Runoff & Nonpoint Source Pollution Self-Assessment

Greenhouses & Container Nurseries

Ag Water Quality Program

University of California Cooperative Extension
County of San Diego

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Introduction

Agriculture is under increasing scrutiny for its contributions to runoff and nonpoint source pollution. Nonpoint source (NPS) pollution, unlike pollution from industrial and sewage treatment plants, comes from many diffuse sources. As runoff moves, it picks up and carries away natural and human-made pollutants, finally depositing them into lakes, rivers, wetlands, coastal waters, and groundwater. Although agriculture is not the only concern, runoff from agricultural properties may contain contaminant levels that exceed water quality standards. Certain management practices can contribute to nonpoint source pollution in the form of excess sediments, nutrients, salts, pesticides, or pathogenic organisms. In San Diego County, new regulations adopted in 2001 have created new requirements for runoff entering the storm drain system. These new requirements affect many different types of businesses, including agriculture.

San Diego County's storm water permit specifically requires the county and cities to inspect greenhouses and nurseries for storm water violations. *Other types of agriculture are not exempt from complying with water quality regulations. However, at this time other types of agriculture are not required to be regularly inspected for storm water violations.*

Instructions

This self-assessment provides a basis for assessing runoff and nonpoint source pollution potential from greenhouses and container nurseries. Runoff and nonpoint source pollution management on any agricultural property will involve a combination of practices. Not every property will have the same issues or utilize the same Best Management Practices to address them.

The self-assessment questions are divided into the following categories:

A. Property Management
B. Road Management
C. Irrigation Practices
D. Leaching & Runoff
E. Nutrient Assessment & Fertilizer Management
F. Integrated Pest Management

Each question may be checked "Yes, No, or Not Applicable." *Answering "No" to any question indicates an issue that may need to be assessed or reconsidered as a Best Management Practice.* However, this does not necessarily determine evidence of nonpoint source pollution or violation of storm water regulations. A brief explanation is provided under each question explaining its importance to runoff, nonpoint source pollution, and/or Best Management Practices.

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A. Property Management

1. Does irrigation and other operation runoff during dry weather remain on the property? ***All dry weather runoff is prohibited from entering the storm drain system, which includes street gutters, public waterways, and other conveyances that drain to public waters. Discharging dry weather runoff onto neighboring properties is not allowed unless done with consent. Dry weather runoff may also not be discharged onto public streets and roads.***	___Yes ___No ___N/A _____public street/road _____storm drain _____surface waters _____neighbor property
2. Is the property located away from public waterways, which includes streams, rivers, lakes, lagoons, wetlands, and bays? ***A higher potential to pollute exists when public water bodies are located directly on or adjacent to a growing operation. In addition, commercial operations near public water bodies designated as "impaired" under Clean Water Act section 303(d), or regulated under a "total maximum daily load" (TMDL) requirement may have more stringent requirements.***	___Yes ___No ___N/A
3. Has the location of all storm drain inlets, drainage pipes, and ditches and their outfalls been determined? **Are storm drain inlets, drainage pipes, and ditches designated with anti-dumping signs (*e.g., No Dumping)*?** **Is buffer/filter vegetation located between production areas and storm drains?** **Are storm drain inlets, drainage pipes, and ditches protected during activities such as washing and loading/unloading activities that may result in discharge?** ***Growers must be aware of all drainage pipes and ditches on their properties and know where they drain. Designating storm drains and ditches with signs to prevent dumping is encouraged but not required. The regulatory community is looking to detect and disconnect illicit connections to the storm drain system. A storm drain must only convey wet weather runoff. Buffer/filter vegetation can help absorb both dry and wet weather runoff.***	___Yes ___No ___N/A ___Yes ___No ___N/A ___Yes ___No ___N/A ___Yes ___No ___N/A
4. Are outdoor driveways, parking areas and loading areas periodically dry cleaned for debris, vehicle residues, and other contaminants? **If wet cleaned, does all runoff remain on the property?** ***Periodic dry cleaning is recommended to prevent debris and residues from washing into the storm drain system during wet weather. Driveways, parking areas, and loading/packing areas may contain contaminants from vehicle fluids and emissions. Oil and other vehicle fluid spills must be cleaned up. Wash runoff may not leave the property. Dry cleaning methods are recommended to avoid creating runoff, and dust control practices also must not create runoff.***	___Yes ___No ___N/A ___Yes ___No ___N/A

5. Does wash runoff from indoor packing/loading areas and walkways remain on the property? ***Walkways and loading/packing areas may contain contaminants from storage, mixing, or use of fertilizers and other chemicals. Wash runoff may not leave the property. Dry cleaning methods are recommended to avoid creating runoff.***	___Yes ___No ___N/A
6. Is roof runoff prevented from flowing across polluted areas, such as animal pens, parking areas, loading areas, etc.? **Is roof runoff directed into pervious areas (gravel, landscaping) or collection ponds?** ***Roof runoff should not be directed to flow across polluted areas where contaminants will be picked up and washed into the storm drain. If possible, roof runoff should be directed to flow into pervious areas where it can be absorbed or collected. Roof runoff may contain sediments, shading compounds, and organic materials.***	___Yes ___No ___N/A ___Yes ___No ___N/A
7. Are roof shading compounds managed to avoid washing into the storm drain system during application and removal? ***When wet, many shading compounds and paints contain toxic components that may be hazardous to marine life. Wet shading compounds and paints, as well as wash water from application equipment, must not enter the storm drain. Wash water from removal of dried shading compounds and paints may contribute very fine solid particles to water that remain suspended for long periods of time. Suspended solids can cause problems for aquatic life by blocking sunlight for submerged vegetation and clogging fish gills.***	___Yes ___No ___N/A
8. In landscaped *non-production areas*, are irrigation, fertilization, and pest management properly managed to avoid contaminated runoff? **Are all *non-production* areas managed to prevent erosion?** ***Landscaped areas must not create runoff. Highly erodible areas should be managed with appropriate vegetation or other means to avoid contributing sediments to runoff. Non-production areas may be appropriate for reuse of collected irrigation runoff or constructing collection ponds.***	___Yes ___No ___N/A ___Yes ___No ___N/A
9. Are fuel tanks and nozzles checked and maintained to prevent leaks? **Are fuel tanks located away from waterways, drainage ditches, and storm drains?** **Are fuel tanks equipped with secondary containment to contain spills?** ***A small amount of petroleum product can contaminate a large body of water. Locating fuel tanks away from waterways, drainage ditches, and storm drains minimizes risk of contamination. Secondary containment provides a method to contain hazardous liquids in the event of an accidental spill or leak.***	___Yes ___No ___N/A ___Yes ___No ___N/A ___Yes ___No ___N/A

10. Are vehicles, trucks, tractors, forklifts, pallet jacks and other equipment regularly maintained to detect and prevent fluid leaks?	___Yes ___No ___N/A
Are equipment spills and leaks immediately and properly cleaned up?	___Yes ___No ___N/A
Are collected fluids and solid waste from maintenance properly disposed (e.g., oil, antifreeze, batteries)?	___Yes ___No ___N/A
Are maintenance/storage areas located away from waterways, drainage ditches, and storm drains?	___Yes ___No ___N/A
Are maintenance/storage areas cleaned to avoid oil and grease buildup?	___Yes ___No ___N/A
Does runoff from equipment washing remain on the property?	___Yes ___No ___N/A
These types of equipment use numerous fluids that are very toxic to the environment. Wash runoff may not leave the property. Washing activities should be done over pervious areas (gravel, landscaping) where runoff will soak into the ground.	
11. Are spill clean-up materials available for all potential types and sizes of spills?	___Yes ___No ___N/A
Are significant spills immediately promptly reported?	___Yes ___No ___N/A
Preparedness for spills can eliminate or minimize runoff of harmful substances into the storm drain in the event of an accident. Basic spill materials include: adequate amount of absorbent material (e.g., kitty litter), broom and dustpan, chemically resistant gloves, and large labeled container to dispose of contaminated absorbent material.	
12. Is the property kept clean and free of solid waste and debris?	___Yes ___No ___N/A
Are trash and disposal areas kept clean and located away from waterways, drainage ditches, and storm drains?	___Yes ___No ___N/A
Are dumpsters and waste containers maintained in good condition, regularly emptied, and kept closed?	___Yes ___No ___N/A
Solid waste and debris can wash away during wet weather or blow off during windy conditions. Solid waste and debris can clog storm drains and cause fatalities for marine life through strangulation or ingestion. It can also create an unsightly mess in waterways and on beaches.	

13. Are pesticides, fertilizers and other chemical products stored in closed, labeled containers, under cover and off the ground?	___Yes ___No ___N/A
Are pesticides, fertilizers, and other chemical products disposed according to label directions and all applicable regulations?	___Yes ___No ___N/A
Are chemical tanks and storage areas equipped with secondary containment to contain spills and leaks?	___Yes ___No ___N/A
Pesticides, fertilizers, and other chemical products must be properly stored and disposed to prevent spills and wet weather washing into the storm drain system. Secondary containment provides a method to contain hazardous liquids in the event of an accidental spill or leak.	
14. Are outdoor stockpiles of materials that are susceptible to wet weather covered and located away from waterways, drainage ditches, and storm drains?	___Yes ___No ___N/A
Materials stockpiled outdoors, such as potting mixes and containers/flats, should be properly located and covered to prevent wet weather washing into the storm drain system.	
15. Are adequate restrooms or portable sanitation available?	___Yes ___No ___N/A
Are restroom toilets, floor, and sink drains properly hooked up to the municipal sewer or a septic system?	___Yes ___No ___N/A
Is portable sanitation located away from waterways, drainage ditches, and storm drains?	___Yes ___No ___N/A
Is portable sanitation regularly maintained?	___Yes ___No ___N/A
Are septic systems and leach fields properly maintained?	___Yes ___No ___N/A
Properly maintained restrooms and portable sanitation are necessary to prevent human waste and sewage from entering the storm drain system or contaminating groundwater. Human waste contains fecal coliforms, which are monitored by county officials to determine beach closures.	
16. Have all employees received training in runoff, spill, waste, and sanitation management and all applicable regulations?	___Yes ___No ___N/A
Are records kept of employee training at the facility?	___Yes ___No ___N/A
Officially approved employee training checklists are available for nurseries and greenhouses that cover all required regulations. All employees must be trained annually. It is recommended all employees sign a completed checklist to document storm water training. Records must be kept of employee training. Training may additionally include educational workshops, company training manuals, and posted signs.	

17. Has a record-keeping system for water quality issues been started and maintained? ***Record-keeping helps to document management practices A record-keeping system is available from UC Cooperative Extension – County of San Diego at http://cesandiego.ucdavis.edu. Click on "Ag Water Quality Program", then "Grower Resources."***	___Yes ___No ___N/A

B. Road Management & Erosion Control

1. Are new nursery roads properly permitted?	___Yes ___No ___N/A
In road design, is soil type for erodibility and suitability evaluated?	___Yes ___No ___N/A
In road design, are excessive slopes avoided?	___Yes ___No ___N/A
In road construction, is grading performed during dry months?	___Yes ___No ___N/A
In road construction, are exposed soils seeded and mulched to establish vegetation before winter rains? ***To avoid future complications with regulatory agencies, it is necessary to comply with all grading regulations. This may require the submission of an engineering plan for the roads along with specifications and an environmental assessment. Roads that are properly designed, constructed, and maintained will avoid long-term costs of erosion and grading. Exposed soils are subject to erosion losses during winter rains. Sediments are a contaminant in waterways.***	___Yes ___No ___N/A
2. Are waterbreaks (or waterbars) utilized on nursery roads with gradients exceeding 8%?	___Yes ___No ___N/A
Are earthen waterbreaks properly sized (6 in. above and 6 in. below the road surface)?	___Yes ___No ___N/A
Are waterbreaks placed only where water flow has an outlet?	___Yes ___No ___N/A
Does diverted water from waterbreaks flow only into stable areas, avoiding septic fields or waterways?	___Yes ___No ___N/A
Are filter strips used at the outlet of waterbreaks and culverts to trap sediments? ***On gradients over 8%, waterbreaks (or waterbars) are effective in diverting accumulated water from the road surface onto a vegetated fill bank or toward a cutback. Diverted flow should not directly enter into waterways. Filter strips are vegetated areas between roads and waterways that can help trap sediments before they reach waterways. Sediments are a contaminant in waterways.***	___Yes ___No ___N/A

3. Is nursery road use restricted during wet weather?	___Yes ___No ___N/A
Are culverts inspected and cleaned out during winter rains?	___Yes ___No ___N/A
Is excessive road maintenance avoided?	___Yes ___No ___N/A
Using roads during wet weather will aggravate erosion and drainage problems. Maintaining culverts will allow water to drain freely. Avoid excessive road maintenance. Only regrade to remove deep ruts or damaged areas caused by severe storms.	

C. Irrigation Practices

1. Is irrigation water quality regularly monitored by nursery personnel and/or professionally by a lab?	___Yes ___No ___N/A
Are water quality records maintained?	___Yes ___No ___N/A
Regularly testing irrigation water quality is important for maintaining good plant health. Simple equipment can be used to test such parameters as EC, pH, and nitrate-nitrogen. Regularly testing fertigation water is also recommended to monitor fertilizer levels and to ensure injectors are operating properly.	
2. Do spray patterns of overhead or impact sprinkler systems uniformly deliver water without creating overspray in walkways and edges?	___Yes ___No ___N/A
Are overhead and impact sprinkler systems used only in watering zones where pots/plants are spaced closely together to avoid runoff?	___Yes ___No ___N/A
Overhead and impact sprinkler systems have a higher potential to create runoff. Spray patterns should be checked to ensure water is being applied only to plants. Overhead emitters with check-valves can be installed to prevent line drainage and drip damage. Containers should be placed closely together to capture applied water and minimize runoff in the spaces between containers. If necessary, other irrigation methods should be utilized to more efficiently deliver water.	
3. Do fogging/misting systems effectively produce fine water particles?	___Yes ___No ___N/A
Equipment for controlling temperature and humidity should be sized appropriately to prevent runoff.	
4. Is hand watering performed with the use of an on/off mechanism?	___Yes ___No ___N/A
Hand watering should be performed carefully to avoid creating runoff in spaces between containers and in walkways.	

5. Are appropriate emitter flow rates for spray stakes/drippers utilized in each watering zone?	___Yes ___No ___N/A
Are flow rates the same for all spray stakes/dripper emitters in each watering zone?	___Yes ___No ___N/A
Are spray stake/dripper systems managed to ensure every emitter is located in a container?	___Yes ___No ___N/A
Emitter flow rates must be correlated with plant types and container sizes. Emitters with flow rates that are too high will apply water faster than containers can absorb, resulting in runoff. Emitters with different flow rates should not be combined in the same watering zone to maintain good uniformity. Each emitter should be located in a container to prevent runoff. Some emitters, such as spray stakes, can be "turned off" when not in use. Emitters that hang below the bench can drain the lateral line after irrigation. The cumulative effect of many emitters creating small individual amounts of runoff can result in large overall runoff volumes.	
6. Has the irrigation system been assessed for worn, outdated, and/or inefficient equipment that can be replaced?	___Yes ___No ___N/A
Is appropriate filtration in place for all irrigation equipment?	___Yes ___No ___N/A
Is appropriate pressure regulation in place for all irrigation equipment?	___Yes ___No ___N/A
Is all irrigation equipment regularly checked and repaired for leaks?	___Yes ___No ___N/A
Is all irrigation equipment regularly flushed and managed for clogging?	___Yes ___No ___N/A
Adapting efficient irrigation technologies can help reduce the amount of runoff. Appropriate filtration will prevent problems associated with clogging, and appropriate pressure regulation will improve uniformity. General maintenance that includes managing leaks and clogging will also improve uniformity and prevent runoff.	
7. Is a uniformity evaluation regularly performed on the irrigation system?	___Yes ___No ___N/A
A uniformity evaluation measures the capability of an irrigation system to evenly deliver water. A system with low uniformity will typically overwater some containers in order to provide adequate water to other containers with lower flowing emitters. High uniformity can be achieved with good system design, pressure regulation, prevention of clogs and leaks, and prevention of line draining. Mission Resource Conservation District (760-728-1332) provides free uniformity evaluations.	
8. Are specific methods/equipment, such as pot weight, evapotranspiration (ET) data, solar monitoring, or tensiometers, used to help determine irrigation schedules?	___Yes ___No ___N/A
Are irrigation duties performed only by employees who understand and practice appropriate irrigation scheduling?	___Yes ___No ___N/A
Common watering practices can be imprecise and result in runoff. Irrigation scheduling should be based on environmental conditions and plant moisture requirements, and this must constantly be monitored.	

9. Are container sizes and plant types grouped in watering zones according to moisture requirements? ***Grouping together plant or containers with different moisture requirements will likely result in overwatering some plants or containers to provide adequate moisture to others.***	___Yes ___No ___N/A
10. Is pulse irrigation used? ***Pulse irrigation is the practice of splitting irrigations into smaller increments. The goal is to apply water in smaller increments that can be more effectively used by the plants, rather than one larger increment that produces excessive leach rates and runoff.***	___Yes ___No ___N/A
11. Are automatic timers and clocks regularly checked and adjusted to correlate schedules with environmental conditions and plant growth stage? ***Automatic timers/clocks can help implement more complicated irrigation schedules, such as pulsing. They can also reduce labor and avoid operator errors associated with manual systems. However, clocks/timers must also be checked for accuracy, including those that operate during unsupervised hours (i.e., night, early morning).***	___Yes ___No ___N/A

D. Leaching & Runoff

1. Are specific factors, such as appearance of plants or salinity measurements (EC), used to determine leaching practices?	___Yes ___No ___N/A
Are irrigation schedules set to perform leaching at specific irrigation events, rather than at every irrigation?	___Yes ___No ___N/A
Is leaching performed only with fertilizer injectors turned off? ***Leaching is necessary to flush excess salts from the root zone. Excessive leaching, or leaching performed too frequently may contribute to runoff or leaching into groundwater. Different plant species have different tolerances to salts. Use of high fertilizer concentrations may require more leaching to avoid build-up in the root zone.***	___Yes ___No ___N/A
2. Is the amount of leaching that occurs measured or monitored? ***The optimum amount of leaching is 10-15%. This means 10-15% of the water applied runs through the container or root zone. Taking the time to measure will demonstrate how easy it is to excessively leach. Excessive leaching represents wasted water, fertilizer, and greater runoff volumes to manage.***	___Yes ___No ___N/A
3. Do container mixes/media have high water holding capacity while providing adequate drainage? ***Utilizing container media/mixes with higher water holding capacity can reduce leaching and prevent runoff.***	___Yes ___No ___N/A

4. Is irrigation runoff collected from production areas? **Are collection reservoirs/tanks managed to avoid overflow during both dry and wet weather?** ***Collection capacity should be designed to handle runoff needs and probable storm events. Collection should also be designed or lined to prevent contamination of groundwater.***	___Yes ___No ___N/A ___Yes ___No ___N/A
5. Is runoff water quality regularly monitored? **Are runoff water quality records maintained?** ***Knowing what contaminants are present in runoff is key to proper management. Various options for reuse will depend on the quality of runoff. Basic water quality parameters to test for include pH, EC, nitrates, and phosphates. This can be performed with simple, inexpensive equipment. In addition, it is recommended to test for other contaminants according to the products utilized, such as specific pesticides, that may be present in runoff.***	___Yes ___No ___N/A ___Yes ___No ___N/A

E. Nutrient Assessment & Fertilizer Management

1. Are container mix/media tests performed? **Are leaf analyses performed?** **Is information from soil or leaf analyses used in fertilizer management?** **Are the most recent nutrient recommendations for your plants used in nutrient management?** ***The goal of successful nutrient management is to provide adequate plant nutrition through various growth stages without over-fertilization. Mix/media testing and leaf analyses can help better manage nutrients. Consult UC Cooperative Extension to obtain the most recent research-backed nutrient recommendations available for your specific crops.***	___Yes ___No ___N/A ___Yes ___No ___N/A ___Yes ___No ___N/A ___Yes ___No ___N/A
2. Are nutrients already present in irrigation water and/or recovered runoff considered in nutrient management? **Are nutrients already present in soil amendments considered in nutrient management?** ***Over-fertilization can result if nutrients already present in water and amendments are not taken into account.***	___Yes ___No ___N/A ___Yes ___No ___N/A

3. Are incorporated solid fertilizers thoroughly mixed throughout the container mix/media and at the correct rate? **Are organic materials or manures thoroughly composted before application?** ***Incorporated fertilizers must be thoroughly and evenly applied at appropriate rates to provide good plant nutrition and to avoid excessive leaching. Composts and manures that are not thoroughly composted have the potential to contribute bacteria and other contaminants to runoff. Organic materials and manures not fully composted may also cause a nitrogen imbalance in the soil, as these materials require nitrogen to break down.***	___Yes ___No ___N/A ___Yes ___No ___N/A
4. Are slow-release or controlled-release fertilizers utilized? ***Slow-release and controlled-release fertilizers can be successfully used in some situations to minimize leaching losses of nutrients.***	___Yes ___No ___N/A
5. Are topdressed solid fertilizers carefully applied at the correct rate and at the appropriate plant growth stage? ***Topdressed fertilizers must be carefully applied at the correct rate while taking care to keep granules in the container. Application should be timed to correspond with plant growth stage and nutrient needs to provide good nutrition and to avoid excessive leaching.***	___Yes ___No ___N/A
6. Are injected fertilizers carefully mixed and applied at the correct rate? **Is an electrical conductivity (EC) meter or other method regularly used to monitor the liquid fertilizer mix?** **Are injectors calibrated to accurately deliver liquid fertilizer through the irrigation system?** ***Highly soluble liquid fertilizers are easily leached and must be carefully managed. An electrical conductivity (EC) meter can be utilized to easily monitor the fertigation water.***	___Yes ___No ___N/A ___Yes ___No ___N/A ___Yes ___No ___N/A

F. Integrated Pest Management

1. Are plants regularly monitored for pests with proper scouting and monitoring methods, such as traps and plant inspection? **Does the decision to use chemical pesticides include scouting and monitoring information?** ***Establishing an ongoing monitoring system will help detect pest infestations early. By regularly inspecting plants, growers can detect troublesome pests while they are still manageable and before major damage is done.*** ***Evaluating pest populations on a regular basis also helps determine the actual need for chemical control, rather than relying on regularly scheduled chemical applications. Reducing the number of applications will lower production costs and reduce the amount of chemical released into the environment.***	___Yes ___No ___N/A ___Yes ___No ___N/A
2. Are weather conditions, such as fog and rain, considered in scheduling pesticide applications? **Are irrigation schedules considered in scheduling pesticide applications?** ***Schedule applications to avoid pesticide leaching and runoff.***	___Yes ___No ___N/A ___Yes ___No ___N/A
3. Are diagnostic lab services or other professional assistance used to determine unknown pathogens, insects, or other growth problems? ***Different pathogens can have similar symptoms. Some insects can also be difficult to identify. Some symptoms may be related to environmental conditions or nutrient and water issues. Accurately diagnosing a problem may sometimes require professional assistance. Successful treatment will depend on an accurate diagnosis.***	___Yes ___No ___N/A
4. Are low-toxicity and/or non-toxic chemicals selected for pest control whenever possible? ***Using less toxic materials reduces risk of pollution. Always read and follow label directions.***	___Yes ___No ___N/A
5. Are pesticides applied only according to the label? **Are improved application techniques used when recommended (e.g., ultra low volume application, surfactants, stickers and sticker-spreaders)?** **Is chemical spray equipment calibrated to ensure accurate application rates?** ***It is illegal to use a chemical product in a manner inconsistent with the label, and this may also pose additional water quality risks. Adopt improved application technology where available, registered and legal, to reduce the amount of chemicals applied and to maximize effectiveness.***	___Yes ___No ___N/A ___Yes ___No ___N/A ___Yes ___No ___N/A

6. Are biological controls integrated when possible and where effective? ***The use of natural predators or parasites to keep harmful pests in check can be highly effective in combination with good management practices and judicious use of chemical agents.***	___Yes ___No ___N/A
7. Is the growing area treated or fumigated before establishing a new crop? **Are weeds eliminated?** **Is contact between hoses and plants minimized to prevent spreading diseases?** **Is standing water eliminated?** ***A clean production environment is essential to pest management. By fumigating or treating greenhouses before establishing a new crop, pest problems from previous crops can be eliminated. Eliminating weeds and other hosts for pest populations makes it more difficult for a pest to establish itself in the growing environment. Standing water should be eliminated to avoid creating ideal conditions for pathogens and insects to reproduce.***	___Yes ___No ___N/A ___Yes ___No ___N/A ___Yes ___No ___N/A ___Yes ___No ___N/A
8. Are all plants, plugs, cuttings, and transplants shipped in inspected for pests? **Are plants quarantined before introduction to the growing area?** **Are plants with pests properly treated or disposed before entering the growing area?** ***Only clean plants, plugs, cuttings, or transplants should be allowed to enter the growing area. Carefully inspect all new shipments, discarding or treating any plants with pest problems. Quarantines allow time to monitor plants for any potential pathogen or insect problems. Proper disposal of disease or pest-infested plants will keep these problems out of the growing area.***	___Yes ___No ___N/A ___Yes ___No ___N/A ___Yes ___No ___N/A

Additional Assistance

Additional assistance is available from UC Cooperative Extension – County of San Diego.
Please call 858-694-2845.