

TIPS FOR A HEALTHY

BEAUTIFUL LAWN



Lawns can look beautiful without using pesticides and fertilizers that may contribute to water quality problems in our local waterways. The tips below will help you maintain a healthy and beautiful lawn that can out-compete weeds and other lawn pests.

IRRIGATING AN ESTABLISHED LAWN

Watering of a lawn should be done thoroughly, whenever it is needed, not superficially as a routine job every other evening or at any definite interval. How you can tell if your lawn needs water is to step on the grass. If the blades don't spring back from your footprint, it's time to water.

- Water enough to wet the soil 4" to 6" down. Grass roots will grow deeper and the lawn will be healthier.
- Test for water penetration by gently watering an area for 10 to 15 minutes. Push a screwdriver

into the soil; if it doesn't penetrate 4" to 6" down, continue watering. Track the watering time so you know about how long to water.

- Many sprinklers apply water faster than the soil can absorb it. Water in cycles before runoff or puddling occurs (often in 10 to 15 minutes); repeat the cycle in an hour. Irrigating slowly prevents water run off.
- If water runs off or pools even with slow irrigation, soil compaction may be the problem. (See Lawn Aeration on the next page.)
- Clay soils hold more moisture and dry out more slowly, thus they may need less frequent irrigation.
- Sandy soils dry out more quickly and may need more frequent irrigation.

FEED YOUR SOIL BY LEAVING GRASS CLIPPINGS ON THE LAWN

- Grass clippings can provide most of the nutrients needed by a lawn if the clippings are small enough to decompose quickly without forming mats on top of the living grass. Remove only

1/3 of the height of the lawn at any one time. (See Mow the Right Way, next column.)

- To decompose clippings, soil must be biologically healthy, i.e., contain bacteria, fungi, insects, worms, and oxygen. Soil under a lawn that has been heavily fertilized or frequently treated with pesticides may be deficient in these elements. Be patient until soil regains its health.

MOW THE RIGHT WAY-GRASSCYCLING

Grasscycling, or mulch-mowing, means leaving clippings on the lawn to feed the soil. You can easily grasscycle with your old non-mulching lawn mower.

If it's a rear-discharge bagging machine, just remove the bag and cover the discharge chute. (Converter kits are available too.) Clippings will be held under the deck to be re-chopped and then dropped on the lawn.

If you have a side-discharge mower with a deflector that sprays clippings out as you mow, simply mow in a pattern that spreads clippings uniformly on the lawn.

While you can buy special “mulching” blades, tests show you’ll get the best mulching performance just by keeping your existing blade sharp.

- Remove no more than 1/3 of the leaf blade at one cutting. Removing more can be very stressful for the plant and increase pest and disease problems.
- Don’t cut grass too short. Taller grass will shade the soil and help prevent water loss and weed seed germination. Cutting grass too short weakens the lawn and makes it more susceptible to pests and diseases. Cut tall fescue at 2½" to 3". Cut bermudagrass at 1" to 1½" and St. Augustinegrass at 2½" to 3".
- Mow when the grass is dry, to avoid clumping.
- Keep mower blades sharp. Dull blades wound the grass and make it more vulnerable to pests and diseases.
- Alternate your mowing pattern frequently to avoid compacted ruts.

DEAL SENSIBLY WITH WEEDS

- Decide how many weeds you can tolerate. It is not realistic to expect a completely weed-free lawn. Dig up weeds by hand and sprinkle grass seed on any bare spots so weeds can’t fill in. Water regularly with a fine spray until the grass sprouts.
- Keep grass growing vigorously to crowd out weeds. Don’t mow grass too short; taller blades can shade the soil enough to prevent some weed seeds from germinating.
- Use corn gluten meal to prevent certain broadleaf weeds from germinating. Apply in spring or fall a few weeks before annual weeds begin to germinate.

LAWN AERATION

Aeration is one of the most overlooked lawn-care practices, yet it improves the over-all health of any lawn by loosening compacted soil and increasing the availability of water and nutrients.

- Aerate spots where soil is heavy or compacted, where water pools when irrigated, or where thatch buildup is a problem.
- Use a hollow-tined aerator that removes plugs of soil. A manual hand aerator for small or hard-to-get-to places is good, but it is strenuous work. For larger areas, power core aerators are available for rent or hire from lawn-care services.
- For an aerator to do its job, the plugs must be removed and brought to the soil surface. It is a good idea to go across your lawn in a North-South direction and then again in an East-West direction. Don’t be afraid of overdoing it.
- Leave the plugs of soil on the lawn to be broken up by rainfall and traffic. If their appearance

bothers you, speed up their disappearance by raking them into the grass.

- A lawn might not look like much once it has been aerated, but by watering regularly, re-seeding, fertilizing, it will bounce back in no time.

DETHATCHING LAWNS

Thatch is a layer of dead grass roots and runners accumulated on the top of or slightly below the soil surface. It is caused by a number of things including poor watering habits, improper mowing techniques, and the frequent use of high nitrogen fertilizers. It is **not** caused by build-up of grass clippings.

- If a lawn has a thick layer of thatch, a vigorous raking or the use of a mechanical dethatcher will get rid of it.
- Mild cases of thatch can be controlled by routine Aeration (see above).
- Prevent thatch return by mowing and irrigating properly. Use a natural slow-release fertilizer (see next page) for proper nutrition.



SOME PREFERRED GRASSES FOR VENTURA COUNTY

“Cool Season” Grasses (growing season is during cool weather)

Tall fescue (*Festuca arundinacea*) sun/moderate shade

Dwarf tall fescue (*dwarf varieties of Festuca arundinacea*) sun/moderate shade

“Warm Season” Grasses (growing season is during warm weather)

Hybrid bermuda (*Hybrid varieties of Cynodon*) full sun

- When soil is biologically healthy, grass clippings decompose and do not contribute to thatch buildup. This is a good reason to minimize or eliminate the use of broad-spectrum pesticides.

FERTILIZING

Healthy soil, with nutrients released slowly, lets grass roots grow steadily all year. “Green up” fertilizers (particularly the liquid ones) force the grass to grow far faster than it would naturally, promoting excessive growth and making a lawn more susceptible to pests and disease. A perfect example of using too much fertilizer is the presence of high populations of white grubs (See more on White Grubs in box.)

- Many lawn fertilizers contain a large amount of nitrogen and smaller amounts of other nutrients. Some nitrogen may be needed to maintain good lawn color and density. If you need to fertilize, use natural fertilizers. These products release nutrients slowly over a longer period, allowing the grass to absorb nutrients more efficiently.
- Unless the soil texture is sandy, nutrient deficiencies are unlikely and you may not need to fertilize at all. If in doubt, have your soil professionally tested.
- Grass clippings left on the lawn can provide most of the fertilizer.
- The best times to fertilize tall fescue lawns are March, May, October and November. Fertilize sparingly or not at all during hot summer weather. The best times to fertilize bermudagrass and St. Augustine are April, May, September and October. Do not fertilize in winter when these grasses are dormant.

WHITE GRUBS

Lawns sometimes suffer from white grubs, the larval (immature) stage of several species of beetle. The genus of beetles most common in California is *Cyclocephala*, the masked chafer. Masked chafer adults do not eat, but in their grub stage can cause patches of lawn to die when they feed on grass roots.



Moles, raccoons, and skunks can add to the damage when they dig in the turf looking for tasty grubs. But just finding wilted patches of grass or animals digging in the lawn does not mean that you have white grubs! You need to find grubs by verifying their presence in several places.

DETECTION

The C-shaped grubs can be up to an inch long and are white with a brown head and three pairs of conspicuous legs.

Damage from grubs can begin to show as early as June or July or as late as August or September and can be mistaken for wilted grass under drought stress. Later, irregular patches die and can be lifted up or rolled back like a carpet. Grub feeding can make the ground feel spongy.

If you have had white grub problems before or suspect you have them this year, begin looking in mid-May by taking square foot samples. Pay particular attention to spots that look unusual. Cut through turf on three sides of a square and inspect the upper inch of soil for grubs. Treat if populations of grubs are 10 to 15 per square foot.

WHAT CAN YOU DO?

- Pay special attention to drainage and compaction. Healthy lawns can recover more easily from white grub damage.
- *Heterorhabditis bacteriophora* are commercially available beneficial nematodes that can effectively control masked chafers.
- Have a professional treat with an insecticide containing imidicloprid (Merit®). Merit works best when grubs are small. This material has a low acute toxicity for mammals.
- Don't treat late in the season when you find dead patches of turf. By this time grubs have done all their damage for the season and are ready to stop eating. Treating now is ineffective. Remove the dead grass, cultivate, and reseed the area.
- Avoid using insecticides containing diazinon or chlorpyrifos. They are often ineffective because they bind with organic matter in the thatch and do not easily move down into the soil where the grubs are living.
- Plant warm-seasoned grasses, such as bermudagrass or St. Augustinegrass, or cool-season grasses, such as tall or dwarf fescues. These grasses are more tolerant of white grubs.

LAWN SUBSTITUTES

Americans spend a great deal of time on their lawns, using an abundance of water, fertilizer, pesticides, and time. If a grass surface is not required, consider replacing all or some of your lawn with an attractive ground cover alternative. Check with local nurseries to find out what plant species perform well in your area.

PLANTING A NEW LAWN

START OUT RIGHT

- Have your soil tested so you know the texture, pH, salt and nutrient levels.
- Choose a mixture of the right variety of grass suited to your climate and the conditions in your yard (see Preferred Grasses for California).
- Choose pest- and disease-resistant varieties (ask your nursery).
- Choose sod that has been propagated in soil similar to your own.

PREPARE THE SOIL BEFORE INSTALLING A NEW LAWN

- The first step is to remove debris, fill in low spots and level off high areas. The ground should slope away from the foundation of the house. If the soil is compacted, use a rototiller.
- Thoroughly mix organic amendments and soil before planting. Poor soil preparation can cause poor drainage resulting in weak turf.

IRRIGATE A NEW LAWN

- Irrigate your freshly planted seeds frequently and lightly (too much water can wash away seeds). Do not allow the seedbed to dry out during the germination period. Once seeds germinate, water less frequently but more deeply.

PESTICIDES & WATER POLLUTION

Pesticides can damage our health and kill beneficial insects necessary for a healthy garden. Common household pesticides show up in our waterways, sometimes at levels that can harm sensitive aquatic life.

The County of Ventura Environmental and Energy Resources Department is working with local nurseries and hardware stores to reduce the risks associated with pesticide use. This fact sheet is part of a series of informative publications and store displays designed to educate Ventura County residents about less-toxic pest management.



Look for the “Our Water Our World” logo next to products in participating nurseries and hardware stores throughout Ventura County. For a list of participating stores, call 805/289-3333 or visit <http://www.wasteless.org>

Pest control strategies and methods described in these publications are consistent with Integrated Pest Management (IPM) concepts, and are based on scientific studies and tests in actual home and garden settings. IPM is an environmentally sound approach to pest management combining various methods with good horticultural practices. Follow all label directions on any suggested products. NO endorsement of specific brand name product is intended, nor is criticism implied of similar products not mentioned. Different products with the same active ingredients are equally suitable.

HOUSEHOLD HAZARDOUS WASTE COLLECTION PROGRAMS

Most cities offer FREE monthly collection events that accept pesticides, fertilizers, latex and oil based paint, motor oil and filters, car and household batteries, pool chemicals, stains, solvents, fluorescent light tubes, automotive fluids, cleaning products, photographic chemicals and more. For more information and collection schedules call 805/289-3333 or visit www.wasteless.org.

FOR MORE INFORMATION

Participating stores have been provided books on Integrated Pest Management (IPM) you may use while in the store. The store staff has been extensively trained in IPM to assist you.

The Certified Master Gardener Program operated by the University of California Cooperative Extension provides a free assistance Helpline and offers a variety of workshops and school education programs. Call 805/645-1455.

Check these websites:

<http://www.watoxics.org>

<http://www.ipm.ucdavis.edu>

<http://www.pesticide.org/factsheets.html>

ACKNOWLEDGEMENTS

This fact sheet was originally developed by the Central Contra Costa Sanitary District.

Research and modifications for Ventura County were provided by Deborah Mills, Green Cure, Inc.

PRODUCTS & RESOURCES

Soils Laboratory (see the Yellow Pages under Soil Testing)

Beneficial Nematodes (*Heterorhabditis bacteriophora*)

Rincon-Vitova Insectaries, PO Box 1555, Ventura, CA 93002
805/643-5407

Tip Top Bio-Control, PO Box 7614, Thousand Oaks, CA 91359
805/445-9001

www.tiptopbio.com

Corn Gluten Meal (pre-emergent herbicide)

Supressa®

Concern® Weed Prevention Plus

Slow Release Fertilizer

Ringer Lawn Restore

Corn Weed Blocker 9-1-0

RECOMMENDED READING

- *Down to Earth Natural Lawn Care*, by Dick Raymond, published 1993 by Storey Communications, Inc., Pownal, VT.
- *U.C. PM Pest Management Guidelines: Turfgrass*, ANR Publication #3365-T, edited by M.L. Flint, published 1996 by University of California Division of Agriculture and Natural Resources, Berkeley, CA; 510/642-2431.
- *The Chemical-Free Lawn*, by Warren Schultz, published 1993 by Rodale Press, Emmaus, PA; 610/967-5171.