

# Popular Mechanics

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## 21 Expert Organic Lawn Care Tips

**The expert who founded Safelawns.org offers insider's tips for achieving a lush, green lawn – without the use of toxic pesticides or chemical fertilizers.**

**By Paul Tukey / SafeLawns.org**

### **1. Think of Your Soil as Alive**

If you want to be successful as a natural, organic gardener — or grow a healthy, organic lawn — you may need to think differently about your soil.

Organisms in the soil have the same needs we do: to drink, breathe, eat, digest and excrete. When the soil is healthy, fed with natural materials and not compacted, those natural processes allow fertilization and growth to happen the way Mother Nature intended. Organic fertilizer is actually soil food that nourishes the organisms, whereas chemical fertilizer feeds plants directly — but much of the chemical fertilizer runs off into lakes, oceans, rivers and groundwater. Growing grasses and other plants in healthy, living soil will make the plants more drought-tolerant, disease-resistant and maintenance-free.

For a video illustrating the difference between chemical soil treatments and organic soil management, check out “Organic Lawn Management, The Overview,” at [safelawns.org/video.cfm](http://safelawns.org/video.cfm).

### **2. Test Your Soil First, Buy Nutrients Later**

Never spend money on any fertilizer or soil amendment for your lawn or garden without first consulting the results of a soil test.

These diagnostic results — available from virtually all Cooperative Extension offices across the U.S. — will tell you exactly how much N (nitrogen), P (phosphorus) or K (potassium), lime, sulphur or other nutrients to add. Too much nitrogen and phosphorus can harm oceans, lakes, rivers and drinking water. Other excess nutrients can weaken and even kill grass and other plants.

### **3. Before You Spread Lime, Read This**

Though some soils in the West are inherently alkaline, meaning the pH is above 7.0, many gardeners in other parts of the country have acidic soil and they put pulverized dolomitic limestone on their lawns as a matter of course each fall. The product is recognizable by the heavy, white paper 40-pound bags. With [acid rain](#) increasing in much of the nation, that might seem like a good thing to do. If you're concerned about weeds, however, the dolomitic lime can be a problem.

In ideal lawn soil, the ratio of calcium to magnesium should be 7:1; in dolomitic limestone, the ratio of those two key nutrients is 3:2. The high level of magnesium compacts the soil and actually promotes weed growth.

A better source of calcium for lawns is a product known as high-calcium limestone. It's also a good idea to have a soil test if you haven't for a while prior to putting down any limestone or soil additives; most Cooperative Extension offices in the nation still offer basic soil tests, or you can contact the [Soil Foodweb](#) laboratory on Long Island in New York for a more comprehensive test. A good source for the limestone is [Mag-I-Cal](#) from [jonathangreen.com](#). (\$17.90-\$30.50 at [amazon.com](#))

The bottom line, in other words, is to avoid guessing. That can be bad, for the environment, for your landscape and for your pocketbook.

*You can buy at-home DIY soil test kits for as little as \$0.35 per test at [amazon.com](#) or [gardeners.com](#). Or, try this electronic soil tester (\$18.95 at [burpee.com](#)).*

#### **4. Grow the Right Grass**

Though they look innocuous, not all grass plants are created equal.

Some grow tall, some short. Some grasses prefer full sun, others tolerate shade, or foot traffic, or drought. Many newer varieties of grass, also known as cultivars, grow more slowly and resist disease, which reduces the need for pesticides, watering and mowing on your lawn.

With up to 50 million acres of lawns nationwide, the less cutting and trimming the better! Lawn mowers contribute up to 10% of the nation's air pollution in the summer, not to mention all that noise pollution on an otherwise glorious summer day. For a rundown on the best grasses for your area, check out [seedland.com](#). (Many varieties are also available at [amazon.com](#).)

#### **5. Welcome White Clover, Mother Nature's Fertilizer Factory**

Once upon a time, before the advent of synthetic weed killers for the lawn in the late 1940s, most American lawns contained white clover. Because no formulation of weed control could be developed that left both grass and clover, but killed everything else, clover was then lumped in with the weeds in subsequent marketing campaigns.

The scientist who developed 2,4-D, the most common synthetic herbicide, was publicly apologetic because his new product had the unfortunate side effect of eliminating clover. "The

thought of white Dutch clover as a lawn weed will come as a distinct shock to old-time gardeners," wrote Dr. R. Milton Carleton in his book, *A New Way to Kill Weeds*, in 1957. "I can remember the day when lawn mixtures were judged for quality by the percentage of clover seed they contained. The higher this figure, the better the mixture."

Today's newfound emphasis on natural lawn care has folks taking a second look at clover as a primary lawn plant. Take a look at the [six reasons white clover is not a weed](#).

*You can supplement your lawn with new clover seeds, in varieties that include white, red, crimson and purple for as little as \$2.40 a pound at [amazon.com](#) and [gardeners.com](#).*

## 6. Fertilize Your Lawn with Kitchen and Yard Waste (a.k.a. Compost)

Compost naturally provides the nutrients your lawn and garden need to grow and stay healthy — and you can easily make your own from kitchen and yard waste.

If you're not sure your compost is up to snuff, you can [test it](#). And if you aren't up for [making your own](#), you can often find it from your town transfer station (just be sure it isn't made with herbicide-laced grass or sewage sludge).

Need more details? You can find all you need to know about [how to make and use compost](#) — including how to make a "compost tea" that helps your lawn or garden absorb compost's nutrients fast.

**Related:** [20 Surprising Things You Can Compost at Home](#)

## 7. Listen to Nature's Messengers (Weeds)

Ralph Waldo Emerson might have said it best: "What is a weed? A plant whose virtues have not been discovered." In a lawn or garden environment, most of us have a hard time seeing any virtues in any plants that are trying to compete with our grass or peas and carrots. Oftentimes, however, those weeds can be very valuable in telling us something about the condition of the soil below. Changing your mind about weeds starts with learning to identify them.

Weeds are messengers sent by Mother Nature to teach us about the soil. We can kill the messenger — with a chemical, with a tool, a blowtorch or a tarp, or with boiling hot water or by simply bending over and pulling it out — but it doesn't change the message. The weeds will always grow back unless we change the soil conditions. Here are a couple of examples:

If you have excess **plantain**, you almost certainly have heavily compacted clay soil.

If you have excess **dandelions**, your soil probably needs more calcium and less magnesium.

For a great rundown on this fascinating subject, look for a copy of Ehrenfried Pfeiffer's book *Weeds and What They Tell*. It's long out of print, but readily available online (\$24 at [amazon.com](#)).

## 8. Try a Kinder, Gentler Approach to Pests

We have all seen the commercial where a woman appears on the screen making the emphatic statement: "Bugs! I hate all bugs!" Then the announcer espouses the virtues of a product that will kill a hundred or so insects on contact.

The reality, though, is that only a few insects do any real damage to our lawns and gardens. Killing all insects should never been the goal, especially given that the products used to destroy the insects often have dangerously [negative impacts on the health of our children, our pets and the planet](#). Here are a few pointers for an alternative approach:

1. Avoid synthetic fertilizers with high levels of nitrogen that push out a lot of growth quickly; insects see the bursts of growth as a buffet table and will attack the plants in greater numbers.
2. A relatively new company known as [EcoSmart](#) uses food-grade materials in its pesticides that are safe around pets and children. (\$12-13 at [amazon.com](#))
3. Many companies, including [Gardens Alive](#), offer natural solutions such as beneficial nematodes for grub control or traps for apple maggots. (1,500 live aphid-eating ladybugs, \$13 at [amazon.com](#))

To help with insect identification, one of the [best online field guides](#) is from Texas A&M University. Or, look for a good [insect-identification book](#).

## 9. Grass Clippings vs. Lawn Thatch: Keep One, Not the Other

No matter what anyone tells you, thatch and clippings on your lawn are not one and the same — and, no, clippings *do not* cause thatch.

Grass clippings, the portion of the mown grass, are about 90% water, so they begin to decompose almost immediately after hitting the ground. Left in place, clippings return nutrients to the soil. Lawn thatch, on the other hand, is the dead grass and root tissue between the green vegetation and the soil surface. In layers of 1/2 inch or thicker, thatch blocks water, air and nutrients from reaching the roots and provides a nesting place for insects and disease.

Many grass varieties in a traditional synthetic lawn care system tend to build thatch layers quickly. Excessive nitrogen pushes out excessive top growth, but it limits life in the soil and therefore slows decomposition of roots even more. The process of dethatching, either with a [bamboo rake](#) or a power machine, removes the thatch, which can then be gathered and composted.

Some thatch is common and acceptable in all lawns, but too much must be removed. The good news is that natural lawn systems that add life into the soil will rarely have issues with excessive thatch.

## 10. Reduce Your Lawn Watering by 70 to 100%. Here's How

Lawns are water guzzlers, requiring about an inch of water per week during the growing season to remain green and vibrant. Many arid regions of the nation don't get anywhere near that much average rainfall, and many municipalities have restrictions on how much you can apply. To conserve water and get the best results for your lawns, gardens, trees and shrubs, remember these tips (and get [detailed lawn watering tips](#)):

Water in the morning

Water deeply and infrequently

Use an automatic shutoff to control watering when you're away from home.

Use organic fertilizers and soil amendments

Choose the right plant for the right place.

## **11. What to Do About Pesky Bare Spots**

If you look outside at your lawn right now and see areas of little or no grass, and you're just hoping that grass somehow fills in, you are most likely going to be sadly disappointed. More often than not, weeds beat grass to the bare spots. Other plants — dandelions, plantain, chickweed, crabgrass and quackgrass, etc. — all set seeds that can persist in the soil and germinate when the conditions are right.

Because we are constantly mowing our lawns, we don't let grass go to seed, and it doesn't have a competitive chance. The only way grass can fill in a bare area is through the spreading of underground roots known as rhizomes or over the ground runners known as stolons.

To help your grass compete, you should always keep grass seed on a dark shelf in the potting shed or another cool, dry area. When a bare area appears, spread some seed, cover it with a thin layer of compost and keep the seed moist until a couple of weeks after it germinates. Actively growing grass will outcompete the weeds and help give you that lush, green carpet you may admire. For a great online source for grass seed from across the U.S., visit [seedland.com](http://seedland.com).

## **12. To Rehabilitate, Aerate**

To achieve healthy plants the natural way, without synthetic chemical fertilizers and pesticides, you need to have healthy, living soil. The organisms in the soil need to drink, breathe, eat, digest and excrete their food and, to do so efficiently, must have plenty of air pockets in the soil.

Often, with excess foot traffic, mowing or applications of chemical products, our soils become compacted and need help. That's where the practice of mechanical aeration comes in. By cutting "cores" out of the soil with a specialized machine or hand tool, you'll leave behind holes through which air, water and fertilizer can enter. The surface of your lawn may look more like Swiss cheese for a few days, but the long-term benefits can be great.

If your soil is compacted — excess weeds such as plantain can be a tell-tale sign — aeration may be necessary. [Renting a core aerator](#) from a local equipment supply store is usually the best option other than hiring to get the job done. Fall is the best time.

If the task sounds daunting, though, the good news is that tending your lawn organically, with natural fertilizers, will allow your soil to self aerate. Renting the machine will never be necessary; the earthworms and microorganisms will do the job for you.

### **13. Mow Wisely for a Greener Lawn**

Follow these pointers for a greener lawn (and find more details about each of these [mowing tips](#)):

Fertilizer your grass by letting grass clippings fall on the lawn.

1. Keep your blades sharp to improve fuel efficiency.
2. Never cut more than one-third off the length of your grass, and avoid cutting it too short at any time.
3. Don't mow unless there's rain in the short-term forecast.
4. Use an [electric mower](#) or human-powered [push mower](#) to cut down on backyard air pollution.

### **14. Know Your Organic Fertilizer**

Question: When does a fertilizer that delivers fewer nutrients and bypasses the plant completely do a better job than one that delivers a mega-dose right to the plant?

Answer: When the fertilizer is organic.

When it comes to lawn fertilization, the greenest grass comes from healthy soil, and healthy soil comes from organic fertilizers.

Learn the [3 Questions to Ask Before Fertilizing Your Lawn](#) and then go pick up the best organic lawn fertilizers for your conditions.

### **15. Grass Sod vs Seed for a New Lawn**

Anyone considering renovating or installing a new lawn will invariably face the dilemma of planting grass seed vs. laying down sod. If money were no object, we'd probably all put down sod, which is fully grown grass that gives us a nearly instant lawn. Seeding a lawn from scratch can take several months to fully fill in, and any number of environmental challenges — wind, pelting rain, sweltering heat, a drought — can make new lawns difficult. As for value, seed is still usually the best bet; initial costs of sodded lawns make them 10 to 20 times more costly than seed. Here are some cost variables to consider, however:

Avoid covering the seed with straw, which can be \$7 or more per bale. A thin layer of compost is a better option.

Determine your water cost. Seeded lawns typically take up to three times more water than sodded lawns to get established.

Buy your sod direct from the grower, especially if you have a big job. The local garden center marks up the cost of the sod, but many growers will sell to consumers who purchase a certain minimum amount. If you're interested in finding sod for your climate, visit [turfgrassod.org](http://turfgrassod.org).

## **16. Enjoy the Lawn. Skip the Grass.**

At [SafeLawns.org](http://SafeLawns.org), we are always getting questions about why grass won't grow well in certain areas. In tightly packed neighborhoods, the property between two houses is often particularly difficult because that strip of soil doesn't get enough sun. Likewise, the strip of soil next to the driveway is usually a tough place to grow grass because the soil is always being compacted by foot or tire traffic, or scraped back in the winter by the snowplow.

The answer, in many cases, is to avoid growing grass and instead plant an alternative ground cover. Some plants love full shade; others will do OK in compacted soils. And many times your visitors will be less inclined to walk in certain areas where plants other than grass are growing. Several American companies now specialize in alternative ground cover plants. Here are two of the best: [jeeperscreepers.info](http://jeeperscreepers.info) and [stepables.com](http://stepables.com). (Many alternatives are also available at [amazon.com](http://amazon.com).)

## **17. Heed Pesticide Health Warning Labels**

It's a fact. Most Americans don't read directions. Next time you shop for products containing weed- and insect-killer and fungicides for your lawn, check the label. Virtually all those products will say **Caution, Warning or Danger and Keep Out of the Reach of Children**.

"I believe, in time, the products we use around our lawns and gardens will be proven to be among the greatest health risks to our children," said Dr. Alan Greene of [DrGreene.com](http://DrGreene.com). Some of the statistics are startling, according to a study completed by a group of Yale University health care professionals. Children who live in homes where lawn and garden pesticides are used are up to four times more likely to develop leukemia, brain cancer and soft tissue sarcoma.

The good news is that transitioning your lawns and gardens to organic care will remove these risks from your landscape.

## **18. Just Say No to Pesticides Locally**

When a young mother named Pat Beckett took exception to ubiquitous yellow and white signs that stated "Danger: Keep off the Grass," she began to ask questions. She soon found a willing accomplice in professional greenhouse grower Chip Osborne, who suspected that he had killed two of his dogs due to overexposure to chemical pesticides. Through the efforts of Beckett, Osborne and, ultimately, the town's Board of Health, Marblehead, Mass., made U.S. history more than a decade ago by becoming the first town to ban lawn and garden pesticides on public property.

Today Marblehead's [Living Lawn demonstration project](#) is held up by dozens of other communities who have passed similar bans. The Toxics Use Reduction Institute reviewed how the town did it, and how yours can too.

And that's not all. An entire nation, Canada, and two U.S. states, Connecticut and New York, have enacted laws that just say no to weed 'n feed, Roundup, Sevin, at least (in the case of New York) on playing fields used by kids. Dozens of other products commonly sold in much of the U.S. Home Depot's 266 Canadian stores have removed all synthetic pesticides from their shelves, and the company president stated the retailer wanted "to be friends of the environment" in doing so. And while all those products are still sold in the U.S., Connecticut has taken the bold step of removing them from all school grounds in grades K-8.

"We have to, at a minimum, protect our children from the risks associated with these products," said Sen. Ed Meyer, who sponsored the Connecticut bill. We can [learn a lot](#) from these communities.

## **19. Keep Your Lawn Safe for Games**

Lawn games may be the oldest sports ever played on Earth. Playing on the lawn, it would seem, is an almost primal passion that dates to the beginning of civilization. Sir Flinders Petrie, a well-known British archaeologist, reportedly unearthed the tomb of an Egyptian child and discovered various rounded objects, which he assumed had been used in a primitive game of lawn bowling that we commonly know now as bocce. We can't think of a better reason to have a lawn in the first place, or a better reason to grow the grass organically, without any products that could harm the backyard athletes of all ages.

Learn the [surprising history of four popular lawn games: bocce, Wiffle ball, Frisbee and croquet](#).

## **20. A Tip from the Greenest U.S. Golf Course**

When folks in Martha's Vineyard wanted to build another golf course on the island paradise, a bunch of other folks stood up and said not here, not now. A giant compromise resulted in perhaps the most environmentally sensitive golf course ever built in the United States. Every aspect of the course is managed organically, from the tees to the fairways and even the greens. In 2008, the greenskeeper, Jeff Carlson, earned the President's Award for Environmental Stewardship.

Asked for a tip that homeowners could apply to their own backyard fairways, Carlson offered this realistic feedback: "It's all about managing expectations," he said. "People need to understand that those perfect, weed-free fairways they see on television are not possible in their backyards. Even the best golf courses in the nation have imperfections and your lawn will, too. If you go organic, and you should, then you can have a nice lawn. A very nice lawn. Just don't expect it to be perfect." For a photo tour, visit [vineyardgolf.com](#) (or gaze deeply at the photo before you).

## **21. Get More Information**

Paul Tukey is the author of *The Organic Lawn Care Manual: A Natural, Low-Maintenance System for a Beautiful, Safe Lawn* (\$13.50 at [amazon.com](https://www.amazon.com)).

He's also the editor of [SafeLawns.org](https://www.SafeLawns.org), where you'll find nearly 30 how-to videos that provide a step-by-step guide to the process.