

Is Your Lawn Trout Friendly?

Every yard in Montana is part of the local watershed, the flow of water that ends up in our streams and rivers. And there are trout in those rivers, such as brown trout, rainbow trout, native cutthroat, brook trout and bull trout. As Montana continues to grow in size and population, each different type of trout will likely share a common threat – more potential sources of water pollution.

But there are a few easy things that every local resident can do to make our waterways run cleaner. Trout Friendly Lawns encourages local landowners to avoid chemical pesticides and lawn fertilizers, while advocating for responsible watering in the summer. Chemical fertilizers can wash into streams and rivers and contribute to algae blooms, which deplete oxygen in the water and stress trout. Pesticides work in water the same as they do on land, killing aquatic vegetation and the insects that trout feed on. They are also harmful to family pets. Trout Friendly Lawns gives small yard signs to residents that have made an effort to use some of the following “trout-friendly” lawn care techniques:

Organic Fertilizers

Chemical fertilizers can be expensive and provide a short burst of Nitrogen and Phosphorus. If lawns are not growing rapidly, unused fertilizer can leach into surface and groundwater. Organic fertilizers, like compost and lawn clippings, promote plant growth and encourage soil organisms that help avoid thatch buildup. They are also less soluble and less likely to leach nutrients in into the watershed. Most lawns require 2-4 lbs. of nitrogen per 1,000 square feet during the growing season.

Tips on keeping your lawn healthy:

- Mower clippings supply 1 lb. of nitrogen, potassium and phosphorus per 1,000 square feet
- Aerate the lawn every 2 to 4 years to reduce soil compaction and allow air and water to penetrate.
- Apply a ¼ – ¾ inch layer of compost over the lawn
- Apply fertilizers in the spring when soil temperatures are greater than 45 degrees

Limited Pesticides

Maintaining a weed free lawn is often not practical, or even necessary. Most homeowners tolerate 5 - 10% weed growth without even noticing them. If you have a weed problem, try pulling and digging weeds instead of using chemical pesticides/herbicides. Pesticides should be a last resort, since they can be toxic to fish, wildlife, and pets. Overall, you can help your lawn outcompete weeds by maintaining good soil drainage and watering properly.

Tips on dealing with weeds:

- Increase grass density by raising your mower blade to 2.5 inches or higher, never removing more than 1/3 of the leaf blade at one time
- Pull 4-5” of dandelion roots in the spring when they are weakest
- Use spot treatment of vinegar, or another organically certified material, to setback lawn weeds.
- If you must use a chemical pesticide, spot spray the weeds and do not treat the entire lawn. And READ THE LABEL first

Vegetated Streambanks

Healthy streambank vegetation is absolutely critical to the survival of trout, as well as aquatic and terrestrial wildlife. If you live along a stream or river, please consider leaving the shrubs, trees and other plants along the streambank. This riparian vegetation helps prevent erosion, reduces flood impacts, and shades the water to keep stream temperatures low. Natural buffers also serve as a nesting site for birds, and act as a filter, processing sediment and nutrients in the runoff from your lawn.

Trout Friendly Lawns is a public education effort by Trout Unlimited, Missoula Valley Water Quality District, Missoula County Weed District, Montana Water Trust, Clark Fork Coalition, the Hellgate Hunters & Anglers, The Madison River Foundation of Ennis and New West Landscapes of Bozeman.

Tips on preserving or creating a riparian buffer along the streambank:

- Keep existing native plants
- Maintain at least 80% trees, shrubs, bunchgrasses, sedges, and rushes
- Plant a wildflower meadow on the water side of your lawn
- Simply do not mow a strip 10 feet from the streambank

Water-Wise Landscaping

Over-watering lawns on a daily basis not only causes runoff into streams and rivers, it encourages shallow root growth of grass, making it susceptible to disease and drought. Excessive watering also depletes our limited water supply. Instead, try watering deeply on a less frequent basis. Some landowners are converting parts of their lawn into native plant gardens, which are adapted to local conditions and require much less water and work to maintain.

Tips on watering:

- Water every three days for deep root-growth
- Determine the watering rate of your sprinklers and base timing and amount on the average evapotranspiration (see below) rates for each month
- Adjust your irrigation system if the rainfall totals are higher or lower than the average monthly precipitation below. Remember, this is just a guide

Example Watering:

In June, Missoula traditionally loses 3.91 inches of moisture to evapotranspiration, or loss of water from evaporation and plant transpiration. During June, Missoula averages about 1.85 inches of rain.

So, 3.91 minus 1.85 = 2.06 inches of water we need to supply in June. Since we're deep watering for better root growth, we will water every three days. This means we'll be watering 10 times in June.

2.06 divided by 10 = .206 inches of water every three days. Find out how much water your system is delivering and be sure to adjust if rainfall totals are above or below the average precipitation.

<u>Month</u>	<u>Evapotranspiration</u>	<u>Avg. Precipitation</u>
June	3.91	1.85
July	5.22	0.85
August	4.38	0.95
September	2.56	1.02
October	1.35	0.85
November	0.32	0.88

For more information, contact:

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