



Factsheet: Agricultural Pollution in the Mississippi River

Agricultural Pollution is the Number One Threat to the Mississippi River

Many of America's farmers are stewards of the earth. For generations they have worked hard to protect our land and water while producing food and other products at affordable prices.

However, excess fertilizers applied to farm fields, particularly **nitrogen** and **phosphorus**, often end up running off farms and into our rivers and streams, threatening our drinking water and habitats downstream. While water pollutants come from a variety of sources, such as urban run-off and water treatment plants, agriculture is the largest source, as it pollutes 80,000 miles of rivers and streams, including the Mississippi River Basin, and more than 2 million acres of lakes and reservoirs nationally.

Agricultural Pollution Affects Human Health, the Environment and Recreation and Tourism

Agricultural pollution can affect human health as it threatens drinking water supplies. This is a problem for the 18 million people and 50 cities that depend on the Mississippi River and its tributaries for drinking water. Agricultural pollution also impacts



Chemical runoff on an agricultural field. (Photo: courtesy USDA NRCS)

the places where people like to recreate. It closes our favorite swimming beaches, contaminates fish and other wildlife and impacts the outdoor recreation and tourism economy. Nationally, the tourism industry loses nearly \$1 billion each year due to polluted waterways.¹

Nitrogen alone accounts for 90 percent of the unwanted nutrients that seep into the Mississippi River and down into the Gulf of Mexico from the application of too much commercial fertilizer. This fertilizer, when introduced into aquatic environments, feeds algae growth. At times the algae growth advances uncontrollably into algal blooms, consuming the available oxygen in the water and sometimes growing unwanted and dangerous toxic blue-green algae. Drinking or coming into contact with toxins from algal blooms can cause serious health problems for both humans and wildlife.

The areas without sufficient oxygen in the water are called hypoxic zones, or dead zones, and are places where plants and animals cannot survive. Agricultural pollution not only puts wildlife in jeopardy but ultimately the livelihoods that depend on harvesting that wildlife, like commercial fishermen.

The Mississippi is truly America's River – a critical source of drinking water for 18 million people, a habitat for wildlife, the backbone of our economy and a rich part of our heritage.



Photo courtesy of Aqua Mechanical (www.flickr.com)

1. The Environmental Protection Agency. 2012. The Facts about Nutrient Pollution.

https://www.epa.gov/sites/production/files/2015-03/documents/facts_about_nutrient_pollution_what_is_hypoxia.pdf



Algal blooms kill wildlife by depleting oxygen in waterways. (Photo courtesy of the U.S. EPA.)

The Role of State and Federal Governments

Fortunately, conservation programs offer tools and resources that can help farmers stop pollution at its source and ensure our families have clean water to drink. Investing in conservation now is more effective and costs less than cleaning up our River later. However, our state and federal governments have not made it enough of a priority to prevent or clean up agricultural pollution. States are dragging their feet on completing and implementing plans on how to best use and fund conservation programs to encourage farmers to implement proven solutions. The federal government continues to cut funding for conservation initiatives and allows agriculture to continue some polluting practices while still getting federal subsidies. We need both state and federal governments to take action now and make the Mississippi River a priority!

Reducing the Impacts of Agricultural Pollution

In order to decrease the impacts of agricultural pollution and the occurrences of algal blooms and dead zones throughout the Mississippi River Basin,

there are several actions that, with support from state and federal governments, can be done on both a local and national scale:

- **Nutrient management:** apply the right amount of fertilizers at the right time and with the proper method for the site
- **Cover crops:** certain grasses, grains or legumes can be planted to recycle excess nitrogen and reduce erosion
- **Buffers:** building up a buffer of surrounding rivers, streams and lakes by planting a variety of native vegetation not only reduces erosion, but it also builds organic matter in the soil and reduces runoff.
- **Conservation tillage:** reducing the need for frequent tillage reduces erosion, improves soil quality and reduces runoff
- **Managing livestock waste:** by keeping livestock out of local waterways, it keeps nutrients out of the water and protects stream banks from additional erosion
- **The USDA Natural Resources Conservation Service (NRCS)** has established specific programs through the Farm Bill to help people, “reduce soil erosion, enhance water supplies, improve water quality, increase wildlife habitat, and reduce damages caused by floods and other natural disasters.”² These programs provide technical and financial assistance and work with partners for additional conservation assistance.
- **State agricultural pollution strategies:** we need each state to implement agricultural pollution strategies that will support farmers in making better choices in their agricultural practices.

Connecting 31 states via its tributaries, it's easy to feel that the River doesn't belong to anyone, yet its broad reach makes it everyone's.

The Mississippi River unites us as a people and we rely on it more than most of us realize.

We live in many different states, but we are, without a doubt, one nation and 1 Mississippi.

2. USDA NRCS. 2016. <http://www.nrcs.usda.gov/wps/portal/nrcs/main/national/programs/>

How River Citizens Can Help!

Contact Decision Makers

1 Mississippi will provide River Citizens with opportunities to reach out to decision makers to urge them to pass legislation that will protect our mighty River, drinking water and favorite fishing, swimming and scenic places. Look for newsletters, action alerts and petitions in your email inbox.

Support Sustainable Agricultural Practices

Sustainable farming prevents soil erosion, taking care of the land for future generations. Use your dollars to encourage local farmers who integrate responsible farming techniques.

Spread the Word about 1 Mississippi

Forward our newsletter, join the conversation on Facebook and Twitter and encourage others to participate in the movement by signing up at www.1mississippi.org