

**TITLE 61
PROCEDURAL RULE
STATE DEPARTMENT OF AGRICULTURE**

**SERIES 22B
BEST MANAGEMENT PRACTICES FOR FERTILIZERS AND MANURES**

§61-22B-1. General.

1.1. Scope. -- The rules establish voluntary best management practices to prevent or minimize the entry of nutrients from fertilizers and manures into groundwater while maintaining and improving the soil and plant resources of this state.

1.2. Authority. -- W. Va. Code §22-12-5(c).

1.3. Filing Date. -- November 5, 1992.

1.4. Effective Date. -- December 6, 1992.

1.5. This is a new procedural rule.

§61-22B-2. Definitions.

2.1. "Best Management Practices" means activities, procedures and practices to prevent or remedy the introduction of fertilizer or manure residues into groundwater to the extent technically feasible and economically practical. Best Management Practices are designed to maintain the health and long-term productivity of the soil, water and related plant and animal resources and to minimize the threat of soil, waste and nutrient contamination to the waters of the state.

2.2. "Commissioner" means the commissioner of agriculture of the state of West Virginia or his or her duly authorized agent.

2.3. "Fertigation" means the application of fertilizers or manures by an irrigation system.

2.4. "Fertilizer" means any substance containing one or more recognized plant nutrients which is used for its plant nutrient content and which is

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designed for use or claimed to have value in promoting plant growth. The term fertilizer does not include agricultural liming materials, wood ashes, gypsum, unmanipulated animal or vegetable manures and other products exempted by regulation of the commissioner.

2.5. "Manure" means any substance composed of excreta of animals, other than man, and may include bedding or other materials normally associated with the substance as well as water associated with or added to the substance.

2.6. "Non-point source" means a diffuse source of substances that have the potential to impair the beneficial uses of groundwater resulting from activities over a relatively large area, the effects of which must normally be addressed or controlled by a management or conservation practice.

2.7. "Point source" means a source of substances that have the potential to impair the beneficial uses of groundwater resulting from an activity over a small area and generally is limited to mixing, loading and storage sites or feedlots. A source is not considered a point source until a discharge of substances occurs.

2.8. "Twenty-five (25) year twenty-four (24) hour rainfall event" means the maximum 24-hour precipitation event with a probable recurrence interval of once in twenty-five (25) years, as defined by the National Weather Service, U.S. Department of Commerce, in Technical Paper Number 40, "Rainfall Frequency Atlas of the United States", May 1961, and subsequent amendments, or equivalent regional or state rainfall probability information developed therefrom.

§61-22B-3. Protection of Groundwater From Point Sources.

3.1. Each person should store and handle fertilizers and manures in a manner to prevent pollution by minimizing losses to the groundwaters in this state.

3.2. Each person should store fertilizers inside a sound structure or device having a cover or roof top, sidewalls, and a base sufficient to prevent contact with precipitation and surface water. Each person should store manure in a facility that meets or exceeds the standards of the Soil Conservation Service Field Office Technical Guide. If these conditions are not met then no person should store fertilizer or manure:

3.2.a. without a tarpaulin or other suitable covering to prevent seepage or run-off to surface or groundwater;

3.2.b. on land within one hundred (100) feet of shallow wells, or wells that do not meet the Water Well Design Standards set by WV 64 CSR 46 et seq. (effective June 8, 1984);

3.2.c. on land within fifty (50) feet from surface water, including springs, ponds, wet areas or other collection points for surface water;

3.2.d. on land within fifty (50) feet of an open portal of a sinkhole;

3.2.e. on land that has a slope greater than fifteen percent (15%), unless measures are taken to divert runoff of precipitation from the slopes above the storage area from the fertilizer or manure;

3.2.f. on land that has a seasonable groundwater table that is less than two (2) feet from the surface;

3.2.g. on land that has less than twenty (20) inches of soil over bedrock or an impervious pan; or

3.2.h. on land that has a reasonable expectation of having a flood event resulting from a twenty-five (25) year - twenty-four (24) hour frequency storm during the storage period.

3.3. Each person should conduct mixing and loading operations for liquid fertilizers or for fertilizers containing pesticides at least one hundred (100) feet from any wellhead or within a watertight loading pad.

3.4. When cleaning equipment used for storing or applying fertilizers or manures, each person should use extreme care that waste water or spillage from the operation is recovered and applied at normal agronomic rates or otherwise disposed of in a manner that will not contaminate groundwater.

3.5. All persons owning a dry or abandoned well in the area where fertilizers or manures are stored and used should plug the well according to the Water Well Design Standards WV 64 CSR 46 et seq. (effective June 8, 1984).

3.6. All persons practicing fertigation should use a proper antibacksiphon device.

§61-22B-4. Protection of Groundwater From Non-Point Sources.

4.1. No person should apply manure or fertilizers containing nitrogen to land:

4.1.a. with less than ten (10) inches of soil over fractured bedrock;

4.1.b. that is snow-covered and frozen, frozen or saturated;

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4.1.c. within fifty (50) feet of a wellhead;

4.1.d. that is in imminent danger of being inundated by floodwater; or

4.1.e. that drains into a sinkhole with an open portal unless that sinkhole has a twenty (20) foot vegetative buffer zone with at least ninety percent (90%) of the land in the buffer zone covered with vegetation.

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4.2. No person should apply fertilizers containing nitrogen to land that has coarse textured soils when the application occurs in the fall, unless that application is made to support the growth of a fall cover crop.

4.3. Each person applying fertilizers or manures should:

4.3.a. utilize alternate crop rotations to reduce the amount of fertilizers or manures needed to maintain crop production and to utilize nitrogen residuals in the soil;

4.3.b. utilize practices to enhance soil condition that reduces nitrate leaching (such as practices to improve soil tilth and increase organic matter of the soil);

4.3.c. utilize conservation tillage, grassed waterways, contouring, vegetative buffer zones or other effective conservation practices to reduce fertilizer or manure residue runoff into sinkholes, wells or other potential sites for groundwater contamination;

4.3.d. plan the application of fertilizers containing nitrogen so that the application is made as close as practically possible to the time when the crop requires the nitrogen;

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4.3.e. apply fertilizers or manures based on a rate recommended after soil tests, plant tissue testing and/or manure content testing;

4.3.f. apply nitrogen from a combination of fertilizer and/or manure at rates that supply no more than one hundred twenty-five percent (125%) of the demonstrated need of the crop, based on soil test, plant tissue test or estimated from yield goal, previous crop, manure management, and soil properties as recommended by a laboratory or soils specialist/agronomist;

4.3.g. calibrate application equipment to assure proper application rates; and

4.3.h. avoid application to a field that has an average slope of greater than twenty-five percent (25%) unless that application is needed to establish or maintain close-grown grasses and/or clovers for the control of erosion; provided that suitable procedures are used to prevent runoff containing these residues from moving into groundwater when application is made to slopes of greater than twenty-five percent (25%).