



# Ecological Gardens LLC

Designing Sustainable Plant Communities-

Summer 2007 Newsletter

*“Good design does not begin with what we can do, but rather with questions about what we really want to do.”*

-David Orr

Greetings! We hope this summer has been a time for observation, learning and enjoyment in your garden. Here at Ecological Gardens we have learned a great deal as we work to rebuild the connections between plants, soil organisms, animals and humans. In this newsletter we will:

- Introduce you to our new partner, Lawns-R-Us
- Share some lessons from the summer
- Call for winter designs
- Include our favorite soil-building plant
- Share upcoming projects and goals

## **New Partner – Lawns-R-Us:**

This summer we are working with Morgan Lloyd and Craig Stackhouse from Lawns-R-Us. This partnership has allowed us to do larger and more frequent projects. Lawns-R-Us uses a low compaction bobcat on our earthworks projects and helps us install appropriate irrigation systems, designed specifically for each site. They have worked closely with us on many projects and have become a solid partner - <http://www.lawnsareus.com/>.

## **Summer lessons:**

*“If we understand instead that humans are seamlessly connected, are kin, to the natural world, then we might act in more caring ways toward the earth and all its inhabitants.”*

-Kathleen Dean Moore, *Pine Island Paradox*

We see our business as creating productive and healthy ecosystems. This means rebuilding healthy connections between plants, soils, animals, and humans. Each site is unique and the mix of strategies in the ecological restoration process will vary but there are a set of inter-related problems that need to be solved.

All plants need adequate water to build deep roots especially during the establishment phase. With climate change we no longer get gentle rains on a regular basis. Instead we have been experiencing long periods of drought interspersed with short torrential downpours. High-end “Cadillac” watering systems exist with moisture sensors that deliver precise amounts of water to each plant when needed but these systems have a high price tag. The challenge becomes: How can we design an effective system that our customers’ can afford? Our designs try to accomplish this by using a variety of strategies:

- Selecting plants that can tolerate a range of conditions;
- Planting a diversity species mix so each season some plants will flourish;
- Using techniques to slow water down and increase its infiltration rate; and
- Adding appropriately-scaled watering systems.

Many of the soils we have worked with this summer have been severely compacted and some have construction fill buried 2-3” below the surface. An easy way to see if your soil is compacted is to dig a hole and fill it with water. If the water does not drain in a few minutes then you either have heavy clay soil or very compacted soil. At Ecological Gardens we use a tool called a penetrometer to test compaction. The penetrometer simulates root growth and shows us how far the roots will be able to penetrate the soil. Our goal is to reduce compaction enough to jump-start the rebuilding process. We use a number of techniques to do this:

- Breaking the initial compaction by using augers, broadforks, tillers, water, compost, and mulch;
- Spreading compost to increase the soil’s organic matter, improve its ability to infiltrate and hold water, and provide food for soil organisms; and
- Applying compost tea. Compost tea supplies the soil with the organisms that play the leading role in eliminating compaction.

Most soil has some weed seed and when optimal conditions exist there will be a flush of weeds. Many open niches exist immediately after planting when the plants are still small. In the short-term groundcovers such as mulch, paper, and cardboard can be used to minimize weed problems. In the long-term, niches will be filled as plants grow and soil organisms will shift the ecology to favor non-weedy plants.

### **Tips for Dealing with Deer and Rabbits in Edible Landscapes**

Animals need food and water so when you plant an oasis in the midst of a desert you are certain to attract the wildlife you want and some you may not want. So what strategies can you use to make sure your food needs are met and you continue to have a productive and beautiful landscape?

First, provide water. Rabbits and squirrels often dig for moisture. This is especially true in periods of drought. You can meet their needs by setting pans of water in the garden.

Second, provide their favorite food. Initially you may need to use fences or commercial repellents such as Liquid Fence but the long-term goal should be a mix of strategies.

These may include:

- Overplant. Plant more than you need for yourself.
- Plant pest-repellent plants such as garlic, chives, and daffodils.
- Plant sacrificial areas such as lettuce patches for rabbits and fast growing trees or edible hedges along deer paths.
- Plant species that provide a physical barrier such as brambles or a living fence that grows is thorny.

This way you lay a foundation for a harmonious rather than a contentious relationship with animals.

## Call for Winter Designs

Every year we get an influx of calls and interest in the spring, just as the trees are starting to bud and the plants turn green. We find ourselves inundated with wonderful and challenging projects, and usually more than we can handle. This is a reminder we can design during the winter! In fact, we can spend more time on each design. If you are planning landscape changes for next season, contact us this fall or winter.



### Our Favorite Soil Building Plant Switchgrass *Panicum virgatum*

**Height:** 36-60 inches

**Sun:** Full sun, Partial shade

**Soil Moisture:** Wet, Moderate

**Minimum Root Depth:** 100 inches

**Functions:** Domestic Animal Forage, Wildlife Habitat, Reclamator, Soil Builder, Soil Cultivator, and Erosion Control

**Spread:** 12-18 inches

**Soil Type:** Sandy, Loamy, Silty Clay

**Root Type:** Fibrous Deep

## Upcoming Projects and Goals:

We find ourselves at a critical time in the history of our planet. We are beginning to see the real impacts of climate change each day. Fortunately people are educating themselves about what they can do and Ecological Gardens is proud to be part of that effort. This spring we introduced several new products to help mitigate the impacts of climate change. They include a variety of “carbon capture” gardens to increase carbon sequestration and edible gardens to increase local food production. We planted many this summer and hope to greatly expand these gardens next year.

We are also broadening our work with businesses, non-profits, and institutions. We are excited about these possibilities and would love if you would share our name with your favorite local green business, church, or non-profit. Challenge these organizations to act on their beliefs and increase the ecological integrity of the land that surrounds their buildings and offices.

## Some of our current projects include:

**Live Green, Live Smart.** Live Green, Live Smart is building “The Sustainable House” in Minnetonka to be the nation’s first remodel to achieve LEED’s Platinum certification – the highest level of efficient design. We will be working with them on a landscape design that will include permaculture gardens. For more information, visit <http://www.livegreenlivesmart.org>.

**Putting Green and Fresh Start Farm.** Putting Green is an environmental park in New Ulm, Minnesota. They are starting a new business, Fresh Start Farm that will provide fresh, local organic food to the New Ulm community. The Farm is being developed using the sustainable triple bottom line goals of economics, environment, and

community. We are working with them on a design and production plan. For more information, visit <http://www.puttinggreen.org>.

**Institute for Agriculture and Trade Policy.** IATP is a nonprofit that promotes resilient family farms, rural communities and ecosystems around the world through research and education, science and technology, and advocacy. We will be working with them on a renewable energy demonstration garden. For more information, visit <http://www.iatp.org>

**We could use your help in designing more plant communities.**

- Are you interested in fighting climate change in the shape of a garden?
- Are there problems in your landscape that you would like to have a plant community designed for?

Send any suggestions or ideas to: [info@ecologicalgardens.com](mailto:info@ecologicalgardens.com)

**Enjoy the Summer!!**

---

For information on upcoming events:

[http://www.ecologicalgardens.com/upcoming\\_events.cfm](http://www.ecologicalgardens.com/upcoming_events.cfm)

If you do not wish to receive this newsletter, please email [paula@ecologicalgardens.com](mailto:paula@ecologicalgardens.com) with the word remove in the subject line.

Ecological Gardens LLC

Certified Permaculture Designers



4105 Washburn Ave. North  
Minneapolis, MN 55412  
Office 612.588.3942 Cell: 612.998.1712  
[www.ecologicalgardens.com](http://www.ecologicalgardens.com)  
Email: [info@ecologicalgardens.com](mailto:info@ecologicalgardens.com)

