

# Horticulture News

March/April 2011

## Sea Oats

What is the most recognized plant in Florida's coastal dune system? If you guessed sea oats, *Uniola paniculata*, you would be correct. They once covered the coastal landscape along the Southeastern United States from North Carolina to South Florida. Now they are endangered. Sea oats are considered a primary dune stabilizer and will grow right up to the high tide mark along the beach.

On Amelia Island, sea oats colonies benefit from the coastal beach area. The wide spreading fibrous roots allow the plant to utilize minute amounts of moisture in the soil. Its clumping habit allows the plant to collect, trap and hold sand, reducing the amount blown by the wind. What results is dune formation and erosion control.

Sea oats provide an excellent habitat and food source for small birds, mammals and insects. Native North Americans used the seeds as food, and some people in Central America still eat them today.

Sea oats are highly drought, salt, and heat tolerant. They thrive in full sun and sandy, well-drained soils. The species flourishes in disturbed areas subjected to strong winds, tropical storms, drought and inundation by sea water. Sea oats gain mineral nutrition from salt spray and

beach sand as well as their own decaying organic matter. However, sea oats do not like water-logged roots, which kill the plant after only a few days.

Unlike many other grasses, sea oats do not produce large numbers of seeds, and rarely reproduce by seed. They predominately spread asexually by strong creeping underground rhizomes. Pollination is accomplished by wind.

Because sea oats spread successfully by rhizomes, they can become invasive and are seldom used in ornamental landscapes. They can, however, be easily cut back or surrounded by an underground barrier restricting rhizomes or placed in a large planter.

In Nassau County and the rest of Northeast Florida, sea oats can be planted from April through October. The plants should be watered immediately after planting and then weekly for the first few months. Planting during the rainy

season will reduce the need for supplemental watering.

Seedlings can be purchased from plant nurseries around Florida. Plants generally grow from one to two feet the first year after establishment. A dense cover is possible in three growing seasons. Flowering occurs in the second or third year after establishment and in Florida blooming occurs from spring to fall.

Sea oats are highly valued as a dune stabilizer and are protected in the wild due to their superiority at preventing erosion. Collection of seeds and plants is strictly prohibited. It's commonly planted on coastal dunes to stabilize the dune and allow sand to accumulate.

In Florida, people wishing to plant in the dunes should contact their local Department of Environmental Protection office and ask about permit requirements. Generally, dune plantings are not recommended during sea turtle nesting season.

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## Program Announcements

### Landscape Matters

#### Container Gardening

Wednesday March 9 10AM - 11AM  
Master Gardener Carol Ann Atwood

#### Turfgrass

Wednesday April 13 10AM - 11AM  
Master Gardener Nelson Peterson

**Location**  
Demonstration Garden  
Nassau County  
Government Complex  
96135 Nassau Place  
Yulee, FL

### Plant Clinics

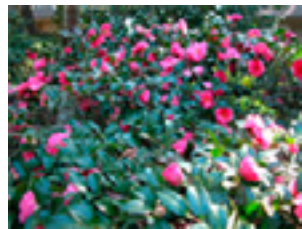
Monday March 7 10AM-2PM  
Monday March 21 10AM-2PM  
Monday April 4 10AM-2PM  
Monday April 18 10AM-2PM

**Location**  
Yulee Satellite Office  
86026 Pages Dairy Road  
Yulee, FL

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 - 2PM for expert advice.



## Spotlight on Nassau Gardens



### December Winner - Barbara & Art Reeve

This beautiful "Camellia sasanqua" flourishes in Barbara and Art Reeve's lovely garden. This unique flower is indigenous to Japan and vigorously flowers in autumn. It does not grow as large as the "Camellia japonica" which flowers a bit later.

### Weed Watch - Doveweed

Doveweed, *Murdannia nudiflora* (L.) Brenan or *Aneliema nudiflorum* (L.) Kunth is classified as an annual grass-like weed which makes it difficult to kill because it is a distant relative of turfgrasses such as St. Augustine. It loves moist areas and tolerates shade very well. Doveweed produces attractive, small purple or blue flowers but they are not very showy.

The good news is that is

reproduces by seed only, which means you should use an herbicide (pre-emergent) that will discourage the seeds from germinating next year. Pre-emergents, such as atrazine, should be used only twice a year (once in the spring and once in the fall). This product is very potent and the label must be followed to avoid environmental damage. Keep it away from water areas such as retention

ponds and wells.

Nothing will kill the adult, seed producing plant except a non-selective herbicide like Round-up. Of course, if you use a non-selective herbicide you run the risk of killing any green plant it touches. You might consider pulling this

weed since it is an annual. The upside to pulling is you get rid of the adult and the future offspring all in one fell swoop.



## Spotlight on Nassau Gardens

### January Winner - Carolyn Phanstiel

This 6' cactus has belonged to Carolyn Phanstiel for 15 years. It stands in front of a large, sunny window that faces the Atlantic. The owner has decorated it with mementos from all over the world.



### February Winner - Jean Middleton

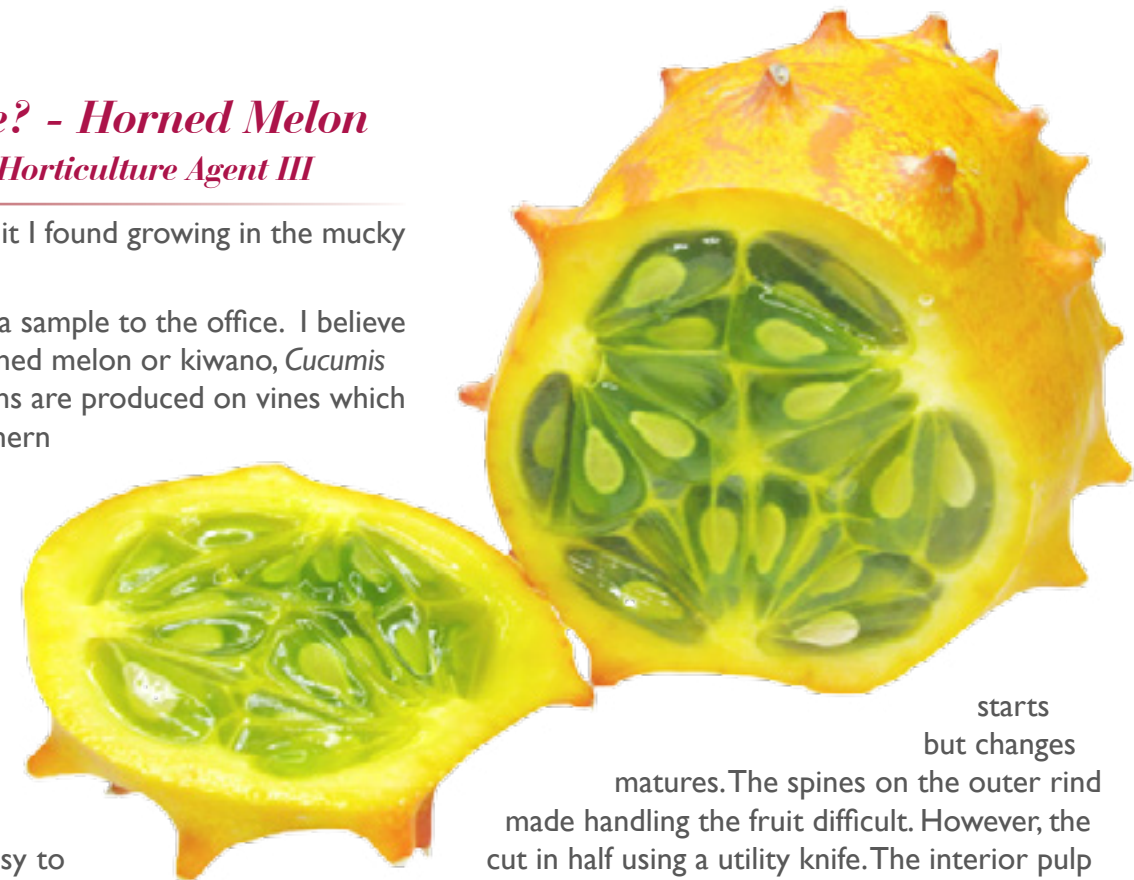
This beautiful Clivia minata thrives in the Amelia Island garden of Jean Middleton. The original plants belonged to her grandmother in the 1950's and have been passed down from Clearwater, Florida to thrive in relatives' gardens. These descendant plants thrive from Orlando to Connecticut where, in the colder climate, they can be grown in pots. They are related to the Amaryllis.

### What can that be? - Horned Melon

by Rebecca Jordi CED Horticulture Agent III

Q: What is this spiked fruit I found growing in the mucky area behind my office?

A: I am glad you brought a sample to the office. I believe the spiked fruit is the horned melon or kiwano, *Cucumis metuliferus*. Horned melons are produced on vines which were originally from southern and central Africa. The foliage is evergreen in its native country but it will die back in North Florida's cooler temperatures. The fruit are about the size of a large pear which out light green in color to yellow-orange as it are quite sharp, which rind was malleable and easy to is a pale green color with many The interior pulp has been described as tasting similar to a cucumber with a hint of lime. Other descriptions include the adjectives bland and slimy, which was enough to keep me from tasting it. Be warned, I would not recommend anyone eat the fruit of a wild vine unless they had botanical confirmation of the specific cultivar. There is no need to take an unnecessary and unscheduled trip to the emergency room.



starts but changes matures. The spines on the outer rind made handling the fruit difficult. However, the cut in half using a utility knife. The interior pulp seeds covered by a runny, gelatinous substance.



## March Checklist

**Citrus:** Remove graft freeze protection if threat of freeze is over. Fertilize program begins for lemon, orange, kumquat using citrus fertilizer. Follow fertilizer label for frequency (slow release is used less often). Fertilize Tea Olive using acid loving fertilizer. Fertilize loquat 2-3 times per year with citrus fertilizer. Check for citrus insects and disease, apply fungicide just at new leaf flush or after bloom drop.

**Fruit:** Apply general garden fertilizer to plum trees. Weed as needed.

**Flowers:** Water as needed. Over-watering causes root and stem rot. Opt for drought tolerant plants such as purslane or periwinkle. Group your plants together according to their watering and light requirements. Bulbs will be in full bloom. To conserve plant energy, cut off the old seedpods after flowering. Fertilize perennials this month if you missed last month. Plant poinsettias in landscape during late March. Cut back plants to within 12 to 18 inches of ground level. Pinch back new growth every four weeks until September 10. Fertilize monthly from May to September. Ageratum, alyssum, amaranthus, asters, baby's breath, balsam, begonias, browallia, calendulas, calliopsis, celosia, coleus, cosmos, crossandras, dahlias, dusty miller, exacums, gaillardias, gazania, geraniums, hollyhocks, impatiens, kalanchoe, lobelias, Marguerite daisies, marigolds, nicotine, ornamental peppers, pentas, phlox, rudbeckias, salvia, strawflowers, streptocarpus, sweet William, thunbergia alata, torenia, verbenas, periwinkles, and zinnias can be planted.

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

**Roses:** Continue spray program (every 7-10 days). Water as needed. March 15, apply liquid fertilizer. Check your micro irrigation system (leaks, dirt in system, timers)

**Lawns:** Select a fertilizer with the configuration of 15-0-15 or 16-0-8 which represents nitrogen (N), phosphorus (P), potassium (K) respectively. Follow the directions on the label.

**Shrubs:** Prune and fertilize azaleas with acid fertilizer as soon as they finish blooming. Azaleas may be transplanted now as well. Overgrown shrubs can be cut back using selective pruning, avoid shearing these shrubs. Dr. Ed Gilman's UF/IFAS publication on pruning shrubs and trees is an excellent source of information: <http://edis.ifas.ufl.edu/mg087>

**Trees:** Make sure younger trees maintain a straight trunk as new growth begins. Remove or prune all limbs competing with the central leader. Palms should have a "palm special" fertilizer applied over the root system under the spread of the fronds. The configuration should be 8-2-12-4 (N-P-K-Mg). Ideally this would also include manganese, boron, sulfur, etc. with appropriate formulations. Use a slow release fertilizer during the spring, summer and fall. Nutrient deficiencies may take months to recover so please use an appropriate palm fertilizer. Anything within 30-50 feet of the palm should just be getting palm fertilizer.

**Vegetables:** Have soil tested prior to planting. The pH and the nutrient content of the soil is an important factor in production of vegetables. This month's choices for planting include snap beans, pole beans, lima beans, beets, cantaloupes, carrots, celery, collards, corn, cucumber, eggplant, endive/escarole, kohlrabi, lettuce, mustard, okra, bunching onions, parsley, English peas, Southern peas, peppers, potatoes, sweet potatoes, pumpkin, radishes, summer squash, winter squash, tomatoes, turnips, and watermelon. Be sure to use the Florida Vegetable Guide when selecting the best cultivars for our area: <http://edis.ifas.ufl.edu/vh021>.

*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*

## April Checklist

**Citrus:** Depending on citrus fertilizer label, apply fertilizer every six weeks or as directed. Check for citrus insects; apply horticulture oil if insects are detected. Check for diseases; apply fungicide just at new leaf flush or after bloom drop. Maintain 2-3' unmulched area just outside the root ball (which would be 12-18 inches away from the trunk).

**Fruit:** Weed as needed. Apply Azalea fertilizer to blueberry shrubs, at 1/2 pound per 3' of shrub. Granular fertilizer may require about 1/4 inch of water to allow the root to absorb the nutrients

**Flowers:** Annuals to plant now include celosia, coleus, coreopsis, dusty miller, geraniums, hollyhocks, impatiens, kalanchoe, lobelias, marigolds, portulacas, rudbeckias, salvia, verbenas, zinnias. Groom to reshape perennials. Prune hard to correct growth problems. Divide overcrowded fall flowering perennials and bulbs. Bulbs to be planted now include achimenes, agapanthus, amaryllis, Asiatic lilies, begonias, blood lily, caladiums, cannas, crinum, dahlia, gladiolus, gloriosa lily and zephyranthes.

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

**Roses:** Begin watching roses for black spot fungus disease, small black spots on the leaves can quickly worsen. Continue spray program. Water as needed. April 15, apply granular rose fertilizer. Cut and remove spent blooms. Check for spider mites (wash underside of leaves with strong water pressure). Add mulch, 2-3 inches deep (oak leaves, cedar pine straw).

**Lawns:** Water during early morning when the leaves curl and turn gray-green. Reduce fertilizers and pesticides during seasons of drought. Keep mower height at the highest setting for grass type. Apply no more than 1 inch of sand to uneven areas for leveling. Allow grass clippings to stay on the lawn as long as grass is healthy.

**Trees:** Most older trees and palms are fine and can exist with the seasonal rains. Look for aphid, borer, and scale infestations. Caterpillars may be extra heavy this month. Continue fertilizing palms as needed.

**Vegetables:** This month you can plant snap beans, pole beans, lima beans, cantaloupe, collards, corn, cucumbers, eggplant, kohlrabi, okra, Southern peas, pumpkin, peppers, squash, sweet potatoes, tomatoes, turnips, watermelon, and yams.

*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*



Turnips



Okra



# The Lawn Fertilizer Toolbox

by Laurie E. Trenholm, Jason K. Kruse, and J. Bryan Unruh

Proper nutrition is essential for any living organism, and plants are no exception. Like all plants, the grass in your lawn requires water and specific nutrients in order to grow and stay healthy. While certain nutrients can be found in the soil, they aren't always present in the right amounts to support good plant health. The appropriate fertilizer applied at the correct rate and time can help maintain a healthy Florida-Friendly lawn, which can prevent soil erosion and reduce nutrient runoff and leaching. Think of fertilizer as a tool for delivering nutrients to plants.

As with any tool, it's important that you understand how to safely use it. The nutrients that are most important for keeping turfgrass healthy are the macronutrients nitrogen (N), phosphorus (P), and potassium (K). Mac-

ronutrients are required by plants in greater quantities than micronutrients. Of the micronutrients, iron (Fe) can also be an important management tool for specific situations in the landscape.

## Nitrogen (N)

Nitrogen is an essential element for life and growth, and it is the element turfgrass needs in reatest quantity to maintain a healthy groundcover. In plants, N is incorporated into amino acids (the basis for proteins), is used in creating nucleic acids (RNA and DNA), and is part of chlorophyll, the principal pigment for photosynthesis. Chlorophyll is especially important because it provides plants with the ability to harvest light energy, which allows plants to generate their own energy through photosynthesis. Without N, plants will eventually die. Nitrogen may come from

many sources in the environment, such as the soil, organic matter, reclaimed water, pet wastes, and leaf clippings, but these sources rarely provide adequate levels of N to maintain a healthy lawn. Therefore, N must be periodically added in the form of fertilizer. Applying N to turfgrass causes a growth response and enhances chlorophyll production, which provides the deeper green color that many associate with a healthy lawn. To ensure that your lawn receives the correct amount of N, follow UF/IFAS fertilization recommendations. Be careful not to apply more N fertilizer than is needed to maintain a healthy lawn. Overfertilization can result in stressed or weakened turfgrass, increased incidence of disease, or environmental harm due to nutrient leaching or runoff into water bodies.

## Phosphorus (P)

Because many Florida soils have sufficient levels of P to support turfgrass growth, supplemental P applications are not often required to maintain a healthy lawn. A soil test can tell you whether or not P is required. Your local county Extension service can provide directions and help for testing your soil. Applications of both N and P are now regulated by the Florida Department of Agriculture and Consumer Services (FDACS) Urban Turf Fertilizer Rule (RE-1.003(2) FAC) and also by county or city ordinances in some areas. Be sure to comply with all state and local regulations when fertilizing your lawn.

## Potassium (K)

Potassium helps turfgrass withstand stresses, such as cold temperatures, drought, traffic, and shade.

*continued on page 6*

*continued from page 5*

Potassium also aids in producing a deep root system that makes the grass stronger. Look for a fertilizer with a ratio of N to K of at least 2:1 (e.g., 16:0:8, which has 16% nitrogen, 0% phosphate, and 8% potassium as potash). A higher ratio of K is also acceptable for a lawn fertilizer.

## Iron (Fe)

Iron is a micronutrient required for healthy turfgrass growth and maintenance. Micronutrients are essential to plant growth, but are needed in much smaller quantities than macronutrients. While Fe cannot substitute for the other required nutrients, it can be an important component of a fertilization regime, particularly in areas where the pH is high greater than 7.0). This is because certain plants, including turfgrasses, can have difficulty taking up Fe from soils that have a high pH. A soil test will indicate the pH. In soils with high pH, a fertilizer with Fe may be needed

to keep the grass green and healthy; however, this does not substitute for the other nutrients. Iron can make your lawn green because it is involved in chlorophyll biosynthesis, but it does not provide the proteins and amino acids that N does. Some homeowners may want to apply Fe in the summer to help keep their lawns green without creating the growth that N application would cause. However, it's important to note that Fe is not a substitute for N.

## When to Fertilize

Only fertilize when the grass is actively growing since this is when the grass makes the best use of the fertilizer's nutrients. Fertilizer applied when the grass is dormant may not produce the desired response. In addition, fertilization during dormancy may cause the grass to grow at a time when it would not naturally do so, resulting in a weakened turfgrass. Fertilization during times of dormancy may also contribute to

nutrient leaching or runoff since the grass has less root system and, therefore, less ability to take up the nutrients. The University of Florida/IFAS recommends that homeowners fertilize following the guidelines in Table I based on their location in the state, grass species, and preference for the level of maintenance required. Based on these specifics, lawns should be fertilized between two and six times per year when the grass is actively growing. Active growth occurs from spring through fall in North and Central Florida and can be year-round in South Florida. Do not fertilize your lawn during the winter months if you are in a part of Florida where the lawn does not actively grow in the winter.

It's very important to fertilize within the range of rates recommended by IFAS to maintain a healthy Florida-Friendly lawn. Remember not to overfertilize. Too much N will result in excess shoot growth,

## Conclusion

Remember to follow these other best management practices when fertilizing so that you can help reduce any non-point source pollution of water bodies from fertilizer: Never leave fertilizer granules on impervious surfaces. Always sweep up spills and put the spilled fertilizer back in the fertilizer bag or spread them onto the lawn.

- Always follow the IFAS fertilization recommendations and rates.
- Leave a 10 ft. unfertilized area around water bodies. (Professional fertilizer applicators have equipment that allows them to fertilize closer to water bodies than this.)
- Do not fertilize dormant (brown) turfgrass. Turfgrass is dormant when it's not growing, which is typically in the winter.
- Do not fertilize newly planted or seeded turfgrass for 30–60 days after planting.



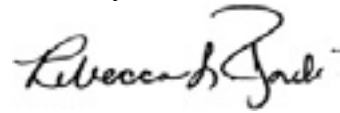
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Sincerely,



Rebecca L. Jordi,  
**County Extension Director**  
**Horticulture Agent III**



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## ***Pest Patrol - Armadillos by Rebecca Jordi CED Horticulture Agent III***

The following information from a University of Florida publication called "Dealing with Unwanted Wildlife in an Urban Environment".

Armadillos live in dens and cause damage by burrowing under foundations, driveways, and other structures. More than 90 percent of the armadillo's diet is made up of insects and their larvae that live in the soil. They also feed on earthworms, scorpions, spiders, and other invertebrates.

Armadillos are most active at night, when they make small cone-

shaped holes in the ground while rooting for food. There are no successful repellents, toxicants, or fumigants registered for armadillos. The use of insecticides to reduce food sources also has not been proven to stop armadillo

digging. A fence slanted outward at a 40° angle, with a portion of it buried may be a somewhat effective barrier under certain conditions.

Although trapping live armadillos is very difficult, some people

have experienced limited success by using a 10x12x32 inch live or box trap. The bait used by successful trappers is earthworms in a ball of dirt placed in the toe of an old nylon stocking. Trapping is most effective when leaf litter or soil is placed over the trap entrance. Armadillos caught in these traps can be released in an area where you have obtained landowner permission. Armadillo meat is edible if properly prepared. To download the complete article from the internet check out: <http://edis.ifas.ufl.edu/UW070>

