Livestock

Keep cattle out of creeks and streams

University Insight

By **MARILYN THELEN**

CATTLE in the creek have been the subject of many paintings and photos. But the damage caused when they trek across ditches and streams wreaks havoc.

The erosion caused by cattle allowed to roam freely across the banks can be a constant source of sediment that gets into the stream every time it rains, even if livestock aren't present at the time. And shady stream banks present an even bigger problem. Livestock often linger in these areas, hoping to keep cool in the summer heat. The combination of trees and constant use creates a large, nonvegetated area subject to even more erosion.

Sediment and pathogens are primary pollutants in surface waters. The problem with sediment is intensified when the sediments also contain livestock manure from areas where livestock congregate.

In addition, when livestock are allowed to stand in streams, they often deposit urine and manure, which further contaminate the water.

Key Points

- Proper management decreases stream contamination and erosion.
- Researchers recommend fencing livestock out of streams.
- Ensure water from another source is constantly available to livestock.

Wildlife can also contribute to the nutrient and bacterial contamination of streams. A study in New York's Finger Lakes region found that geese were the dominant source of *E. coli* — 44.7% to 73.7% of the total sources in four subwatersheds. Cows were the next biggest culprits at 21.1%. Deer and humans came in a close third, according to the *Journal of Environmental Management*.

Nonpoint source pollution comes from many sources. Management of livestock decreases the impact on stream banks and water quality.

Livestock with free access to streams will damage the stream banks and increase amounts of sediment and phosphorus in the stream.

Take action

Researchers have looked at many management practices to reduce this impact, including:

■ *Exclusion.* The best way to make sure your livestock don't have a negative impact on streams and creeks is to not let livestock get close to them.

Keeping animals out of a stream requires sturdy fence and proper placement. Low areas near streams are wet much of the year and experience flooding. Build the fence far enough away from the stream to keep animals out of these wet areas. Ensure posts have good footings, and fences will not be torn out by debris during flooding.

■ *Flash grazing.* Limit livestock access to the riparian area to three consecutive days for no more than three times per year. Select times when the footing is mostly solid. Also, select grasses for the riparian area that grow well in wet conditions and provide good cover. Plants that do well under these conditions include reed canarygrass, switchgrass, smooth bromegrass, red clover, Italian ryegrass, timothy, alsike clover and ladino clover. Be aware that reed canarygrass and smooth bromegrass are aggressive and can take over if they are not grazed intensively.

■ *Ensure constant water.* Livestock need a good supply of clean drinking water. The best watering system depends on resources available, herd size and the type of grazing system. In general, surface water, gravity flow of water to a tank or pumping of water to a tank are the primary ways of providing water to grazing livestock.

Typically, we think of pumps as the electric ones we use at the farmstead, but many types of pumps are available to use in more remote areas. These include solar pumps, sling pumps driven by flowing water, and nose pumps (livestock operate these pumps themselves and pump water from the creek), as well power takeoff-driven pumps and pumps powered by wind, gasoline and diesel engines and electric motors.

Analyze each pump's strengths and weaknesses, and choose one that works best in your situation. Most people don't realize how inexpensive watering systems can be and how much improved grazing and manure distribution can benefit your operation.

Michigan has more than 400,000 acres of pastureland and more than 36,000 miles of streams. Just a few simple changes can have a positive impact on stream banks and water quality.

To learn more about these management practices, contact your local MSU Extension office. In addition, assistance may be available through the Natural Resources Conservation Service.

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Beef Briefs

Ethanol changes cattle price
Ethanol production is causing a shift in the traditional relationship between corn prices and cattle prices, according to Darrell Mark, University of Nebraska agricultural economist. Mark says higher corn prices appear to be prompting cattle feeders to bid more for heavier feeder calves, which are traditionally several dollars per hundredweight under lighter calves. Feeders have achieved good gains with wet distillers grains composing as much as 30% to 40% of the finishing ration, and it lets them use lower-quality forages for roughage.

BQA program on right track
The Beef Quality Assurance Strategic Plan 2010, unveiled at the cattle industry's annual summer conference in Denver, could become the first formal long-range plan to guide national BQA efforts. The plan has to be approved for funding by the Beef Promotion and Operating Committee. Priorities for 2008 include development of a national standards manual, pilot programs, and initiatives for dairy and market cows and bulls.

The 'ideal' stocker calf
A Mississippi State Ag Extension report asks: What makes the perfect stocker calf? Is a particular breed combination the formula for success? The report offers this possible definition of the ideal stocker calf: a calf that has the potential to be profitable under a planned management program and the anticipated market conditions. Can we effectively predict which calves will be profitable as stockers? There are tools that can help with this. Breakeven analysis is one such tool that can help producers with stocker purchasing, production and marketing decisions.

Angus promotion for animal ID
USDA and the American Angus Association will facilitate the registration of up to 15,400 new premises as part of the National Animal Identification System. More than 408,500 other premises nationwide have been registered to date. Under terms of the agreement, the association will use its resources to reach every member and provide education about NAIS. The group registered more than 347,000 head in 2006.