

Oh, What a Waste!

the lawn

Alternatives to common household toxics

Missoula City-County Health Department
Missoula Valley Water Quality District
Missoula Wastewater Treatment Plant

*Thanks to Washington Toxics Coalition and Thurston County
Local Hazardous Waste Program*

Healthy Lawn

The key to a good lawn is keeping it healthy. Strong, vigorous plants can outcompete weeds and outlive pests without the aid of chemical pesticides. You can also reduce the amount of chemical fertilizer you have to buy and apply to your grass. This pamphlet outlines what you need to do to keep your lawn and our environment healthy.

SOIL

One of the leading causes of lawn problems is compacted soil, which favors weeds, fungal growth, poor drainage and shallow rooting.

Aeration: Lawns should be aerated every 2 to 4 years, depending on use and soil type. Lawns on clay soils will need it more often than those on sandy, gravelly soils. Aeration removes small cylindrical cores of soil from the lawn, relieving soil compaction and allowing air and water to penetrate.

Thatching: Thatch is made up of grass roots, rhizomes and dead and living stems. It is not composed primarily of old grass clippings. Under good conditions, earthworms and other soil organisms continually break down this layer.

A healthy lawn will have about 1/2" of thatch. Any more than that is the sign of a problem. Indiscriminate use of fertilizers and pesticides and compacted soil can both lead to excessive thatch build up.

The best time to dethatch is in the autumn, when grass is active but most weeds aren't. But it can also be done in the spring. Use a special thatching rake or a thatching machine; leaf rakes are not as effective.

Top Dressing: Another way to combat compaction is to work sand and organics into the soil. Spread a thin layer (1/4 inch) of composted organic material mixed with an equal portion of sand over the lawn. You will need about 3/4 of a cubic yard of top dressing per 1,000 square feet. It is best to do this BEFORE aerating, which will help work the topdressing into the soil, and AFTER thatching to promote regrowth and prevent weed invasion.

Overseeding: To further protect against weed invasion,

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you can overseed after thatching and topdressing. In areas where grass is thin and when initially planting the lawn, used 1 1/2 times the seed amount recommended on the package. Keep the soil moist until the seed germinates and the new grass reaches mowing height.

MOWING

Few people enjoy mowing their lawn each week. However, frequent mowing will keep your lawn healthy and reduce the need to bag your grass clippings.

It is tempting to cut grass short so you don't have to mow as often. But experts have found grass should not be cut shorter than about 2 inches, removing no more than a third of the length at one time. Doing so will stress the plants by diminishing their nutrient reserves. Stressed plants have a harder time competing with weeds and other pests.

The taller you leave your grass, the deeper the roots system will penetrate, giving your lawn another edge against weeds. However, as the height of grass increases the density of shoots decreases. For those who want thick lawns, you need to mow frequently. This increases the grass shoot density.

Grass clippings: It is not necessary to remove grass clippings after mowing unless they present an aesthetic problem. They usually break down quickly, do not contribute to thatch build up and actually add nitrogen to the soil. Clippings return about 1 pound of nitrogen per 1,000 square feet of lawn during a growing season.

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Weed Control

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FERTILIZER

Most lawns require 2-4 lbs. of nitrogen per 1,000 square feet during the growing season. At least 1/2 of the fertilizer should be applied in the fall, when grass can take best advantage of it. Clippings, when left on the lawn, can return almost 1 lb. of nitrogen per 1,000 square feet during a growing season. Top dressing with compost can supply the rest of the needed nitrogen.

The greatest disservice you can do to your lawn is apply too much fertilizer, especially fast-release types. Not only does it a waste of resources (and money), excess nutrients in the soil can damage plants, cause excessive growth and disturb the natural biological processes that convert thatch and grass clippings into nutrients.

Apply the right amount of fertilizer at the right time. If you only fertilize once a year, do it in the fall. If your lawn is deficient in nutrients, you can also lightly fertilize in the spring.

WATER

Most homeowners water their lawn daily or every other day for brief periods. This leads to shallow (usually 1") rooting depths. A healthy lawn will seek water from 6 to 12 inches, so water deeply (about 6 inches) and less often. The appropriate frequency depends on your soil type.

WEEDS

Ultimately, the gardener must decide how many and which type of weeds are tolerable and which are not. But, maintaining a weed-free yard is not practical or even necessary. Most homeowners tolerate 5 to 10% weed growth without even noticing them.

There are many methods for removing weeds without using pesticides. You can pull or dig the weeds or mow frequently to keep them from setting seed. Keeping the lawn healthy by improving the soil and drainage, applying the right amount of fertilizer at the right time, and watering correctly will help the grass outcompete the weeds.

Never apply a pesticide if a pest is not seen and identified. Pesticides should only be used as a last resort. If you choose this method, spot spray the weeds. Do not treat the entire lawn. Apply the chemical ONLY at the recommended rates: READ THE LABEL.

Dandelions are cool season perennials and are weakest when they first leaf out in the spring and when they are blooming. Use weed poppers to pull out 4 to 5" of the root. 80% of the plants won't have enough nutrient reserves to send up another shoot. Or you can repeatedly cut the plant off at ground level. After 5 or 6 times, the plant won't come up again.

