**Organic Lawn Care FAQ**

**How do I prepare the soil for an organic turf program?** The key to a successful organic lawn program is the soil. It must be alive with wide variety of beneficial microorganisms and bugs. Beneficial microbes both feed and protect the plants from disease-causing microbes. All the organic gardener does is feed the beneficial microbes and let them do their work.

Beneficial microorganisms include bacteria and fungi found in finished compost. There are two ways to get the microbial benefit from compost. The best way to get a complete dose of beneficial microbes is by including finished compost in the soil preparation before laying seed or sod. Preparing the ground right beforehand is preferred to applying after the grass is established. Plans for a new lawn should specify that compost be mixed with the top 4 inches of topsoil, half-and half, when the land is renovated for grass seed or sod planting. This ensures that the microbes will be in the root zone as the grass seed germinates. However, if your lawn is already established and you want to go organic, you can add compost to the lawn as a top dressing. This means physically dropping compost on top of the turf and then sweeping it off the grass plants and onto the soil where the microbes will be washed into the soil. A careful watering of the lawn after the application of compost will hasten this process. Care must be taken to avoid topping with too much compost. See the FAQ below about this technique and recommendations to avoid smothering the existing lawn. Many other issues are important to the success of an organic lawn. Watering, fertilizing, and weeding programs are all vital and the reader is encouraged to study this FAQ regarding each of these topics. Success is also closely related to the choice of grass selected for the lawn. Choice of grass is outside the scope of this FAQ. For more information about soil microbes go to and read everything you can find or search the Internet for "The Soil Biology Primer."

**How Do I Apply Compost To My Lawn?** Spread it around in piles on the lawn with a wheelbarrow. Sling it from the piles onto the grass with a shovel. Then use a push broom to sweep it off the grass blades and down into the turf. Water it in to activate the compost microbes and wash them onto your soil. Apply compost to grass at a rate of no more than 1 cubic yard per 1,000 square feet. This results in a thin layer about 1/3 inch deep when spread out uniformly.

**How do I fertilize organically?** Commercial organic dry fertilizers, such as Ringers, Espoma, Greensense, and Texas Tee, are protein based and must be digested by soil microbes before the nitrogen becomes available to the roots. The ingredients of these commercial fertilizers include ground corn, alfalfa, cottonseed, corn gluten meal, soy, other grains, as well as blood meal and feather meal. Any ground seed or bean is good as an organic fertilizer including used coffee grounds. You can often find these same ingredients in bulk form at farm or feed stores. A good application rate for these grain based fertilizers is 10-20 pounds per 1,000 square feet. Organic fertilizer may be applied any day, any time of day, and at any amount without fear of hurting the turf. Give it 3 weeks for the microbes to process the protein before the benefit is seen in the grass. After 200 years of an NPK mentality toward fertility, university researchers are just now returning to study soil microbes and protein based microbe food. Not much has been published. Try Brown University. Otherwise industry and consumers are leading the way on protein fertilizers. Check out and attra.org (search for alternative soil amendments).

**Where do I get protein fertilizers?** Commercial brands can be found at organic garden supply stores and at some farm and feed stores. The commercial brands might go as high as $30 for a 30-pound bag. A typical retail price for 50 pounds of bulk alfalfa pellets or corn meal is $3-$7 at a farm/feed store. Call around, as prices will vary depending on the availability in your area.

**Won�t the use of all this protein feed encourage vermin and insect pests?**Logically you would think so, but it doesn�t seem to.

**Will chemical fertilizers kill the soil microbes?** It is possible but it shouldn�t unless it is overused. Although it is a salt, it has no sodium in it. Sodium is the culprit in almost all "salt" problems.

**Then what is wrong with chemical fertilizers?** Chemical fertilizers provide an "empty" type of food directly to the plants. This is like the empty calories we get from eating pure refined sugar. Microbes provide full service to the plants. They decompose dead plant and animal residues to humus; combine nitrogen and carbon to prevent nutrient loss; suppress disease; produce plant growth regulators; develop soil structure, tilth, and water penetration/retention; clean up chemical residues; shift soil pH toward neutral; retrieve nutrients from distant parts of the soil; decompose thatch; and control nitrogen supply to the plants according to need. Besides that, if a chemical fertilizer contains NPK of 10-10-10, nobody knows what the 70% of unlisted stuff is in the chemical bag that is not fertilizer.

**How should I water?** Watering should be done in the mornings. Deep but infrequent watering encourages roots to penetrate deeper into the soil. Watering in the evening encourages pathogenic fungus disease so try not to let the grass blades have water on them after dark. Water for one to two hours at a time when you do water.

**When should I add manure?** Never use fresh manure directly on your turf. You may use composted manure, but compost that has many other ingredients makes better compost.

**How often should I use compost on grass?** Many people use compost every year. A highly respected compost manufacturer has only applied it to his own grass twice in 30 years. The answer probably lies somewhere in between. If you have had a flood or a turf disease, you should reapply.

**How do I get started in an organic program?** Getting started is as easy as stopping the use of chemicals. You can easily replenish the microbes with a thin layer of compost. The next thing to do is start using protein-based fertilizers like corn meal, alfalfa meal, coffee grounds, soy meal, cottonseed meal, sorghum meal, or what ever you can get inexpensively at your local feed supply store.

**What is the annual plan?** Spring: Any time before your grass starts to turn lush in the spring, apply a protein-based fertilizer at 10-20 pounds per 1,000 square feet. Water it in when you want to. Summer: Leave it alone. Water in the morning once per week with enough water to get one inch per week in most zones. Fall: About 3 weeks before your grass stops growing, apply a protein-based fertilizer at 20 pounds per 1,000 square feet.

**+++ Possible Problem areas +++**

**How often do I aerate and soften compacted soil?** You shouldn�t have to do any mechanical aerating if you follow an organic program. Soil microbes will till and aerate your soil for you. As your soil develops natural tilth from the microbes digging for you, the soil will become softer and retain more water from each watering.

**How do I get rid of thatch?** Thatch is not a problem in organic lawns. Beneficial soil microbes eat thatch. There is no need to collect grass clippings with the lawn mower and fall leaves can be mulched right back into the turf.

**My lawn is dead. What can I do?** First make sure it is not just dormant. If it is not dormant and you have been watering regularly, you likely have a turf disease or an insect problem. Many lawn diseases are fungus related. If you suspect you have a fungus, the organic solution is to fight the pathogenic fungus with beneficial fungus. The Trichoderma (try-ko-DER-ma) fungus eats the pathogenic fungi. Trichoderma grows especially well on whole ground corn meal. Apply corn meal at 10-20 pounds per 1,000 square feet. A thin layer of compost will help replenish the beneficial microbes which may have been killed off by the disease microbes. The other possibility is you have insect damage. Grubs or grub worms are the larvae of various beetles including the June bug. When you see beetles flying around your lights at night, it�s time to spray beneficial nematodes on the turf. Beneficial nematodes are parasites for insect larvae. See more later in this FAQ. Two good references for further information can be found at the Texas A&M University at Stephenville (search for Peanut Disease and Nematode Control Recommendations) and look for the T-22 Seed Treatment at . University of Florida has info on beneficial nematodes.

**Is this the same corn meal I can get at the grocery store?** Yes it is. You can get it much cheaper at a farm/feed store in 50-pound bags.

**My grass is alive but turns yellow in the middle of summer. Do I need to add nitrogen or iron?** Some grasses need nitrogen more often than others. If you used protein in the spring, you might need a second or third dose of organic fertilizer. If that doesn�t help, you might need iron. Glauconite, packaged as greensand, will likely turn your lawn green again. When applied at 40 pounds per 1,000 square feet, it seems to keep grass green when other lawns turn yellow. The iron from greensand is not immediately available to plants, so once again you have to wait for the microbes to process it. This takes a week or two.

**How do I get rid of grubs (ants, fire ants, chiggers, fleas, ticks)?** Beneficial nematodes are parasites for the all the pests listed. They come on a sponge which is wrung out into a bucket of water. The water is then sprayed on the lawn. For more info on beneficial nematodes, look at the University of Connecticut, University of Florida, Washington State University, Oklahoma State University, Cornell University, Texas A&M University, and many other university websites and search for beneficial nematodes.

**Should I have my soil tested first?** You can certainly have your soil tested. Ask them to check for organic materials and microbe species counts. Most soil tests focus on pH and the amount of chemical fertilizer residue there is immediately available for the plants.

**My soil is too alkaline (acid). What should I do?** If you are using an organic program, in many cases nothing needs to be done. No matter which side of neutral your soil is on, soil microbial action tends to move the pH to neutral near 7.0.

**How do I control weeds?** Mow as high as your grass will allow you at maximum density to shade out weeds and weed seeds. Water deeply and infrequently to encourage deeper rooted grasses. Mow weeds off or hand pick. Never let weeds go to seed. For spot treatment or for small areas of pure weeds, many people have reported great success with 20% vinegar sprayed as a foliar spray, not a soil drench. Vinegar can be found at organic garden shops and feed stores. To a gallon of vinegar, mix a tablespoon of liquid dish soap and two tablespoons of molasses as wetting agents. Apply full strength from a hand sprayer. Be careful not to get any spray on you or in your eyes or inhale it. The smell will go away in 15 minutes. 20% vinegar will be the most hazardous thing you use in organic gardening. You can find more info about vinegar as an herbicide at usda.gov and search for vinegar.

**Is there an organic preemergent?** There is an organic fertilizer that acts like a preemergent seed controller. That product is corn gluten meal (CGM). This is not the same as corn meal - different products work different ways. Do not use CGM if you are reseeding or trying to grow grass from seed. The only problem with CGM is the cost in most parts of the country. Prices range from $3 - $40 for a 50-pound sack depending on where you live. Apply at 10-40 pounds per 1,000 square feet. For more info go to and search for corn gluten meal.

**I won’t go organic because compost piles (or bags of compost) stink.** Compost piles never smell bad if they are properly managed. For more on compost, read the FAQ under the Soils and Compost Forum on GardenWeb.

**Does organic fertilizer stink?** No it does not. Fresh manure stinks, but manure is not supposed to be used directly on anything. Anything that stinks should be composted for several months or until it stops stinking.

**Does compost carry disease?** No. Aerobic composting with a good heat cycle kills off the disease causing microbes in the compost. If compost smells sour, rotten, rancid, or bad in any way, it is not finished cooking. Fluff it up to let more air in and let it sit for another few weeks. Read more about disease suppression at .

**I�ve used compost every year for years but my neighbor�s lawn is always greener. What�s wrong?** Compost is not a very good fertilizer. Compost is a soil amendment used primarily to bring beneficial soil microbes to your soil. If you want a thick, green turf grass, you need to add protein to feed the soil microbes. The microbes, in turn, will feed the grass.

**How much does organic gardening cost?** I heard it is very expensive. Following a full organic program should cost less than a chemical program. The first application of compost can be expensive, but it is important to look at the big picture. Protein fertilizer costs about the same per square foot as chemical fertilizer. The reason the organic program is less expensive is the fact that you won’t need expensive herbicides, pesticides, or fungicides.

**Can I put too much compost on?** It is possible and happens to people who get bad advice about applying compost and manure. Unfortunately you can easily smother many grasses by putting too much compost on. That is why the recommended rate is 1 cubic yard of compost for every 1,000 square feet. This will result in application of 1/3 inch of compost if spread out uniformly - a very thin layer.

**Can I put too much organic fertilizer on?** This cannot happen unless you use enough to smother the grass. The soil microbes must eat protein fertilizer before the grass gets any benefit. With an organic program, nothing goes to waste and nothing is washed away.

**Is there an organic weed and feed?** Not really and we are thankful for that. Chemical weed and feed products are not very well designed. Refer back to the question about the preemergent for information about corn gluten meal.

(This FAQ was written by one of our GardenWeb members: David Hall from San Antonio, TX aka Dchall\_San\_Antonio)