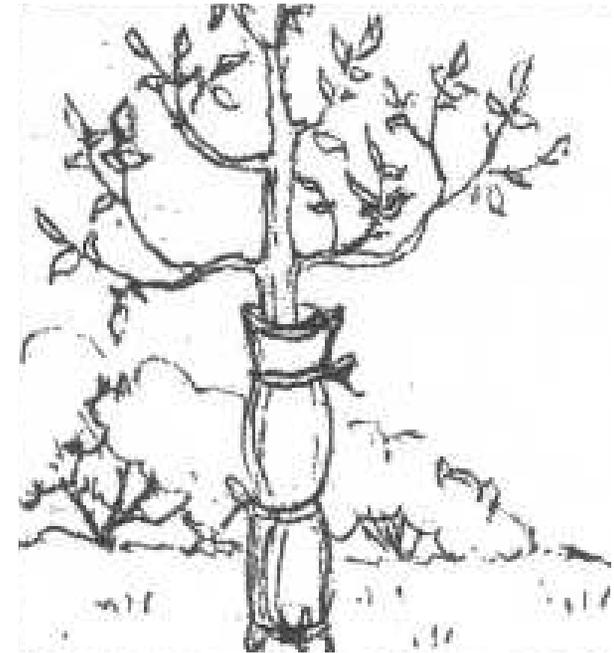


Cold Protection Basics



Correct

Incorrect



Trunk wraps are especially useful for protecting grafted areas, which are more sensitive to cold damage



Citrus for Citrus County

- Trifoliolate orange can withstand the lowest temperatures, followed by kumquat, satsuma, calamondin, sour orange, mandarin, sweet orange, grapefruit, shaddock, lemon, lime and citron.
- Look for trifoliolate orange as a rootstock (or sour orange as a second choice) for best cold tolerance.



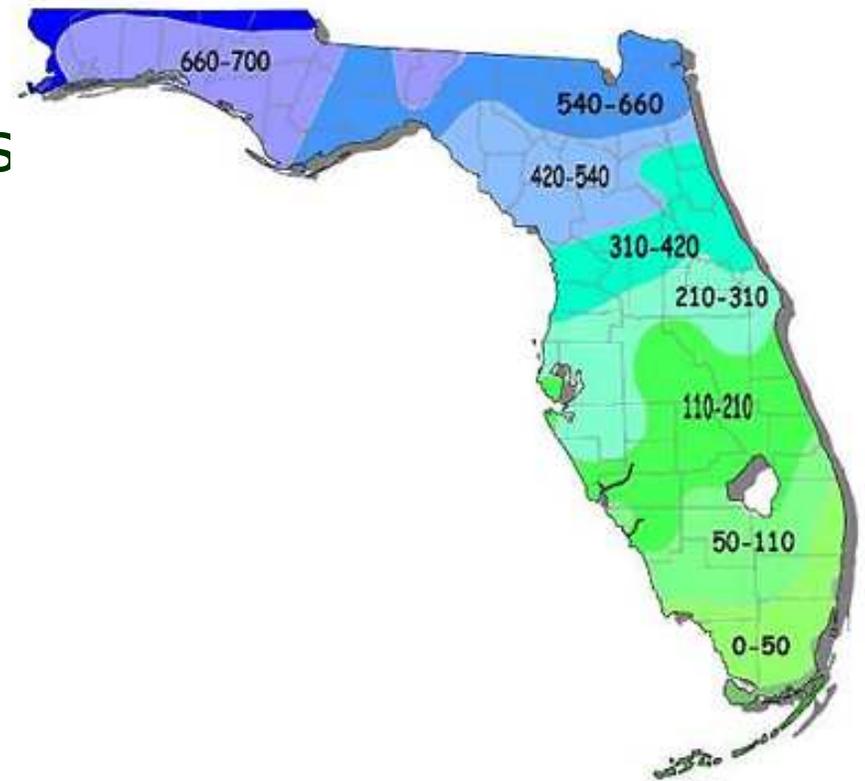
Citrus for Citrus County

- Kumquats: 'Nagami,' 'Meiwa,' and 'Marumi'
- Satsuma: 'Owari,' 'Silverhill,' or simply called satsuma
- Calamondin
- Mandarins and mandarin hybrids: 'Dancy' tangerine, 'Orlando' tangelo, 'Robinson' tangerine and 'Cleopatra' mandarin; (avoid 'Temple' and 'Fallglo')
- Sweet Oranges: 'Hamlin' and 'Parson Brown'



Fruit Trees and Chill Hours

- Fruit trees must be selected based on “chill hours” (when temperatures are above 32° but below 45°; necessary for proper fruit development).
- Citrus County receives approximately 310-420 chill hours per year.



Fruits for Citrus County

- Apples: Anna, Dorsett Golden, TropicSweet (plant at least two different varieties for proper pollination)
- Avocado: (Mexican and Mexican hybrid varieties with cold protection) Brogdon, Day, Duke, Ettinger, Gainesville, Mexicola, Teague, Topa Topa, Winter Mexican, Young
- Blackberries: Brazos, Flordagrand, Oklawaha (but Flordagrand and Oklawaha are self-unfruitful and must be planted together) (thornless varieties are available)



Fruits for Citrus County

- Blueberries: Chaucer (MLR) and Woodward (ER) must be planted together for best results. Two or more different varieties of the following must be planted together for best results: Sharpeblue (SH), Emerald (SH), Jewel (SH), Windsor (SH), Springhigh (SH) or Star (SH).

ER=early-season Rabbiteye, MLR= mid- to late-season Rabbiteye, SH=Southern Highbush



Fruits for Citrus County

- Figs: Alma, Brown Turkey (NOT California Brown Turkey), Celeste, Green Ischia, Magnolia, San Piero
- Grapes: Blanc Dubois, Blue Lake, Conquistador, Daytona, Lake Emerald, Stover, Suwannee
- Loquats: Oliver, Tanaka, Wolfe, many others; choose a cultivar based on desired characteristics (harvest season, fruit flavor, etc.)



Fruits for Citrus County

- Muscadine Grapes (Black): Black Beauty, Black Fry, Nesbitt, Pollyanna, Southern Home, Supreme
- Muscadine Grapes (Bronze): Carlos, Doreen, Fry, Granny Val, Higgins, Pam, Summit, Sweet Jenny, Tara, Welder (Fry, Higgins and Summit are female varieties that require a non-female variety for pollination)



Fruits for Citrus County

- Nectarines: (require special pruning; refer to UF article) (must have 'Flordaguard' rootstock) Sunraycer, Sunbest, Sunmist, UFRoyal, UF Queen
- Peaches: (require special pruning; refer to UF article) (must have 'Flordaguard' rootstock) UFBeauty, UFBlaze, UFO, Flordabest, Tropicbeauty, UFSun, Flordastar, Flordaglo, Flordaprince
- Pear: Flordahome, Hood, Pineapple (plant at least two different varieties for proper pollination)



Fruits for Citrus County

- Pecans: Curtis, Desirable, Moreland (plant at least two different varieties for proper pollination)
- Persimmons: Fuyu (Fuyugaki), Hachiya, Hanafuyu, Izu, Jiro, Matsumoto Wase Fuyu, O'Gosho, Saijo, Tamopan, Tanenashi
- Plums: (require special pruning; refer to UF article) Gulfbeauty, Gulfblaze, Gulfrose



Underutilized Crops

- ECHO (Educational Concerns for Hunger Organization) is a global Christian organization that equips people with agricultural resources and skills to reduce hunger and improve their lives.
 - They are currently impacting 180 countries.
 - One of their best-known programs is sending free, trial packets of seeds to overseas missionaries and development workers.



Underutilized Crops

- By varying irrigation frequency and amounts, soil type, etc., ECHO's test plots mimic different climates around the world
 - Tropical monsoon: India
 - Urban/Rooftop Gardens: Mexico City, St. Petersburg, Russia, etc.
 - Semi-Arid Tropics: western coast of S. America, portions of many African countries bordering the Sahara and Kalahari deserts
 - Tropical Highlands: terraces and trenches
 - Tropical Rainforest: Congo, Indonesia, Amazon basin, etc.
 - Hot Humid Lowlands: islands and low altitude coastal regions in the wet tropics (the Philippines, countries of coastal Southeast Asia such as Bangladesh and Thailand, etc.)
- The general public can purchase seeds from ECHO through their bookstore at www.echonet.org



ECHO Crops

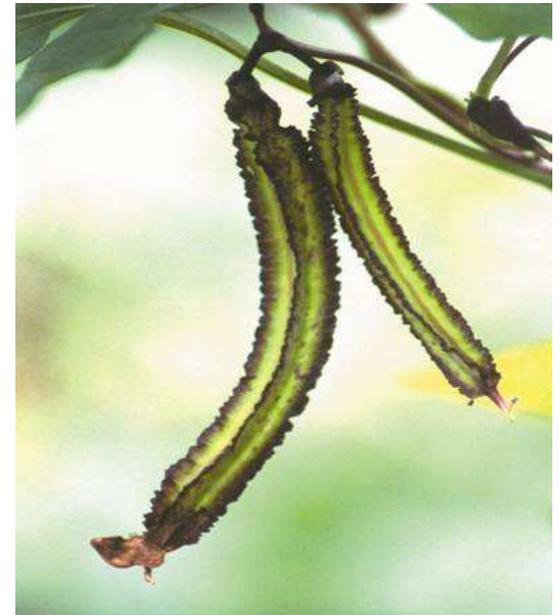
- Moringa is an Indian tree.
- The seeds can be used for water treatment.
- The leaves are
 - an outstanding source of vitamin A and (when raw) vitamin C.
 - a good source of B vitamins and among the best plant sources of minerals. The calcium content is very high for a plant. The iron content is very good (it is reportedly prescribed for anemia in the Philippines).
 - incomparable as a source of the sulfur-containing amino acids methionine and cystine, which are often in short supply.



ECHO Crops

Winged Bean (*Sophocarpus tetragonolobus*)

- The young leaves are edible when cooked.
- The pods can be eaten like a green bean when they are still green and tender.
- The beans may also be dried and used like a pulse (contain about 35% protein, which is as high as soybeans).
- Best grown on a trellis.



ECHO Crops

Lagos Spinach/Quail Grass (*Celosia argentea*)

- The large leaves on the young plant are boiled and used instead of spinach during hot weather when spinach will not grow. The taste and color are excellent.
- It is an annual plant that can reach five to six feet in height.
- Quite susceptible to nematodes so it should be planted in soil with high amounts of organic matter.



ECHO Crops

Pigeon Pea (*Cajanus cajan*)

- Attractive, quick-growing shrub, often used for quick shade for herbs.
- Grows six feet tall by six feet wide, then sets yellow blossoms.
- Very resistant to drought, poor and/or acidic soils, and produces over a very long period.
- Very popular in the Caribbean, India and many other locations. The dried seed can be cooked and eaten as a pulse (often with rice) or the young green pods can be eaten like a green bean. Where there are no freezes, it can produce for up to five years.



ECHO Crops

Cranberry Hibiscus, African Rosemallow, False Roselle (*Hibiscus acetosella*)

- Large, quick-growing African shrub, may be killed to the ground by cold
- Striking red leaves with a pleasing sour taste make them a great addition to salad or stir-fry.
- Pick blossoms in the evening after they have folded up and blend them with lime juice and sugar to make a beautiful and tasty drink (this is a popular beverage in Central and South America)



Surprising Edible Natives

- Where to start:
 - Florida's Incredible Wild Edibles by Richard J. Deuerling and Peggy S. Lantz
 - Chinsegut Nature Center in Brooksville (part of Florida Fish and Wildlife Conservation Commission) offers an excellent "Incredible Edibles" class (including a live cooking demonstration and tasting) several times a year. Call 352-754-6722 to pre-register and for a full list of programs.



Surprising Edible Natives

- Beverages

- Holly tea (dry leaves and then roast them to make a tea)
 - Yaupon holly has a high caffeine content
 - Dahoon holly, American holly and Gallberry have no caffeine
- Sumac lemonade (all varieties with red berries are good to use and aren't poison sumac) soak berries in hot (not boiling) water, mash them and strain the liquid; add honey or sugar to sweeten.
- Pine needle tea (any *Pinus* species) simply pour boiling water over tender, young needles.



Surprising Edible Natives



Surprising Edible Natives

- For salads
 - Dollarweed, pennywort – young, tender leaves
 - Glasswort – young stem (has no leaves)
 - Peppergrass – young, tender leaves; seed pods
 - Redbud - flowers



Surprising Edible Natives



Smilax



Spanish bayonet



Spiderwort



Spanish needles



Surprising Edible Natives

- For salads
 - Smilax, Greenbriar, Catbriar – young, tender leaves; shoot tips
 - Spanish bayonet – flowers petals only
 - Spanish needles – young, tender leaves; flower petals
 - Spiderwort – young, tender leaves; flowers



Resources

- UF articles at www.SolutionsForYourLife.com, including "Florida Vegetable Gardening Guide"
- Florida's Incredible Wild Edibles by Richard J. Deuerling and Peggy S. Lantz
- Florida's Best Fruiting Plants by Charles R. Boning
- Vegetable Gardening in Florida by James M. Stephens
- Chinsegut Nature Center in Brooksville 352-754-6722 or www.myfwc.com then search 'Chinsegut'

