

High Residue Management

This practice leaves at least 30% of the ground covered with crop residue (leaves and stalks) after crops are planted. Crop residue limits erosion by protecting and binding the soil.

Cropland Protection Cover

A crop of close growing grasses, legumes, or small grains grown to control erosion during periods when the major crops do not furnish adequate protection. It is usually grown for one year or less.

Nutrient Management

The management and crediting of nutrients from all sources, including legumes, manure, and soil reserves for the application of manure and commercial fertilizers. Management includes the rate, method and timing of the application of all sources of nutrients to minimize the amount of nutrients entering surface or groundwater. This practice includes manure nutrient testing, routine soil testing, and residual nitrogen soil testing.

Pesticide Management

The management of the handling, disposal and application of pesticides including the rate, method and timing of application to minimize pesticides entering surface and groundwater. This practice includes integrated pest management scouting and planning.

Pesticide Handling Spill Control Basin

Structures designed to contain accidental spills or overflows from pesticide handling, loading and unloading operations.

Intensive Grazing Management (Rotational Grazing)

Intensive grazing management is the division of pastures into multiple cells that receive a short but intensive grazing period followed by a period of recovery of the vegetative cover. Rotational grazing systems can correct existing pasturing practices that result in degradation and should replace the practice of summer dry-lots when this practice results in water quality degradation.

Livestock Fencing

Enclosing or dividing an area of land with a suitable permanent structure that acts as barrier to livestock or big game. The fencing excludes livestock from areas that should not be grazed, subdivide land to permit use of grazing systems, and protect new seedings and plantings from grazing.

Channel Crossings

Rubble or paved surfaces installed on the stream bottom to provide crossings for equipment and/or livestock.

Manure Storage Facility

A structure for the storage of manure for the period of time needed to reduce the impact of manure as a nonpoint source of pollution. Livestock operations where this practice applies are those where manure is winter spread on fields that have a high potential for runoff to lakes, streams and groundwater. The facility is needed to store and properly spread manure according to a management plan.

Animal Waste Storage Facility Abandonment

Manure storage system abandonment is the proper abandonment of leaking and improperly sited manure storage systems. The practice includes proper removal and disposal of wastes, liner materials, and saturated soil plus shaping, filling, and seeding of the area.

Field Diversions

A shallow channel constructed across the slope of the land to divert water from areas where it may cause flooding or erosion. The water is diverted to where it can be stored or transported safely.

Terraces

A system of ridges and channels with suitable spacing and constructed on the contour with a suitable grade to prevent erosion in the channel.

Grassed Waterways

A natural or constructed channel shaped, graded and established with suitable cover as needed to prevent erosion by runoff waters.

Critical Area Stabilization

The planting of suitable vegetation on nonpoint source sites and other treatment necessary to stabilize eroding lands.

Well Abandonment

Proper abandonment of unused wells, usually by permanent filling.

Agricultural Sediment Basin

A structure designed to reduce the transport of sediment, agricultural waste, and other pollutants transported from agricultural fields and barnyards to surface waters, closed depressions, and wetlands.

Shoreline and Streambank Protection

The stabilization and protection of stream and lake banks against erosion. Protection of fish habitat and water quality from livestock. Methods include fencing, shaping and seeding of vegetation, rock riprap, bioengineering, or structures to stabilize shorelines and/or provide fish habitat.

Shaping and Seeding

Planting of vegetation, such as trees, shrubs, vines, grasses, or legumes on highly erodible or critically eroding areas. This vegetation stabilizes the soil, reduces damage from sediment and runoff, and improves wildlife habitat and visual resources.

Streambank Fencing

Excludes livestock from the near shore area to prevent trampling, grazing, and protect riparian habitat.

Remote Watering System

Development of a system of portable tanks, pumps, and pipes designed to bring water to livestock in all grazing cells.

Shoreline Buffers

A permanent vegetated area immediately adjacent to lakes, streams, channels and wetlands designed and constructed to manage critical nonpoint sources or to filter pollutants from nonpoint sources.

Wetland Restoration

The construction of berms or destruction of the function of tile lines or drainage ditches to create conditions suitable for wetland vegetation.

Barnyard Runoff Management

Structural measures to redirect surface runoff around the barnyard, and collect, convey or temporarily store runoff from the barnyard. Management includes measures such as: sediment basins, roof gutters, and clean water diversions.

Animal Lot Relocation

Relocation of an animal lot from a critical site such a floodway to a suitable site to minimize the amount of pollutants from the lot to surface or groundwater.

Roofs for Barnyard Runoff Management and Manure Storage Facilities

Roofs for barnyard runoff management and manure storage facilities are roofs and supporting structures constructed specifically to prevent rain and snow from contacting manure.

Structural Urban Best Management Practices

These practices are source area measures, transport systems and end-of-pipe measures designed to control storm water runoff rates, volumes and discharge quality. These practices will reduce the amount of pollutants carried in runoff and flows destructive to stream habitat. Included are such practices as infiltration trenches, porous pavement, oil water separators, sediment chambers, sand filtration units, grassed swales, infiltration basins and detention/retention basins.

Milking Center Waste Control Systems

A milking center waste control system is a piece of equipment, practice or combination of practices installed in, or in conjunction with, a milking center for purposes of reducing the quantity or pollution potential of the wastes.

Easements

Easements are legally binding restrictions on land titles purchased to provide permanent vegetative cover.

Best Management Practices Summary Guide*

Best Management Practices	Resource Concerns										
	Surface Water Quality									Ground Water Quality	
	Salinity	Temperature	Sediment	Soluble Nutrients	Absorbed Nutrients	Soluble Pesticides	Absorbed Pesticides	Oxygen-Demanding Substances	Pathogens	Nutrients	Pesticide Loss
Management Practices											
Nutrient Management	C	C	C	A	A	C	C	C	C	A	C
Pest Management	C	C	C	C	C	A	A	C	C	C	A
Irrigation System, Tailwater Recovery	A	?	A	A	A	A	A	C	C	?	?
Irrigation Water Management	A	C	A	A	A	A	A	C	C	B	B
Regulating Water in Drainage Systems	B	?	C	A	C	A	C	C	C	?	?
Soil Salinity Management	A	C	B	B	B	B	B	C	C	C	C
Structure for Water Control	C	C	A	C	A	C	B	A	C	C	C
Water Table Control	B	?	C	A	C	A	C	C	C	?	?

Waste Management System ²	C	C	A	A	A	C	C	A	A	A	C
Runoff Management System ²	C	?	A	A	A	C	C	A	A	A	C
Vegetative and Tillage Practices											
Conservation Tillage	C	C	A	C	A	C	A	C	C	?	?
Contour Farming	C	C	A	B	A	B	A	B	B	?	?
Contour Stripcropping	C	C	A	B	A	B	A	B	B	C	C
Filter Strip	C	C	B	C	B	C	B	B	B	?	?
Field Border	C	C	B	C	B	C	B	B	B	C	C
Cover and Green Manure Crop	C	B	B	B	B	B	B	C	C	B	C
Conservation Cropping Sequence	B	C	A	B	A	B	A	C	C	B	B
Field Windbreaks	C	C	B	C	B	C	B	C	C	C	C
Pasture and Hayland Management	C	B	B	C	B	C	C	B	B	C	C
Field Stripcropping	C	C	B	B	B	B	B	C	C	C	C
Grasses and Legumes in Rotation	C	B	B	B	B	B	B	C	C	C	C

Structural Practices											
Terrace	?	?	A	B	A	B	A	B	B	?	?
Water and Sediment Control Basin	C	?	A	C	A	C	A	B	C	?	?
Diversion	C	?	B	C	B	C	B	C	B	C	C
Grade Stabilization Structure	C	C	B	C	B	C	C	C	C	C	C
Grassed Waterway	C	C	B	C	B	C	B	C	C	C	C
Streambank and Shoreline Protection	C	A	A	C	A	C	C	B	C	C	C
Wetland Development or Restoration	C	B	A	B	A	B	A	A	B	?	C
Key A Medium to high effectiveness B Low to medium effectiveness C No control to low effectiveness ? May increase or decrease impact ¹											
* Abstracted from USDA Agriculture Information Bulletin No. 598. NOTE: Because of the general nature of this chart, there may be situations and sites where practices will not perform as indicated.											
¹ Depends on soil, crop, practice design, and management characteristics.											
² Includes all appropriate structural, vegetative, and management characteristics.											