Ripple Effect #17

WHAT'S THAT GREEN SLIME IN THE WATER?

In late summer and early fall, water in streams, ponds and lakes can become green or develop mats of green growth along the shorelines. This green color is algae and it is caused by a process called eutrophication.

Eutrophication is the process of enrichment with nutrients, which can occur in water. Some eutrophication is desirable, because fish and organisms that fish eat use the algae for food. The degree of eutrophication and its impact on aquatic life and humans using the water body determine whether the degree of eutrophication is good or bad.

Because eutrophication is based on the level of nutrients coming into and being used by the water system, we should understand what those nutrients are and why are they found in water. The predominant nutrients causing algae growth are nitrogen and phosphorus. Both of these elements are available naturally; in water systems not influenced by humans, the rate of eutrophication is typically low. In some cases, the nutrients available are so low the water body is considered "oligotrophic" (too little to sustain life) and cannot sustain aquatic life such as fish.

When a water body receives too many nutrients and the balance of nitrogen and phosphorus is off, the water body sustains an over-abundant growth of plants, especially algae. Algae are simple plants; they grow rapidly until they have used up the excess nutrients and available dissolved oxygen in the water and then they die. These masses of dead algae then are decomposed by bacteria, further depleting the water body of oxygen needed for aquatic life.

In the Red River Basin, most water bodies receive too many nutrients from over-application of fertilizers; runoff from lawns, parks and streets; livestock feedlots; old or improperly installed individual septic systems and even use of household waste water that goes through municipal sewage treatment systems.

Can you help prevent excess eutrophication? Yes -- here are some suggestions:

- Start at home – look at reducing your use of fertilizers, making sure the fertilizer you use is applied correctly and only in the amount needed. Have your soil tested.

- Reduce use of household cleaning items containing high phosphates – read labels and choose one with the least phosphorus.

- Have your individual septic system inspected to ensure it is working properly. If you have enlarged a smaller house or if you have taken a seasonal lake cabin and use it year round, the old septic system may no longer be adequate.

- Rake up leaves and grass and create your own compost pile, creating mulch for your garden or take them to a recycling area to be composted – never put yard waste in the river or ditch where they could be flushed downstream.

For more information, visit the RRBC website.

Until the next Ripple Effect,

The Red River Basin Commission (RRBC)

The RRBC is a grassroots organization that is a chartered not-for-profit corporation under the provisions of Manitoba, North Dakota, Minnesota, and South Dakota law. Our offices in Moorhead, MN and Winnipeg, MB can be reached at 218-291-0422 and 204-982-7254, or you can check out our website at www.redriverbasincommission.org.