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The Organic Yard
Making the Transition from Conventional Gardening

What is organic gardening? Ask ten people and you're likely to hear ten different answers, but the best answer we've found to date is that the organic gardener focuses on natural, healthier, and sustainable gardening for the region in which they live, with an emphasis on preventing problems before they arise.

- **Natural Gardening** - Plant well-adapted, lower maintenance, or native plants whenever possible. Plants you use don't have to be FROM here, but they need to do well here without heroic measures being taken.
- **Healthier Gardening** - Conventional pesticides and herbicides, properly used, are little hazard to your family's health. But wouldn't you rather have no hazard, instead of little? Most landscape problems will respond perfectly well to organic gardening techniques that use no harmful materials.
- **Sustainable Gardening** - Learn how plants thrive in nature, and copy those successes. Many of these processes are self-sustaining and will continue to improve your soil and landscape even after you're no longer aggressively supporting them.
- **Preventive Gardening** - Most of the serious problems homeowners run into in the landscape are preventable! The smart organic gardener "fixes" problems by never having them occur. Learn how to plan ahead when installing and maintaining your plants and you'll be ahead of the game! A lot of preventive gardening lies in knowing what not to do, when not to treat, what not to plant, where not to plant it - as well as simply feeding and maintaining your plants properly to keep them in their best health.

Beginning the Transition

The first and most important step in beginning an organic maintenance program lies in changing your mindset as to what the perfect yard IS. Most of us have this idea, from the movies, TV, gardening magazines, and so on, that the perfect yard is:

- The lawn is emerald green, without a single weed or bug as far as the eye can see
- Shrub rows pruned to perfection in geometric shapes
- Trees that look like identical lollipops - perfectly symmetrical
- Blooming, all the time, 365 days a year

We have some pretty good know-how these days, so if you're willing to spend an enormous amount of money and time on it, you can indeed approach these results - on the surface. When the time comes though, that you miss a fertilization, or a bug spraying, or city water restrictions go into effect, or a new pest or disease moves into the area, this ideal landscape can be badly damaged - because the plants are all that's still alive anywhere in the yard! The soils are heavy with salts from lots of chemical fertilizers, the plants have been watered so often that they'll drought stress without heroic watering in the summertime, and the beneficial soil micro-life that would normally boost the immune systems of your plants and help them resist drought stress are non-existent.

Let's talk about what a beautiful organic maintenance yard looks like:

- The lawn is a nice green color, but it's not so emerald green that it is noticeable from orbit. It looks very nice, may once in a while have a weed here or there (easily pulled or spot sprayed with 20% vinegar to remove them if they're annoying). The lawn tends to stay this nice healthy green even when we're getting dunked by rain, baked by drought, or your neighbors' lawns are getting torn up by bugs or disease.
- Trees and shrubs planted in attractive groupings or rows that show the natural, desirable forms of the plants - shrubs that don't need to be whacked at constantly to stay the size you wished them to be, and look like the plant is supposed to look like, instead of something from a geometry book. Modest pruning keeps these plants looking their best. Did I mention, these trees and shrubs are rarely seriously damaged by pests or drought?
- Beautiful flowering plants in season, whether it be annuals for constant color or perennial beds that give a succession of gorgeous flowers in nature's own cycle. "Spent" perennials in these beds are often trimmed back, but they're not dead or ugly - just waiting for the next beautiful blooming cycle.
- A healthy biosphere - a yard filled with life, bugs, bacteria, fungi and plants working in harmony by nature's own processes.

Evaluation of Your Existing Yard

Carefully look at every planting in your yard. Which plantings seem to be "bullet-proof", and which seem to need constant spraying, pruning, or some other maintenance task constantly to keep them looking nice? If a plant needs constant maintenance of this sort, it's probably one of the following:

- The WRONG plant! Some plants just aren't meant for our climate, and need constant T.L.C. Decide if the extra maintenance is worth it, and either remove the plant or resolve to spend the time and maintenance to keep it looking sharp.
- In the WRONG place! Many plants that seem to "always get bugs" or "are always sick" do just fine in our area, but they may be planted where they receive too much or not enough sun, or they are getting sprayed constantly by the sprinkler, etc. If it is a desirable plant, transplant it during the dormant season to a better area, or remove it.
- The WRONG maintenance! Some plants get sick because of the things we do <u>to</u> them. (Chopping back crape myrtle is a fine example of the WRONG maintenance.) Sometimes the answer is to do less, not more! Make sure any maintenance you're doing is needed, and the right thing to do.

Take the time to go over these points for each planting in your yard, and act accordingly. Plants will <u>show</u> you when they're not happy, or if something isn't right. If a plant performs poorly in your yard, it's not usually a matter of if one of these points is pertinent, just which one - or more.

It's All About the Soil

Organic fertilization techniques are not as much about directly feeding your plants, but about feeding the soil your plants are growing in so that your soil will then support your plantings. Most organic fertilizers have much lower numeric percentages of N-P-K than conventional fertilizers do. The microbial activity of an organically-maintained soil make their nutrients much more available to plants, increasing the percentage of their usage to such an extent that they're comparable to conventional fertilizers in their effect. An illustrative example - try filling a bucket ten feet from a river two ways - one with a big metal colander with small holes, and the other a normal drinking glass. If you're fast, both can fill the bucket, but one makes a mess and gets everything wet! Organic fertilizers also have very low salt contents which do not interfere with soil microbial activity.

Here are a few basic products that should be used with any organic program:

- **Molasses** - This is the #1, most important product to begin any organic program with. It's a 1-0-1

fertilizer by itself, but the most important reason to use molasses is that it directly stimulates soil microbial activity with its unrefined sugars and those microbes moving and living in your soil will change the very structure of your clay soil in many beneficial ways.

- **Lava Sand** - Lava sand will cut and hold clay soils open, but it'd take literally tons to make a real dent in the clay around here. The main reason to use lava sand lies in its exchange capacity, meaning that lava sand holds on to plant nutrients when they're available and releases those nutrients when plant roots demand them. It's good stuff.
- **Greensand** - This is a mined mineral deposit containing a range of organic-approach friendly micronutrients, particularly iron. Good for greening plants with iron deficiencies, and for the general health of your soil.
- **Compost, Expanded Shale, and Mulch** - Nothing livens up your soil like a nice layer of compost, and mulch all of your planting beds. Both compost and mulch break down over time and add organic material to your soil, which then feeds the small life within the soil. Blend all new beds up with at least a 2" layer of compost and another 2" of expanded shale, a pH neutral stone which will ensure excellent long-term drainage and helps mitigate extreme drought conditions. Top dress with compost or mulch regularly in established beds.
- **Organic Fertilizers** - These come in a bunch of different brands and nutrient bases, but for general use on the lawn and yard, use one that has between 4% to 6% nitrogen. It is nice to change which fertilizer you use from time to time as these fertilizers have different trace minerals depending on their base. Milorganite is excellent to begin your organic transition with.

Living Things Are Great

Most folks' first reaction to seeing a bug is, "Eww! SQUASH IT!" That's fine in the house (although it's kinder to shoo a spider outside than to kill it, they're the good guys), but when this philosophy is applied to the outdoor landscape, it's likely to do more harm than good. Here's why you probably should ignore minor pest populations on your outdoor plants unless they become noticeably damaging or out of hand.

Plant pest species are food for other, predatory insects! General-purpose insecticides kill almost every insect, good and bad, upon which they are sprayed. When these populations begin to recover, pest insects generally breed much more quickly than predatory species do, and in extreme cases (such as aphids), *can multiply their populations by a factor of a hundred* in the space of seven to eight days with unlimited supplies of food (your yard's plants) and no natural predators (because you killed them with that spray). The "good guys" will eventually recover, or come from yards near your own, but a serious price could be paid by your plants first, before the slower-breeding predatory insects catch back up and can control pests to a useful extent again. This means if you spray bug-killer, you have to spray, and spray, and spray - it seems to never end!

The organic maintenance program doesn't mind treating troublesome insect problems when it becomes necessary, but use the product with the least "collateral damage" impact which will serve the purpose, and really understand, deep down - it's often more productive to ignore minor insect problems that aren't causing noticeable damage to prevent serious damage later. The "good guys", such as praying mantis, ladybugs, spiders, many species of wasps, and the like will usually take care of these issues if left alone to do so. If your yard has low populations of beneficial insects, release some, and encourage them to live and breed in your yard. It's less work, absolutely non-toxic and more effective for most minor problems.

How Do I Weed?

Herbicides are among the most overused conventional lawn products in the country. Properly used conventional herbicides have a relatively low impact, but the movie-style image of the 100% weed-free lawn

has led to an absolute explosion of overuse of herbicides, most especially that most pernicious of things, the "Weed and Feed" fertilizer. Don't fry your soil by doing this! It's easy to prevent the vast majority of the weeds which will try to sprout in your yard through proper lawn maintenance and by using organic herbicides. Follow the steps outlined below:

- **Mow At The Proper Height** - Over-tall and cut-too-short lawns are weak lawns, which can't compete with weeds properly. Generally speaking, you wish to take off no more than a third of the green leafy growth from your lawn at each mowing. A third or less does not significantly stress your grass roots, but more will. The best mowing height for common Bermuda is 1.5" tall, and cut the lawn when it reaches no more than 2.25" tall. The best mowing height for St. Augustine is 2" tall, and should be cut when it reaches 3" tall.
- **Feed Properly and Aerate** - Heavy soil compaction really interferes with root growth. Mechanically core aerate your lawn every year or two, and feed your lawn molasses, lava sand, and greensand to balance micronutrient needs and stimulate the soil. Supplement with organic lawn fertilizer every few months.
- **Use Corn Gluten Meal** - Apply corn gluten meal at the rate of a 40# bag per 2000 sq. ft. every mid-February, early May and early September to prevent most weed seeds from sprouting. Heavy rainfalls shortly after application can weaken this protection; re-apply if the rains are heavy within the first few days it is down. Corn gluten meal is also an excellent 9-0-0 organic fertilizer!
- **Reuse Grass Clippings** – When you mow as often as you should, grass clippings will be smaller and compost easily within the turf if you just leave them where they lie. These clippings provide nutrition to the soil as they break down. The only mowing of the entire year which should be bagged is the first, clean-up mowing of the year to remove dry and crunchy grass from last season. Ideally these clippings will be put on your compost pile instead of thrown in the garbage.

As a last note on this subject, every patch of bare soil on your property should be covered by a mulch, groundcover, or lawn. Weeds don't sprout in a well mulched bed very well, nor in healthy, thick lawns and groundcovers. Save yourself a lot of work later - mulching is easy to do and it's good for your soil, too.

How to Kill Bugs That Need Killing

There comes a time for everyone when an insect infestation or a disease needs to be treated to preserve your plantings, even in the healthiest organic yard. Here are a few high points and most recommended products for the purpose:

- There's nothing wrong with removing a plant that's been severely damaged and infested. If it's gotten to this point, it's probably violated one of the "Evaluate Your Yard" points above. If it hasn't, or is in pretty good shape if you clean up the problem, then use the lowest impact product which will do the job.
- **Thuricide** - One of the safest insecticides around, this biological killer will kill every sort of caterpillar - and only caterpillars! Great on cabbages in the garden, herbs, flowering vines, etc. which are subject to caterpillar damage. Good for bagworms too, if applied while actively feeding in May and June.
- **Diatomaceous Earth** - Kills all sorts of crawling insects, safe around kids and pets (don't rub in eyes), non-harmful to pets even if some is eaten.
- **Orange Oil** - Made from orange peels. Dilute to 2 tbsp/gallon with water as a sprayable insecticide, 2 oz./gallon with 4 oz./gallon liquid molasses as a soil drench to kill troublesome ant mounds. Also nice as an air freshener for smelly areas.
- **ferti-lome Triple Action** - Containing Neem oil from the Neem tree, this multi-purpose product kills small sucking insects and also controls powdery mildew. Organic, natural, and very low toxicity.

- **ferti-lome Borer, Bagworm, and Caterpillar Spray** - Contains spinosad, a natural product from two different types of soil bacteria, this material kills caterpillars, beetles, and spider mites and is very low toxicity, very low impact to predatory insect species and vertebrates (us, pets, kids...).

A few notes: non-toxic doesn't mean it's good to eat or drink, just that it's perfectly fine when applied to instructions. Soap isn't good to eat, but most of us who garden use a whole lot of it! Similarly, "organic" certainly does not mean "non-toxic". Most of us who garden organically think of "organic" to mean "safe". This is not always the case. Organic *gardening* is about using safe or very low toxicity materials, and those are the ones we've recommended here. Always do a little research before using a new "organic" product to make sure that their "organic" also means "non-toxic" or "safe"!

Organic Yards Don't Curl Up and Die In Drought Conditions

Organic maintenance has a nice side effect - since you're working primarily on your soil and root system with every product you use and most maintenance tasks you perform, your root systems are much stronger than those grown under a conventional maintenance program. Beneficial mycorrhizal fungi will colonize your root systems and greatly extend the effective surface area of your roots (inoculate your soil with these fungi with our Happy Frog line of fertilizers). Organic fertilizers produce slower, smaller-celled and dense growth of your foliage above-ground, with thicker cell walls, more durable and harder to desiccate than the over-lush surge growth caused by conventional fertilizers.

Combine these points with the normal organic maintenance of thick mulching, and the average plant in your yard will be a superstar in drought years compared to conventionally maintained plantings.

Organic Yards Are More Disease Resistant

Healthy organic soils teem with bacteria - several of which provide natural anti-biotics to plant roots, boosting their disease resistances. Organically grown plants have smaller cell sizes with thicker cell walls that resist fungal infections better. If you've ever had a severe turf disease, you've seen seemingly unstoppable damage in your lawn - the organic lawn rarely sees this happen.

Summary

The organic yard is about working with nature, not against it. The organic yard is about lowering needed maintenance, using safer materials to treat diseases and pest problems, and feeding the soil. The result and goal of an organic program is a yard filled with healthy and beautiful plants that rarely need much intervention to remain that way. If this interests you, we'd recommend the organic program to you.