

LOCAL WELLHEAD PROTECTION PROGRAM PLAN

Managing Agricultural Fertilizer Application



MANAGING FERTILIZER USE NEAR DRINKING WATER SUPPLIES

If improperly managed, elements of fertilizer can move into surface water through field runoff or leach into ground water. The two main components of fertilizer that are of greatest concern to public drinking water supplies are nitrogen (N) and phosphorus (P). Crop producers need to match nitrogen applications to crop uptake to minimize nitrate leaching and maximize efficiency. Due to health risk, the EPA set a drinking water maximum contaminant level (MCL) of 10 milligrams per liter (mg/l) for nitrate measured as nitrogen. The goal of the prevention measures, as described below, are to minimize nutrient losses from agricultural land occurring by edge-of-field runoff and by leaching from the root zone. This can be achieved by developing a comprehensive nutrient management plan and using only the types and amounts of nutrients necessary to produce the crop, applying nutrients at the proper times and with proper methods, implementing additional farming practices to reduce nutrient losses, and following proper procedures for fertilizer storage and handling.

APPLICATION RATES AND FERTILIZER TYPES

- Limit fertilizer to an amount necessary to achieve a realistic goal
- Perform yearly soil sampling to determine nutrient needs
- When calculating rate of application, credit other sources to include nitrogen and phosphorous contributions from previous legume crops, irrigation water, manure, and organic matter
- Understand and follow fertilizer yield goals based on soil properties, available moisture, yield history, and management level
- Apply the appropriate form of nitrogen fertilizer based on soil and weather conditions.

APPLICATION PRACTICES

Apply product during maximum crop uptake periods.

Inspect and calibrate equipment annually to ensure accurate application amounts.

Correctly place fertilizer in the root zone to enhance plant nutrient uptake which minimalizes loss.

Manage irrigation water due to the large amount of water applied. Sprinklers, precision applicators, surges and drips can apply water uniformly.

