

Sensible lawn care protects watershed

By SUE PHELAN

The U.S. Geological Survey has reported excess levels of nitrogen and phosphorus in surface and ground water around the nation as well as at least one pesticide in almost every fish and water body sampled.

Replacing septic systems (the major source of nitrogen and phosphorus) with sewage treatment plants will demand money, time and public will.

Some research on Cape Cod has indicated that up to 20 percent of nitrogen ending up in the bays and estuaries has its source in fertilizer. This is good news in that this 20 percent impact can be minimized immediately and at no cost by moving to a more sensible method of lawn care - if you must have a lawn.

By practicing LawnSense, the 12-step program developed by GreenCAPE, you can reduce your lawn's impact on your watershed.

1. Get a complete soil test before you do anything. Adjust the pH to 6.5 with lime (preferably calcitic lime). If your soil shows less than 5 percent organic matter, apply ¼-inch of finished com-

post every fall.

2. Plant a mix of grasses, such as fine fescues with perennial rye and a small amount of bluegrass that is endophytically enhanced for dealing with cinch bugs, billbugs, sod webworm. A turf monoculture does not compete well against weeds.

3. Develop a healthy soil. Start out with a good base of 4-6-inches of good loam (not sand or clay) or build up to it by adding a half inch of loam or compost twice a year.

4. Don't feed with synthetic chemical fertilizers. Use one pound of an organic 3-1-2 fertilizer per 1,000 sq. ft. (at least one-third should be in water-insoluble form) if you are also fertilizing with compost and grass clippings. Don't over-fertilize - it can create juicy blades vulnerable to disease. If you live by a body of water, don't fertilize at all.

5. Leave grass clippings on the lawn. This adds nitrogen and stimulates earthworms. Chop leaves with your mower and leave them on the lawn, too.

6. Cut the grass no shorter than 3-inches high and don't cut more than one-third of the leaf blade at

any one time. Don't be tempted to cut shorter. Good mowing practices are key to inducing deep root growth and shading out weeds. University studies have shown this can control certain weeds as well or better than herbicides.

7. Cut only with sharp mower blades. Resharpen blades after every eight hours of use. Dull blades tear the grass and make it more susceptible to disease.

8. Water deeply but infrequently to encourage deep roots; too much water invites fungal disease, shallow roots, and root rot. As soil organic matter builds up, less (or even no) water will be needed. Avoid watering at night as it encourages fungal disease.

9. Don't use pesticides (herbicides, insecticides, fungicides, etc.), which suppress the soil's biological activity and in turn reduces its ability to suppress pathogens. "Cides" also kill earthworms which build and aerate the soil. It takes a while for the soil microorganisms to get over a hit with pesticides and some may never recover, leaving your soil vulnerable to further disease and infestation.

10. Correct thatch buildup by

cutting back on water and fertilizer and eliminating pesticides. Spread a light layer - 3/8 of an inch - of compost over the lawn. Compost microbes will break down the thatch and also suppress disease.

11. Early in the year, (just before forsythia bloom) use corn gluten (WeedzStop or WeedBan) as an organic weed killer of weed seeds and seedlings. Spread only on established lawns at 20 lb. per 1,000 sq. ft. It also contains 10 percent nitrogen, so factor that in if you also fertilize. Use 1:1 vinegar to water solution to kill weeds or pull them out before they go to seed.

12. Use beneficial nematodes for control of grubs.

Using organic soil amendments and the cultural practices mentioned above will create a healthy and pest-free lawn and eliminates the need to use toxic pesticides and quick-release high nitrogen fertilizers that pollute the Cape's estuaries and embayments.

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