Personal Protection from Mosquitoes

The top environmental nemesis for the home gardener is the presence of mosquitoes. Gnats and other insects tend to annoy, but mosquitoes leave their marks and can bring on diseases to the unprotected.

With the abundant rainfall in the past 4 weeks, we need to drain any standing water from the lawn or landscape to reduce the mosquito population. If this is not possible, the use of mosquito dunks or doughnuts to kill the larvae is recommended. These are also safe in bird baths and rain barrels or rain gardens, as their active ingredient is a bacteria, *Bacillus*.

Further protective measures include avoiding early morning and late afternoon outings and work in the garden. If you need to get out, always apply an insect repellent such as DEET for adults, or other...
products for children less than 3 years old. For a more
detailed explanation of mosquito and other bug repel-
lants, go to the following link:
http://edis.ifas.ufl.edu/IN419.

Bug zappers and other devices in the landscape have
variable performance ratings, and for more info on these,
go to the EDIS document ENY692 entitled “Mosquito
Control Devices and Services for Florida Homeowners,
or electronically, the link is
http://edis.ifas.ufl.edu/ENY692.

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Growing Melons in the Home Garden

When it comes to growing cantaloupe and watermelons
in the home garden there are a few things that need to be
taken into consideration. The first one is to pick the right
variety for your location. This is one of the most vital
decision when growing melons in the home garden. The
two most important characteristics when choosing the
proper variety are yield and disease resistance. Table 1
illustrates varieties that have high yields along with good
disease resistance that are suitable for Florida home gar-
dens.

Another important factor in growing melons at home is
proper fertilization. In order to get a good start on fertili-
ty, a soil test should be performed prior to planting your
crop. Soil sample kits may be obtained from your local
extension office. If a soil sample is not taken, table 2
provides a rule of thumb for proper fertility practices on
melons. Apply 25 to 50 percent of the fertilizer before
planting and incorporate it into the soil. The remainder
should be applied regularly throughout the growing sea-
son.

Something else to take in consideration is correct pest
control management practices. In order to have plants
survive and produce high yields, a good fungicide and
insecticide regimen along with excellent weed control is
a must. For more information on pest control and other
related topics on cantaloupe and watermelons, go online
to http://edis.ifas.ufl.edu/topic_cantaloupe_ipm,

Table 1. Melon Varieties for Florida

<table>
<thead>
<tr>
<th>Cantaloupe</th>
<th>Watermelon</th>
</tr>
</thead>
<tbody>
<tr>
<td>Athena</td>
<td>Munchkin (S)</td>
</tr>
<tr>
<td>Autumn Gold (M)</td>
<td>Odyssey</td>
</tr>
<tr>
<td>Big Autumn (L)</td>
<td>October (M)</td>
</tr>
<tr>
<td>Connecticut Field (L)</td>
<td>Prizewinner (G)</td>
</tr>
<tr>
<td>Eclipse</td>
<td>ProGold (L)</td>
</tr>
<tr>
<td>Gold Medal (L)</td>
<td>Vienna</td>
</tr>
<tr>
<td>Merlin (M)</td>
<td>Wizard (M)</td>
</tr>
</tbody>
</table>

S=Small; M=Medium; L=Large; G=Giant

Table 2. Melon Fertilization

<table>
<thead>
<tr>
<th></th>
<th>Cantaloupe</th>
<th>Watermelon</th>
</tr>
</thead>
<tbody>
<tr>
<td>pH</td>
<td>6.5</td>
<td>6.0</td>
</tr>
<tr>
<td>Nitrogen</td>
<td>1 lb/100sqft</td>
<td>1 lb/100sqft</td>
</tr>
<tr>
<td>Phosphorus</td>
<td>1 lb/100sqft</td>
<td>1 lb/100sqft</td>
</tr>
<tr>
<td>Potassium</td>
<td>1 lb/100sqft</td>
<td>1 lb/100sqft</td>
</tr>
<tr>
<td>10-10-10</td>
<td>10 lb/100sqft</td>
<td>10 lb/100sqft</td>
</tr>
<tr>
<td>13-13-13</td>
<td>8 lb/100sqft</td>
<td>8 lb/100sqft</td>
</tr>
<tr>
<td>15-15-15</td>
<td>7 lb/100sqft</td>
<td>7 lb/100sqft</td>
</tr>
</tbody>
</table>

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The Year of the Caterpillar?

Will this be the year of the caterpillar in your yard? It
may if you have various host plants that will attract
the adult insects to lay eggs.

Caterpillars can be voracious eaters, seemingly devour-

ing leaves of your favorite plants overnight. It can be
very alarming to see your favorite plant or hedge with
holes riddling the leaves. In the world of damaging insects, however, many landscape caterpillars are rather harmless. Although plant appearances are not that attractive after feeding, most plants can easily recover from a caterpillar infestation by growing new leaves.

Most caterpillars in landscapes are the larvae of moths or butterflies. Mallow hibiscus is host to one of the sawfly larvae which is in the wasp group. If you can spot the caterpillars when they are young, removing the few infested leaves will help manage the problem. Below are three common caterpillars you may encounter while gardening.

The giant swallowtail caterpillar sticks out a red forked organ called an osmetrium to scare off predators. It has an odor can be alarming to people as well. Anyone with a citrus tree in the yard will eventually see this caterpillar.

Photo Credits: Beth Bolles, Escambia County Extension

- Oleanders are host to an orange, fuzzy caterpillar that can devour foliage, leaving only the leaf midrib behind. The adult are beautiful black moths with white spots and a red tipped abdomen.

- The giant swallowtail butterfly lays eggs on citrus plants and the young caterpillars look like bird droppings. Remove caterpillars from young plants. Older citrus trees will recover from caterpillar feeding.

- Anyone with a pecan or hickory will eventually see hundreds of walnut caterpillars moving along the trunks of trees in late summer. Caterpillars will eat every bit of the leaf except the petiole. This is not a yearly occurrence so healthy trees will survive without treatment.

Always be careful about touching caterpillars unless you know for sure what it is. Some caterpillars have stinging hairs which can cause a very uncomfortable skin irritation.

Avoid "Band Aid" Approach to Weed Control, Choose Lawngrass for Site

"Herbicides are just a Band-Aid." This is a quote from Dr. Bryan Unruh, UF/IFAS Turfgrass Specialist. When it comes to lawn weed management, choosing the correct grass for the site is a better choice as compared to a “Band-Aid” approach.

There is no 'best‘ lawngrass. Each type of lawngrass has advantages and disadvantages. Consider site conditions and choose a lawngrass best suited for the site. For example, centipedegrass has poor salt tolerance. Eventually centipedegrass will decline when exposed to salt-water and/or salt spray. As this happens, dollarweed and other weeds that have a high salt tolerance will takeover the lawn. Seashore paspalum, bermuda, zoysia or St. Augustine have good to excellent salt tolerance and would be a better choice for a coastal landscape with potential salt exposure. If the site is shady, choose a shade tolerant grass such as St. Augustine or zoysia.

Consider soil conditions on the site such pH. Centipedegrass and bahiagrass thrive on an acid soil (pH of 5.0 to 5.5). Will the site be irrigated or is it a naturally wet site? On well drained sandy sites with little to no supplemental irrigation, choose a drought tolerant grass such as Argentine bahia. Carpetgrass would be a better choice for a naturally wet site.

Each site is different. Choosing a lawngrass best suited to the site conditions should result in a “happier” and healthier lawn. And that’s the goal! A healthy, thick
lawn is more competitive with weeds and with correct care should require less herbicides.

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Tree Identification Made Easier

Identification of trees can be challenging. With seven different pines and 25 different kinds of oaks in North Florida, tree id can be very confusing. If you like to dabble in tree identification, I have listed a few books that you might want to use to help you identify trees.

*Trees of Northern Florida* by Herman Kurz and Robert K. Godfrey. This book was written in 1962 and is an excellent book for tree identification for this specific area. It has artistic black and white drawings of leaves, flowers and fruits. The text is very descriptive and detailed.

*A Guide to Southern Trees* by Ellwood S. Harrar and J. George Harrar. This book covers the entire area south of the Mason-Dixon line from the Atlantic Ocean to the Florida Keys and Western Texas. The book was written many years ago and the descriptions often include interesting information such as old medicinal uses of certain trees.

*The Trees of Florida* by Gil Nelson is a newer book. It was published in 1994. The book is divided into two sections. The first part is a general overview of tree families and their species. The second part has brief descriptions on how to identify the trees and line drawing of typical leaves, fruits and flowers. There is also a section that has color pictures of some of the trees’ distinguishing characteristics. It’s a good book if you travel around Florida and only want to take one book.

*The Audubon Society Field Guide to North American Trees* is noted for its good color pictures. The author of the book is Elbert L. Little who was the former Chief Dendrologist with the U. S. Forest Service. Pictures and text are in separate areas of the book which can make it unhandy, but if you like good clear photographs this may be the book for you.

Golden Press’s “A Guide To Field Identification/Trees of North America” is a handy pocket book. It was written by Frank Brockman and was originally copy written in 1968. It has good color drawings. Accompanying each drawing is a concise but helpful description of each tree. Such brevity allows the author to describe multiple trees on one page, thus allowing for easier comparisons between species of the same genus.

People find that different methods work better for them. Some people like drawings, some pictures and others verbal descriptions. It is best to think about this and see what works best for you. It is also handy to utilize more than one type of book so that you can cross reference them and have the advantage of a couple of descriptive styles.

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Ground Pearls in Turfgrass

Ground pearls are scale insects that suck fluids from the roots of bermudagrass, bahiagrass, carpetgrass, St. Augustinegrass, and zoysiagrass, but they prefer centipede-grass. Infested grass yellows, browns, and dies, especially in hot, dry weather. Weeds tend to invade the infested areas. Ground pearls occur throughout Florida and are famous for sucking the juices out of the roots. It is like filet minion to them.

To scout for ground pearls, lift up the sod or turf. Clusters of pinkish-white eggs, covered in a white waxy sac, are laid in the soil from March to June. Tiny crawlers or nymphs attach to roots and cover themselves with a hard, yellowish to purple, globular shell. These “pearls” range in size from a grain of sand to about 1/16 inch. They may occur as deep as 10 inches in the soil. The adult female is 1/16 inch long, pink in color, with well developed forelegs and claws. Females emerge from cysts in the spring, move around a little, then dig...
several inches into the soil, and secrete a waxy covering around themselves. One generation may last from 1 to 2 years.

These "pearls" range in size from a grain of sand to about 1/16 inch. They may occur as deep as 10 inches in the soil.

Photo Credits: Theresa Friday, Santa Rosa County

If you have ground pearls, other issues have an easier time of stressing your lawn including diseases, other insects and poor cultural practices. There are no control products for ground pearls. There are a few strategies like minimizing plant stress, maintaining proper fertility, and irrigating properly in order to help the grass tolerate the damage.

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Citrus Greening: A Devastating Citrus Disease

One of the many joys of living in the Florida Panhandle is growing citrus in your own back yard. But a new disease is about to threaten us and it may be more devastating than citrus canker.

Citrus greening disease, also known as Huanglongbing (HLB), is the most devastating disease of citrus, affecting all citrus cultivars. The disease is caused by a bacterium and is spread by a tiny insect called the Asian citrus psyllid.

Asian citrus psyllid is not native to Florida. It was first found in Florida in 1998. Adult psyllids measure about 1/8 inch long and have mottled grey-brown wings which they hold "roof-like" above their bodies. Adult psyllids can usually be found on young, tender new growth where they feed and mate. Their small size can allow them to be mistaken for aphids. However, psyllid nymphs produce a white, waxy secretion that is easily seen and makes them easily distinguishable from aphids. Psyllid feeding causes new leaves to emerge twisted and curled.

Fruit are sparse, small, abnormal in appearance and fail to color properly, thus the name greening. The affected fruit often contain aborted seeds and have poor juice quality.

Photo Credits: J.M. Bové, INRA Centre de Recherches de Bordeaux, Bugwood.org

It is very important to distinguish greening symptoms from mineral nutrient deficiencies which also cause leaf yellowing. The fruit can also display symptoms. Fruit are commonly misshapen and appear lopsided. A yellow stain in the peel just below the point of stem attachment, dark-colored aborted seeds, uneven peel coloring, and a bitter, salty taste are other symptoms.
Snails on Nursery Plant Containers

Occasionally on shipments of container plants, snails (terrestrial air-breathing gastropods) may be found attached to the container pot. Snails are abundant in nearly all parts of the world except the arctic regions, and feed almost entirely on vegetation. Those mostly encountered on nursery container plants are cone shaped reaching 1/2 to 2 1/2 inches in length and having an external enclosing spiral shell or occasionally rounded shell with four to five rapidly expanding whorls that are 1 to 1 1/4 inches in size.

There are many species of snails. Most snails found on shipments are those restricted to tropical and semitropical regions requiring high humidity and warm temperatures. The U.S. has four native genera of Bulimulidae: Rhabdotus, Drymaeus, Orthalicus and Liguus. Of these, the last three genera are native to Florida. There is also another introduced genus in Florida, Bulimulus, which is primarily terrestrial. Other introduced species are Zachrysia provisoria and Caracolus marginellus in the Family Camaenidae occurs in Florida and found throughout much of the tropics.

You can find snails in moist, shaded locations, which are similar to conditions found in container plant production areas, weedy locations or in organic trash. Most lay eggs throughout the season. Overwintering eggs may hatch in spring.

The following are general snail management suggestions:

- Remove excess organic material under plants. Organic materials provide moist hiding places for eggs and smaller snails, and sometimes as food sources.
- Monitor plant and environment moisture to reduce favorable snail habitats.
- When possible, remove the snails by hand, which is a reasonable, effective, nontoxic and environmentally acceptable control option.
- Check with your favorite garden store outlet for bait, biological, or chemical product control options.

Garden Tips for May and June

Temperatures are rising and May is typically one of our drier months, so it’s time to get serious about watering. Many new plants are lost because of insufficient watering. Remember that new plants only have roots in an area the size of the rootball that was in the pot. So be sure to direct water to that area. If the rootball gets too dry, the plant can wilt and even die. Water the lawn and
other large areas in early morning when less water is lost to evaporation and more is absorbed by plants.

Flowers

- Allow the foliage on spring bulbs to grow. Do not cut it off until it turns yellow and falls over.
- Remove spent blooms on roses and other flowering perennials (deadheading). Cutting flowers is good for the plants and will give you more flowers in the long run.
- Control black spot on roses by applying fungicides on a regular basis.
- Set out caladium bulbs in prepared beds. Plant them about 18 inches apart and 2 inches deep.

Spice up your landscape with ornamental peppers. Photo Credits: Theresa Friday, Santa Rosa County Extension

- Rejuvenate houseplants. Take them outdoors and inspect for spider mites and mealybugs. Shift pot-bound specimens to a size larger pot.
- Fertilize annual and perennial flowerbeds. Choose a product that contains nitrogen and potassium, but little or no phosphorus.
- Bulbs or tubers to plant now include agapanthus, blackberry lily, clivia, gloriosa lily, crinum, flag iris and Louisiana iris.

- Annuals to plant include celosia, coleus, crossandra, gaillardia, geranium, hollyhock, impatiens, kalanchoe, marigold, nicotiana, ornamental pepper, penta, phlox, portulaca, salvia, torenia, verbena, vinca and zinnia.

Trees and Shrubs

- Do any necessary pruning of junipers in May.
- Mature palms should receive an application of granular fertilizer. Use a special palm fertilizer that has an 8-2-12 +4Mg (magnesium) with micronutrients formulation. Apply one pound of fertilizer per 100 sqft of canopy area or landscape area.
- Finish pruning spring flowering shrubs such as azaleas, spiraeas, camellias and forsythia by early June.

Fruits and Nuts

- Harvest peaches, nectarines and plums as soon as they mature, before the squirrels and birds get to them.
- Fertilize citrus with a special “citrus fertilizer”. Be sure it contains about 1.6% magnesium, about 0.5% manganese and small amounts of copper and boron.

Vegetables

- Sweet potatoes are started from plants or “draws”. Be sure to purchase only certified weevil free sweet potato plants.
- Increase watering frequency and amount as tomatoes load up with fruit.
- Sidedress vegetable gardens with fertilizer containing nitrogen and potassium. A fertilizer such as a 15-0-15 can be used. Use approximately 2-3 cupfuls (1 to 1 ½ pounds) per 100 feet of row.
- Vegetables that can be planted outdoors include eggplant, lima beans, okra, southern peas, and sweet potatoes.
Spittlebugs are present throughout the entire state, but they are more abundant in northern and northwestern Florida. They attack all turfgrass species, but centipedegrass is the most susceptible. Adults also feed on ornamental plants, especially hollies.

Photo Credits: Theresa Friday, Santa Rosa County

- Summer can bring lawn pest. Spittlebugs damage centipede lawns when populations become excessive. These small black insects with 2 orange strips across the back can cause yellow or reddish streaks down the grass blades which eventually turn brown. Chinch bug damage in St. Augustine lawns appears as straw-colored areas in full sun. These tiny insects are black with white wing patches on their backs.

- Water lawns in the early morning (usually between 2 am and 8 am) to help prevent disease problems.

The adult form of the southern chinch bug has a black body measuring about 6 mm in length. The wings are white with a black spot on the margins of the forewings.

Photo Credits: Theresa Friday, Santa Rosa County

- Calibrate the lawn sprinkler system so that approximately ½ to ¾ inch of water is applied at each irrigation.

Upcoming Events

Santa Rosa County Events

May 18: **Butterfly Docent Training.** Interested in butterflies and want to teach others what you know. Then become a Panhandle Butterfly House volunteer teacher or docent. A training class will be held at the Navarre Welcome Center beginning at 1 pm CST. For more information or to sign up, email docents@panhandlebutterflyhouse.org or call 850.623.3868.

May 30: **The 1** from 10am to 2pm at the Santa Rosa County Extension Office located at 6263 Dogwood Drive, Milton. Extension Faculty will be presenting programs on various subjects including, vegetable gardening, butterfly gardening, beach safety and Florida pests.
In addition, garden tours will be available.

**June 13:** The **Navarre Garden & Environmental Expo** at the Navarre Conference Center. 9 am to 2 pm CST.

**June 17:** **Gulfcoast Turfgrass Expo and Field Day.** West Florida Research & Education Center. $35.00 for pre-registration and $45.00 on-site registration. For more information call 850-393-7334.

The Panhandle Butterfly House
Photo Credits: Theresa Friday, Santa Rosa County

**Escambia County Events**

May 16: Pensacola Federation of Garden Clubs “**Secret Gardens of the Emerald Coast**” tour. All of the homes are located along Bayou Texar, and there will be Master Gardeners or an Extension Agent with educational exhibits at each of the stops. 10 am to 3 pm, for more information go to www.pensacolagardencenter.com.

June 13: **First annual Escambia County Blueberry Jamboree!** Located at the Barrineau Park Community Center and Historical Society in Molino, the festival will open at 8 am with a “Race for the Blueberries” 5K and feature live bluegrass bands, fun contests, craft and food vendors, and kids activities until 8 pm. For more information, call 850-475-5230 or visit the festival website at http://escambia.ifas.ufl.edu/blueberry/index.shtml.

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