

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. Systems must be designed by a technical specialist with an "I" designation or a professional engineer.
6. Approval of installation shall be limited to NRCS, Division or District technical specialist with an "I" designation.

FERTIGATION BACKFLOW PREVENTION SYSTEM	
Maintenance Period	10 years
BMP Units	EACH
Required Effects	ACRES_AFFECTED
JAA/NRCS Standards unless otherwise noted	ENG - 441 - Irrigation System, Microirrigation ENG - 449 - Irrigation Water Management ENG - 430 - Irrigation Pipeline ASAE EP409.1 MAR1989 (R2013) Safety Devices for Chemigation.
CS2 Reference Materials	NC-ACSP-11 Signature Page Map with BMP location, fields, and roads.