

# INTEGRATED CROP MANAGEMENT

## Conservation planning and environmental issues

Most of Iowa's landscape is "working land" that is used for agricultural activities such as row crops, pasture, and forestry. Iowa has the largest percentage of working land in the nation. Because of intense management of Iowa's landscape and water quality concerns, many people have an interest or stake in the impact of these activities on the environment.



**Trees and grass established as part of a riparian buffer in Story County, Iowa. The Iowa State University AgroEcology team has helped landowners along this stream, Bear Creek, establish miles of buffers. The effort has earned recognition as a national demonstration site. Photo by Lynn Betts (NRCS).**

[Enlarge](#) [1]

The impaired water bodies list, maintained by the Iowa Department of Natural Resources, currently cites 187 streams, rivers, and lakes in Iowa as impaired, pointing to an urgent need for improved conservation planning for agricultural production activities and land management. Sediment is the cause of much of the impairment, and whenever the issue of sediment is raised, people naturally turn to agriculture. It's possible that large areas of working land, such as that in Iowa, could become a "testing ground" for new regulations of farming practices. So, an important question for Iowa's producers is, "How can I protect my operation and my investment in it against regulation or legal action?"



*Conservation plans should include provisions for inspecting and maintaining conservation practices. Photo by Lynn Betts (NRCS).*

**Producers can work individually to adopt sound conservation practices in their operations.** Many producers have voluntarily adopted conservation practices that lessen the negative effects of agricultural activities on the environment. The outcome has been tremendous benefits in crop productivity, efficient use of time and equipment, and prevention of soil erosion. But conservation planning is becoming necessary for every producer; there's no way around it.



*Larry Jones, NRCS soil conservationist in Jasper County, Iowa, discusses maintenance needs of a grass filter strip. Photo by Lynn Betts (NRCS).*

Developing and implementing a conservation plan is the producer's best protective mechanism against potential environmental regulations and legal action intended to protect natural resources. Producers should consider adopting conservation plans that are practical, site specific, achieve the intended objectives, and easily integrated within an overall production system. Conservation plans can include, but are not limited to, practices that can be implemented based on site-specific characteristics, whether land is rented or owned by the producer:

- conservation tillage, ridge-till, strip-till, or no-till
- residue cover and relationship of residue cover to each successive tillage operation
- tile inlet and outlet maintenance of a drainage system
- nutrient use, in-season and late-season nitrogen testing
- systematic soil testing on a regular schedule
- terraces to handle erosion on slopes of 4 or 5 percent or steeper
- record keeping of chemicals, and nutrient and manure applications
- record keeping of planning, installation, and maintenance of buffers, waterways, and terraces
- record keeping and maintaining equipment for optimal residue distribution
- keeping records of volunteer time, leadership, or membership in environmental groups
- pasture erosion control through proper vegetation establishment, "clean" livestock

- water sources, and rotational grazing plans
- enroll highly erodible land or marginal land in the Conservation Reserve Program

**Local community should work together on environmental concerns.** Residents of local communities should take an active role in addressing environmental concerns in their watershed. Community participation aids in the development of practical solutions to solving local environmental issues. Offering time and leadership with environmental issues such as water quality testing through projects such as IOWATER and involvement in local watershed or water quality projects helps in two ways. First, it gets local watershed residents involved and in control of protecting local natural resources. Producers can benefit from such involvement by learning more about the environment and knowing how to discuss the issue in depth, from the perspective of the producer as well as that of the environmentalist.

Second, getting involved establishes credibility on both sides of the issue. Producer involvement brings practical views into discussion of environmental issues and adds to the credibility of agriculture in general.

Thinking with a "business-as-usual" mindset may work for a little while, but looking to the future, producers need to change as environmental and business conditions change. The responsible thing to do to take an active role in addressing environmental concerns by adopting conservation practices that reduce sediment movement. Taking a proactive role in conservation planning is good for producers--individually and collectively.

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**Links:**

[1] <http://www.ent.iastate.edu/imagegal/practices/buffer/storycountybuffer.html>

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