



PERMITTING & CONSTRUCTING

ANIMAL FEEDING OPERATIONS IN IOWA

A whitepaper by:

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The regulations for animal feeding operations in Iowa have changed recently to be more comparable to the federal Environmental Protection Agency (EPA) regulations. However, Iowa regulations still have distinct differences in how animal numbers are classified and combined for siting and permitting requirements. Confinement animals are regulated differently from open lot animals. Confinement animals are housed in a covered area with less than 10% of its covered area left uncovered. Confinement structures need permits from the Iowa Department of Natural Resources (IDNR) prior to construction and have site restrictions such as required separation distances. Most barn structures are considered confinements.

If animals are given more than 10% of their designated area as uncovered then the barn and animals are classified as open feedlot. There are no site restrictions, setbacks, or required construction permits for open feedlot structures, however runoff from open feedlots must be accounted for to prevent discharges.

The federal EPA regulations have one major objective; eliminate waste discharges to waters of the United States. If a site does not have runoff from uncovered production areas then the EPA regulations are not an issue. If the site is classified an open feedlot or if a confinement site has an uncovered feed storage area then the EPA could have concerns about the runoff. Contaminated runoff must be contained and if structures cannot be constructed to completely eliminate the discharge then the site may need to obtain a National Pollution Discharge Elimination System that will allow the site to discharge during exceptionally large precipitation events.

When you have decided that you want to build an animal feeding operation structure there are two main questions that need to be considered: 1.) How many head will the structure be for? 2.) Where will the structure be located?

It can be a bit overwhelming trying to understand all the regulations and the permitting process but it is important that producers realize they have options. I will be providing an overview of these options but every site and producer is different so I recommend contacting a consultant that specializes in animal feeding operations for site-specific details.

SITE RESTRICTIONS FOR CONFINEMENTS

All confinement structures have required setbacks from water sources (creeks, rivers), wells, sinkholes, neighbors, road right of way, and public use areas. These setbacks increase with the number of confinement head located on the site and range in distance from 100 feet to 2,500 feet. Most of these required setbacks can be overlooked if the involved parties sign a separation distance variance waiver that must be notarized and recorded at the county courthouse.

Other site restrictions include separation distances to bedrock and the 100-year flood plain of adjacent water sources. IDNR provides a siting atlas on their website that allows producers to measure separation distances and also shows if the site is located within a possible floodplain or karst area. IDNR uses alluvial soils to indicate possible floodplain locations. Sinkholes and areas that drain into sinkholes are karst along with any areas with less than five (5) feet of depth to bedrock.

IDNR requires a one-mile radius map on an aerial photo that shows the distance to all setbacks within the mile radius. IDNR also requires that the alluvial soil and karst map be submitted from their website. The location of the confinement structure is the biggest factor in determining the ease of obtaining an IDNR construction permit.

CONFINEMENT CONSTRUCTION PERMIT APPLICATIONS

Other than the siting requirements stated above all IDNR confinement construction permit applications must also have a manure management plan (MMP) along with the construction specifications of the proposed structure.

The MMP shows all the land that is available for application of the manure generated from the site. The cropland must be mapped to clearly show the location for application along with recent soil sample results indicating the residual nutrient content of the soil to determine the amount of nutrients that can still be applied for crop uptake. There are many benefits of having an MMP as commercial fertilizer is very expensive and manure is no longer considered a waste but a very valuable commodity. Over applying manure is a major mistake and wasteful. Having an MMP also allows land application to be exempt from proving a discharge.

The size of the proposed confinement structure determines the amount of construction specification detail needed to be included in the IDNR construction permit application. Smaller operations require only the contractor or a Professional Engineer to sign a document indicating that they will be designing and/or constructing the structure according to Iowa regulations. Larger operations are more closely reviewed by IDNR engineers and require full engineering plans, reports, and construction technical specifications for permit submittal. For these larger operations it takes longer to complete the engineering documents for submittal and typically longer for IDNR to review and permit the structures. Producers must figure at least 90-120 days for larger sites to get permitted and start construction. It is never too early to contact a professional consultant to at least start the conversation for a possible construction permit.

Large confinement operations also have a county review and scoring process called the Master Matrix. The Master Matrix is a scoring system that requires a minimum score for the site to get approved and permitted. Nearly every site can meet the minimum score requirements, however some sites may need to take extra measures such as planting trees around the site, performing groundwater monitoring, and preparing emergency response/closure plans, which are all examples of criteria that awards the proposed site more points to meet the requirement. There are a few County Board of Supervisor meetings that will address the proposed construction permit application, which should be attended by the producer.

OPEN FEEDLOT OPTIONS & REQUIREMENTS

As mentioned above, open feedlot operations are loosely regulated in Iowa. This gives producers options on sites where setbacks and other site requirements are a major problem. There are no permits required for constructing open feedlot structures and there are no setbacks for their proposed location. This allows producers the option to move the feed bunks or fence lines outside the barn roof, providing at least 10% uncovered, for the barn to be considered an open feedlot.

The major issue with constructing a barn as an open feedlot is that the producer must be concerned about the precipitation that lands on the uncovered area and the runoff it could produce. Again, both state and federal regulations for open feedlots are based on preventing and eliminating runoff from uncovered production areas. If barns are constructed as open feedlots, an option for containing runoff includes sloping the uncovered floor back into the barn and allowing the bedding to soak up runoff. Concrete walls could also be constructed around the perimeter of the open lot area to contain the runoff, or a pit could be constructed at the low end of the barn to collect runoff from the uncovered area.

GRANT AND FINANCING OPTIONS AVAILABLE

There are mainly two options for funding the construction of cattle barns. The United States Department of Agriculture (USDA) Natural Resource Conservation Service (NRCS) offers grant money through their Environmental Quality Incentives Program (EQIP). The IDNR has a low interest loan program, State Revolving Fund (SRF), for animal feeding operation structures that improve water quality.

The NRCS EQIP program is fairly competitive and it can take time to be approved and funded. Every county is different but a top priority of the program is to close open lots and construct confinement barns. Producers compete with each other, so the site with the most problems that makes the most improvements typically gets the highest priority. If approved the structures must have engineering design, plans, and specifications along with inspection and certification of the construction. A comprehensive nutrient management plan (CNMP) must also be completed, which is a detailed manure management plan that also includes commercial fertilizer, dead animal handling, and other details of the operation.

Each county has different payment rates and budget amounts, so I encourage producers to contact the NRCS office immediately after they have discussed the possibility of a project to see if this grant money is available. Typically projects are funded only once per year in the spring and producers should be signed up by the middle of the winter to get on the list for ranking. There are a few extra requirements, but typically it is well worth the hassle.

The IDNR SRF program is a low interest program created to help producers on projects that improve water quality. The loan interest rate is fixed at 3% for up to 15 years and only sites below 1,000 animal units qualify for the loan. The producer still works with his/her local banker but the IDNR will deposit funds equal to the principal amount of the loan at 0% interest. To obtain the loan, producers must go to their local Soil and Water Conservation District to sign the application and provide an estimate of the project's construction cost. To obtain the loan the producer must also have engineering plans for the project and an MMP. The loan is available throughout the year and is provided to the lender upon completion of the engineering certification of the project's construction. The producer may need to obtain a construction loan until the project is complete.

SUMMARY

Even though they were mentioned above, there are a couple of statements that I want to reiterate.

- 1.) When you have decided that you want to build an animal feeding operation structure there are two main questions that need to be considered: 1.) How many head will the structure be for? 2.) Where will the structure be located?
- 2.) Producers must figure at least 90-120 days for larger sites to get permitted and start construction. It is never too early to contact a professional consultant to at least start the conversation for a possible construction permit.
- 3.) It can be a bit overwhelming trying to understand all the regulations and the permitting process but it is important that producers realize they have options.
- 4.) Every site and producer is different so I recommend contacting a consultant that specializes in animal feeding operations for site-specific details.

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