



HOW-TO BOOKLET #3146

ORGANIC LAWN CARE



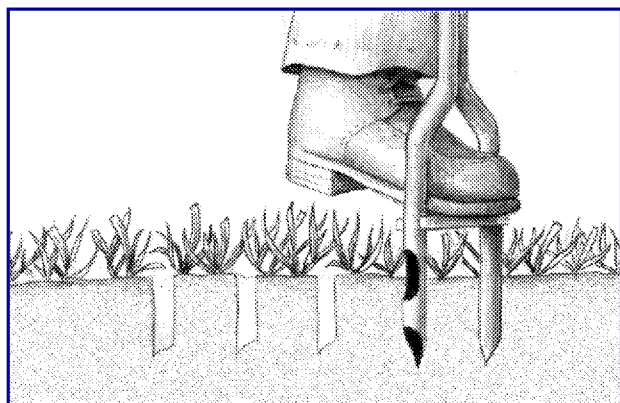
TOOL & MATERIAL CHECKLIST

- Mower with Sharp Blades
- Mulching Mower
- Long-handled Weeder
- BT (*Bacillus thuringiensis*)
- Organic Fertilizer
- Drop Spreader
- Aerator
- Lime

Read This Entire How-To Booklet For Specific Tools and Materials Not Noted in The Basics Listed Above

Homeowners often use as much as 5 to 10 pounds of toxic, synthetic poisons per acre on their lawns every year to control pests and weeds. These poisons can make us, our kids, and our pets ill. They can then move on to kill our wildlife and poison our water supplies.

The good news is you don't need to use poison to have a lush, green lawn. Just make a few simple adjustments to your lawn-care regime and you'll have a beautiful, healthy lawn that won't need toxic poisons. You'll probably even find that the changes save you time, effort, and money!



MOWING

Proper mowing is the basis of successful organic lawn care. Here are five points to remember:

- 🏠 Keep your grass at the recommended height.
- 🏠 Keep your mower blade sharp.
- 🏠 Mow only when your grass is dry.
- 🏠 Never remove more than one-third of the height at one mowing.
- 🏠 Leave the clippings on the lawn.

Proper mowing encourages grass to grow deep, drought-resistant roots and conserves water by reducing evaporation from the soil. Letting the grass grow to the proper summer height reduces weed seed germination, chokes out crabgrass, and gives beneficial pest-hunting insects a place to live.

If the lawn grows so high that you need to cut more than one-third its total height, raise your mower's blade and cut one-third. Two days later, drop the blade to the proper height and re-cut.

Leaving the clippings on the lawn helps provide the nutrients the grass needs to grow and adds water-holding organic matter to the soil. And research has proved it will not contribute to thatch. Thatch is caused by compacted soil, shallow watering, synthetic fertilizer, and poisons—like weed killers and pesticides—that kill earthworms. Besides, thatch is made of grass stems, shoots, and roots—not clippings.

Mowing Heights

Follow these mowing heights (in inches) for a healthy, trouble-free lawn.

Grass Type	Cool Weather and/or Shade	Hot Weather	Final Fall Cutting
Bahiagrass	2	3	1 1/2
Bentgrass	1/3	2/3	1/3
Bermudagrass	1/2	1	1/2
Buffalograss	1 1/2	2 1/2	1
Centipedegrass	1	2	1
Fine Fescue	1 1/2	2 1/2	1
Kentucky Bluegrass	2 1/2	3	2
Perennial Ryegrass	1 1/2	1 1/2	1
St. Augustine grass	2	3	1 1/2
Tall Fescue	2 1/2	4	2
Zoysia	1/2	1	1/2

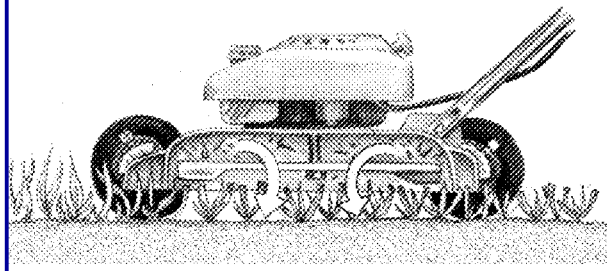
Mowers. The size of your lawn and your energy level will tell you which type of mower to choose. Here are your basic choices:

🏠 **Manual reel mower.** These old-fashioned machines are making a comeback. The reel cuts the grass like a pair of scissors for the neatest possible cut. They are quiet and fume-free. If you have a small lawn and like exercise, a modern lightweight reel mower may be a good choice. You can get a snap-on grass-catcher to use when the grass is long.

🏠 **Power rotary mower.** This is the basic all-American lawn mower. Options include self-propulsion or even ride-on operation. Most feature a grass-catcher bag to keep the clippings off the lawn when the grass is long. Until recently a gasoline or electric power rotary mower was your only choice. If you already have one, it will suit your purposes. If you are looking for a new mower, check out a mulching mower instead.

🏠 **Power mulching mower.** Mulching mowers are rotary mowers designed to cut and then chop up the clippings. Chopped clippings are less visible when they fall back into the lawn. Mulching mowers are far more forgiving of a missed or late mowing than a standard mower is. Some even have an optional bagger for collecting clippings during a wet spell or gathering shredded leaves in the fall. A mulching mower is your best bet for successful organic lawn care.

A mulching mower chops the clippings into little bits before dropping them into the lawn so they are almost invisible.



FOR BEST RESULTS

Follow these simple tips to keep your mower working like new and pampering your lawn.

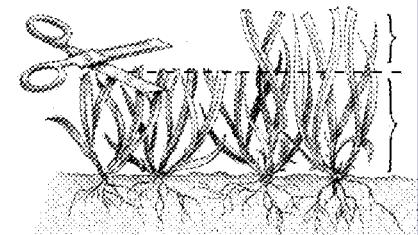
- 🏠 Sharpen the blade regularly for a good, clean cut and less wear and tear on the machine.
- 🏠 Clean the clippings from the blade and underside after each mowing.
- 🏠 Empty and dry the clipping bag (if used) after each mowing.
- 🏠 Fill the gasoline tank and check the oil level before each mowing. Do this on the driveway to prevent petroleum burns on your lawn.
- 🏠 Drain and change the engine oil once a year.

CUT YOUR MOWING CHORES IN HALF

Few of us enjoy spending every spare minute sweating behind a mower. Organic lawn care will save you the time you would have spent dumping the clippings and dragging them to the curb or compost area. Here are two more ways to clip your mowing time:

- 🏠 Reseed your lawn with one of the new slow-growing grass types—such as fine fescue and buffalograss.
- 🏠 Replace areas of your lawn with mulch, groundcovers, paved paths, and seating area. Mulches and groundcovers work well around trees where grass doesn't grow well anyway. Install edging strips to keep neat edges.

Remove no more than one-third of the total height at any mowing to avoid damaging the grass



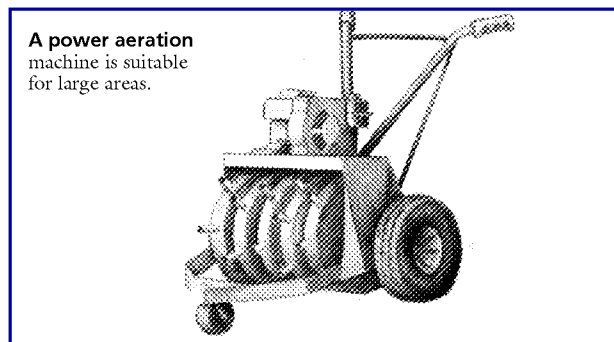
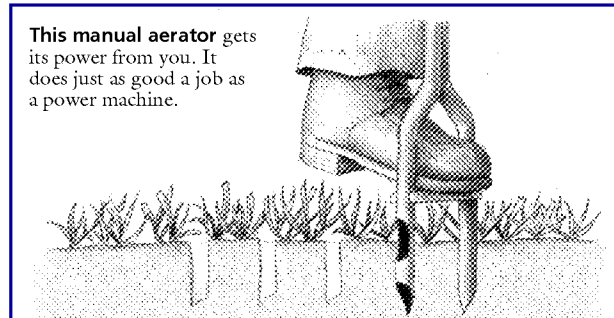
AERATING

Aeration is poking holes in your lawn. It is probably the most important step you can do to improve your lawn. Properly done aeration:

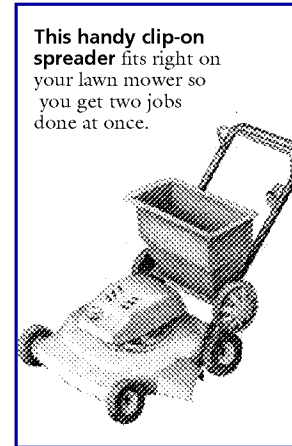
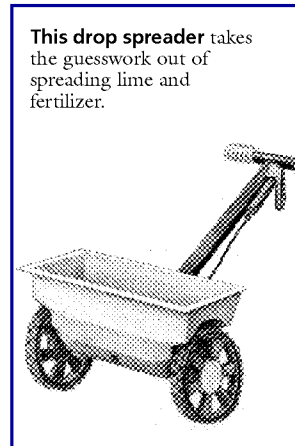
- 🏠 Gives roots room to grow.
- 🏠 Helps fertilizer and organic matter get down where the roots can use it.
- 🏠 Helps water soak into the soil rather than running off.
- 🏠 Helps oxygen get into the soil.

Use a manual aerator for small lawns, or rent a power lawn aerator once a year in spring (spring and early fall in very dry climates).

There are two types of aeration machines. One type has solid rods that push into the soil and leave holes surrounded by packed soil; the other type has hollow rods and pulls little cores of soil out of the lawn. Choose the hollow-rod type if you have a choice.



For the best possible results, water your lawn deeply the day before you plan to aerate. Leave the little plugs right on your lawn. They will break down with mowing and time, and help build healthy soil.



ADJUSTING SOIL ACIDITY

Turf grasses grow best when the soil pH is between 6.0 and 6.5. Much higher or lower than that, and the plants can't use the nutrients in the soil or any fertilizer you give them.

Test your soil's pH each spring. Use a home test kit or submit a sample to your county agricultural extension office (there is a small fee for this service). To collect a sample, use a clean trowel and dig a hole about 6 inches deep. Then cut a 1/2-inch slice of soil from the side of the hole and put it in a clean bucket. Mix the soil together and take out as much as you need for the test.

A pH of less than 7 means your soil is acid. You can "sweeten" acid soil with lime. Apply ground limestone or oystershell lime with a drop spreader (see "Raising pH" below for amounts). You can also use liquid lime, which you apply with a hose-end sprayer (consult label instructions for rates).

A pH larger than 7 means your soil is alkaline. Use sulfur to acidify alkaline soil. (See "Lowering pH" below for quantities).

Raising pH

Pounds of limestone needed per 1,000 square feet to raise the pH to 6.5.

Starting Soil pH	Soil Type		
	Sand	Loam	Clay
4.5	50	135	195
5.0	40	105	155
5.5	30	80	110
6.0	15	40	55

Lowering pH

Pounds of sulfur needed per 1,000 square feet to drop the pH to 6.5.

Starting Soil pH	Soil Type	
	Sand	Clay
7.5	10	20
8.0	30	45
8.5	45	70

FERTILIZING

Most homeowners over-fertilize. Too much fertilizer makes your grass grow too fast, which makes more mowing work for you. It also makes your grass more likely to get diseases or develop thatch. Organic lawn management leaves the clippings on your lawn, which provides 50% to 80% of the nitrogen fertilizer the grass needs in a natural slow-release form.

To supply the rest, spread 100 pounds of screened compost or bagged 1-1-1 organic fertilizer per 1,000 square feet over your lawn in early spring and again in fall just after you aerate.

WATERING

Healthy organic lawns need less water than chemically treated lawns. They have deep roots and the soil they grow in is rich in organic matter, which absorbs and holds moisture longer. High mowing also helps reduce watering since the ground is cool and well shaded.

Traditional lawns are notorious water-guzzlers. In very dry regions of the country, you may not be legally able to water your lawn. Many homeowners may just want to reduce their watering bills or spend less time hauling sprinklers around. Whatever your motivation, here are some great ways to cut back your watering:

- Replace your thirsty bluegrass with one of the newly-domesticated native grasses—such as buffalograss—that need much less water to stay green and lush.
- Reduce the size of your lawn by replacing some of it with mulch, groundcovers, or paving.
- Let your lawn turn its natural yellow color in the driest parts of the year to complement the native landscape around you.

When the weather is dry and you do decide to water, water wisely. Experts agree that one slow, deep watering every 7 to 10 days is the best for the grass and uses the least water. Don't run your sprinklers when it is windy or extremely hot—you'll only be wasting water.

If you want to see where and how much water your sprinkler puts out, set empty tin cans or paper cups around the lawn under the spray. You'll know how and when to move the sprinkler around to water your lawn evenly.

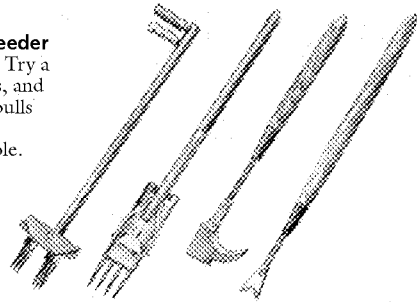
PROBLEMS

Healthy, properly-maintained lawns have few disease and insect problems and can out-compete most weeds. You may still encounter an occasional problem, especially while you are making the switch to organic lawn maintenance.

Weeds. Mowing your lawn at the recommended height will help reduce weeds. Some will be squeezed out; others won't germinate in the shade of the tall grass. Proper lawn care won't eliminate weeds, but it will reduce their number considerably.

Organic lawn managers don't resort to synthetic weed killers. They reseed bare spots immediately so

Choose a sturdy, long-handled weeder to save your back. Try a few different tools, and buy the one that pulls out as much of the roots as possible.



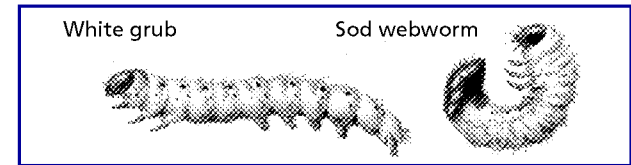
weeds won't get a foothold. Hand weeding can be used to remove scattered weeds. (Look for a sturdy tool that gets out the roots and can be used standing up.) You can also spot-treat weeds with an organic soap-based herbicide. Just remember this type of herbicide kills grass as well as weeds, so use it carefully.

The final tool is that of re-setting your sights. We have been taught by the chemical companies that the only good lawn is one that has just grass, and only one kind. Any ecologist will tell you that having a large area of the same kind of plant is just asking for insect and disease problems. Having an assortment of plants actually makes your lawn tougher. So don't panic over a few weeds—just think of them as healthy additions to your healthy lawn.

Diseases. Strong, well-managed lawns rarely get diseases. Once you have managed the thatch away, there is little place for disease to build up. If you do encounter a disease problem—and that problem is actively spreading—take a sample to a knowledgeable professional to get it identified. Ask that person to recommend a non-chemical solution. Often simple soap and water or a spray of natural seaweed fertilizer will do the trick. And keep working on your lawn. The longer you care for your lawn organically, the more disease-resistant it will become.

Insects and Other Pests. Strong, well-managed lawns aren't very attractive to pests. You may encounter some as you switch over to organic lawn management.

The most common lawn pests you may encounter are grubs. Grubs are the immature form of beetles—such as the ubiquitous Japanese beetle. If you see dead areas of turf where you can lift off the dead part in a sheet, you have grubs eating your grass roots. Your first clue may be moles tunneling around your lawn, feeding on the grubs. Thank them for pointing out your impending grub problem, then send them packing. Mix 2 parts castor oil and 1 part liquid soap in a blender. Add 1 tablespoon of this mix to a watering can, and water the tunneled areas generously. Now deal with the grubs. Grubs can be controlled by drenching the area with a commercial preparation containing parasitic nematodes.



Sod webworms are another common lawn pest. If tufts of dead grass appear in your lawn, birds congregate on your lawn, and lots of little moths are flying about just above the grass, you may have unwanted residents. Mix 3 tablespoons of liquid soap and 1 gallon of water and soak a small section of your lawn with it. If caterpillars appear on the grass in that section, you know you have sod webworms. You can drench the lawn with the soap mixture and hand pick the pests if you have a small lawn. For larger areas, spray the lawn with *Bacillus thuringiensis* (BT), which will sicken and kill the caterpillars.

There are many other insects that munch on lawns occasionally. Try drenching the soil with a soap solution every 10 to 14 days, or apply a commercial preparation of parasitic nematodes. And keep working on your lawn. The longer you care for your lawn organically, the more pest-resistant it will become.