

Stormwater Pollution Prevention

Agricultural

Irrigation

The irrigation system should be inspected and tested (or observed while in operation) to verify proper operation multiple times annually. Two of these inspections should occur during or immediately following wet weather. Any leaks, broken spray heads, or other malfunctions with the irrigation system should be repaired immediately.

Repair broken water lines as soon as possible. Shut off the water source to isolate a broken line, sprinkler or valve as soon as possible to minimize the loss of water. Protect downstream storm water drainage systems and watercourses from water pumped or bailed from trenches excavated to repair water lines.

Manage irrigation systems to ensure the appropriate amount of water is used and runoff is minimized. Irrigate slowly or pulse irrigate so the infiltration rate of the soil is not exceeded. Inspect irrigation system regularly for leaks to ensure that excessive runoff is not occurring. If re-claimed water is used for irrigation, ensure that there is no runoff from the landscaped area(s). Use automatic timers to minimize runoff.



Fertilizer



Read the product label and follow the directions carefully, using only as directed. Avoid applying near driveways or gutters. Never apply fertilizer before a rain. Store fertilizers and chemicals in a covered area and in sealed, waterproof containers. Use non-toxic products whenever possible.

Do not locate fertilizer stockpiles in areas of concentrated flows of storm water, drainage systems, inlets or watercourses. Do not locate fertilizer stockpiles adjacent to sensitive water bodies. Divert storm water run-on away from stockpiles. Implement wind erosion control practices on stockpile material.

Minor slides/slipouts usually occur during major storms. Stockpiles should be removed as soon as practicable and materials should be placed so that waterways are not impacted. During rain events, cover fertilizer stockpiles. Repair and/or replace covers as necessary to keep them functioning properly.

Pesticides

Apply pesticides in compliance with federal, state and local pesticide use regulations. Apply pesticides only as specified on the Pesticide Use Recommendation and the label. Activities should be approved by a licensed Agricultural Pest Control Adviser.

Effective pest control through chemical application requires consideration of the following:

- Use of the correct pesticide
- Seasonal timing of applications
- Timing in relation to expected precipitation events
- Proximity to water bodies
- Speed of travel when applying pesticide
- Proper agitation of the spray tank

Minimize the use of pesticides in or near storm water drainage systems or watercourses. Calibrate the spray rig to ensure accurate application of pesticides. Avoid using overhead irrigation for as long as the chemical manufacturer recommends after applying pesticides. Do not spray chemicals when rainfall-causing runoff is forecast within 12 hours.

Use non-toxic products whenever possible.



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Soil Erosion

Remember the cardinal rule for reducing erosion: keep the land covered! Plant crops that protect the soil. A good conservation cropping sequence contains a high percentage of crops that are soil hugging, produce heavy canopy cover, and produce large amounts of after-harvest residue. Do not grow crops producing low residue more than one year in a row. Use crops that provide protective cover during normal high erosion periods.

Use crop residue management (any tillage system leaving 30 percent of the soil surface covered with crop residue after planting) to protect the soil not covered by a growing crop.

Use conservation tillage systems such as no-till and mulch till to plant crops while maintaining crop residue on the soil surface. No-till uses a one-pass drill with openers that places seed and fertilizer in narrow bands without disturbing the area and residue between the drill rows. Mulch tillage uses equipment that disturbs the full soil surface but does not invert the soil or bury excessive amounts of crop residue.



Shape the sides of waterways and plant grass to provide protection from erosion. Vegetative filter strips are strips of grass or other close growing vegetation that slow water runoff and trap sediment and other solid materials. Plant filter strips in areas where water will pass over them as sheet flow.

Mulch the soil surface with off-site residue or other organic material to protect soil when vegetative or residue cover is not available. Mulches improve water intake, absorb the impact of falling raindrops, and trap water to slow its movement. Straw mulching is becoming a readily accepted way to reduce irrigation-induced erosion in furrow-irrigated fields.

Livestock

Use dry cleaning methods to clean animal handling areas regularly. Sweeping animal handling areas is encouraged over other methods. Properly dispose of droppings, uneaten food, and other potential contaminants.

If water is used for cleaning:

- Do not discharge wash water to storm water drains or other receiving waters.
- Wash water should be collected and pumped to the sanitary sewer, do not allow wash water to enter storm drains. DO NOT discharge wash water to sanitary sewer until contacting the local sewer authority to find out if pretreatment is required.
- Keep animals in paved and covered areas, if feasible. If keeping animals in covered areas is not feasible, cover the ground with vegetation or some other type of ground cover such as mulch. Prevent animals from moving away from controlled areas where BMPs are in use (e.g. fencing, leashing, etc.).
- Non-storm water discharges to drainage paths, drain systems and watercourses are prohibited.
- Use dry cleanup techniques (e.g., vacuuming, sweeping, dry rags) to remove solid waste from the site when practicable. Use another technique only when dry cleanup techniques are not practicable, such as having to wet for dust control for safety or air quality reasons. Recycle, reuse or properly dispose of solid waste.
- Prevent storm water run-on from contacting stored solid waste through the use of ditches, berms, dikes and swales. Locate solid waste storage areas away from drainage facilities and watercourses and areas prone to flooding or ponding. Periodically inspect the solid waste storage areas and review the disposal procedures. Repair or replace damaged or missing BMPs.

Farm Equipment

Conduct regular cleaning. Sweeping or vacuuming the storage facility is encouraged over wet cleaning methods. Sweep all storage lots at least once before the onset of the wet season. Establish frequency of sweeping based on usage and field observations of sediment accumulation.

Washing or rinsing of equipment shall be performed in designated areas (describe what a designated area should be) and the resulting runoff shall not be discharged to the storm drain system.

Train employees on appropriate BMPs, storm water discharge prohibitions, and wastewater discharge requirements.

