AGRICHEMICAL POLLUTION PREVENTION MEASURES

Agrichemical Pollution Prevention Measures means a planned system to prevent chemical delivery to water courses for water quality improvement. System components may include:

Policies

1. A WIN-PST environmental risk evaluation of the interactions of predominant farm soil types and selected pesticides (or active ingredients) may be considered to assess potential water quality impacts.

2. Producers are encouraged to develop a Pest Management Plan utilizing the NC NRCS 595 Pest Management Job Sheet.

3. Information on the use of WIN-PST is available on the NC NRCS website at: http://www.nc.nrcs.usda.gov/technical/TechRef/techref-water.html and in the NC NRCS 595 Pest Management Standard

AgriChemical Handling Facility

Definition/Purpose

An AgriChemical Handling Facility means a permanent structure that provides an environmentally safe means of mixing agrichemicals and filling tanks with agrichemicals for the application and storage of agrichemicals to improve water quality. Benefits may include prevention of accidental degradation of surface and ground water. (DIP)

Policies

1. Limited to one facility per cooperator.

2. Receipts are required for reimbursement for those components for which reimbursement is based on 75% of actual cost. Total charge to NCACSP is restricted to a total of $25,000 per facility.

3. Operation and Maintenance Plan Statement (NC-ACSP-OMP) is required.

4. BMP soil impact is not required on the contract.

5. Minimum life of BMP is 10 years.

Specifications

N. C. NRCS Technical Guide, Section IV, Specification #323 (Interim AgriChemical Handling Facility).

Fertigation Backflow Prevention

Definition/Purpose

Fertigation Backflow Prevention is a combination of devices (valves, gauges, injectors, drains, etc.) to safeguard water sources from contamination by fertilizers used during the irrigation of agricultural crops. The practice is intended to modify or improve fertilizer injection systems with components necessary to prevent backflow or siphoning of contaminants into the water supply thereby improving and protecting the state's waters.

Policies

1. Other BMPs such as critical area planting, field border, filter strip, grassed waterway and nutrient management may further support this practice.

2. As a minimum, systems will include the following components:

   a. **Check Valve** installed between the pump discharge and the point of injection.

   b. **Vacuum Relief Valve** located between the pump and check valve.

   c. **Automatic Low Pressure Drain** located between the pump and check valves.

3. ACSP funds can be used to fund retrofitting or installing injection equipment, check valves, gauges, drains and vacuum breakers.

4. Items that are unrelated to backflow prevention (e.g., tanks, mixers, or filters) are not eligible for funding.

5. Funding is limited to 75% of actual costs. Receipts are required for reimbursement. Total charge to NCACSP is restricted to a total of $1500.00 per system.

6. Systems must be designed by a technical specialist with an "I" designation or a professional engineer.

7. Approval of installation shall be limited to NRCS, Division or District technical specialist with an "I" designation.

8. BMP soil impact is not required on the contract.

9. Minimum life of BMP is 10 years.

Specifications

N. C. NRCS Technical Guide, Section IV, Specification #441 (Irrigation System, Trickle), #449 (Irrigation Water Management), #430 (Irrigation Water Conveyance), ASAE Engineering Practice Standard #EP 409.1 (Backflow Safety Devices for Chemigation).

Chemigation Backflow Prevention

Definition/Purpose

Chemigation Backflow Prevention is a combination of devices (valves, gauges, injectors, drains, etc.) to safeguard water sources from contamination by chemicals used during the irrigation of agricultural crops. The practice is intended to modify or improve chemical injection systems with components necessary to prevent backflow or siphoning of contaminants into the water supply thereby improving and protecting the state's waters.

Policies

1. NCACSP will only fund chemigation systems conforming to North Carolina Pesticide Board regulations.

2. Injection point on any chemigation system shall be downstream of the filtration system.

3. As a minimum, systems will include the following components:

    a. Double Check Valves installed between the pump discharge and the point of injection.

    b. Inspection Port located between the irrigation pump and check valves.

    c. Vacuum Relief Valve located between the pump and check valves.

    d. Automatic Low Pressure Drain located between the pump and check valves.

    e. Flow Interruption Device installed on the pesticide supply line.

    f. Check Valve located on the pesticide injection line.

    g. Functional Systems Interlock (capable of shutting down the pesticide injection unit when irrigation water flow stops.)

4. Other BMPs such as critical area planting, field border, filter strip, grassed waterway and nutrient management may further support this practice.

5. ACSP funds can be used to fund retrofitting or installing injection equipment, check valves, gauges, drains and vacuum breakers.

6. Items that are unrelated to backflow prevention (e.g., tanks, mixers, or filters) are not eligible for funding.

7. Funding is limited to 75% of actual costs. Receipts are required for reimbursement. Total charge to NCACSP is restricted to a total of $1500.00 per system.

8. Systems must be designed by a technical specialist with an “I” designation or a professional engineer.

9. Approval of installation shall be limited to NRCS, Division or District technical specialist with an “I” designation.

10. BMP soil impact is not required on the contract.

11. Minimum life of BMP is 10 years.

Specifications

N. C. NRCS Technical Guide, Section IV, Specification #441 (Irrigation System, Trickle), #449 (Irrigation Water Management), #430 (Irrigation Water Conveyance), ASAE Engineering Practice Standard #EP 409.1 (Backflow Safety Devices for Chemigation).

Portable Agrichemical Mixing Station

Definition/Purpose

A portable device to be used in the field to prevent the unintentional release of agrichemicals to the environment during mixing and transferring of agrichemicals. Benefits may include prevention of accidental degradation of surface and ground water. (DIP)

Policies

1. Limited to one station per cooperator.

2. Receipts are required for reimbursement for those components for which reimbursement is based on 75% of actual cost. Total charge to NCACSP is restricted to a total of $3,500 per station.

3. Operation and Maintenance Plan Statement (NC-ACSP-OMP) is required. (Under development)

4. ACSP funds can be used to fund retrofitting or installing check valves, gauges, drains, vacuum breakers and mixing cones as part of a complete system.

5. BMP soil impact is not required on the contract.

6. Minimum life of BMP is 5 years.

Specifications

Alabama NRCS Technical Guide, Section IV, Code #703 (Interim Standard Portable Agrichemical Mixing Station).

Agrichemical Containment and Mixing Facility

Definition/Purpose

Agrichemical Containment and Mixing Facility means a system of components that provide containment and a barrier to the movement of agrichemicals. The purpose of the system is to provide secondary containment to prevent degradation of surface water, groundwater, and soil from unintentional release of pesticides or fertilizers. Cost share for this practice is limited to $15,000 per facility. (DIP)

Policies

1. This practice applies where current methods of storage, loading, and mixing of agrichemicals and rinsing of equipment have the potential to impair soil, water, air, plant, and animal resources.

2. Components must include those components necessary to properly handle chemical mixtures and prevent pollution of the environment. Components of a complete facility may include:

   a. Secondary containment for fertilizer and pesticide storage areas.

   b. A curbed, sealed concrete chemical mixing and loading pad

   c. All weather access pad/lane to the containment facility

   d. A chemical collection sump and sump pump, including safety devices

   e. An adequate water supply for mixing chemicals, rinsing tanks, and containers, and for emergency health and safety needs including water supply pump, pipeline, hoses, backflow prevention devices and other hardware as needed

   f. Tanks for storage of rinsate and potentially contaminated runoff.

3. Secondary containment for pesticides shall be separate from containment for fertilizers.

4. Operation and Maintenance Plan Statement (NC-ASCP-OMP) is required.

5. BMP soil impact is not required on the contract.

6. Minimum life of BMP is 10 years.

7. This practice is limited to one facility per cooperator.

Specifications

N. C. NRCS Technical Guide, Section IV, Specification #702 (Interim AgriChemical Handling Facility).