

# Putting Your Lawn to Work

## How to convert your lawn into a thriving, productive garden

So you've decided that that sea of green is taking far too much without giving back? Why not make that open space work for you? Converting your lawn into a garden is much easier than you think and for the time and energy you put into maintaining it, you'll get to see and experience results that are beautiful, rewarding and delicious.

If you grew up in the US, chances are you grew up around a lawn. A holdover from the Medieval manor, the lawn is an icon of American culture. Unfortunately, lawns are remarkably resource demanding, and with the exception of aesthetics and recreation, they don't provide much for the people that maintain them. Americans spend an average of \$6 billion on lawn maintenance each year - this includes mowing, fertilizing, watering and weed management. When you stop to think about it, \$6 billion really isn't all that hard to believe, considering all of the work and resources needed to keep these green islands healthy. This flyer is intended to share the details you should consider when deciding whether to convert some or all of your lawn into garden as well as a number of techniques you can use to get rid of that tenacious, energy and resource demanding grass.

### Step 1 - 'Is my soil safe?'

Before you start to tear out that grass so you can start growing a sea of delicious fruits and vegetables, it's important to make sure that your soil is safe and free of contaminants. Typically, the most dangerous contaminants folks find in city lots include lead, arsenic and asbestos. If you are at all concerned about the safety of your soil, collect a few samples from around the yard and send them to a soil lab to have them tested. Soil tests have the added benefit of informing you about the character and quality of your soil as well as any possible nutrient deficiencies. If it turns out that your soil is contaminated with pollutants, it is still possible to establish a safe garden. Instead, build raised beds and bring in clean topsoil or compost. A raised bed is simply a frame or perimeter wall built out of wood, stone, cement blocks (whatever you can think of) that retains the soil you bring in, keeping it from spilling out. Either way, once you've gotten the results from your soil tests back, you can begin to select and prepare your new garden site.

### Step 2 - 'Where should I put the garden?'

Well, **it depends**. First, make sure that you choose a location that gets plenty of sunlight. Observe your yard at various times of day throughout the growing season - take note of the areas that remain largely shade-free. Because the sun's path is located to our south for the majority of the year, it's best to start by looking at sites south of any large buildings or obstructions. By nestling your garden up against a building or wall, it's possible to make use of localized 'micro-climates'. These areas are noticeably warmer than the surrounding environment due to their site-specific location. If you've ever leaned against a brick wall that's been soaking up the hot summer sun, you've experienced a micro-climate first hand. It's also important to consider the relationship of your garden to your home. If you'll be visiting your garden daily, it makes a lot more sense to site it conveniently close to your house. Check to see where you have access to water - will a hose easily reach?

### Step 3 - 'Get rid of that lawn and prepare your garden'

Here we have a number of choices, some better than others (in my humble o., we've saved the best, **sheet mulching**, for last). Grasses are incredibly persistent, so it will take time and effort to outcompete them. But remember, once you've gained control of your new garden site, you choose which plants grow where. Because we plan to use this grass-free space to grow food (and because it's responsible to avoid poisoning wildlife, children and groundwater with chemicals) we'll be focusing on organic grass removal strategies. Ok, so here goes:

- **Solarizing**. Though not the fastest or most natural technique, covering your garden site with a layer of heavy plastic will act to burn and suffocate the unwanted plants beneath. It will take a full year or more before the grass has been completely killed off, but once it is done, you should have a clean, weed free bed, ready for planting.
- **Tilling** - Aggressive and destructive to soil structure, rototilling will rapidly prepare a new garden bed. It is a very effective way to mechanically incorporate minerals and fertility into depleted soils. Note: certain weedy grass varieties will resprout from root fragments created by tillage, potentially causing a persistent weed problem.

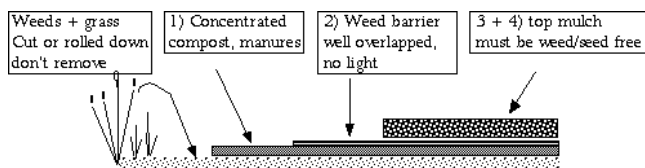
- **Sod Removal** - Though typically very energy intensive, the physical removal of sod from your yard produces immediate results, ready for garden establishment. There are two primary ways you can do this - by hand using a hoe or spade, or by machine with a sod cutter. If you are only converting a small area, it is likely to be more cost-effective to work manually. Use a garden spade or shovel to cut squares of sod, then skim them from the soil's surface, exposing bare soil. This is very hard work but once again yields quick results. Take care not to remove too much soil as it is the soil's upper layers where most of the nutrients and fertility are found. If you have a larger area to work, it may make sense to rent a sod cutter. This is a walk-behind machine that enables the user to set the depth of cut and will quickly and noisily skim beneath grass roots, severing the sod from the soil below. They typically cost around \$50 per day from a machine rental outlet, though without access to a pickup truck it will be difficult to transport it home. After traversing your new garden with the sod cutter, follow behind, rolling up the layers of sod. You can save it to plant in an area where you'd like grass (heaven forbid) or mound it up in a pile, grass side down and allow it to compost for a year or two, after which you'll be left with rich crumbly topsoil you can use to top-dress your garden. This brings us to our final, and in my mind, best, grass removal strategy...

- **Sheet mulching**. Sometimes referred to as 'lasagna gardening', sheet mulching is a garden establishment technique where the gardener lays down multiple layers of organic materials (usually 1'+ thick), choking out the unwanted grass and composting it in place. It also works to feed and cultivate healthy soil life, improve soil structure, reduce weed regrowth and maintain a cool, moist soil bed.

Sheet mulching is less physically demanding than sod removal, and acts to build up soil over time in contrast to tillage which provides a rapid, short-lived burst of fertility to plants. It should be noted though that sheet mulching requires large quantities of organic matter (to mulch 50 ft<sup>2</sup> one foot deep, requires 2 cubic yards of mulch, or about a pickup truck full). The ideal time to begin sheet mulching for spring planting is the previous fall so that the mulch has a chance to begin breaking down, killing the grass below and feeding the life in the soil. There is no 'right' sheet mulch recipe. Rather think of it as more of an concept. Generally, there are four distinct layers used in sheet mulch. Use whatever materials you have access to - be creative and see what's abundant and free.

To begin, mow the existing grass as low as possible. Then thoroughly wet the area with a garden hose or wait for a rain. If the soil is already damp, skip this

step. If you plan to plant any large trees or shrubs, do so before you begin mulching as it is much easier to mulch around them.



- Layer 1 consists of 'Concentrated Compost'. Up to 6" thick, this layer is made up of material that is high in nitrogen and potentially contaminated with weed seeds. This nitrogen boost works to stimulate soil life and jump-start the decomposition process. Manure, yard waste, food scraps all work well. If working with heavy clay soils, use a pitchfork or U-bar to break up and aerate them. This is also the time to add any necessary amendments (dolomite, lime for acid soils, gypsum for heavy clays, etc)
- Layer 2 is the 'Weed Barrier'. 4 to 6 sheets of newspaper (non-glossy), a layer of cardboard, burlap bags, etc. all work well. Overlap sections along seams by at least 6" to prevent weeds from penetrating. Thoroughly wet it down to speed up decomposition and prevent it from being blown away.



- Layer 3 is the 'Compost Layer'. Generally 3-5" thick, use fully-decomposed compost, straw, grass, leaves or any other weed-free organic material.
- Layer 4 is the final 'Top Layer'. Again use a high carbon, weed-free material such as straw, leaves, wood chips, bark or sawdust. This layer will need to be repeatedly renewed as it decomposes.

And finally, you're mulched and ready to garden! Because sheet mulch acts to develop rich, living topsoil, avoid walking on your garden beds - instead create pathways that provide comfortable access. When it comes time to plant into your mulch, create a small hollow, fill it with topsoil and plant your seed or seedling directly into it. If you wish to sow seeds, add a thin layer of compost to the mulch's surface and broadcast seeds onto it. Finally, take care to keep the mulch away from the base of plant stems as mold, slugs and rodents can cause considerable damage to plants and young trees. **Happy gardening!!**