

Small Livestock Farms

Note: A complete list of links used as references can be found in the Resource Section of this fact sheet for those accessing only the hard copy.

Livestock farms in Iowa are regulated based on the type of housing used for the farm whether the livestock is housed in totally roofed barns (confinement) or partially roofed or unroofed open feedlots. Smaller livestock farms have many factors to consider when deciding day to day farm activities. One of the considerations should be management of environmental risk. The purpose of this fact sheet is to help you understand the environmental regulations that apply to your farm.

Your farm should be managed appropriately to avoid discharging manure or effluent into a stream. Discharges may be indirect through a tile line, road ditch or gully so take time to investigate the run-off from your farm during a rainstorm and shortly after a rainstorm. Investigate potential points of vulnerability, such as buried drainage tile lines near or under an open lot, so you can address them in drier weather. Materials are available to help you complete a self-assessment of the environmental risks on your farm through the [Farm*A*Syst](#) program.

Animal Mortality Regulations for All Livestock Farms

Use and Disposal of Dead Animals

Iowa law requires anyone who has been caring for

or who owns livestock that has died, to dispose of the carcass within 24 hours after death. The acceptable disposal methods include burying, incineration, composting or turning the carcass over to someone who is licensed to dispose of it such as a renderer. Anyone who violates this rule is guilty of a simple misdemeanor punishable by a fine of not less than \$100 but not more than \$1,000 per violation. Although not Iowa law, farmers are also strongly encouraged to avoid storing dead carcasses waiting for disposal within eyesight of any nearby roads.

On-Farm Composting

The Iowa Department of Natural Resources (DNR) allows on-farm composting of dead livestock without a solid waste disposal permit, but specific rules must be followed. All composting facilities must meet additional requirements including separation distances. The DNR can provide technical assistance in siting and constructing a composting facility and farmers are encouraged to contact the appropriate DNR field office prior to building a composting facility. The following requirements must be met in order for an on-farm composting facility to operate without a solid waste disposal permit.

- A composting facility must be located at least 500 feet from any existing residence, not including the residence of the owner or operator of the facility.
- Composting must be done outside of wetlands and must be at least 200 feet from public wells, 100

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- Iowa Poultry Association
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- Iowa Beef Center
- Iowa Pork Producers Assoc.
- Iowa Department of Natural Resources
- Iowa Cattlemen's Assoc.
- Division of Soil Conservation, Iowa Department of Agriculture and Land Stewardship
- Iowa State Dairy Association
- Iowa Commercial Nutrient Applicators Assoc.
- Coalition to Support Iowa's Farmers
- Iowa Corn Growers Assoc.
- Iowa Soybean Association
- Iowa State University, University Extension
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feet from private wells, 50 feet from property lines and 100 feet from flowing or intermittent streams, lakes or ponds.

- The owner(s) of a livestock farm must do the composting, but the composting facility does not have to be located on the same farm as the livestock operation. This allows a farmer with multiple sites to compost at one location and also allows a farmer to compost someone else's livestock along with their own.
- Dead livestock must be incorporated into the composting process within 24 hours of death and covered with an adequate base layer of manure, bedding, crop residue or wood shavings (12-24 inches depending on the size and number of dead livestock) with 6-12 inches between carcasses and an additional 12 inches around the carcasses to control leachate and odor.
- Carcasses cannot be removed from composting until all soft tissue is fully decomposed
- The composting facility should be designed to accommodate at least the average annual death loss for all sites using the composting facility.
- Compost should be applied to cropland so that runoff reaching waters is minimized. A farmer must get approval from the DNR before applying compost to non-cropland.
- Livestock mortalities from a catastrophic event, such as a fire, cannot be composted until DNR is contacted and the farm has made arrangements for appropriate treatment or disposal of the animals.

Small Confined (Totally Roofed) Livestock Farms

A farm with 500 or fewer animal units is considered to be a "small animal feeding operation." Totally roofed livestock farms include dry-bedded hoop buildings and mono-sloped buildings if the livestock are kept under roof at all times. Although

these farms are generally exempt from many provisions governing confinement feeding operations, small confined feeding operations are required to comply with the requirements described below.

Manure Application Requirements

Small livestock farms have to meet the same separation distances for manure application as larger farms. Manure cannot be applied within 200 feet of a designated area which is defined as a known sinkhole, cistern, abandoned well, agricultural drainage well, drinking water well, designated wetland or water source. For high quality water resources, manure cannot be applied within 800 feet of the stream or lake. The term water source creates the biggest limitation because it carries a very broad definition to include lakes, rivers, reservoirs, creeks, streams, ditches, or other bodies of water having definite banks and a bed with water flow. If the manure is injected or incorporated on the same date as it is applied or if there is a vegetative buffer strip 50 feet around the designated area where no manure is applied, the manure may be applied within 200 feet of a designated area.

Generally, applying liquid manure from a confinement feeding operation is prohibited on any land located within 750 feet of any residence not owned by the farmer, a church, school or public use area such as a park or cemetery unless the manure is injected or incorporated within 24 hours. Although small farms are exempt from this requirement, they are encouraged to be considerate of neighbors when land applying manure.

Although small farms are excluded from the formal manure management plan requirements, they are still required to comply with minimum manure

control requirements including retaining all manure produced by the farm between periods of manure disposal and employing disposal techniques that do not pollute surface or groundwater. Manure from confinement operations must be contained in an appropriate structure between periods of land application and cannot be stockpiled on the ground. This applies to all manure from any animal housed under a roof, regardless of the size of the operation.

Siting and Design Requirements

Small farms (500 animal units or less) that are totally roofed do not have to obtain a construction permit from the DNR unless an earthen manure storage structure is being constructed. Visit the DNR's web site for more information regarding [construction permit requirements](#). While a permit is not required, concrete or other formed manure storage structures must satisfy other requirements including: 1) tile and groundwater table requirements; 2) floodplain prohibitions; 3) storm water discharge permit requirements; and 4) setbacks from water.

When constructing a concrete or formed manure storage structure, the floor of structure should not be below the groundwater table. In order to meet this requirement, the farmer has two options, either to 1) install a drainage tile system to lower the groundwater around the base of the manure storage or 2) to measure current groundwater levels through the use of temporary monitoring wells or test pits to determine whether the level is above the proposed floor of the manure storage. The groundwater measurements must be done by an engineer, certified groundwater professional, or qualified NRCS staff. Although not required for small farms

with formed manure structures, it is recommended that monitoring and shutoff devices be installed for additional environmental protection.

Secondly, manure storage structures cannot be constructed on [alluvial soil](#) unless the farmer has first received a declaratory order from DNR stating that the land is not located in a 100-year floodplain of a major water source. Manure storage structures cannot be built in a 100-year flood plain of a [major water source](#).

Small livestock farms must also apply for a [storm water discharge](#) permit if construction of a manure storage structure, including all site earth work, will disturb one or more acres. If a permit is required the farmer must complete a pollution prevention plan and file their permit application at least 24 hours prior to construction if filing for coverage under a general permit or 180 days prior to construction if filing for an individual permit.

Setbacks from water

No portion of a livestock farm where the animals are completely housed under a roof ("confinement feeding operation structure") can be constructed within:

- 500 feet of a water source (lake, river, reservoir, creek, stream, ditch or other body of water having definite banks and a bed)
- 1,000 feet of a [major water source](#) (navigable [lake](#) or [river](#) listed in DNR rules)
- 100 to 1,000 feet from a private well (see table below)
- 500 feet of an agricultural drainage well surface intake
- 1,000 feet of a wellhead or cistern of an agricul-

ture drainage well or known sinkhole

- 2,500 feet of a [designated wetland](#)

Even though small livestock farms are not required to meet separation distances to residences, businesses, churches, schools, public use areas or roads, it is recommended that they meet these [distances](#). A small livestock farm housing livestock under roof cannot expand to more than 500 animal units in the future if the farm does not meet these distances. In addition, although a small livestock farm is exempt from these distances, it is not exempt from nuisance lawsuits and meeting these distances may help avoid a nuisance suit.

Small Open Feedlot Operations

Open feedlots smaller than 300 animal units are not required to obtain a construction or operation permit or submit a formal nutrient management plan unless man-made drainage leads to a water body or a stream goes through the feedlot and the DNR notifies them that they are a designated Concentrated Animal Feeding Operation (CAFO). To avoid the designation, make sure run-off and solids from the feedlot is controlled by storing, treating or diverting it from entering a water body and properly land applying it. Open feedlots between 300 and 1,000 animal units are required to obtain permits if man-made drainage leads to a water body or a stream goes through the feedlot. See the [DNR web site](#) for more information.

Stockpiling Manure Requirements for Open Feedlots

Open feedlots must comply with stockpiling separation distances for their solid manure. Solids cannot be stockpiled within:

- 200 feet of a terrace or surface tile inlet (unless measures are taken to prevent runoff from the manure solids from entering the inlets)
- 400 feet of a designated area (known sinkhole, cistern, abandoned well, agricultural drainage well, drinking well, designated wetland or water source) or
- 800 feet of a high quality water source as designated by the department.

Additionally, solids cannot be stockpiled in a grass waterway or on land with a slope of more than three percent unless measures are taken to contain stockpiled solids. Farmers land applying open feedlot effluent must ensure that it will not be applied in a way that will cause surface water or groundwater pollution. The manure cannot be in the stockpile for more than six months.

Land Application Separation Distances

Generally, open feedlot effluent cannot cause pollution of surface or groundwater when it is land-applied. In addition, manure cannot be applied within:

- 200 feet of a designated area (includes lakes, rivers, reservoirs, creeks, streams, ditches, gullies or other bodies of water having definite banks and a bed with water flow), or
- 800 feet of a high quality water resource.

Although this is restrictive, the statute does allow manure application within 200 feet of a designated area if the manure is injected or incorporated on the same date as it is applied or if there is a vegetative buffer strip 50 feet around the designated area where no manure is applied.

Requirements for both Small Confined and Open

Feedlots

Runoff Events

Livestock farmers who have a manure release are required to report the incident as soon as possible but no longer than 6 hours after discovering the incident. Either the farmers or the manure applicator must call the 24-hour spill line at 515-281-8694.

Separation Distances for Wells

See Table 1 for separation distance requirements from public and private wells.

Table 1: Separation Distances from Wells for Construction, Expansion, and Modification

Applies to all Animal Feeding Operations, regardless of size of operation, including operations with 500 AU or less	Public Well		Private Well	
	Shallow	Deep	Shallow	Deep
Aerobic structure, anaerobic lagoon, earthen manure storage basin, egg washwater storage structure and open feedlot runoff control basin.	1,000 feet	400 feet	400 feet	400 feet
Formed manure storage structure, confinement building, open feedlot solids settling facility, open feedlot alternative technologies, and open feedlot.	200 feet	100 feet	200 feet	100 feet

Additional Resources:

Iowa Farm*A*Syst: <http://www.iowafarmbureau.com/newsissues/environment/farmasyst.aspx>

Iowa DNR Animal Feeding Operations: <http://www.iowadnr.com/afo/index.html>

Confined Feeding Operation Construction Permit Requirements: <http://www.iowadnr.com/afo/specreq.html>

Interactive Iowa Map of Karst Terrain and Alluvial Soil: http://csbweb.igsb.uiowa.edu/imgate/maps/afo_siting_atlas.asp

Storm Water Discharge Permit Requirements: http://www.iowadnr.com/afo/specreq_small.html

Designated Wetlands:

<http://www.iowadnr.com/afo/files/deswetlands.pdf>

Major Water Sources:

<http://www.iowadnr.com/afo/factsheets.html>

Open Feedlot Construction Permit Requirements:

<http://www.iowadnr.com/afo/files/0301fact.pdf>

DNR 113 Separation Distances for Land Application of Manure from Open Feedlots & Confinement Feeding Operations, including SAFOs:

<http://www.iowadnr.com/afo/files/sepdstb4.pdf>

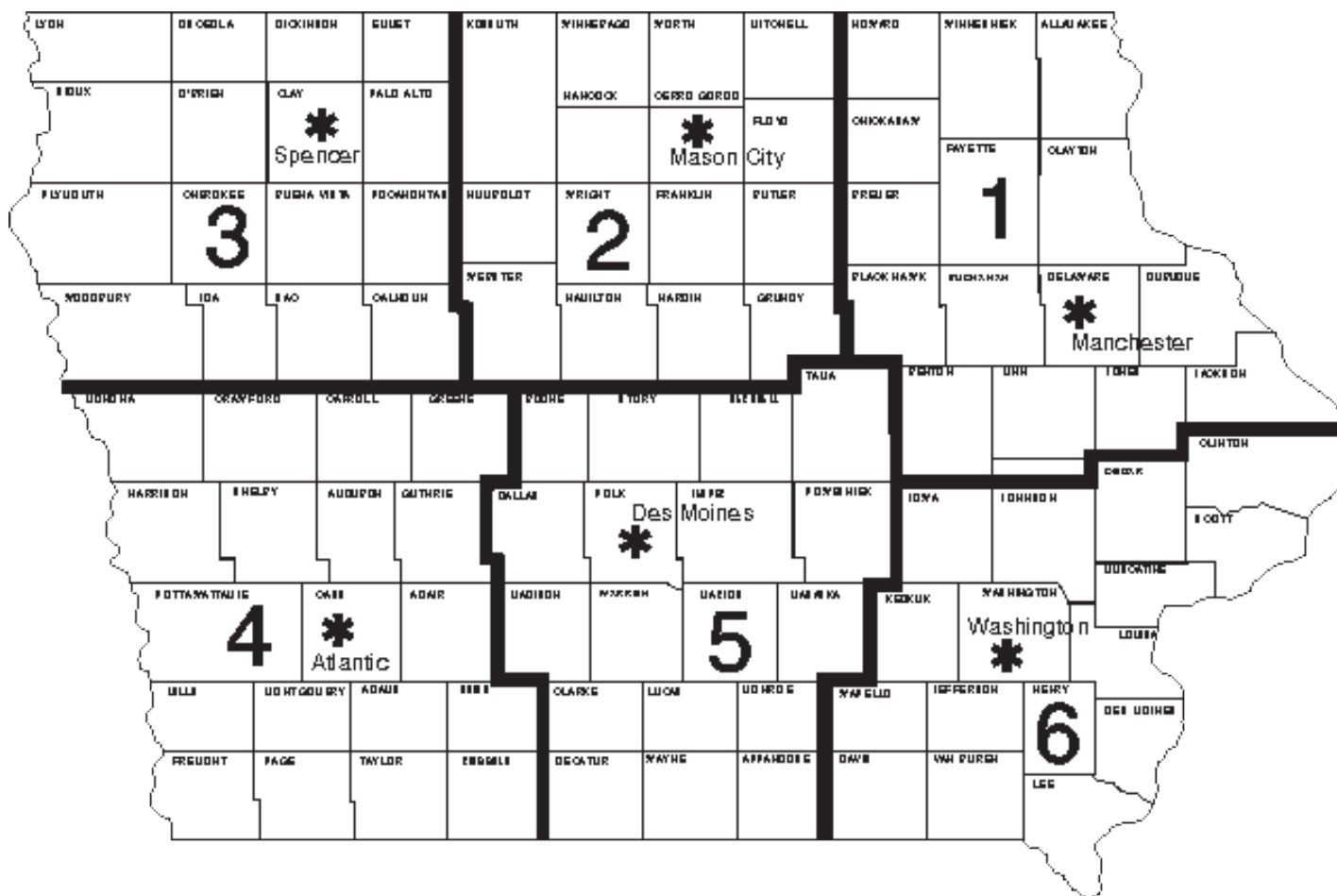
DNR 117 High Quality Water Resources:

<http://www.iowadnr.com/afo/files/hqwr2.pdf>

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The DNR has environmental field offices in the following areas:

Northeast Iowa, Manchester,	563-927-2640
North Central Iowa, Mason City	641-424-4073
Northwest Iowa, Spencer	712-262-4177
Southwest Iowa, Atlantic	712-243-1934
South Central Iowa, Des Moines	515-725-0268
Southeast Iowa, Washington	319-653-2135



Map adapted from DNR.