In This Issue...

The FAMU Extension Today continues to provide educational and news-worthy information to those who need it and to those we (FAMU Cooperative Extension Program-CEP) serve. The goal is to help people improve lives by using scientific knowledge focused on issues and needs. We listen to your needs and attempt to provide the materials/information that may address your issues.

Among the articles in the FAMU Extension Today are two U.S. Department of Agriculture (USDA)/Animal and Plant Health Inspection Service (APHIS)-relating to insects and animal disease traceability-to update you on current issues to help improve your farming experience.

Because it is our goal to serve your needs, we welcome your thoughts, comments and recommendation so we can better serve you through this newsletter.

Gardening Facts or Fiction

This is the time of year when we spend a lot of time and money in our gardens. Sometimes even the most well intentioned gardener makes serious blunder because he lacks knowledge or he may have been misinformed. Sometimes new research discredits some of the principles that were established as standard operating procedures. Here are some common gardening principles can you tell which ones are facts and which ones are fiction?

1. You should never remove more than 1/3 of the leaf when you mow even if that means cutting above the recommended height. **Fact**: If you miss your mowing interval raise the mowing height and gradually bring it down do not scalp your grass, scalping cause stress and reduce turf vigor.
2. During periods of prolong drought you should apply fertilizer to perk up your lawn and make it green again. **Fiction**, during long drought warm season grass goes into dormancy they shut down their physiological functions and they turn brown, DO NOT fertilize during this period it will only cause further stress on the grass. Once water becomes available many grassed will green back up.

3. The best time to water your grass is in the cool of the evening when you will get maximum efficiency of irrigation delivery. **Fiction**: The best time to water is just before sunrise this will reduce the length of time the leaf blades remain wet thereby lowering the risk of disease.

4. When planting a tree one should dig a hole slightly larger than the root ball and plant the tree at the same depth as the root ball. **Fiction**: The hole should be at least 1 ½ times the diameter of the root ball and the root ball should sit 2 to 3 inches above the soil.

5. If the tree you are planting is large you should prune some of the top leaves as this will reduce transpiration and help the plant to get establish faster. **Fiction**: Do no prune at the time of planting unless it is to remove dead branches.

6. At the time of planting a tree you should add about 6 ounces of fertilizer to the hole so that the roots will quickly take it up hastening the establishing time. **Fiction**: Research as shown that there is little or no effect from fertilizing at planting. It could cause root burn and may only contribute to nonpoint source of pollution.

7. As soon as you finish planting your tree you should put a 3 inch layer of mulch over the root ball, this will help retain moisture and regulate the temperature of the root ball. **Fiction**: A thick layer of mulch over the root ball will cut off oxygen and water to the roots. Cover the sides of the root ball but not on top, this area should be left bare.

8. An area of 2-3 feet per inch diameter of tree should be mulched. **Fact**: Keeping the area around the root mulched will reduce weeds which will rob the tree of water and nutrients and it will also reduce the probability of mechanical damages.

9. The time it takes for a tree to regenerate enough roots to stay alive without water varies by the size of the tree. **Fact**: Establishment period is about 3-4 months per inch trunk in Florida.

10. Tamping the soil around the root ball will give good soil to root contact and reduce the need for staking. **Fiction**: Compacted soil at the roots limits growth.

11. Newly planted trees need to be irrigated in large volume but not frequently to allow the roots to get acclimatized to their new environment. **Fiction**: For newly planted trees volume is not as important as is frequency, trees should be watered at least 2-3 times per week or daily if conditions are hot and dry.

12. If your established trees are fruiting and flowering on a regular basis you still need to fertilize regularly. **Fiction**: When trees are established they do not need supplemental fertilizer unless they are showing signs of nutrient deficiency.

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**Pruning for Fruiting and Flowering**

As always, pruning is best done on small growth, except for the purpose of plant restoration. Mutilating a tree, such as Crepe Myrtle, by destructive removal of large limbs will produce a lot of new growth, and since Crape Myrtles flower on new wood, yes you will get a lot of flowering, but is flowering which would have naturally occurred anyway on the trees seasonal spring growth. However, since the tree is deciduous, all you will have to look at next winter after butchering the tree will be a pathetic example of destruction on what could have been a very beautiful and aesthetically well formed limb structure.

The issue that causes some people to over prune and structurally destroy their crape myrtles is that some plants do flower and fruit on new growth and others on last years, old, growth. Pruning at the wrong time of year may result in less flowers and fruits, but it usually won’t harm the plant in the long run. Over pruning however, especially the unnecessary removal of larger limbs and a majority of the crown, can cause major stress leading to decline and disease, as well as aesthetically & structurally destroying the plant. This article is an attempt to assist you in understanding when the best time to prune certain plants is.

Perhaps the most confusing group of plants, when it comes to pruning times, is flowering trees and shrubs. A general rule of thumb is to prune summer and fall flowering trees...
and shrubs in the dormant season (late winter / early spring) and to prune spring flowering trees and shrubs soon after their flowers fade. The confusion comes with plants like hydrangeas, roses and clematis; some of these flower in spring, some in summer or fall, some flower repeatedly.

Early spring bloomers set their flower buds the fall before. Pruning them early in the spring would mean losing some blossoms. Following are some helpful tips to assist you in planning your pruning schedule.

**Trees and Shrubs to Prune in Late Spring/Summer, (After Bloom)**

- Azalea (Rhododendron species)
- Bridal Wreath Spirea (Spirea x vanhouttei)
- Flowering Crabapple (Malus species and cultivars)
- Forsythia (forsythia x intermedia)
- Hawthorn (Crataegus species and cultivars)
- Magnolia (Magnolia species and cultivars)
- Mockorange (Philadelphus coronarius)
- Mountain Laurel (Kalmia latifolia)
- Serviceberry (Amelanchier x grandiflora)
- Slender Deutzia (Deutzia gracilis)
- Weigela (Weigela florida)

**Trees and Shrubs to Prune in Early Spring, (While Dormant)**

- Bradford Pear (Pyrus calleryana)
- Butterfly Bush (Buddleia davidii)
- Crape Myrtle (Lagerstroemia indica)
- Flowering Dogwood (Cornus florida)
- Flowering Plum (Prunus blireana)
- Glossy Abelia (Abelia x grandiflora)
- Golden Rain Tree (Koelreuteria paniculata)

Some plants are even more tricky when it comes to when (and what) to prune. For example, big-leaf hydrangeas (Hydrangea macrophylla) bloom on two year old wood. Pruning should only be done on growth that produced blooms the previous year.

Following these guidelines will help you in assuring a more beautiful, healthy and productive garden. For more information on pruning and other plant matters, consider contacting your local county extension office.

Happy pruning.
Options for Wet Areas in the Landscape

Wet areas in the landscape can be managed or improved by installing a water structure such as a french drain, berm, swale or converting the area to a rain garden system.

A french drain can be used to redirect surface water away from an area via subsurface flow to a designated discharge point. It is a trench covered with gravel or rock that often includes a buried drainage pipe used to collect and drain the excess stormwater along the entire length of the buried pipe in the trench. The drainage pipe is usually perforated with holes and can be covered with a porous fabric sleeve to keep out fine soil particles. For detailed instructions on how to install a french drain system search the World Wide Web using your favorite web browser. Here is one I found useful, “How to dig and install a French drain”.

Since water always flows toward the lowest point, another consideration includes using a berm or swale to manage surface flows. A berm can be used to manage stormwater flow, and helps to reduce or prevent soil erosion. It is a horizontal mound of soil made up of fill material, clay and top soil with vegetative cover to divert runoff flows. The University of Minnesota has good publication on “Building Soil Berms”.

A swale is low-lying/depressed and often wet stretch of land used to collect water from a rainstorm. It is usually wider than it is deep. Its main function is to allow surface flows to collect and infiltrate into the soil after a rain event. During the wet season, swales can be wet or marshy and act like a dry creek bed during time of drought, which can add extra interest to the landscape. Swales can be designed with landscape plants to help mitigate pollutants from landscape runoff via plant root uptake and microbial processes in the soil. The University of Florida’s Program for Resource Efficient Communities (PREC) has an excellent fact sheet on “Bioswales/Vegetated Swales”.

Similar to a swale in its ability to remove landscape pollutants, a rain garden can be installed in a low spot or depressed area of the landscape. It either naturally collects or captures diverted stormwater runoff after a rain event. The garden spot is landscaped with plant material that can withstand up to 48 hours of soil saturation. For a list of plants recommended for rain garden use, please visit “Think about Personal Pollution: What to Plant Where in Your Rain Garden” and for detailed information on “Bio-retention Basins/Rain Gardens,” the University of Florida’s PREC also has another excellent fact sheet.

Depending on the severity and volume of stormwater runoff that you are trying to manage in your wet areas, a combination of berm, swale and rain garden uses should be considered. For example, a berm that leads to a swale designed with an overflow or discharge point, which can flow into a rain garden system.

APHIS Fights Invasive Insects All Across America

Did you know that the U.S. Department of Agriculture (USDA) works abroad, at ports, in your State, and perhaps in your community to help keep invasive insects at bay? Many Americans find these unwelcome visitors from overseas in their homes, neighborhoods, and farms. Invasive species breed rapidly, because they have no natural enemies in their new home, and, as farmers well know,
they can do great economic and environmental harm. Combating invasive insects—as well as invasive weeds and animals—is a top priority of the USDA’s Animal and Plant Health Inspection Service (APHIS).

The non-stop battle to protect our Nation’s agriculture and environment from invasive insects begins abroad. In many countries, APHIS helps set up programs to inspect agricultural products for pests before they are ever shipped to the United States. APHIS then partners with U.S. Customs and Border Patrol agricultural inspectors at U.S. ports of entry to look for possible hitchhiking pests in imports and passenger baggage. In addition, APHIS experts inspect live plant imports and make sure that infested shipments are sent back, destroyed, or treated to kill the insects. APHIS also restricts imports of agricultural products that could harm U.S agriculture. For example, after khapra beetles—a very serious threat to stored grain—were recently found in rice arriving at U.S. ports, APHIS put new restrictions on rice imports from infested countries.

Unfortunately, some invasive insects still manage to make it through these safety nets and onto our shores. When that happens, APHIS works with State and local officials and university scientists to figure out a response plan to eradicate or control the pest. The plan can include surveying and trapping to find out where and how widespread the pests are, as well as quarantines and regulations to help stop them from spreading. For instance, APHIS works to control the spread of Asian citrus psyllid—an insect that can carry the bacteria that causes citrus greening disease—by restricting the movement of citrus nursery stock and other host plants from areas quarantined for the pest.

A response plan can also include traditional chemicals like insecticides, and biological control measures like natural predators or sterile male insects. For example, to control the spread of the emerald ash borer, a beetle that kills ash trees, APHIS has introduced tiny, stingless wasps that lay their eggs inside the beetle itself or its eggs. Whenever Mediterranean fruit flies—among the world’s most destructive pests of fruit, vegetables and nuts—are detected in States like California and Florida, APHIS quickly releases hundreds of thousands of laboratory-raised, sterile male fruit flies into the infested area to mate with the females. Because this mating produces no offspring, there are many fewer flies in the next generation, which can more easily be eradicated with chemicals.

In cases when an invasive species can’t be controlled with current technology, APHIS supports research to develop new solutions. That is the case with the non-native brown marmorated stink bug, which is becoming a very serious threat to many fruits, vegetables, and other crops. APHIS scientists are working hard alongside other Federal, State, and university colleagues to find effective new tools to control this pest.

Farmers and ranchers can help APHIS protect America’s agriculture by learning to identify invasive insects (as well as weeds and animals) that are affecting their areas, and by reporting any new species they see infesting their area. To report any suspicious finds, farmers can contact their local extension office or visit www.aphis.usda.gov/services/report_pest_disease/report_pest_disease.shtml to obtain contact information for APHIS officials in their State.

Aaron Hoffman
APHIS Executive Communications Intern

Integrated Pest Management
What is IPM?

Integrated Pest Management (IPM) is the implementation of diverse methods of pest controls, paired with monitoring to reduce unnecessary pesticide applications (EPA).

Instead of trying to eradicate a pest, an IPM approach considers all of the information and experience available, accounts for multiple objectives, and considers all available preventive and curative options. Based on that foundation, informed decisions are implemented to achieve optimum results. What those optimum results are varies with each user’s individual preferences. The general goal of IPM is to provide safe, effective, economical, environmentally sound, and socially sensitive outcomes.
IPM can be used wherever pest damage occurs. Among the more common types of pests are insects, mites, rodents, viruses, fungi, bacteria, and weeds.

Why IPM?

Health and environmental concerns associated with pesticide use have motivated the development of integrated pest management (IPM) programs around the world.

Fundamental principles of IPM

The specific techniques used for IPM vary with each situation, but there are fundamental principles that define IPM.

1. Identify the pest(s) that are the source of the problem. This is not always as simple as it may seem. Correct pest identification is required to identify optimum solutions.

2. Understand the biology, ecology and economics of the pest and the system in which the pest exists.


4. Establish economic or aesthetic injury thresholds. Pest management decisions are based on the potential damage from pest infestations, status of natural enemies, sensitivity of the protected site (such as the stage of development of a crop), and the weather. Actions are taken only when the potential damage is sufficient to justify action.

5. Select an appropriate strategy of cultural, mechanical, biological, and/or chemical prevention or control techniques.

5a. Cultural practices include habitat modification and adapting operating procedures so that pest damage is reduced and natural control is enhanced. Sanitation is the removal or cleaning of sources of pest infestation. Choosing plant varieties that are resistant to pest injury is a cultural control. Other agricultural examples are adjusting planting time, fertilization, tillage, and harvest operations to have the most beneficial or least detrimental affect on the pest management situation.

5b. Biological controls are predators, parasites, and diseases that attack pests. Measures can be taken to conserve naturally occurring populations. In some situations where naturally occurring biological controls are not effective, they can be introduced from outside sources.

5c. Chemical control involves selecting a pesticide with the lowest toxicity to humans and non-target organisms (including biological controls), and using it in such a way as to prevent or minimize undesirable environmental effects. The lowest effective amount of pesticide is applied from carefully calibrated spray equipment.

6. Evaluate the pest management program and improve it when possible. This requires keeping records and reviewing them on a regular basis.

How does an IPM program works?

IPM is not a single pest control method but a series of pest management evaluations, decisions and controls. In practicing IPM, growers who are aware of the potential for pest infestation follow a four-tiered approach. The four steps include:

Set Action Thresholds

Before taking any pest control action, IPM first sets an action threshold, a point at which pest populations or environmental conditions indicate that pest control action must be taken. Sighting a single pest doesn’t always mean control is needed. The level at which pests will either become an economic threat is critical to guide future pest control decisions.

Monitor and Identify Pests

Not all insects, weeds, and other living organisms require control. Many organisms are innocuous, and some are even beneficial. IPM programs work to monitor for pests and identify them accurately, so that appropriate control decisions can be made in conjunction with action thresholds. This monitoring and identification removes the possibility that pesticides will be used when they are not really needed or that the wrong kind of pesticide will be used.

Prevention

As a first line of pest control, IPM programs work to manage the crop, lawn, or indoor space to prevent pests from becoming a threat. In an agricultural crop, this may mean using cultural methods, such as rotating between different crops, selecting pest-resistant varieties, and planting pest-free rootstock. These control methods can be very effective, cost-efficient, and present little to no risk to people or the environment.

Control

Once monitoring, identification, and action thresholds indicate that pest control is required, and preventive methods...
are no longer effective or available, IPM programs then evaluate the proper control method both for effectiveness and risk. Effective, less risky pest controls are chosen first, including highly targeted chemicals, such as pheromones to disrupt pest mating, or mechanical control, such as trapping or weeding. If further monitoring, identifications and action thresholds indicate that less risky controls are not working, then additional pest control methods would be employed, such as targeted spraying of pesticides. Broadcast spraying of non-specific pesticides is a last resort.

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A New Way Ahead for Animal Disease Traceability

Safeguarding the health of America's livestock is a major responsibility of the U.S. Department of Agriculture's (USDA) Animal and Plant Health Inspection Service (APHIS). In addition to preventing disease, a cornerstone of APHIS' efforts is animal disease traceability—that is, the ability to trace where a sick animal was exposed to a disease and quickly stop the disease from spreading. Traceability not only helps protect producers' livelihoods; it also gives our trading partners added confidence in American agricultural products and helps ensure that the American people have a safe and wholesome food supply.

APHIS has been working for a number of years to create a traceability program that will meet producer preferences and has been reaching out to thousands of people—small farmers and other producers, industry groups, Tribes, and State officials—to hear their views on the best way forward. Based on this feedback, APHIS has developed a new plan for an effective traceability system that will be easier for producers to follow. Cattle are the priority because the biggest gaps in being able to trace animal disease lie within the cattle sector. The plan for the new traceability system has been developed in cooperation with producers' groups. The plan is available on APHIS' Web site (see below) and
will become officially available to the public for comment in the near future.

The new system will apply only to animals that are moved between States. Animals that are being transported interstate to a custom slaughter plant to process for personal consumption are exempt from the new regulations. The system will be owned, led, and administered by the States and Tribal Nations. Among other things, that means that traceability information collected from producers—such as premises data—will be maintained however the States and Tribes see fit. The new system will also encourage the use of low-cost identification eartags.

How the new rules may apply to you depends on what kinds of animals you raise and if you move them to other States. Here are a few examples:

**Cattle**: The draft traceability regulations will require cattle being moved interstate to be officially identified—with some exceptions—and to be accompanied by an Interstate Certificate of Veterinary Inspection or other movement documentation. To avoid potential market disruptions and record-keeping issues, the beef industry will be phased in gradually over time. For example, the new requirements will only begin to apply to feeder cattle once APHIS determines that the new system is running smoothly for the adult breeding animal sector.

**Poultry**: There may be some changes for poultry producers, depending on local practices. Official identification will be defined in the draft regulation, with the States and Tribes determining when those methods or others are best suited for the movement of such animals. Poultry is often identified through group or lot identification.

**Sheep and Goats**: For sheep and goat producers, nothing will change under the new traceability regulations: requirements will remain the same as for APHIS’ Scrapie Eradication Program. All States and Tribes will continue to recognize USDA-issued eartags as official identification. Producers will still be able to use tattoos, radio frequency identification, or brands for the types of sheep and goat movements for which those methods are currently allowed. Producers can obtain free USDA metal or plastic eartags and applicators—and obtain information on which sheep/goats are required to have identification—by calling toll-free (866) 873-2824.

**Swine**: Nothing will actually change for swine producers under the new traceability regulations, because swine moved interstate must already be officially identified to comply with existing regulations.

**Horses**: The draft traceability regulations will define official methods for identifying horses and other equines. These methods will include typical practices currently used in the equine industry, such as color marking, brands, tattoos, and other technologies.

More information on the new draft animal disease traceability system, including a comprehensive report and implementation plan, is available at www.aphis.usda.gov/traceability.

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**Fact Sheet – Childhood Obesity Awareness Month**

September 2011 is National Childhood Obesity Awareness Month.

- National Childhood Obesity Awareness Month recognizes the serious threat obesity poses to the health of America’s children, and decreasing its prevalence in the United States.
- Dedicating at least one month per year to the crisis will help maximize the impact of programs, activities, messaging and campaigns – all aligned to help eradicate childhood obesity.
• Presidential and Congressional proclamations established September 2010 as the first National Childhood Obesity Awareness Month. Governors and mayors around the country followed suit. Organizations of all types sponsored events to raise awareness of the causes and consequences of childhood obesity and to promote solutions.

• National Childhood Obesity Awareness Month is supported by leading national organizations. They help educate the public about the need for increased awareness, proactive steps to prevent childhood obesity in the United States and promotion of healthier lifestyles.

• Parents, health care providers, educators, civic leaders and organizations are encouraged to observe National Childhood Obesity Awareness Month with programs and activities to help prevent childhood obesity, promote healthy eating and physical activity, and increase awareness of childhood obesity among individuals of all ages and walks of life.

• One in three American children is already overweight or obese. They are at greater risk of cardiovascular disease, bone and joint problems, sleep apnea, psychological problems, bullying and more. This is a sobering public health issue, compounding as overweight and obesity continue into adulthood.

• The financial implications of childhood obesity are sobering, at $14 billion per year in direct health care costs alone. Increased awareness and prevention of childhood obesity will save billions of dollars in unnecessary health care costs and promote healthier lifestyles to improve and prolong the lives of the next generation of Americans.

• Protecting the health and wellbeing of American children for years to come is a critical endeavor. Adults must ensure that young people receive a healthy start in life.

Calendar of Events

Master Gardeners Program, September 21, 2011, Jefferson County Extension office. Class sessions are from 9 a.m. until 1 p.m. every Wednesday until December 7, 2011. For more information, contact Mr. Covey Washington, Extension Agent at 850.342.0187.

Pond Management Seminar, October 4, 2011, Madison County Extension office. Seminar is from 6 pm to 8pm. For more information, contact Mr. Covey Washington, Extension Agent at 850.342.0187. Registration is $5. Registration ends on September 23, 2011

2011 FAMU Fall Fest, November 4, 2011, Florida A&M University Research and Extension Center, 4259 Bainbridge Highway (County Road 267 north), Quincy, FL. This event will exhibit various leafy vegetables to promote healthy foods and living, and dietary and nutritional values. It will also highlight different technologies for crop production, and demonstrate sustainable and environmentally-friendly agricultural practices. For more information call the FAMU Cooperative Extension Programs at 850.599.3546.

2011 Sugarcane Field Day, November 7, 2011, UF/IFAS North Florida Research and Education Center, 155 Research Road, Quincy, FL. This event will feature topics on sugarcane production for the north Florida area and sugarcane giveaway. Gadsden County Extension, FAMU Cooperative Extension Programs and UF/IFAS Extension sponsor this event. For more information, please contact the Gadsden County Extension Office, 850.875.7255. Registration is $10.00.
The College of Engineering Sciences, Technology and Agriculture (CESTA) at Florida A&M University is housed in the Perry-Paige Building on the main campus. Please contact the persons listed below regarding information that you are seeking about programs and services offered through the college extension and outreach programs.

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