



The Lasting Organic Lawn

Goal – low maintenance, lasting, safe

How? – Strengthen grass and weaken weeds

Introduction

When I began the quest to build our lawn five years ago, I knew nothing but three facts: 1) We had sod that had been laid on top of hard clay and rocks that gave the roots little chance to thrive, 2) Our yard is next to fields of weeds, and 3) I wanted the lawn to be safe for us, our friends, their children and pets.

It became fascinating to understand how God created His world to work together in a gentle balance and how He gave us the privilege to cultivate it. I knew it would take some time to have a healthy lawn and soil that required less effort with each year. Like all lasting results, there would be a learning curve that included time, study, mistakes, frustration, perseverance, and doubt. I am not there yet, but each year has been easier than the last.

My father passed away in January 2012. One thing he taught me (whether we were working alongside each other cleaning up the yard or he was creating in his woodshop) was that consistent diligence and perseverance in the small things would eventually bring the desired results!

Lawn Benefits

- Lawns absorb water reducing storm runoff,
- Improve water quality by filtering rainwater contaminants,
- Cool the yard,
- Provide oxygen to your environment,
- Trap dust and dirt,
- Promote healthful micro-organisms,
- Prevent erosion, and
- Create a restful landscape.

Why Tall Fescue Grass Only?

Tall Fescue has deep roots and is therefore drought tolerant. It is durable, stands at 5 inches (shading weeds), and thrives in sun, shade, and frost. If you have another kind of grass, the following information would still be true.

Soil Nourishment

Since our soil was clay and rock, I had to change the composition of the soil underneath the grass by encouraging microbial activity. I understood that, over a few years, the soil would become healthier making the grass stronger. When I pulled up sections of grass recently as I was edging our beds, I could see that the soil has become much healthier in the last three years with less clay and darker, softer soil.

- Microbes. Microbes are tiny, naturally-occurring, abundant organisms in the soil that provide full service to the grass. Conventional lawn treatments kill their masterful work. Microbes:
 - Decompose dead plant and animal residues to humus
 - Combine nitrogen and carbon to prevent nutrient loss
 - Suppress disease
 - Produce plant growth regulators
 - Develop healthy soil structure that promotes good water penetration and water retention, thereby aerating and nourishing the soil.
 - Clean up chemical residues
 - Balance the soil pH
 - Retrieve nutrients from distant parts of the soil
 - Decompose thatch; however, thatch cannot grow with Tall Fescue grass.
 - Control the nitrogen supply to the grass according its need



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- Earthworms

- Naturally aerate the soil providing drainage and water retention. Their burrows create pores through which oxygen and water can enter and carbon dioxide can leave the soil.
- Earthworms decompose plant matter releasing nutrients locked up in dead plants and animals. This process allows the grass to assimilate the nutrients.
- Earthworms mix soil layers incorporating organic matter into the soil improving soil fertility. This process allows the organic matter to be dispersed through the soil and the nutrients to be held in it.

- Compost can be added on top of the grass every spring and fall as a dressing to add microbial life.

- Organic fertilizers. Chemical, conventional fertilizers weaken resistance to weeds, insects, and diseases, and kill beneficial microbes.

- There are many different fertilizers. I'm going to try Dr. Earth this year. Sweet Peet is a great product to use as a fertilizer or mulch! I LOVE Sweet Peet! You can watch the video on their website.
- Use protein-based fertilizers like corn gluten, alfalfa meal, coffee grounds, soy meal, cottonseed meal, sorghum meal, or whatever you can get inexpensively at the local feed supply store. Corn gluten prevents germinations of weed seeds.
- Leave grass clippings on the lawn for nutrients and organic matter.
- Add compost without wood products in early fall.
- A dusting of lime on the lawn surface can double earthworm production.
- Organic dry fertilizers, such as Espoma, are protein-based and may be applied any time of day in any amount without fear of hurting the turf. Give three weeks for the microbes to process the protein before seeing the benefit.

- Aeration. Split-seeding and microbes (such as worms) aerate the soil.

Watering

- Water infrequently. Unless you are growing new seed, water only when grass shows signs of stress (grass starts to curl before it browns). Water deeply if you have receptive soil (put a cup in the sprinkler zone, water until 1 inch or ½ inch, wait, then another ½ inch). Keeping the surface dry as long as possible forces grass roots to go deeper than most weed roots. The weeds die in the upper dry soil. Tall Fescue grass roots go deep.
- Water early in the morning. Watering in the evening encourages pathogenic fungus disease.

Mowing and Seeding

- Set the mower high (3 to 4 inches) so the grass shades weeds and weed seedlings preventing growth. Cutting grass short forces it to grow fast and uses up stored sugar, weakening it. The grass needs the sugar to make rhizomes (more grass plants) and thicken the turf.
- Mow frequently. Grass grows near the soil; weeds grow near the top, so mowing cuts heads off some weeds. It is hard on the grass to cut more than 1/3 of its height.
- You may need to split-seed each year in the beginning, but the idea is to strengthen the grass that is already there, so eventually you won't need to seed again. If you need to seed (maybe because of a drought or because your lawn is new), seed in the fall, so the young grass has the benefit of lower temperatures and has the winter to root.



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Weeds

- Weeds cannot germinate in thick, tall grass.
- Repeated digging weakens them, but I only dig the weeds out in my flower beds and use organic weed killer on the weeds in the lawn.
- I don't like to dig, so I am now using *Iron X* by *Gardens Alive*. I dilute it and use it in my gallon spray pump. Covering the dandelion leaves with *Iron X* causes the plant to take the solution to its root and die. I have a lot of dandelions, but I have less each year with this organic solution.
- Weeds are better than pesticide.
- Corn gluten kills weed seedlings within days and adds nitrogen to the soil. Don't use it on a windy day. One year, I bought the corn gluten at a feed store. Now, we have a lawn service put it down for us in the spring and fall.
- Spot treat weeds with vinegar or boiling water. Boiling water kills crabgrass. I was glad to hear that crabgrass does not survive cold winters.

Pests and Disease

- Grubs (beetle larvae who eat grass roots) – Use a grub predator, such as Milky Spore (*Bacillus popilliae*), a bacteria that kills grubs and nothing else. I've used Beneficial Nematodes, too. Oakland Nursery in Dublin, Ohio has an organic grub control that you spread 3 times a year for 2 years; the grubs stay away then for 10 years. I have a friend who did this, and it worked.
- Even though some problems cannot be avoided, treating your yard and garden organically will give it the best fight against pests and disease. *Gardens Alive* offers many solutions for pests and disease. They even have pellets that prevent mosquitos from living in your bird bath!

Composting

Composting is the process of turning garden waste and raw vegetable/fruit scraps into a homogeneous matter to feed your garden organically. To properly compost, you need a mixture of **carbon heavy organic matter** (wood, dried leaves, straw, etc.) and **nitrogen heavy organic matter** (grass clippings, veggie/fruit scraps, etc.). Too much **nitrogen** in the compost will be stinky, too much **carbon** in the compost takes a long time. If you get the right mix (which is easy), you get great composting – free nourishment for your lawn and garden!

Family Fun

Growing the lasting organic lawn can be a great way to learn and share tasks as a family!