

# Green Garden News

## Soil Tests

Soil tests serve as a valuable guide for fertilization practices. Such tests generally indicate the amounts of available phosphorus, potassium, calcium and magnesium in a soil. In addition, the pH (acidity or alkalinity) of a soil is also determined. Trained soil technologists interpret results of soil tests and recommend what fertilization practices are necessary to produce a desired effect.

At times, a soil may be too acidic. Agricultural lime or dolomite is used to increase the pH, or "sweeten" the soil. The only way to know what should be added to a soil to change the pH is to have a soil test conducted. It is a mistake to try to adjust the pH without knowing what is needed and in what quantity. We often hear of gardeners who add lime to their soil almost every year. In most cases, the lime is not needed and an undesirably high degree of alkalinity is reached. Thinking that they have not added enough lime, they heap more onto the soil making a bad situation even worse. This practice is like adding gasoline to a fire to put it out. All we are really trying to point out is this--don't guess--soil test. Your guess may be wrong or completely out of proportion as to the amount of material you really need. Many gardeners are desirous of soil tests when suddenly a plant

dies or seems to be on the brink of doing so. After growing well for a period of years a plant will not suddenly wilt and die due to malnutrition. More often the reverse is true, that is, too much fertilizer has been placed about the plant resulting in death of the root system. It is rare indeed, to find a garden soil so low in nutrients as to cause the death of a plant.

Some things soil tests do not tell you are the presence of insect or disease organisms and lack of water or too much water. In many instances, the sudden death of a plant can be attributed to one of these factors. Poor drainage particularly during wet weather, is one of the major causes of plant decline or death. We often forget that oxygen is needed in greater amounts than other elements such as nitrogen, phosphorus, potassium, etc. Wet soils contain little oxygen which is available to the roots. When this condition exists, the plant's root system ceases to perform its vital function of absorbing water and nutrients from the soil. If this water logged condition persists the root system will die, resulting in death of the entire plant.

Another thing not ordinarily revealed is the presence of herbicides or weed killers. The indiscriminate use of these chemicals often results

*(Continued on page 6)*

Volume 4, Issue 2

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### Inside this issue:

Where do insects go during the winter?	2
Upcoming Events	2
Mahonia blooms means Spring is coming	3
February gardening tips	4
Questions & Answers	5

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# Where do insects go during the winter?

Think of summertime in Florida and one of the images that come to mind is an abundant supply of insects. Although insects may still be found during the winter months there appear to be fewer different species present. This leads to the question, "Where do insects go during the winter?". Some species, like the Monarch butterfly, have the well known behavior of migrating south out of the area in the fall. Others, like the velvetbean caterpillar, are killed off by freezing temperatures. The area is re-colonized the following summer by individuals migrating from farther south where they are able to survive the winter.

However, most insects in north Florida are able to survive the winter in a state of diapause. Diapause is a neurohormonal controlled condition of development that can occur at the embryonic (egg), larval, pupal, or adult stage, depending on the species. This state enables a species to survive unfavorable environmental conditions and in some ways is comparable to hibernation in higher animals.

Diapause is not a physiological response brought about by harsh conditions. Rather, it is brought about by subtle stimuli that precede a change in the environmental conditions. These can be changes in day length, temperatures, soil moisture, etc. Thus, diapause begins before the actual severe conditions arise. In preparation for diapause, an individual usually accumulates additional fat reserves and seeks out a location that is somewhat protected from ex-

treme environmental conditions. Depending on the species, these sites may be underground, in leaf litter on the soil, in galls or in well-constructed cocoons. When in diapause, development is halted and metabolism is reduced. In addition, many insects increase the thickness of the waxy layer of their exoskeleton to reduce water loss during the inactive state.

In north Florida, some diapausing insects and their diapausing stages are: the forest tent caterpillar in the egg stage attached to the terminals of its host (typically plum or cherry trees); the corn earworm in the pupal stage in the soil; the fall webworm in the pupal stage under loose bark or in leaf debris on the soil; the praying mantid in the egg stage that is in a case glued to a twig or tree bark; the European corn borer in the larval stage in the stalk of its host plant.

Most insects remain in diapause for only part of a year. However, some insects, such as the golden buprestid *Buprestis aurulenta* L. are well documented to have the capacity to remain in diapause in structural timbers for as long as 26 years.

—by Richard Sprenkle, Professor, North Florida Research and Education Center

## Upcoming Events

**Every Tuesday: Plant Diagnostic Clinic.** This free clinic is open to the public from 9:00 am to 1:00 pm on Tuesdays at the South Santa Rosa Service Center at 5819 Gulf Breeze Pkwy.

**February 4, 2006: Gulf Coast Gardening from the Ground UP: "The GROUND floor".** This free program is open to the public and will be presented at the Milton Library at 5541 Alabama St. Milton. Registration opens at 1 p.m. and the program will start at 1:30 p.m.

**February 11, 2006: Gulf Coast Gardening from the Ground UP: "Trees vs. Hurricanes".** This free program is open to the public and will be presented at the Navarre Library, 8484 James M. Har-

vell Road, Navarre. Registration opens at 1 p.m. and the program will start at 1:30 p.m.

**February 18, 2006: Gulf Coast Gardening from the Ground UP: "Trees vs. Hurricanes".** This free program is open to the public and will be presented at the Milton Library at 5541 Alabama St., Milton. Registration opens at 1 p.m. and the program will start at 1:30 p.m.

For persons with disabilities requiring special accommodations, please contact the SRC Extension Office at least 5 working days prior to the program so that proper consideration may be given to the request.  
(850) 623-3868

# Mahonia blooms mean Spring is coming soon

I was at an office complex last week when I noticed the Mahonias right outside the door were just beginning to open up their sprays of yellow blossoms. It's like a signal, groundhog or no, that spring is around the corner.

From my perspective, the Mahonia deserves a place in the landscape similar to a piece of statuary: as an accent near the front door or just off the patio. I also have seen very nice mass plantings.

The Mahonia is in the barberry family and has distinctive evergreen foliage that changes colors throughout the year. This plant seems to always be attractive and command attention.

Mahonias are not all that hard to find at garden centers, and now is a good time to begin shopping.

The happiest Mahonias in the South receive only filtered light during the hottest times of the day. The Mahonia looks best as part of a shrub bed. You will be most unhappy growing the Mahonia mixed with turf.

Prepare your soil by incorporating three to four inches of organic matter and two pounds of a 5-10-5 fertilizer per 100 square feet of planting area. Till the soil eight to ten inches deep.

Dig the planting hole three to five times as wide as the rootball, but no deeper. Place the plant in the hole and backfill with soil to two-thirds the depth. Tamp the soil and water to settle, add the remaining backfill, repeat the process and apply mulch.

Moisture is critical the first year, so water deeply when required. Feed established plantings in March with a slow-release, balanced fertilizer like an 8-8-8 at the rate of one pound per 100 square

feet.

The Mahonia is not considered a high-maintenance plant. It is related to the nandina and the barberry and has the same cultural habits. Prune out about one-third of the old woody canes to encourage new, young shoots.



The bright yellow, fragrant blossoms and busy bees give a breath of spring this time of year. The blossoms will give way to steel-blue fruits that are formed in huge, grape-like clusters and command attention from us, as well as the birds that devour them. Everyone needs at least one.

We grow two basic types, or species, of Mahonias in the South. The Mahonia aquifolium, also called Oregon Holly Grape, reaches three to five feet in height. The new, holly-like growth has a bronze-to-red coloring that turns to deep, glossy green. The leaves are purple-red in the fall.

This plant is sold generically, but there are varieties like Golden Abundance, King's Ransom and Flame that have gained attention.



The other species is Mahonia bealei, or Leatherleaf Mahonia. There are more southern suppliers of the Leatherleaf Mahonia than the Oregon Holly Grape. It is the taller of the two, reaching four to six feet in height, but occasionally coming close to ten feet. The mature width will be four to five feet. These two Mahonias are strikingly exotic in the landscape and showy at a time when not much else

is happening.

Take a survey of your landscape to see where Mahonias might add enjoyment with their beauty.

—by Norman Winter, MSU Horticulturist  
Central Mississippi Research & Extension Center

# February gardening tips

## Flowers

- Re-fertilize cool season flowerbeds, using a liquid or granular form of fertilizer. Be careful not to apply excessive amounts and keep granules away from the base of stems.
- Prepare flowerbeds for spring planting by adding and incorporating soil amendments like mushroom compost, manure or homemade compost. Till or spade the bed to incorporate the amendments with the existing soil to a depth of 6 to 8 inches. Allow the prepared bed to lie undisturbed for 3 to 4 weeks before planting.
- Have a soil test done. Sometimes lime is needed. However, a lime application should be made only if the need is revealed by the test.
- Prune rose bushes.

## Trees and Shrubs

- February is possibly the best month for rejuvenation of old, overgrown shrubs. When pruned now, plants have an entire growing season to recover.
- Prune summer flowering deciduous shrubs such as Althea and Hibiscus. Since they flower on current season's growth, flowering can actually be enhanced by proper pruning
- Do NOT prune the spring flowering shrubs yet. Azaleas, spiraeas and forsythia flower during early spring because buds were formed last summer and fall. Pruning in February would therefore remove most of the flower buds.
- Cold damaged trees and shrubs should NOT be pruned until new growth appears. You want to preserve as much healthy plant material as possible.
- Replenish mulch in shrub beds
- Finish planting ornamental and fruit trees.

## Fruits and Nuts

- Fertilize *established* pecan trees. Use a "special pecan fertilizer" that contains zinc. Use 2 lbs. for every year of age of the tree up to a maximum of 55 lbs. Broadcast the fertilizer evenly beneath the tree.
- Fertilize *established* peach, plum, pear, persimmon, apple and fig. Apply about 1 ½ lbs of a 10-10-10 (or similar) fertilizer for each year of age of

the tree until a maximum of 10 to 15 lbs. per tree is reached.

- Blueberries are very sensitive to nitrogen and can be killed easily, particularly when they are young. Fertilize only if your goal is to increase yield or berry size. An annual application of 2 ounces of a special "azalea/camellia" or "special blueberry" type fertilizer per plant in February is ample fertilizer on 2-year-old plants.
- Prune muscadine grapes between mid-February to mid-March. A standard method is to allow 2 to 4 node spurs spaced every 6 inches of cordon. You may notice that pruning cuts bleed, but there is no evidence that this is injurious to the vines.
- Grapes (bunch and muscadine) should be fertilized at the rate of 1 ½ lbs of 10-10-10 for each year of age with a maximum of 5 lbs per plant applied in late February.
- Last call for planting fruit trees! Most fruit trees such as pecans, plums, persimmons, figs, peaches and nectarines are shipped bare roots and should be planted during the dormant season.

## Vegetable Garden

- Several winter vegetables can still be successfully grown by starting them this month. Plant beets, broccoli, cabbage, carrots, cauliflower, celery, Chinese cabbage, collards, endive/escarole, kale, kohlrabi, leek, lettuce, mustard, parsley, English peas, radish and turnips.
- Plant Irish potatoes. Purchase certified seed potatoes rather than using the grocery store kinds. Use 2-ounce seed pieces with eyes and plant them 3 to 4 inches deep.
- Prepare spring vegetable and herb beds for planting by adding and incorporating soil amendments like mushroom compost, manure or homemade compost. Wait 3 to 4 weeks before planting.

## Lawns

- Hold off on fertilizing the lawn. It is still **too early** for an application of nitrogen containing product. Cold temperatures and lack of plant response would likely result in wasted fertilizer. However, your winter weeds would benefit greatly.

# Questions and Answers

**Q: When can I prune my plum and peach trees? When can I plant new plum and peach trees?**

**A:** The best time to prune peaches and plums is during late winter to very early spring (late February to early March). This will be just before or right at the time these plants begin to grow. The best time to plant deciduous fruit trees such as plum and peach is January through February. Following is a website that contains much on fruit crops for Florida.

[http://edis.ifas.ufl.edu/TOPIC\\_Fruit\\_and\\_Nuts](http://edis.ifas.ufl.edu/TOPIC_Fruit_and_Nuts)

**Q: Do I fertilize my palms, maple trees and shrubs now or do I wait until this spring?**

**A:** You do not need to fertilize now. If needed, fertilize in the spring. Well established trees do not need fertilization in most landscape situations. Because their roots occupy such a large area, they have access to fertilizer from the lawn, etc. Younger trees, less than five years old, may benefit from being fertilized a couple of times per year, particularly if they are well away from lawn areas. Base shrub fertilization on the overall looks and growth of the shrubs. If the shrub is growing plenty and has a healthy color, you may not need to fertilize it.

Palms are an exception. They need more fertilizer compared to most of our landscape plants. Typically, palms will need two to four applications of a palm specialty fertilizer per year, beginning in the spring through summer.

**Q: I have an oleander plant that has overgrown the house. As a result, I need to cut it back a great deal. How much can I cut it back and when is the best time to do so?**

**A:** The best time to prune oleanders is during late winter to early spring (late February to early March). It's best to not prune out more than one third. If you remove more than one third of the plant, you'll significantly reduce flowering the following year to several years. But if needed, oleanders usually respond well to severe pruning. By se-

vere pruning, I'm referring to the removal of more than one third the plant for the sake of reducing the plant's overall size. If needed, you can prune oleanders to the ground and they'll regrow. But doing so will result in the plant putting all of its energy into recovering the lost growth at the expense of producing flowers. If you do severely prune, do so during late winter to early spring. When the new shoots are a foot or so in length, you'll need to prune them back several inches to force them to sprout or you'll end up with a leggy, open plant. It's important to know that a severely pruned plant will eventually regrow to its original size. Plants are genetically designed to be a certain height. This problem never ends. The root cause for this situation goes back to planting the wrong plant in the wrong place. In the long run you may be better off removing the oleander and replacing it with a more appropriate plant in mature height and spread for that location. This information holds true for many other types of shrubs that are overgrown in addition to oleander.

**Q: Is it too early to fertilize my lawn?**

**A:** February is usually too early for a spring application of fertilizer. Our permanent lawn grasses such as centipede, St. Augustine, bermuda and zoysia haven't started growing yet. Wait until the soil and air temperatures have warmed up enough to cause grass growth to begin. March is plenty early enough for fertilizing.

**Q: I have noticed groups of trees that have been covered with red flowers during February. They appear to be growing naturally in low areas. Can you tell me what kind of trees these are?**

**A:** The tree that you describe is the Florida Red Maple. It is one of our best small to medium-sized native trees. It has the peculiar habit of flowering before spring leaf emergence. These red flowers are followed by the production of red, winged seeds, giving us about a month of color during late winter. It provides good red fall leaf color too.

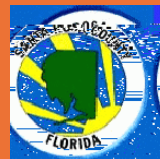
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in sudden death of plants.

The presence of nematodes in the soil will not be revealed by ordinary soil testing. These microscopic worm-like animals damage plants by feeding on their root systems. Affected roots appear shriveled, blackened and stubby and there generally will be an absence of white feeder roots.

The next time you have a soil problem you think might be related to lack of fertilizer, examine your growing conditions (water, drainage, insects, disease and nematodes) to see if these are not causing the problem. If none of these problems exist, then have your soil tested.

—by *Dr. Bob Black, Consumer Horticultural Specialist (retired), University of Florida*



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