

Note: This information is beneficial for all members, not just waterfront properties.

To preserve the quality of our pond water, MSU Professor & Extension Turf Specialist Kevin Frank, Ph.D. has authored an article to help homeowners of waterfront properties. A summary is below, with the entire article at: <https://www.canr.msu.edu/resources/maintaining-waterfront-turf-to-preserve-water-quality>

Lawns adjacent to lakes, ponds, rivers or other surface water bodies should be regarded as sensitive areas. Listed below are a few general tips that will reduce the potential for turf maintenance activities to affect water quality.

Fertilizer Tips

Examining the classical Nitrogen-Phosphorus-Potassium fertilizer mix and its potential impact on water quality, Nitrogen is the most soluble of these elements and therefore the most prone to leaching or runoff. It can enhance weed and algae growth that can have detrimental effects on the quality of the water. Phosphorus has the greatest impact on aquatic weed growth and should be used on lawns adjacent to water ONLY if need is determined by a soil test. If the phosphorus level is above 20 for the Bray P-1 test, there is no need to add more Phosphorus. An MSU aquatic expert estimates that one pound of Phosphorus could support 775 pounds of algae growth. Phosphorus is not very soluble and is bound tightly to the soil. It usually enters the water attached to soil as a result of erosion. Therefore, prevent soil on your property from eroding into surface water. Potassium movement and impact are minimal and not considered a routine problem.

- Make a five to ten-foot buffer strip adjacent to any water body and apply minimal or no fertilizer to this strip.
- Use a zero Phosphorus fertilizer if Phosphorus levels are adequate.
- Use 1 to 4 pounds of Nitrogen per 1,000 square feet per year, depending on the quality of lawn you desire. Use no more than 1 pound per 1,000 square feet of Nitrogen per application. Use lower Nitrogen amounts for shaded areas.
- At least 25 to 35 percent of the Nitrogen should be a slow-release form. Organic-based Nitrogen fertilizers will provide slow release.
- DO NOT apply fertilizer in the spring until three weeks after lawn green-up.
- A general fertilizer application sequence for high quality lawns would be May, early July, September and late October/early November.
- NEVER let fertilizer land directly in the water. Use a buffer strip adjacent to the water to safeguard your application. Use a drop spreader to control application near the buffer strip.

Make certain any professional lawn care service is familiar with water protection techniques.

Mowing Tips

Proper mowing can produce healthier turf that can withstand more stress and pest pressure. Raising the mowing height will enhance the quality and health of your lawn. A height of 2.5 to 3.5 inches is a general recommendation for most turf species. For best results, remove only one-third of the leaf blade at each mowing.

- Returning clippings to the turf can reduce the total need for fertilizer.
- Routine clipping removal from the lawn will reduce soil phosphorus levels over time.
- DO NOT allow clippings to reach the water. This is like throwing fertilizer into the water.
- If clippings are composted on the property, make sure the enriched water that leaches from the pile cannot reach surface water.

Irrigation Tips

Excessive moisture increases the potential to move nutrients out of the thatch and root zone of the turf and into the water. The first rain or irrigation after a fertilizer or pesticide application is the most critical. Excessive water immediately after a fertilizer application raises the potential for these products to move in runoff water. A light watering after a fertilizer or pesticide application will move these products into the thatch and root zone. There the potential for them to move out of the soil profile and into surface water is significantly reduced.

Pesticide Use Tips

- Establish a buffer strip adjacent to the water where no pesticides are applied.
- Keep products off impervious surfaces such as driveways and sidewalks.
- Spot treat areas rather than use blanket treatments whenever possible.
- Always follow label directions.