



IOWA DEPARTMENT OF NATURAL RESOURCES

Animal Feeding Operation Updates



Tips for Fall

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Avoid Late Summer Fish Kills

Low stream levels, high temperatures and dry conditions set the stage for potential water quality issues and [fish kills](#). Even small amounts of polluted runoff can affect fish and other aquatic organisms under these conditions.

Farmers and others who handle chemicals or animal manure can take a few simple precautions to prevent downstream impacts. “First check for discharges from chemical mixing stations or areas of livestock concentration to make sure nothing reaches the stream or a tile inlet after a rainfall,” says Ken Hessenius, supervisor of the DNR Spencer field office.

“Look for improperly stored manure, fertilizer, fuel or pesticide containers. Check them for leaks,” he adds. “Check for cut channels below open feedlots, a sign that runoff is moving and could reach a stream. Even organic matter such as milk or silage leachate can cause dissolved oxygen levels to drop, stressing fish.”

“Second, if you suspect a problem with runoff, contain it and prevent additional pollutants from adding to the runoff,” Hessenius said.

Producers with open feedlots can [scrape and clean them frequently](#) to prevent contaminated runoff. Adding clean water diversions such as berms or gutters around open feedlots, and providing manure storage can also help. Technical assistance is available from ISU Extension, county NRCS offices and [DNR field offices](#).

Finally, report fish kills as soon as possible to the nearest DNR field office or the 24-hour spill line at 515-725-8694. Specialists at the DNR can help people trace the pollutant causing the fish kill and reduce the impact on a stream.

Make Sure You're Certified – before you land apply

Harvest is fast approaching. Once the crops come out, the manure goes on.

"I urge land applicators to get in there and take the training to become certified if they haven't already done so," said Jeff Prier, DNR's MAC training coordinator. "There is always new information in the training, and we'd rather see you and your staff certified than have to issue a notice of violation or assess a penalty."

Please make sure your certificate is up-to-date before land applying manure. There are three ways to become certified:

1. Commercial and confinement applicators may watch a video during monthly scheduled dates and times at their local Iowa State University Extension and Outreach office. Find [training and viewing opportunities](#) at your local extension office. Although not required, registration ensures that there will be space and training materials available.
2. Or, consider taking advantage of DNR's [online training](#) and fee paying option. First you will have to create an IowaID, following the prompts. Find more information about certification at www.iowadnr.gov/manureapplicator or <http://www.agronext.iastate.edu/immag/mac.html>.
3. Finally, applicators may take and pass a test in lieu of training. Please schedule a testing time at your local [DNR field office](#).

Take Time for Basin Maintenance

When DNR field staffers inspect earthen basins they look for problems which could cause leaks, basin failures or fish kills.

Cindy Martens, a senior specialist from the Spencer office offers these fixes for the most common problems. "First and foremost, protect the basin's berm," she says.

1. Maintain a good grass stand to prevent erosion and burrowing animals. Keep grass and weeds mowed to make it easier to inspect for leaks, erosion and burrowing.
2. Plug holes left by burrowing animals with clay or bentonite.
3. Cut down woody vegetation and apply root killer to prevent tree roots from penetrating the berm and damaging it.

4. Maintain at least 2 feet of freeboard. Not only is it required by state law, it helps prevent overtopping and breaches when unexpected gully washers come along. Land apply in spring and fall, if necessary.
5. Inspect the inlet piping to make sure incoming liquids enter the basin away from the berm. Check for erosion under the piping. Protect the berm with rip rap where needed.
6. Remember the basin is for manure only, not garbage, or vaccination and artificial insemination equipment. Remove all waste and inform workers to follow this procedure.
7. Notify DNR if closing a basin. DNR staff can give you proper closure procedures to prevent future water quality problems. We'll also visit during a closure if we are able to.

Find more information about [earthen basin operation and maintenance](#) on the DNR's [AFO fact sheets](#) page. While not common problems, DNR staff check for signs of seepage, overflows and discharges. Inspectors also look for livestock damage and storm water entering the basin. When there's an issue, DNR staff will explain the problem, leave a copy of the inspection form and ask for problems to be fixed.

"The most important thing is to protect your investment," Martens says. "And, from our perspective and yours, keep the basin intact to protect water downstream."