

GI-BMP Training Program Review Worksheets

2/7/2013

Version 1

Instructions: Use the worksheets as a guide to review key learning points and information provided during the training program. Depending on the training format, answers may be discussed within the training session, posted in a designated area or available for download from the web to view.

Introduction Review

1. The intention of this training is to _____ the professional knowledge and _____ of the green industry professional for the protection of Florida's _____ and natural resources.
2. Many of Florida's water resources are particularly susceptible to pollution because of the state's unique _____ and _____.
3. The acronym _____ is a shortened term which refers to the Green Industries Best Management Practices.
4. This training addresses _____ main goals to reduce nonpoint source pollution and _____ plant health.
5. The GI-BMP goals include reducing offsite runoff, using appropriate site design and plant selection, using _____ rates and methods of applying _____ and _____, and using integrated pest management (_____) practices.
6. "Protection of water resources by the Green Industries" means that you play a _____ role in _____ your clients and implementing these practices.
7. This training program provides specific information and guidance on _____ and _____ management practices.
8. Water is the primary _____ for the transport of dissolved chemicals through the _____.
9. Let only _____ down the storm drain.
10. It is recommended that you revisit this training program every _____ to four years for new and updated information.

Need a Hint?

Appropriate
Climate
Educating
Enhance
Fertilizer
Four
Geology
GI-BMP
IPM
Irrigation
Judgment
Landscape
Leading
Mechanism
Promote
Rain
Soil
Turfgrass
Two
Water

Overview Review

1. The _____ Water Act authorized the U.S. Environmental Protection Agency (_____) to implement pollution control programs to _____ water quality.
2. Water quality standards are either _____ or narrative standards for a water body that will permit that water body to maintain its designated use.
3. Excessive _____ loading to Florida's surface and ground waters is one of the biggest water quality issues facing our state.
4. Counties and cities may adopt more _____ standards than state laws mandate to address local nonpoint source pollution issues.
5. All urban commercial fertilizer applicators _____ have a Limited Commercial Fertilizer Applicator Certificate (LCFAC) by 2014 to operate legally in Florida.
6. Nonpoint Source Pollution (_____) is water pollution that cannot be traced to its specific origin or _____ point.
7. An urban _____ is comprised of storm sewers that transfer stormwater from impervious surfaces to lakes and rivers.
8. _____ surfaces such as sidewalks, driveways, streets, rooftops or compacted soils often produce stormwater _____, excess water that flows along the ground.
9. _____ often refers to the loss of water-soluble plant nutrients and other landscape chemicals from the soil, due to excessive rain and irrigation.
10. The acronym _____ refers to Florida-Friendly Landscaping™, a quality landscape that is designed, installed and maintained according to _____ science-based principles that conserve and protect Florida's water and natural resources.

Need a Hint?

Clean
EPA
FFL
Impervious
Leaching
Must
Nine
NPS
Numeric
Nutrient
Protect
Runoff
Starting
Stringent
Watershed

Lawn and Landscape Review

1. The _____ root and shoot system of healthy turfgrass provides a natural “water filter” that removes contaminants and reduces effects of urban nonpoint source pollution.
2. _____ has good tolerance to salts in coastal and reclaimed water irrigation areas and tolerates a wide range of pH soils, making it the most adaptable and widely used turfgrass in Florida.
3. There are several _____ to St. Augustinegrass. It will not stay green without supplemental water during times of drought, it has poor wear tolerance and it accumulates _____, particularly with excess nitrogen and water applications.
4. Compared to St. Augustinegrass, Zoysiagrass has smaller, _____ leaf blades, which provide a _____ growth habit.
5. Zoysiagrass needs about the same amount of _____ as St. Augustinegrass.
6. Bahiagrass can be described as having _____ maintenance inputs; it requires relatively low inputs of water, fertilizer and pesticides. It also a good choice for _____ grounds or large areas.
7. _____ landscape cultural practices, such as leaving _____ on sidewalks, driveways and streets, results in _____ environmental consequences such as harming aquatic life in nearby water bodies.
8. Over time, inappropriate cultural practices cause _____ environmental consequences, such as erosion and _____ buildup in nearby water bodies due to _____ of vegetative cover.
9. There are two ways to manage environmental turfgrass stress: use stress-tolerant species or cultivars; use proper _____ and management practices to alleviate the effects.
10. Improper _____ can cause tree decline due to lack of oxygen and trunk rot.
11. _____ should be a part of routine maintenance; however, close attention should be paid to proper timing and needs of various landscape plants.
12. Mangroves are usually associated with _____ wetlands and play a critical role in reducing flood damage by storing stormwater and releasing it slowly over time, and filtering pollutants, silt and sediment.

Need a Hint?

Clippings
 Coastal
 Cultural
 Dense
 Denser
 Direct
 Disadvantages
 Finer
 Inappropriate
 Indirect
 Loss
 Low
 Mulching
 Non-irrigated
 Pruning
 Sediment
 St. Augustinegrass
 Thatch
 Water

Irrigation Review

1. _____ is among Florida's most valued resources.
2. In Florida, salt water intrusion and _____ depletion are serious problems that occur in areas of high water demand.
3. _____ irrigation management reduces need for _____ and/or chemical treatments to landscape plants.
4. Rain _____ switches or other shut-off devices are required by law to be maintained and operational, regardless of the age of the irrigation system.
5. Proper _____ and installation of irrigation components optimizes their use and _____ any off-site environmental impacts.
6. Water from wastewater treatment plants is known as _____ wastewater.
7. _____ in reclaimed irrigation water may be variable, so confirm nutrient levels periodically and avoid over-irrigation and irrigation of _____ areas.
8. Backflow devices must be installed to _____ contamination of potable water with nutrients and _____.
9. Drip emitters are ideal when _____ is desirable or for narrow strip plantings, such as along hedge rows.
10. _____ inspection of micro-irrigation devices and filters is necessary to ensure overall system function.
11. Irrigation _____ is based on the water needs of particular plants in the landscape and will differ based on the plant's ability to extract soil moisture in relation to _____ zone depth, and ability to tolerate reduced moisture.
12. _____ rainfall is the total rainfall, minus runoff, evaporation, and deep percolation.
13. No more than ½ to ¾ inch of water should be applied for a _____ irrigation event.
14. _____ drought-tolerant plants may require little or no irrigation.
15. _____ can lead to increased plant disease, higher populations of plant pests, and leaching or runoff of nitrogen and phosphorus.

Need a Hint?

Aquifer
Decreases
Design
Effective
Established
Fertilizers
Non-target
Nutrients
Overwatering
Pesticides
Precision
Prevent
Reclaimed
Regular
Responsible
Root
Scheduling
Sensor
Single
Water

Fertilizer Review

1. A _____ may contain one or more recognized plant nutrients; promote plant growth; control soil pH; or provide enrichment or other corrective measures to the soil.
2. _____ soils are highly variable in nutrients and availability, so supplemental nutrients may be needed to correct or prevent nutrient deficiencies.
3. Plants that have _____ deficiencies may not be suitable for the site conditions. Select plants that are better adapted.
4. Do not fertilize your lawn during the _____ months if you are in a location where the lawn does not actively grow in the winter.
5. Fertilizer should be applied to grass when roots and shoots are _____ growing to reduce potential _____ leaching.
6. Newly planted sod and sprigs should not be fertilized sooner than 30-60 days after _____.
7. Established woody plants in an area where turf is routinely fertilized may not require _____ nutrients unless they show deficiency symptoms.
8. A soil analysis is a _____ of what is present at the time of sampling. _____ analysis can indicate levels of certain nutrients and plant health condition.
9. _____ applied in excess can alter or degrade the environment.
10. Nitrogen sources consist of two _____: organic and inorganic.
11. Quick- and slow-release sources of nitrogen are applied at two different _____.
12. _____ is a micronutrient required for healthy turfgrass growth and maintenance; however, it cannot be _____ for other required nutrients such as nitrogen.
13. Determining the _____ of application before fertilizing saves time and money, and prevents adverse impacts on the environment.
14. Calibration includes the _____ of application equipment to ensure it is safe, in good condition and working correctly.
15. The rate of nutrient application, particularly nitrogen, depends on a number of _____: turfgrass species, turfgrass maintenance level goals, the location, time of year, and type of fertilizer source.
16. The _____ of responsibility ensures that fertilizers and other lawn chemicals do not come into direct contact with water bodies or with any structure bordering water such as a sidewalk, driveway, street, canal, lake, or waterway shorelines.

Need a Hint?

Actively
Area
Chronic
Factors
Fertilizer
Forms
Inspection
Iron
Nitrogen
Nutrient
Planting
Rates
Ring
Snapshot
Substituted
Supplemental
Tissue
Urban
Winter

Pesticide (IPM) Review

1. It is _____ to apply any pesticide commercially, for hire, to a lawn, residential site, or other structural site without a license.
2. A license for pesticide application is _____ from the Florida Department of Agriculture and Consumer Services (_____).
3. Chapter _____ services the commercial pest control operators, commercial landscape maintenance industry, government and private employees or owners applying pesticide products.
4. Chapter _____ services the use, purchase, and supervision of restricted-use pesticides.
5. A _____ is anything that competes with humans, domestic animals, or desirable plants for food or water.
6. The main goal of Integrated Pest Management (_____) is efficient use of pesticides by using a _____ of tactics to control pests.
7. _____ identification is critical to knowing if a pest is harmful and treatment is necessary..
8. The _____ IPM component consists of the proper selection, establishment, and maintenance, such as pruning, fertilization, and irrigation of turf and landscape plants.
9. The _____ or mechanical IPM component is related to the removal of dead, diseased or infested materials and debris.
10. The _____ IPM component involves the release and/or conservation of natural enemies and other beneficial organisms.
11. IPM _____ control includes a wide assortment of conventional, broad-spectrum pesticides and more selective, newer chemicals.
12. _____ size and wind speed are the most important factors that influence drift.
13. Pesticide _____ contains information and instructions that users are legally required to follow.
14. To prevent _____ to pesticides, applicators should wear protective clothing and personal protective equipment (_____).

Need a Hint?

482

487

Accurate

Biological

Chemical

Combination

Cultural

Droplet

Exposure

FDACS

Illegal

IPM

Labeling

Pest

Physical

PPE

Required