

Recommended Site Practices

If not specified by federal, state, or local regulations, the following statements provide recommended best management practices (BMPs) for manure application sites.

- Animal manure should not reach wetlands or surface waters by runoff, drift, man-made conveyances (such as pipes or ditches), direct application, or direct discharge during operation or land application. Proper application rates and methods shall be used to ensure that these specifications are met. Any manure discharge that reaches surface water is prohibited. Illegal discharges may result in your state or local water quality agency imposing penalties for every day that the discharge continues.
- Inject liquid manure or incorporate solid manure on the same day as surface spreading to minimize nitrogen losses, odors, and runoff potential. Check with your local soil and water conservation district or NRCS to check if manure injection or incorporation is recommended for your soil type. These practices may be prohibited in your farm's conservation plan or under certain federal and state soil conservation programs.
- Animal manure should be applied on land eroding at less than 5 tons per acre per year. Manure may be applied to land that is eroding at 5 or more tons but less than 10 tons per acre per year, providing grass filter strips are installed where runoff leaves the field. (See *NRCS Field Office Technical Guide Standard 393—Filter Strips*.)
- Animal manure should not be applied to saturated soils, during rainfall events, or when the soil surface is frozen (if at all possible). When animal manure is to be applied on acres subject to flooding, it should be soil incorporated on conventionally tilled cropland. When applied to conservation-tilled crops or grassland, the manure can be broadcast, provided the application does not occur during a season prone to flooding.
- Apply manure on frozen land or snow **only** if
 - It is necessary to prevent storage overflow.
 - The land is not subject to flooding.
 - Land slope is less than 2% or erosion control BMPs are installed.
 Best management practices may include terraces, conservation tillage, cover crops, or contour farming. Double manure-spreading separation distances from streams, etc. where runoff may occur.
- Surface apply manure on highly erodable land to cover crops, residue cover, or consistent with erosion control practices.
- Take samples of groundwater and surface water on farms where animal manure is routinely applied. Samples should be analyzed for nutrients and bacteria.
- Animal manure should not be applied closer than 50 ft to surface water. This distance may be reduced for waters that are not perennial, provided adequate vegetative buffer strips are present.
- Animal manure should not be applied closer than 100 ft to wells.
- Animal manure should not be applied closer than 200 ft to dwellings other than those owned by the landowner.
- Apply manure in such a way that it does not reach other property and public rights-of-way or potentially contaminate public drinking water supplies.
- Unless manure is incorporated by the end of the working day (and

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before rainfall occurs), do not apply manure within

- 50 ft of road ditches.
- 100 ft from a surface tile inlet, sinkhole, intermittent stream, drainage ditch, or other water bodies.

Note: Double manure-spreading separation distances in areas where runoff will likely occur or has occurred in the past or where water conveyance structures or natural features lead to public water areas.

- Check with local city and county officials for applicable regulations on zoning, health, building code, setback distances, etc.
- When applying manure within floodplains, do not apply to
 - Land that may frequently flood. Manure should not be applied to soils that the NRCS classifies in a county soil survey as occasionally, frequently, or very frequently flooding or describes as having brief, long, or very long flooding duration (areas flooded longer than two days during each event).
 - Floodplains with shallow depths to groundwater. Manure should not be applied when the water table is within 36 inches of the soil surface for surface-applied or irrigated manure and 42 inches for injected or incorporated manure. Monitoring of water table depth may be necessary in areas of seasonally fluctuating water tables.
- Do not surface-spread liquid manure on slopes steeper than 6%, unless there is sufficient crop residue to prevent runoff, or on frozen or snow-covered slopes greater than 2%, because of the risk of runoff, unless injected or incorporated into the soil by the end of the working day.
- Avoid applying manure to soils with a shallow depth to bedrock. Manure should not be applied to areas with less than the following depths to bedrock:
 - Sand: 36 inches
 - Loam, sandy loam, clay loam: 24 inches
 - Clay: 12 inches
- When selecting and operating application equipment, consider the effect of odors from a particular site.