

# Confinement Dry Manure Stockpiling Regulations



*Confined turkey and chicken operations generate dry manure. Other species could potentially generate dry manure and fall under these regulations.*

Iowa enacted a law in 2009 that restricts where and how confinement dry manure can be stockpiled when land application must be postponed. Following these rules will help keep runoff from reaching and polluting nearby streams.

Dry manure stockpiles are prohibited on grassed waterways.

They are also prohibited on land with slopes greater than 3 percent unless methods, structures or practices contain the stockpiles manure — such as hay bales, silt fences or temporary earthen berms — to prevent runoff.

Additional requirements apply if manure is stockpiled for longer than 15 days.

The manure must be land applied within six months of stockpiling in accordance with 567 Iowa Administrative Code (IAC) 65.3 (459, 459B).

## Dry Manure Stockpiling for more than 15 days

Stockpiles and qualified stockpile structures must be separated from sensitive areas by the distances in Table 1. To stockpile confinement dry manure for more than 15 days on non-karst terrain, producers can either:

**Table 1** *Continued on back*  
**Required Separation Distances for Confinement Dry Manure Stockpiles**

Terrace tile inlet or surface tile inlet — unless the dry manure is stockpiled in a manner that does not allow runoff to drain from the stockpile to the inlet.	200 feet
Designated area such as: ■ lake ■ abandoned well ■ drinking water well ■ designated wetland ■ water source ■ ag drainage well surface tile inlet* ■ ag drainage well cistern* ■ known sinkhole*	400 feet
High quality water resource (see definition)	800 feet
Residence, business, church, school or public use area for air quality purposes ( <i>Does not apply to stockpiles from small animal feeding operations — confinements of 500 animal units or less. See Table 2 Animal Unit Equivalency Factors on the back side.</i> )	1,250 feet

\* The DNR highly recommends a distance of 800 feet as these are direct conduits to agricultural drainage wells.

## Definitions

**Ag drainage well** is a vertical opening to an aquifer or permeable substratum which is constructed by any means including but not limited to drilling, driving, digging, boring, augering, jetting, washing or coring and which is capable of intercepting or receiving surface or subsurface drainage water from land directly or by a drainage system.

**Confinement feeding operation** means an animal feeding operation in which animals are confined to areas which are totally roofed and includes every animal feeding operation that is not an “open feedlot operation.”

**Dry manure** means manure that:

- does not flow under pressure.
- cannot be transported through a liquid pump
- the molecules do not flow freely among themselves but may show a tendency to separate under stress.

**High quality water resource** is the part of a water source or wetland that the DNR has designated as any of the following:

- A high-quality water (Class “HQ”) or a high-quality resource water (Class “HQR”) according to 567 IAC ch. 61, in effect on Jan. 1, 2001.
- A protected water area system, according to a state plan adopted by the DNR in effect on Jan. 1, 2001.

**Karst terrain** is land having karst formations that exhibit surface and subterranean features of a type produced by the dissolution of limestone, dolomite or other soluble rock and characterized by closed depressions, sinkholes or caves. If a 25-foot vertical separation distance can be maintained between the bottom of an unformed manure storage structure and limestone, dolomite or other soluble rock, then the structure is not considered to be in karst terrain.

**Long-term stockpile location** is an area where a person stockpiles manure for more than a total of six months in any two-year period.

**Qualified stockpile structure** means a building or roofed structure that is impermeable to precipitation, constructed using wood, steel, aluminum, vinyl, plastic or

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- Inspect the stockpile every month for runoff and deliver an inspection statement to the DNR, or
- Use a building or an impermeable cover.

**Long-term Stockpiling.** Where dry confinement manure is stored for more than six months, it must be placed on a constructed impervious base that can support the load of equipment used under all weather conditions. The coefficient of permeability of the base shall be less than  $1 \times 10^{-7}$  cm (0.00028 feet/day).

### On Karst Terrain/Drains to Known Sinkhole

If dry manure is stockpiled on karst terrain, the bottom of the stockpile must be at least 5 feet above the limestone, dolomite or other soluble rock. A professional engineer must submit a soils report to the DNR.

To stockpile for more than 15 days, a qualified building, qualified structure or impermeable cover must be used.

**Long-term Stockpiling.** On karst terrain, a cover can only be used for long-term stockpiling if the pile is located on reinforced concrete at least 5 inches thick.

### Exemptions

A grandfather clause dismisses confinement feeding operations constructed before Jan. 1, 2006, from storage requirements and water quality setbacks unless the operation was expanded after that date or runoff from the stockpile has drained off the property.

Dry manure delivered to a purchaser as bulk dry animal nutrient product under Chapter 200A is regulated by the Iowa Department of Agriculture and Land Stewardship, unless a water quality violation occurs.

Air quality setbacks (see Table 1) do not apply if the neighboring landowner signs a waiver.

**Table 2. Animal Unit Equivalency Factors**

Slaughter or feeder cattle	1.0 Units
Immature dairy cattle	1.0 Units
Mature dairy cattle	1.4 Units
Butcher or breeding swine weighing more than 55 lbs	0.4 Units
Swine weighing 15 lbs or more but not more than 55 lbs	0.1 Units
Sheep or lambs	0.1 Units
Horses	2.0 Units
Turkeys 7 lbs or more	0.018 Units
Turkeys less than 7 lbs	0.0085 Units
Broiler or layer chickens 3 lbs or more	0.01 Units
Broiler/Layer chickens less than 3 lbs	0.0025 Units

*An animal unit is defined as a measurement based upon the product of multiplying the number of animals of each category by a special equivalency factor as listed above. As an example, 3,000 finishing hogs  $\times$  0.4 = 1,200 animal units.*



*An impermeable cover on a dry manure stockpile controls runoff.*

### Definitions, continued

similar materials and is constructed with walls or other means to prevent precipitation-induced surface runoff from contacting the stockpile.

**Qualified stockpile cover** is a barrier impermeable to precipitation that is used to protect a stockpile from precipitation.

**Stockpile** refers to dry manure or dry-bedded manure originating from a confinement feeding operation that is stored at a particular location outside a confinement feeding operation building or a manure storage structure.

### Other Requirements

Stockpiles within 1,250 ft. of each other are considered part of the same stockpile.

Producers that need national pollutant discharge elimination system (NPDES) permits must stockpile in compliance with requirements.

If more than one type of housing for feeding operations is at a site, please contact the DNR field office for manure stockpiling requirements.

### Links and Contacts

#### [DNR Field Services](#)

Manchester 563-927-2640  
Mason City 641-424-4177  
Spencer 712-262-4177  
Atlantic 712-243-1934  
Des Moines 515-725-0268  
Washington 319-653-2135

[www.iowadnr.gov](http://www.iowadnr.gov)

[Separation Distances for Land Application of Manure](#)

[High Quality Water Resources](#)

[Dry-Bedded Manure Stockpiling Regulations](#)

[Open Feedlot Manure Stockpiling Regulations](#)

[IAC 567 Chapter 65 — Animal Feeding Operations](#)



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