Square-Foot Gardens

Square-foot gardens are an easily managed, low maintenance type of raised bed that is an alternative to traditional row-gardens. They are perfect for gardeners with little space or for beginning gardeners.

Gardening with raised beds has many advantages, such as the ability to plant in areas with poor drainage. The smaller size of the square-foot gardens also makes garden chores more amenable.

**Layout**

The layout of a square-foot garden usually consists of at least one four foot by four foot planting box with six to eight inch tall sides. Beds larger than four feet wide can be difficult to access from the side for weeding, planting, and harvesting. Many different materials are available for constructing the box—naturally rot-resistant cedar boards and synthetic wood are both popular options that are generally available at a local hardware store. If several beds are being used, a three foot aisle between them is recommended.

**Soil**

A mixture of good quality potting soil and compost, or other organic material, is best for raised beds. The soil underneath the bed can be tilled and mixed in as well. Before soil is added, the bottom of the bed should be lined with landscape fabric or newspaper. Soil should be filled to within two to three inches of the top of the sides and leveled without compacting.

**Square Grids**

After the soil is mixed and added, make a square-foot grid on top of the raised bed. This can be done by laying down sticks or strips of wood or by stringing twine across the bed’s frame. The grid should divide the box into one foot by one foot squares for a total of sixteen squares in a four foot by four foot planting box.

The small squares created by the grid are used instead of rows for dividing planting areas. A different flower, vegetable, or herb should be planted in each square.
Planting
Plants are placed closer together in raised beds. This intensive gardening increases the vegetable yield per square foot. The closer spacing also enhances weed control since the dense canopy shades out weeds. The idea is to have the plants close enough to just touch but not to compete with one another.

Most of the time there will be room for only one plant in each square, but sometimes there is room for more; sixteen carrots or onions or four leafy greens like lettuce, spinach, or chard can fit in one square foot.

Specific information on plant selection for North Florida can be found here:
http://sustainablenorthflorida.org/north-florida-vegetable-planting-guide/

Irrigation
Raised bed gardens have increased drainage, so it is important to provide adequate irrigation, especially in the winter. Water in the mornings to prevent quick evaporation and disease, which can occur when you water in the heat of the day or in the evening. Winter-grown vegetables should receive a total of one to two inches of water per week from rainfall and irrigation combined. It may be useful to install a basic rain gauge near the garden.

Square-foot gardens provide a great opportunity to implement a simple irrigation system such as a soaker hose or drip tape, although a hand-held watering can will be fine as well.

Mulching
Mulching the planting area is helpful in retaining soil moisture and suppressing weeds. Organic mulches enrich the soil as the mulch decomposes, improving soil structure and slowly releasing nutrients. Mulch should be maintained at a depth of two to three inches but should not touch the plant stems. As mulch decomposes, it should be replenished.
Program Announcements

**Landscape Matters**

**Cold Hardy Citrus**
Wednesday January 7, 2015 10AM -11AM
Rebecca Jordi

**Roses**
Wednesday February 11, 2015 10AM -11AM
Carol Ann Atwood, Master Gardener
Paul Gosnell, Master Gardener

**Pruning Fruit Trees**
Thursday January 15, 2015 10AM -12PM
Larry Figart, Urban Forestry Agent
Duval County Extension

**Crash Course in Florida Gardening**

Saturdays
February 14 and 21, 2015
8:30AM-12:30PM

Registration deadline is Friday, February 6, 2015.
Cost is $50 per person or $75 per couple. Notebook will be provided. Class will contain information on Florida Friendly plants, annuals, perennials, attracting wildlife, trees, shrubs, lawngrass, palms and citrus. Appropriate watering and fertilization methods will be discussed as well as proper pruning and plant selection.

Phone 904-530-6353 and ask for Winifred Favors or e-mail rjordi@ufl.edu to enroll.
Checks should be made out to Nassau County Extension.

**Plant Clinics 10AM-2PM**

Monday January 12
Monday February 2
Monday February 9

Bring us your tired, diseased, insect infested plants yearning to be free of problems. When possible place your plant in a plastic bag to prevent chances of spreading issues to other plants. You will receive current researched based information on proper plant care, disease management and insect control. These sessions are free to the public. No registration required. Come anytime between 10AM and 2PM for expert advice.
Spotlight on Nassau Gardens

View more photos online at http://nassau.ifas.ufl.edu/horticulture/spotlight/spotlight.html To be considered for Spotlight on Nassau Gardens, send a digital photo, with a description of your garden, along with your name, address and phone number to ncmg@nassaucountyfl.com For more information contact Rebecca Jordi at 530.6350 or 530.6353.

November - Fall Color

Page 4 - January/February 2015
To be considered for Spotlight on Nassau Gardens, send a digital photo, with a description of your garden, along with your name, address, and phone number to ncmg@nassaucountyfl.com. For more information, contact Rebecca Jordi at 530.6350 or 530.6353.

Staghorn Sumac

Aeryn Trident Maple
Wildlife Happenings

January

Not only does January bring in a new year, it also gives us a new batch of animal behavior to look out for. Here are some interesting things happening in January:

**Birds**
- Male cardinals begin territorial singing later in the month.
- Roseate spoonbill nesting activity is in full swing in Florida Bay.
- Other nesting activity can be seen by ospreys, sandhill cranes, hawks, and owls.
- Look for red-tailed hawks perched in trees along highways.
- Huge clouds of tree swallows should be visible around sunset roosting over large marsh areas.
- Don’t forget, now is a great time to watch our over-wintering populations of ducks and geese.

**Mammals**
- Gray foxes, bobcats, and raccoons begin breeding this month.
- Deer reach the peak of the rutting season in north Florida.
- Black bears in North Florida are inactive or in dens

**Fish**
- Black crappie start feeding heavily in central Florida
- Striped bass and sunshine bass move into open water to feed on shad

**Have a GREEN Holiday**
If you have a live Christmas tree, put it to good use - use it to start a brush pile near your bird feeder. Not only will it provide good year-round cover for birds, but it will also take up a lot less space in your county landfill.
Wildlife Happenings

So much for winter! February means the start of spring here in Florida. Here are some interesting wildlife happenings in February:

**Birds**
- Early purple martin scouts will start to appear in Florida this month. Now is the time to raise bird houses or gourds.
- Screech owls begin nesting in the central region of the state.
- South Florida should start seeing wild turkey (the bird) and quail breeding activity.
- Ospreys will begin nesting in north Florida near the end of the month.
- North Florida woodcocks begin courtship behavior. Listen at dusk for their "peenting" in open fields.
- Magnificent Frigatebirds begin nesting in mangroves in the Florida Keys and Dry Tortugas.
- Pileated Woodpeckers begin their mating season and will start announcing territories by drumming on various objects including houses and telephone poles.
- Others who are beginning their nesting season include: Little Blue and Tri-colored Herons, Wood and Mottled Ducks, and Snail Kites.
- Purple Finches and Pine Siskins will leave our feeders and begin their migration back to northern nesting areas.
- Wild Turkeys mate in south Florida.
- Swallow-tailed kites begin returning to Florida from South America.

**Mammals**
- Eastern Moles are breeding this month in tunnels under our lawns.
- Striped Skunks begin their breeding season.
- Pocket Gophers begin their spring breeding season.

**Reptiles**
- Alligator snapping turtles will start mating this month, with nesting activity throughout the spring.
- Gopher tortoises seldom seen outside burrows.

**Fishing**
- Crappie and Striped bass are spawning.
- Large schools of Spanish mackerel roam Florida Bay.

**Plants**
- Look for yellow jessamine in treetops.
- Trilliums and dogtooth violets bloom in Panhandle Ravines.
Hello everybody! Welcome back to Harvest Gold! Happy New Year, my friends! As we begin a New Year, I would like to say a few words about how important it is to implement Florida-Friendly Landscaping™, and suggest that we make Florida-Friendly Landscaping™ one of our New Year’s resolutions.

According to the University of Florida Institute of Food and Agricultural Sciences (UF/IFAS), Florida-Friendly Landscapes are landscapes that use “low-maintenance plants and environmentally sustainable practices . . .” to create and maintain “healthy landscapes that use a minimum of water, fertilizer, and pesticides . . .” resulting in “low-cost, low-maintenance, attractive landscapes that add value to your community, and reduce the chance of polluting the water supply.” In other words, by maintaining a Florida-Friendly Landscape, one can have a low-cost, beautiful lawn and garden, and help protect the natural environment at the same time.

Nassau County participates in the University of Florida’s Florida Yards and Neighborhoods Program (a part of the Florida-Friendly Landscaping™ Program), which recognizes Florida-Friendly Yards that use environmentally friendly gardening and landscaping practices. By meeting a minimum set of requirements, you could have your yard certified a Florida-Friendly Yard, and receive an official sign to display in your yard and a signed certificate to hang in your parlor. When you are ready, do a self-assessment of your yard with the Florida Yards and Neighborhoods checklist - located at http://ffl.ifas.ufl.edu/materials/FYN_Yard_Recognition_Checklist.pdf Once you successfully complete the checklist, call the County Extension Office at (904) 530.6353 to schedule a site visit.

The Florida Yards and Neighborhoods Program promotes the Nine Florida-Friendly Landscaping™ Principles, that when followed help in achieving the goal of a Florida-Friendly Yard. These Nine Principles are:

**Right Plant, Right Place:** When planting, select a location that matches the plant’s soil, light, water, and climatic needs. The right plant in the right place will thrive on minimal amounts of water, fertilizer, and pesticides . . .” resulting in “low-cost, low-maintenance, attractive landscapes that add value to your community, and reduce the chance of polluting the water supply.” In other words, by maintaining a Florida-Friendly Landscape, one can have a low-cost, beautiful lawn and garden, and help protect the natural environment at the same time.

**Water Efficiently:** Irrigate only when your lawn and landscape show signs of wilt, and use microirrigation or hand-water wherever possible. Calibrate your irrigation system for maximum efficiency, and water only during the early morning hours if possible.

**Fertilize Appropriately:** Apply fertilizers with at least 30 Percent slow-release nitrogen (N) according to UF/IFAS recommended rates at the right times and in the right amounts. Avoid “weed and feed” products that contain both fertilizers and herbicides, as these can damage some plants, trees, and shrubs. Herbicides (and all pesticides) should be applied only to affected areas, rather than broadcast over the entire lawn as occurs with
weed and feed products. Also, the appropriate timing for applying fertilizers and pre-emergent herbicides is different, and almost insures that either the herbicide or the fertilizer in the weed and feed will be ineffective, if not harmful. (Here in Northeast Florida, the proper time to apply pre-emergent herbicides is between February 15th and March 5th, when there have been at least four to five consecutive days of temperatures reaching 65 to 70 Degrees Fahrenheit. Wait until April 15th to apply any fertilizer.)

**Mulch:** Maintain a two to three inch layer of mulch on landscape beds to retain soil moisture, prevent erosion, and suppress weed germination. Use sustainably harvested mulch (such as melaleuca, pine straw, or eucalyptus), or mulch with leaves or straw produced on your own property. (The Florida-Friendly Landscaping™ Program discourages the use of cypress mulch.)

**Attract Wildlife:** Choose plants with seeds, flowers, foliage, fruits, or berries that attract birds, pollinators, and beneficial insects. Leave snags/dead trees (if they do not create a hazard), and increase vertical layering, to provide wildlife habitat. Supply water (such as a bird bath) for wildlife.

**Manage Yard Pests Responsibly:** Practice Integrated Pest Management (IPM), a strategy that helps gardeners manage pests with as few chemicals as possible, for a healthy, sustainable approach to keeping landscapes safe from pest insects. For more information on IPM, see [http://livinggreen.ifas.ufl.edu/landscaping/ipm.html](http://livinggreen.ifas.ufl.edu/landscaping/ipm.html)

**Recycle Yard Waste:** Return valuable nutrients to the soil and reduce waste disposal by composting grass clippings, weeds (that have not gone to seed), leaves, pine needles, and pruned tree and plant parts.

**Reduce Stormwater Runoff:** Use features like earth shaping and rain gardens to keep rainwater on your landscape, rather than letting rainwater run off and carry fertilizers, pesticides, soil, and other debris into storm drains.
Protect the Waterfront: If you live on a body of water, protect it from chemicals and debris by designating a 10 foot maintenance-free zone between the shoreline and your landscape, and do not fertilize, mow, or apply pesticides in that area.

Remember, by maintaining a Florida-Friendly Yard, not only do you protect the environment, but you save a lot of money and labor as well.

For me, the easiest way to maintain a Florida-Friendly Yard is to go natural. I try to go natural in everything from choosing native trees, plants, and shrubs for my yard (natives grow without a lot of fuss, and are acclimated to our area), to fertilizing (do not use any commercial fertilizer, except possibly around fruit trees, shrubs, and vegetables as recommended by UF/IFAS), irrigation (only water while establishing plants and during droughts, otherwise let God water it), mulching (only use leaves and other organic materials found on site to mulch with), pest control (attract and encourage beneficial insects, and let them do their jobs), and…practically everything else (use your imagination on how to “Recycle, Repurpose, or Reuse” whatever you have or produce around the house). Not only is this much easier on the back, but it is much easier on the wallet than paying out good money in fertilizer, water, pesticides, mulch, and other associated costs, to maintain a “perfectly manicured lawn” (whatever that means).

That’s my take on the subject. Now a story that illustrates my point; the story is in dialogue form, and is called:

A Conversation between God and St. Francis

GOD (G): St. Francis, you know all about gardens and nature. What in the world is going on down there in Florida and the rest of the United States? What happened to the dandelions, violets, sow thistle, elephant’s foot, oxalis, spiderwort, and other stuff I started eons ago? I had a perfect, no-maintenance lawn and garden plan….Those plants grow in any type of soil, withstand drought, and multiply with abandon. The nectar from their long-lasting blossoms attracts butterflies, honeybees, and flocks of songbirds. I expected to see a vast garden with all the colors of the Rainbow by now, but all I see are these green rectangles.

ST. FRANCIS (SF): It’s the Tribes that settled there, Lord—the Suburbanites. They started calling Your flowers weeds, and went to great lengths to kill them and replace them with grass.
G: Grass??! How boring! It’s not colorful. It doesn’t attract butterflies, birds, and bees… only grubs, sod worms, and chinch bugs. It’s temperamental with temperatures. Do these Suburbanites really want all that grass growing there?

SF: Apparently so, Lord. They go to great pains to grow it and keep it green. They begin each spring by fertilizing the grass, and poisoning any other plant that crops up in the lawn….

G: The spring rains and warm weather make the grass grow really fast. That must make the Suburbanites happy.

SF: Apparently not, Lord. As soon as the grass grows a little, they cut it…sometimes twice a week.

G: They cut it? Do they then bale it like hay?

SF: Not exactly, Lord. Most of them rake it up and put it in bags.

G: They bag it? Why? Is it a cash crop? Do they sell it?

SF: No, Lord—just the opposite. They pay to throw it away.

G: Now let me get this straight. They fertilize grass so it will grow….And when it does grow, they cut it off and pay to throw it away?

SF: Yes, Lord.

G: These Suburbanites must be relieved in the summer when We cut back on the rain and turn up the heat. That surely slows the growth of the grass and saves them a lot of work.

SF: You aren’t going to believe this, Lord. When the grass stops growing so fast, they buy more fertilizer and fertilize it again, and then drag out hoses and pay more money to water it, so they can continue to mow it and pay to get rid of it.

G: What nonsense….At least they kept some of
the trees….That was a sheer stoke of genius, if I do say so Myself. The trees grow leaves in the spring to provide beauty, and offer shade in the summer. In the autumn the leaves fall to the ground and form a natural blanket to keep moisture in the soil, and to protect the roots of the trees and bushes throughout the winter. Plus, as the leaves rot, they form compost to enhance the soil. It’s the Natural Circle of Life.

SF: You’d better sit down, Lord….The Suburbanites have drawn a new circle. As soon as the leaves fall, they rake them into great piles, and pay to have them hauled away.

G: No! What do they do to protect the tree and shrub roots in the winter, and to keep the soil moist and loose?

SF: After throwing away the leaves, they go out and buy something they call mulch. They haul the mulch home, and spread it around in place of the leaves.

G: And where do they get this mulch?

SF: They cut down trees, and grind them up to make the mulch.

G: Enough! I don’t want to hear about this nonsense anymore….St. Catherine, you’re in charge of the Arts. What movie have you scheduled for us tonight?

ST. CATHERINE: Dumb and Dumber, Lord. It’s a real stupid movie about…..

G: Never mind, St. Catherine….I think I just heard the whole story from St. Francis.
Think about the story above. It contains a lot of Florida-Friendly Wisdom. For more information on Florida-Friendly Landscaping™ or the Florida Yards and Neighborhoods Program (have your yard certified a Florida-Friendly Yard), go to http://ffl.ifas.ufl.edu, or call the Nassau County Extension Office at (904) 530.6353.

In closing, may you all have a bright, prosperous, Florida-Friendly New Year! Until next time, God Bless, and Happy Harvesting!

Peace and Goodness,

Joseph

PS: The above story is not my own. I first read it a long time ago, and recently found it again on the internet. No author was credited, so to whomever was the first to tell this story, a sincere Thank You!
Invasive Plants: **Chinese Wisteria**  
*Wisteria sinensis*

*Center for Aquatic and Invasive Plants University of Florida, IFAS*

**Introduction**

Wisteria is found from Maine to Florida, and as far west as Arkansas. There are native, *W. frutescens*, and non-native types of wisteria, including Japanese wisteria (*W. floribunda*) and Chinese wisteria (*W. sinensis*). Wisteria is sold in garden centers and nurseries and can be found in numerous home gardens across the country. The problem with wisteria lies in its growth habit. Wisteria is a vine that will grow virtually up anything in its path. By climbing into the canopy of trees or plants, it can shade them out, impairing those plants from effectively growing. Over time, wisteria will climb and twine around other plants, eventually shading and girdling native plants.

**Description**

Wisteria is an ornamental vine with fruit characteristic of the Legume Family (Fabaceae). Growth of the wisteria vine is limited to the height of the plant that it climbs, often growing more than 65 feet in length. Reaching a diameter of up to 15 inches, Japanese wisteria will twine clockwise around its host while Chinese wisteria will twine counter-clockwise.

The stem of Japanese wisteria is white in comparison to the dark gray bark of Chinese wisteria. Its leaves are pinnately compound, 4 to 16 inches long arranged alternately on stems, containing 13 to 19 leaflets. Leaflets are ovate in shape with wavy margins.

Flowers of wisteria are borne on 4 to 20 inch long racemes that hang when leaves are newly emerged. Japanese wisteria flowers typically flower from the base to the tip of the raceme and are lavender in color. Flowering in Florida occurs in April and May. Velvety brown seedpods are produced after flowering. The pods are 4 to 6 inches long and the seed are poisonous.

Wisteria prefers full sun and well-drained soils, but will grow in less than desirable conditions. It is mainly found growing along roadsides, forest edges, and rights-of-ways.

**Impacts**

Wisteria was introduced to the United States from Japan and China in the 1800’s for use as ornamental plants. Individual wisteria plants can survive for more than 50 years. Wisteria can reproduce by rooting at each node, via stolons, and will produce new shoots if cut back or trimmed. Wisteria is highly aggressive and can displace native species. Sizable trees have been killed by vining wisteria. When these large trees are killed, it opens the forest floor to sunlight, which allows seedlings to grow and flourish.
Management

Preventative:
Wisteria can grow from seed or rooted stolons, so care must be taken to avoid cuttings and/or seeds being deposited in natural areas. Most infestations occur near home sites, where the plant has spread from an ornamental planting into the surrounding wooded areas.

Cultural:
Weeds such as wisteria generally invade open or disturbed areas following a burn, clearing mowing, etc., so these areas are particularly vulnerable to invasion. Therefore, a healthy ecosystem with good species diversity will help to deter infestation.

Mechanical:
Mechanical methods are commonly used for wisteria management. For small wisteria infestations, cut climbing or trailing vines as close to the root as possible. Although this may be labor intensive it is a feasible pretreatment for larger infestations or in areas where herbicides cannot be used. Because wisteria will continue to sprout after it has been cut, it should be cut back early in the season, cutting sprouts every few weeks until the fall. This will stop growth of existing vines and prevent seed production. Wisteria vines should be removed from bases of trees and shrubs to prevent girdling as the trees and shrubs grow.

Another control tactic for small infestations is the removal of entire plants. Any type of digging tool can be used to remove the entire plant (roots and runners). It is important to know that any root pieces remaining in the soil may resprout to produce new plants. Fruit, roots, and other plant parts should be disposed of properly to prevent reinestation.

Biological:
There is limited research and data on biological control of wisteria.

Chemical:
In areas with established wisteria, a cut stump treatment is effective. Cut stems as close to the ground as possible and immediately apply a 25% solution of glyphosate or triclopyr to the stem. A foliar application of glyphosate may be necessary for sprouts. For larger infestations of wisteria foliar herbicide applications may be necessary. To avoid damaging nontarget species, stump treatments should be administered before foliar treatments. A solution of water and a 2% concentration of glyphosate or triclopyr with a 0.5% nonionic surfactant should be applied. If wisteria vines are growing up into trees or other desirable species, vines should be cut or pulled down to minimize damage to the desirable vegetation. Pulling the vines down without severing them from the underground rootstocks will allow the herbicide to move into the root and provide better control. The best time to apply an herbicide is in the spring and summer when wisteria is actively growing. Be sure to allow adequate time for the plant to regrow from the winter to ensure movement of the herbicide back into the underground portion. (As plants grow and mature, they begin to move sugars back into the roots).
Mosaic Disease of St. Augustinegrass

We may be looking at another disease in St. Augustinegrass called Mosaic disease of St. Augustinegrass. This disease was first reported in the 1960s in sugarcane producing areas of Florida (rural Palm Beach County). The name “mosaic” comes from the mottled look of the grass blades which are characteristic of viral diseases. Several cultivars of St. Augustinegrass were able to develop a resistance to the disease and consequently we have seen little of the disease in Florida over the last fifty years. Because the mildest cases of the disease produce symptoms which are easily overlooked and therefore did not cause much concern. Surveys were conducted a statewide survey in the 1970s did not find the virus in St. Augustinegrass in central or north central Florida. In the 10 years prior to 2013, fewer than five samples with mild symptoms were brought to the attention of the Extension turfgrass pathologist at UF.

Mosaic viral disease symptoms occur on many plants and generally the symptoms will show as blotchy or streaky patterns of yellow and green color. Grasses showing mosaic symptoms tend to have broken yellow streaks running between veins on an otherwise green blade.

In 2013, an outbreak of the disease occurred in Pinellas County, Florida. Leaf symptoms included mosaic, but turned necrotic and developed into severe dieback resulting in a completely killed lawn. The dieback and necrosis started in the fall of the year (September to October) and progressed through spring, when some lawns started to recover. In 2014, the same pattern occurred in two counties. Lawns infected in 2013 and additional lawns started dying in September in both Pinellas and Palm Beach Counties. Symptoms were similar to another viral disease of St. Augustinegrass called St. Augustinegrass decline (SAD, caused by Panicum mosaic virus), but as of November 2014, samples sent to the UF/IFAS Extension Plant Diagnostic Center have tested negative for SAD and positive for presence of Sugarcane Mosaic Virus (SCMV). SAD is not known to occur in Florida.

SCMV can be efficiently transmitted by mechanical methods, which means lawn mowers, line trimmers, and other equipment can transfer clippings and sap containing virus from lawn to lawn. It is possible aphids could transmit the virus but we currently have no concrete evidence they are vectors of the disease. It is also possible the virus is spread on infected sod when the symptoms are mild and the disease not obvious. Sod with SCMV should not be used but it is easy to see how it could be planted in a yard without knowing the disease is present.

At this point, our best management tool is to plant sod which is resistant to the virus. Within the last two years, ‘Floratam’ St. Augustinegrass appears to me the most susceptible and this cultivar ultimately dies. ‘Palmetto’ and ‘Bitterblue’ have shown some resistance although they do get the disease. There are additional considerations and challenges with these cultivars (see http://edis.ifas.ufl.edu/lh010). The susceptibility of most other varieties is currently unknown. The virus has been reported to infect grasses in Cynodon (bermudagrass), Paspalum (seashore paspalum and bahia grass), Pennisetum (ornamental fountain grasses), and Stenotaphrum (St. Augustinegrass) genera; however, mosaic is currently only a concern on St. Augustinegrass in Florida. Zoysiagrass is not known to be a host of this virus.

When resodding lawns with mosaic disease, follow UF/IFAS guidelines for post-installation care (http://edis.ifas.ufl.edu/lh013) and choose a variety other than ‘Floratam’. Lawns also could be plugged with a less susceptible variety, but it would need to outcompete the ‘Floratam’ during the spring and summer season.
To minimize disease spread in areas where the virus occurs, mowers and other equipment should be sanitized between properties. Remove clippings and any other plant material and then spray down parts which have the potential to transfer plant sap using dilute bleach, quaternary ammonia (Greenshield), alcohol, or another sanitizing agent according to the directions.

Fungicides and other pesticides are ineffective and cannot stop development or spread of this viral disease. Also, there are no known agronomic inputs that homeowners or lawn care companies can use to cure a lawn once it has become infected. The disease severity, which ranges from yellowing to death, will vary from lawn to lawn by variety of grass and by other environmental factors not well understood at this time. One potential complicating factor is that lawns with mosaic may also suffer from fungal diseases, but it is not known what impact one disease has on the severity of the others. Managing fungal diseases on lawns with mosaic has not been observed to impact development of the viral disease.

Mosaic is just one of many diseases that may be causing problems on a lawn. To confirm the virus and other diseases, submit a sample to a UF/IFAS Plant Diagnostic Center (http://plantpath.ifas.ufl.edu/Clinic/index.shtml). Manage other diseases through proper agronomic inputs and practices according to IFAS recommendations for your area. Check the Rapid Turfgrass Diagnostic Service Facebook page (https://www.facebook.com/RapidTurfgrassDiagnosticService) for up-to-date information on the spread of the epidemic.

Selected from the University of Florida publication: “Mosaic Disease of St. Augustinegrass Caused by Sugarcane Mosaic Virus” http://edis.ifas.ufl.edu/pp313
Januaу Checklist

Citrus: Water as needed - especially 24-48 hours before a freeze. Protect above and below grafted area on the trunk when freezing temperatures occur.

Fruits: Major removal of twigs and branches should occur before spring. Weed as needed. Keep grass away from root areas. Apply 6-6-6 or 8-8-8 fertilizer to Pears.

Flowers: Annuals to plant are carnations, pansies, petunias, snapdragons, delphiniums, larkspur, dianthus, and foxgloves. Be ready to move less hardy bulbs inside. Most others, like ginger and amaryllis, may show foliar damage during severe cold, but they can be left in the ground and they should survive. Tulips, hyacinths, and daffodils can be planted now if you refrigerated them for 8 weeks to meet their chilling requirements.

Roses: DO NOT Fertilize. Water as needed. Prepare sites for new plants 1/3 top soil, 1/3 dehydrated cow manure, 1/3 peat moss, 1/2 cup super phosphate or bone meal. Roses should be pruned once each year. In north Florida the best time is around Valentine’s Day, February 14th. A little sooner or later doesn’t really matter. If you want roses to bring to a show, you should begin pruning seven to eight weeks before the show. Some varieties take a little longer and some will bloom sooner, but eight weeks is a good rule of thumb.

Herbs: Plant anise, borage, chives, chervil, coriander, fennel, garlic, lavender, marjoram, mint, parsley, rosemary, sage, sesame, sweet marjoram, and thyme.

Lawns: This is fertilize free month. Check the soil to determine water needs. When the grass blades fold it’s time to water. Water once every 10-14 days in the winter unless we receive rainfall. If mowing, keep your mower height at the highest level.

Perennials: Water during morning hours only, when surface soil is dry to the touch. Make sure you have 2-3 inches of mulch around the roots. Outdoor plants require less water in the winter months.

Trees: Remove dead limbs, trim off suckers, lanky growth, and crisscrossing limbs; remove old seedpods. Don’t perform major pruning on any flowering trees producing blooms during the spring months.

Vegetables: English peas, beets, broccoli, potatoes, cabbage, celery, carrots, bunching onions, radishes, turnips, and cauliflower can be planted now.

Selected from Florida Vegetable Guide by JM Stephens, RA Dunn, G Kidder, D Short, & GW Simone, University of Florida and Month-by-Month Gardening in Florida by Tom MacCubbin
February Checklist

**Citrus:** Water as needed. Prune any water sprouts, suckers, rubbing or crossing branches. Weed as needed.

**Fruits:** Major removal of twigs and branches should occur before spring. Weed as needed. Check irrigation to ensure it is working. Make repairs.

**Flowers:** Remove all dead plant portions of annuals. Baby’s breath, calendulas, carnations, dianthus, dusty miller, Marguerite daisies, pansies, petunias, and snapdragons can be planted this month. Prune out declining foliage of bulbs as needed. Use insecticidal soap for aphids.

**Herbs:** Anise, basil, bay laurel, borage, caraway, cardamom, chervil, chives, coriander, dill, fennel, ginger, horehound, lemon balm, lavender, lovage, marjoram, Mexican tarragon, mint, nasturtium, parsley, oregano, rosemary, sage, savory, thyme and watercress can be planted now.

**Roses:** Water as needed. Apply organic materials around each plant. 1 cup cow manure, 1 cup fish meal, ½ cup Epsom salts. Begin spray program every 7-10 Days with appropriate fungicide but remember to rotate types of fungicide; spray entire plant including underside of leaves.

**Lawn:** Cut St. Augustine lawns as needed; keep the mowing height highest level for your grass variety. Cutting grass too short encourages insect damage and disease. No fertilizer this month.

**Perennials:** Do not rush to prune out the dead or declining portions, as some cold may linger until March. Leaving dead portions on may provide some protection in case another freeze occurs.

**Ornamental grasses:** Remove all dead stems on deciduous grasses by cutting stems to 6-12 inches above ground. Remove only dead stems on evergreen ornamental grasses, leave green portions intact. Fertilize ornamental grasses at the end of this month!

**Trees:** Existing well-established trees and palms do not normally need special watering - the nearby irrigation of lawns, shrubs, and flower beds normally supply adequate moisture. Some exceptions may be dogwoods or red maples.

**Vegetables:** This month you can plant beets, broccoli, carrots, cabbage, collards, cauliflower, celery, endive/escarole, lettuce, mustard, bunching onions, parsley, turnips. Before you start your garden, be sure to have the soil tested. The University of Florida will do a full nutrient test for only $7. Come by the office to pick up a soil kit or call us at 904 530.6353 for more information. Put raked leaves and grass clippings in a compost pile. As they rot, they make an excellent organic material to add to the soil when planting vegetables and some ornamental plants.

Selected from Florida Vegetable Guide by JM Stephens, RA Dunn, G Kidder, D Short, & GW Simone, University of Florida and Month-by-Month Gardening in Florida by Tom MacCubbin.
Q: This year, some of my navel oranges had dry areas in the fruit. What causes this and how can I prevent it?

A: It is always disappointing to cut open citrus and find the flesh is dry or pulpy. Navel oranges are not the only citrus to have this problem; any citrus can show the same signs. We suspect this may occur on older trees which have not been tended, fertilized or pruned properly. This is especially true when the root stock foliage has been allowed to overgrow the scion or fruiting part of the tree. It is important to keep the root stock growth in check. Check citrus several times a year to remove the suckers from the root stock. This type of growth can be removed any time of year. It is always sad to see a once strong producing citrus which has been overgrown from the rootstock. Irregular irrigation or periods of drought will also produce poorly developed, lush fruit. If you are using micro or drip irrigation, watering once or twice a week should be sufficient. Cut back on the irrigation when we receive sufficient rain. Citrus are notorious for developing root decay under heavy irrigation from the type of sprinkler heads used on typical lawns. I know your tree has been planted for several years but young trees (under 5 years) often will produce poor fruit. They should outgrow this tendency once the tree is established and becomes more mature. Regular fertilization is also important. Use a 6-6-6 or 8-8-8 once every 6 weeks from March through September. Do not pour fertilizer under the tree in a circle or band, but rather broadcast it completely under the tree canopy. Be sure to water in the fertilizer once it is applied; usually ¼ inch is sufficient. Or use a slow release citrus fertilizer once every quarter (March, June, September) for those of you with busy lives. When purchasing trees, be sure to ask about the root stock.

Q: Since we had the hard freeze, several of my plants, like my plumbago are totally black. Can I cut them down to the ground?

A: I feel fairly certain we will receive more cold weather. If you prune the plumbago or other perennials now, they may produce new foliage when the weather warms slightly. If another freeze comes along, the young, vulnerable foliage will freeze again knocking it back further. It might be better to wait until we are completely sure we will have no other freezes. Even this dead material provides a slight bit of protection for the stem and root area of the new growth which will be out in just a few months. Relax, you will have plenty of time to get out and do your spring gardening – I promise.
Q: I bought some expensive merlot grape vines and was told I could grow them here. However, they are just sitting in the ground and not growing at all. I was hoping they would spread quickly and cover my arbor.

A: There are always exceptions to what we recommend growing here and what might actually survive. However, there are some limitations based on the plant varieties, soil types and overall climate conditions which restrict what we really should try to grow here. We easily grow Muscatine grapes. Some of the Muscatine grapes are grown for their fresh fruit and others for their ability to make wine. Unfortunately, we really cannot grow the type of grapes used for fine wine making similar to those grown in Europe or California. Merlot, for example, prefers mild climates with long, hot, dry growing seasons and moderate winter temperatures. While we often have mild winters, we seldom have the hot, dry growing seasons. We are far too humid and often too wet for these grapes to do well. In addition, some of the Merlot grapes prefer cool, deep sandy loam – we have warm, sandy soils. The soil needs to hold moisture but cannot be wet. You could easily cover your arbor using a muscadine or even a wild grape variety. I have attached the University of Florida publication on muscadine grapes to better inform you about your potential choices. http://edis.ifas.ufl.edu/pdffiles/HS/HS10000.pdf

Q: I need to lower my soil pH, how do I do it successfully?

A: It will be difficult to lower the soil pH in flower beds already established with mature plants. It can be done by adding elemental sulfur but adding too much can cause problems for plants – so, just like Goldilocks – it has to be “just right” – not too much, not too little. It is advisable to add no more than 7 pounds of elemental sulfur per 1000 square feet in an existing bed. Consider removing some of the soil from around existing plants, add the sulfur, replace the soil then lightly water. Other soil amendments such as peat, organic material, iron sulfate, ammonium sulfate and some animal manure can lower pH temporarily. This allows the roots to be directly impacted by sulfur content. Check out the table of the attached publication to give you an idea of how much sulfur to add when forming NEW planting beds - depending on how much you need to lower the pH. For instance, if you need to lower the pH from 7.5 to 6.0 on new beds, you would need to add 12 pounds of elemental sulfur per 1000 square feet. Remember, the change will only be temporary but it will help allow the plant to uptake the desired nutrient needs such as iron. We will do a soil pH test at our local Extension offices. Callahan can take a sample any day of the week. Master Gardeners are at the Yulee satellite office on Fridays from 10AM to 2PM. A full nutrient sample can be sent to the University of Florida for only $7 - a reasonable cost to get a full analysis. http://edis.ifas.ufl.edu/ss480
Garden Talk with Rebecca Jordi

Q: Can we grow almonds here in Northeast Florida?

A: The quick answer is - not well. A determined grower could probably grow just about anything but we really do not have the optimal conditions for the almond tree to produce abundantly. Almond trees, Prunus dulcis, prefer warm, dry summers and we have hot, humid summers. This tree produces its flowers in February or March. If it experiences any frosts during the flowering time, the potential for fruit that year is lost. It has the several disease problems and insect issues similar to peach trees – especially borers. In addition, it requires frequent fungal applications like many other fruit trees and it must be checked frequently for insect damage. There are some people who plant almond trees simply because the flowers are so pretty while knowing it will probably never produce nuts. Almonds are commonly grown in California and take about 180-240 days to harvest. Pruning should be done from December through January. Trees must be pollinated which is usually done by bees. Normally, it is suggested planting three different varieties to get good cross pollination and increase production.