



Maryland Green Registry MEMBER

The Maryland Green Registry promotes and recognizes sustainable practices at organizations of all types and sizes. Members agree to share at least five environmental practices and one measurable result while striving to continually improve their environmental performance.

Emory Knoll Farms, Inc.

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Wholesale Nursery for Green Roof Plants

Member since January 2010

Management and Leadership

Environmental Policy Statement

<http://www.greenroofplants.com/about/sustainability/>

Environmental Team

Our business was founded on the premise of being sustainable and having minimal environmental impact. The owners, Ed Snodgrass and John Shepley, are actively involved in all business decisions. We follow the “Natural Step” (www.naturalstep.org) framework to guide environmental decisions.

John Shepley is a co-founder of the Baltimore Biodiesel Cooperative (www.baltimorebiodiesel.org), former board member of Baltimore Green Week, now Baltimore Green Works (www.Baltimoregreenworks.com), and Chairman of the Chesapeake Sustainable Business Alliance (www.csballiance.org).

Annual Environmental Goals

Goals accomplished in 2010:

- *Completed transition to 100% renewable electricity*
- *Became one of the first 5 Maryland Benefit Corporations (www.bcorporation.net) on October 1, 2010.*
- *Completed installation of a vernal pond to provide habitat for native and migratory fauna.*
- *Began a multi-year project to eliminate invasive plants and re-populate the 100+ acres of our nursery with native plants.*

- *Launched our national delivery program where we partner with other nurseries that allow us to deliver plants to approximately 90% of the use population areas from within the 500-mile requirement specified by LEED. This saves significantly on the environmental impact as compared to delivering from our headquarters in Maryland.*

Environmentally Preferable Products and Services

We provide plants for green roofs, which have a positive impact on the environment in terms of stormwater quality and quantity. Our plants are on approximately 4½ million square feet (over 100 acres) of rooftop across the US. Assuming annual rainfall of 40" and average retention of 50%, then green roofs with our plants on them retain about 4½ million cubic Feet of storm water annually, relieving pressure on water treatment plants and other 'downstream' storm water mitigation solutions.

Environmentally Preferable Purchasing

We purchase feeder materials made of re-used and recycled materials whenever possible. We use Biocomp, which is primarily made of composted pine bark, needles, and peanut hulls, for planting material.

We also use local sources for materials whenever possible. Our boxes are procured locally, made from recycled material, and are marked to encourage recycling. We use a local supplier, Atlantic Biofuels, which collects oil from area restaurants. This waste vegetable provides 100% of the heat for our greenhouses. We also use eBay, Craig's List, and other sources for locally available materials. We purchase computers and peripherals from the Dell outlet, which sells refurbished items.

It is Emory Knoll Farms' policy to consider local merchants before purchasing from chain businesses or mail-order businesses.

Environmental Restoration or Community Environmental Projects

We are attempting to reduce our overall footprint on the land by re-establishing native flora and fauna, eradicating invasive plant species and devoting 40 acres to reforestation. We received Conservation Reserve Program ([CREP](#)) & Wildlife Habitat Improvement Program ([WHIP](#)) grants to eliminate invasive native plants and to restore habitat on the unused property here at our nursery.

We also host area and regional school groups, including Harford Friends School and others.

Waste

Solid Waste Reduction

We reuse nursery trays, boxes, and packaging materials whenever possible. All of our product information is available solely on the Internet to reduce paper, printing and mailing. Since this is the way we've done business since the company's inception there are no 'savings' metrics available, but it is fair to consider that we avoid many tons of paper, annually.

Recycling

Items not appropriate for reuse are recycled. We recycle all paper products, paper boxes, bottles and cans (glass, plastic, metal). We have found a recycler for our plug trays and encourage customers to return the trays to us for recycling.

All organic materials, including plants, cuttings, and potting mix, are composted.

Hazardous Waste/Toxic Use Reduction

Our nursery uses Integrated Pest Management (IPM) and we have an IPM plan on file with the Maryland Department of Agriculture. We use no lethal pesticides, except where they are required by Maryland or US law.

Energy

Energy Efficiency

We have installed compact fluorescent and high efficiency lighting; purchased Energy Star equipment whenever possible; set computers to power saving modes; and use heat only in propagation houses to protect tender plants.

Since we incorporated in 2004, we have measured our electricity usage. A good measure of our efficiency is to compare the growth in electric usage to the growth of the company overall. Comparing the annual revenue to the total annual electric usage is one way to look at this:

<u>Year</u>	<u>Total Electric Use (KWH)</u>	<u>Energy Efficiency Revenue / Annual KWH</u>
2004	20,525	0.093
2005	23,326	0.077
2006	20,491	0.037

2007	18,889	0.027
2008	25,394	0.033
2009	28,145	0.037
2010	25,911	0.032

Therefore, we have become much more energy efficient. The company has grown nearly 400% in terms of revenue while electricity consumption has grown only about 27%.

Renewable Energy

Emory Knoll Farms has the following renewable energy systems on site:

- o a 1200 grid-intertied photovoltaic system,*
- o a 350,000 BTU/hr waste oil boiler that burns waste vegetable oil (the waste vegetable oil offsets approximately 8,000 gallons of heating oil annually),*
- o high efficiency hydronic root-zone greenhouse heat,*
- o two solar water wells, and*
- o a solar water pressure pump.*

The annual cost savings of these systems amounts to approximately \$16,000 to \$20,000.

We also purchase wind power renewable energy credits for 100% of our electricity consumption.

Transportation

Employee Commute

Employees are encouraged to drive economical vehicles. One fringe benefit we offer is a company provided auto for employees' use. Vehicles in this program are selected for dual business and personal use, and efficient autos (such as VW Turbo-diesels) are selected. We also offer local housing for summer interns and other employees, which reduces commute distances.

Efficient Business Travel

Whenever possible, conference calls are used instead of personal travel.

Fleet Vehicles

We use fuel-efficient vehicles for trips and deliveries. One vehicle is a VW Jetta Diesel, the other is a GMC Suburban diesel that has been converted to burn waste vegetable oil.

In 2010 we began using biodiesel, when possible, in delivery vehicles. We purchased approximately 250 gallons of B20 from Baltimore Biodiesel.

Water

Water Conservation

Our nursery water is limited by storage tanks to 5,200 gallons/day. This forces us to conserve water in order to stay within that limit. We use covered houses in the winter, shade cloth in the summer, and manual water plants where needed to conserve water.

In 2010 we replaced approximately 7,500 square feet of open, outdoor laydown area for our plants with shaded framing, which will further decrease water consumption, while increasing production capacity.

Stormwater Management and Site Design

We use less than 5 acres of a 140 farm. The remainder of the land is in a habitat restoration program. All farm roads are unpaved.

In 2010, we completed installation of two vernal (seasonal) ponds that collect and store rainwater and dry out during drier seasons. These ponds provide rainwater retention and habitat for native flora and fauna.

Green Building

While we do not have LEED ratings on any of our own buildings, our offices, storage, and workspaces are situated in a 60-year-old former dairy barn that has been converted for the use of the nursery. We have made extensive use of renewable, reclaimed, and recycled building materials, including:

- Homasote wall board (made from recycled newsprint)
- Bamboo and linoleum flooring

- *Sustainably harvested wood*
- *Used (recycled) office furniture*

Other



In accordance with the Maryland Benefit Corporation statute, we provide an annual report of our sustainability initiatives that is based on an independent, third-party standard. In 2010, we used the assessment instrument provided by B-Labs. Our 2010 annual reports are at

<http://www.greenroofplants.com/about/sustainability/annual-reports/>

Profile Updated April 2011



Maryland

Help build a greener, more sustainable Maryland through voluntary practices that reduce environmental impacts and save money.

Learn more at www.green.maryland.gov/registry

