



# How This Greenhouse Grows

In Connecticut, we are fortunate to have abundant and high-quality water supplies. Increased demand, competing uses and effects associated with the changing climate have potential impacts on these resources. Agriculture is heavily dependent on water resources. Geremia Greenhouses, in Wallingford, recognized these issues and is making changes to its business practices to save money, protect the environment *and* prepare for potential water shortages.



*Geremia Greenhouses uses flooding floors and a drip irrigation system to conserve and reuse water.*

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Joe Geremia, a third-generation farmer, grows vegetables, herbs and ornamental plants that are primarily distributed to local businesses. He is an industry leader in employing water-use technologies that have many advantages over conventional greenhouse systems. Conventional greenhouse irrigation uses overhead watering systems that apply excessive amounts of water and nutrients to ensure that plants are fully saturated. The overhead method can leach up to 75% of nutrients from a potted plant, which can increase the plant's susceptibility to disease and pests. Unhealthy plants may need more pesticides and the runoff, which contains excess nutrients and pesticides, can negatively impact the environment and may subject the grower to increased regulation.

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# How This Greenhouse Grows

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Geremia Greenhouses uses an irrigation system that delivers the correct amount of water and nutrients directly to the plants by flooding the floor or bench where the plants grow. The water is pumped up through openings in the floor or bench and then quickly drained and filtered for future irrigation. The benches and floors are divided into sections that can be individually controlled by a computer, with feedback from water gauges for watering time, duration and nutrient mixture for each species. With this innovative irrigation system, Geremia Greenhouses uses substantially less water and pesticides and has seen a 60% savings in fertilizer. Joe Geremia says the plants are healthier and produce better blooms and fruit. The result — a win for the business, workers, environment and consumer!

For more information about water-saving measures in Connecticut agriculture, contact the Connecticut Agricultural Experiment Station ([www.ct.gov/caes](http://www.ct.gov/caes)), the Connecticut Cooperative Extension System ([www.extension.uconn.edu](http://www.extension.uconn.edu)), or the United States Department of Agriculture Natural Resources Conservation Service ([www.ct.nrcs.usda.gov](http://www.ct.nrcs.usda.gov)). For more information on climate change, see [www.ctclimatechange.com](http://www.ctclimatechange.com).

## Chemical Jeopardy: What is Formaldehyde?



**Many of us think of formaldehyde as the strong smelling chemical we've encountered in school science labs, but there are numerous other ways that we are exposed to it. Formaldehyde is a colorless gas that is found in many things — from the clothing we wear and the building materials we use in our homes to cigarette smoke and emissions from fuel-burning appliances.**

Some of the most common sources of formaldehyde are pressed wood products, such as plywood and particle board which are used to make kitchen cabinets and countertops, shelves, furniture, wall paneling and wallboard. Formaldehyde is used in glues and adhesives, to kill germs, or as a preservative. It can be found in latex paint, new carpets, paper products, fertilizer, and even in permanent-press fabrics and cosmetics. We are exposed to it when these products off-gas and we breathe air containing formaldehyde gas, or through skin contact.

Breathing air containing formaldehyde can cause watery eyes, burning sensations in the eyes, nose and throat, headache, coughing and wheezing, chest tightness, and difficulty breathing. Skin rashes and allergic reactions have also occurred from any solution containing formaldehyde or fabric or clothing that contains it. The U.S. EPA has classified formaldehyde as a probable human carcinogen (cancer causing agent).

Because formaldehyde gives off a pungent odor, you can help to avoid exposure by paying attention to your nose. If you smell it, ventilate the area by opening windows and doors. You can also lower your exposure by:

- Purchasing products that do not contain formaldehyde (for example, using wood panel and insulation products that are not made with urea-formaldehyde glues, or purchasing lumber or metal products instead).
- Checking for the American National Standards Institute (ANSI) coding that identifies lower-emissions products (i.e., particleboard - ANSI A208.1-1993, hardwood plywood - ANSI/HVPA HP-1-1994).
- Sealing unfinished pressed-wood surfaces to lower the amount of chemical being off-gassed.

*Continued*

- Purchasing solid-wood furniture and cabinets or those that contain a high percentage of surfaces and edges that are laminated or coated. Uncoated panels will generally emit more formaldehyde than those that are coated.
- When possible, remove products that have a strong formaldehyde smell and store them elsewhere, e.g., an outdoor storage shed, until the off-gassing has occurred.
- Do not smoke; do not use unvented heaters indoors.
- If you purchase wrinkle-free clothing or drapes, wash them before use and hang them outside to air out.

For additional information:

Uses of formaldehyde in building materials and household product from U.S. EPA:

[www.epa.gov/iaq/formalde.html](http://www.epa.gov/iaq/formalde.html)

U.S. Consumer Product Safety Commission information on household products containing formaldehyde: [www.cpsc.gov](http://www.cpsc.gov)

OSHA information about occupational exposure limits: [www.osha.gov](http://www.osha.gov)

## Say It With Greener Flowers!

**Mother's Day, weddings, proms and graduations are right around the corner and most likely those celebrations will include cut flowers. Or maybe you just can't resist picking up a bright bouquet of flowers from the grocery store for your home. What could be more "natural" than buying fresh flowers? You might be surprised to learn that most cut flowers have a large environmental impact!**

Did you ever wonder why we can buy carnations, roses and exotic blooms any time of the year? It's the same reason that we can buy pineapples in Connecticut! Those flowers that you are presenting to your loved one most likely have traveled thousands of miles, using a tremendous amount of energy.



*Connecticut grown flowers at a farmers market*

A whopping 70% of the cut flowers sold in the U.S. come from Columbia, South America, and their journey from seed to sale is not so pretty. The seeds are most likely imported from the Netherlands and the flowers are grown using pesticides, fungicides and large amounts of water, too. (Growing a single rose can require as much as 3 gallons of water!)

But the environmental problems don't stop with production. To keep those blooms as fresh as a daisy after cutting, they are stored in warehouses that are cooled to 34 degrees Fahrenheit and then packed in boxes infused with chilled air to ensure they are fresh on arrival. The boxes are wrapped in plastic, loaded on to refrigerated trucks and then air freighted to the U.S. — and then more travel to get to a retailer and to you.

But who wants to give up getting or receiving flowers? As a consumer you have "flower power" to make more environmentally preferable choices!

- **Buy local flowers** from farmers markets or farm stands, or, for real freshness, find a "pick your own" location. Check Connecticut Dept. of Agriculture, [www.ct.gov/doag](http://www.ct.gov/doag) for a listing.

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## Say It With Greener Flowers!

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- **Find locally grown roses and lilies for a cause** (Roses for Autism) at Pinchbeck's Rose Farm, 929 Boston Post Road, Guilford, CT, 203-453-2186, [www.rosesforautism.com](http://www.rosesforautism.com).
- **Buy organic flowers.** One source is Organic Bouquet ([www.organicbouquet.com](http://www.organicbouquet.com)). They are available locally at Trader Joe's and Whole Foods.
- Ask florists if they carry flowers with the **Florverde label**, [www.florverde.org/](http://www.florverde.org/). This is an independent, eco-certification designed to promote growers who want to switch to organic and sustainable agriculture and have better working conditions.
- Look for bouquets from **Jardines de Los Andes** and **Nature's Flowers**. They received the Stratospheric Ozone Protection Award ([www.epa.gov/ozone/awards/](http://www.epa.gov/ozone/awards/)) in 2007 from U.S. EPA for safe environmental practices. Bouquets will have a sticker indicating the award.
- **Grow your own native flowers!**  
[www.ct-botanical-society.org/garden/](http://www.ct-botanical-society.org/garden/)

Tips for keeping cut flowers fresh —  
[www.care2.com/greenliving/how-to-keep-your-cut-flowers-fresh.html](http://www.care2.com/greenliving/how-to-keep-your-cut-flowers-fresh.html)



## What's **NEW** in P2?

### Connecticut Grown Is Expanding to Forest Products

Thanks to the *Connecticut Grown* program, it's easy for shoppers to spot local produce, dairy products, meats and other foods. The CT Department of Agriculture (DOAG) began using the now familiar blue and green logo in 1986 to identify and market foods grown in the state. DEP has been working with DOAG and Connecticut's forest products businesses on an expansion of the program to include

products made from wood harvested from Connecticut forests. So keep your eye out in coming years for the *Connecticut Grown* logo when selecting goods such as lumber, furniture, flooring, bark mulch and even witch hazel!



### Maintaining Turfgrass without Pesticides

Connecticut DEP teamed up with the University of Connecticut's Plant Science and Landscape Architecture Department and CT NOFA (Northeast Organic Farming Association) to develop fact sheets for private and public school officials, day care managers, and municipal land care employees. Public Act 09-56 banned lawn care pesticide application as of July 1, 2010 on the grounds of day care centers, elementary and middle schools. The fact sheets answer questions on the pesticide ban and provide guidance on how to maintain quality turfgrass without the use of pesticides. To download them, go to [www.ct.gov/dep/P2](http://www.ct.gov/dep/P2).

## Rain Garden Workshop

Connecticut DEP, along with U.S. Environmental Protection Agency, City of Hartford, UConn's NEMO project (Nonpoint Education for Municipal Officials), Rutgers University and the Hartford Neighborhood Environmental Partnership sponsored a short course in rain gardens. Rain gardens are planted areas designed and built to decrease stormwater run-off and recharge groundwater. An enthusiastic group of landscapers, garden club members and watershed activists gathered at Hartford's Classical Magnet School for the two-day program. Participants learned about design and maintenance and built a garden in an eroded heavily-trafficked area next to the school bus stop. This new rain garden will help protect the nearby Park River.

Now that it's spring, the rain garden is getting a workout — including absorbing several feet of snow from our long winter. To download *A Resident's Guide to Rain Gardens* go to [www.ct.gov/dep/watershed](http://www.ct.gov/dep/watershed).



## Earth Day Video Wins Telly Award

DEP's documentary *Earth Day 40: Connecticut's Environment, Past, Present and Future* has captured a Telly, a national award for outstanding video, and film productions. The video, produced with Middlesex Community College, encourages people to become involved and is a good reference for anyone who is interested in the history of the environmental movement in Connecticut. To view the video, go to [www.ct.gov/dep/earthday](http://www.ct.gov/dep/earthday) (closed-captioning is available).

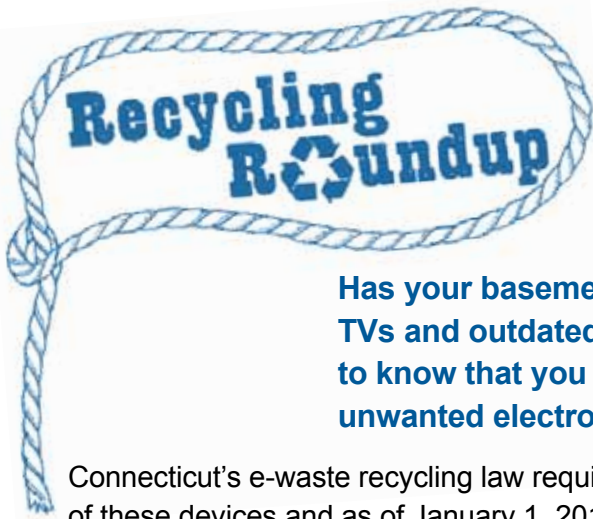
## Green Drinks – Meet Others Who Care About Green

Do you have an interest in environmental issues and want to socialize with like-minded people? Then Green Drinks might be for you. According to Deb Lombard, founder of the New Haven Green Drinks group (NHGD), the best thing about the group's events is that they are non-commercial and casual. The New Haven group is celebrating its third anniversary with its 40th event.

"I started NHGD in September 2007 to bring everybody interested in environmental issues in greater New Haven and in Connecticut together to find out what other are doing in that regard so we can strengthen our efforts. And I wanted to do that in a casual, non-commercial atmosphere," said Deb Lombard. As the group's popularity continues to grow, several other Green Drinks groups have formed around the state. There are currently eleven city-based Connecticut Green Drinks groups which meet regularly. There's something about the format that appeals to a large number of people.

Find a complete listing of meetings at [www.greendrinks.org](http://www.greendrinks.org) — search for USA and then Connecticut. There is also a county-based group in Middlesex County named "Meet Your Greens," [www.rockfallfoundation.org](http://www.rockfallfoundation.org).





# Do You Have E-Waste?

Has your basement or garage become the final resting place for broken TVs and outdated computers and printers? If so, you will be pleased to know that you can free up that space by more easily recycling those unwanted electronics (also known as e-waste).

Connecticut's e-waste recycling law requires that manufacturers of certain electronics finance the recycling of these devices and as of January 1, 2011, residents can no longer put these items in the trash. Towns must set up a free program for residents using a DEP-approved recycler. In addition, retailers are required to inform their customers about electronics recycling options and can only sell products from manufacturers that have registered with DEP. To find recycling locations, go to [www.ct.gov/dep/e-waste](http://www.ct.gov/dep/e-waste).

## Drop In, Opt Out



If you are of a certain age, you no doubt have seen many things that were once a part of your daily life go the way of the horse and buggy. (Remember cassette tapes, typewriter ribbons and computer disks?) If enough people participate in a new opt-out program, telephone book yellow pages might be in that same category.

It's not that people don't use yellow page information anymore, they just "let their fingers do the walking" in different ways now. More and more, those big yellow books are being replaced by internet searches and phone apps.

So why waste money and resources, by printing and delivering books people don't want or need? That's why as of this year, the Yellow Pages Association and the Association of Directory Publishers are giving consumers the option to select which yellow page directories they receive, or to stop getting them at all. If those directories are collecting dust in your home or office, you may want to "just say no" to yellow. Here's how:

- Log into the National Yellow Pages Consumer Choice and Opt-Out site ([www.yellowpagesoptout.com](http://www.yellowpagesoptout.com)). You will be asked to enter contact and address information.
- Once you enter that information, an URL and password will be sent to you via e-mail right away.
- Click on the URL and enter your password. You will see images of all the directories from many publishers available to you in your specific zip code.
- Pick and choose which directories you want to receive or cancel delivery of all of them.
- The publishers save money, consumers are not deluged with books they don't want, and fewer of our natural resources are wasted in production, distribution and disposal. A win for everyone!

Make sure to recycle the directories you no longer need. Many town recycling contracts allow for phone books to be recycled with other paper. Check with your **town's recycling coordinator** to be sure.



# Ask Eartha

*I have been reading your newsletter for several years and have learned a lot, however there is one basic thing that still puzzles me a bit. What exactly is P2 anyway?*

John B., Vernon, CT

**P2 =  
Pollution  
Prevention**

P2 is simply a shortcut for the term “pollution prevention.” Pollution is the contamination of air, soil, or water by the discharge of harmful substances. Pollution *prevention* is the reduction or elimination of pollution at the source — instead of at the end-of-the-pipe or stack. Many of us have always thought the term a bit awkward, but nonetheless, it has been widely used in the bureaucratic world since the passage of the federal Pollution Prevention Act in 1990.

For 20 years before that, environmental protection was focused on pollution control—cleaning up the pollution after it occurred, rather than on preventing it in the first place. By reducing the use and production of hazardous substances, by using materials, water, and energy more efficiently, we protect human health, strengthen our economic well-being, and preserve the environment.

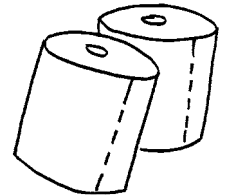
Now that the technical definition has been laid out, let’s go over what pollution prevention means in your everyday life and how you

can put it into practice at your workplace or at home. P2 can be as simple as not letting the water run while you brush your teeth, turning off the computer when you are not using it, or drying your clothes on the line instead of using the dryer. If you run a business it can mean promoting mass transit or biking to your employees, using CFLs or LEDs instead of incandescent lights, installing programmable thermostats, and buying ENERGY STAR appliances.

Over the years, you’ve probably read articles about these actions in *P2 View* and already practice them. As a consumer you can also help change the marketplace by the choices you make at the store. Shoppers can help push manufacturers to create products that are less toxic, use less energy, are made from recycled content and reduce waste. It is now commonplace to go down the supermarket cleaning aisle and see green cleaning products for the kitchen and bathroom rather than the toxic products that once dominated the shelves. Major brands like Clorox and Colgate-Palmolive have responded to consumer demand.



Another example is a new toilet paper product, **Scott Naturals Tube-Free** that is now available in some warehouse and big-box stores in the northeast. In addition to having recycled content, this toilet paper is wound in such a way so that it doesn’t need the cardboard tube. Not only is cardboard waste eliminated but one can use every last piece of toilet paper since the last few sheets are not glued on to the roll. The company estimates that cardboard toilet paper rolls account for 160 million pounds of trash each year.



I hope this clears up any confusion you have over P2 and that you will think creatively — at home, at work and using your purchasing power — about how you can prevent pollution. And, keep reading the *P2 View* for new ideas, opportunities and products to prevent pollution.

For more P2 actions — visit “Individuals and Families” and “Home and Garden” at [www.ct.gov/dep/P2](http://www.ct.gov/dep/P2)

For more on P2, check out [www.epa.gov/p2](http://www.epa.gov/p2) and [www.p2.org](http://www.p2.org)

Eartha answers selected environmental questions. Email your question to [judith.prill@ct.gov](mailto:judith.prill@ct.gov) and watch future issues for your answer.

# P 2 C A L E N D A R

## A SELECTION OF ENVIRONMENTAL EVENTS

Check out **Earth Day Events**  
being held throughout Connecticut at  
[www.ct.gov/dep/earthday](http://www.ct.gov/dep/earthday)

### **Sale of Rain Barrels and Compost Bins** *City of Middletown*

Rain barrels and compost bins must be pre-ordered by Friday, April 22. Pick up is on Saturday, April 30 at Middletown Water Department, in conjunction with the Earth Day shredding event. Kim O'Rourke at 860-344-3526 or [kim.orourke@cityofmiddletown.com](mailto:kim.orourke@cityofmiddletown.com)

### **Saturday, April 16** **Earth Day Celebration**

*Smart Living Center, Orange*

Fun and learning, including Rainforest Reptiles, face painting, and Bash the Trash workshops (reservations required), as well as presentations by energy industry leaders. 203-799-0460

### **Monday, April 18**

### **A Look at Urban Tree Canopy Cover Assessments** *DEP Headquarters, Hartford*

The value of urban forests to livable cities, stormwater and climate. Pilot projects underway in Hartford and New Haven will be reviewed. FREE. [www.ct.gov/dep/calendar](http://www.ct.gov/dep/calendar)

### **Tuesday, April 19**

### **Grow Your Own... Organically**

*Kellogg Environmental Center, Derby, CT*

Learn how to grow delicious organic vegetables! Starting a garden, building healthy soil, planning for a long harvest season and organic pest management. [www.ct.gov/dep/calendar](http://www.ct.gov/dep/calendar)

### **Saturday, April 23** **Earth Day 2011**

*Pratt Nature Center, New Milford*

Free fun-filled day of conservation, workshops, reptile presentations, interactive sculpture, gardening, composting, nature/history walks and the Earth Day Challenge. [www.prattcenter.org](http://www.prattcenter.org)

### **Wednesday, April 27**

### **Alternative Energy Vehicles** *UBS Headquarters, Stamford*

Sponsored by SoundWaters and UBS. The present and future of fuel efficient and alternative fuel vehicles. View the collection of electric, hydrogen, natural gas cars and more. [soundbusiness@soundwaters.org](mailto:soundbusiness@soundwaters.org) or 203-406-3336.

### **Saturday, April 30**

### **National Prescription Drug Take-Back Day** *Various locations throughout CT*

Safely dispose of unwanted medications, sponsored by the Federal Drug Enforcement Administration (DEA). Sites listed at [www.deadiversion.usdoj.gov/drug\\_disposal/takeback/index.html](http://www.deadiversion.usdoj.gov/drug_disposal/takeback/index.html)

### **Saturday, April 30**

### **Trash-o-saurus' 16th Birthday Party** *The Garbage Museum, Stratford*

Celebrate with recycled crafts, museum tours, movies, and refreshments! [www.crra.org](http://www.crra.org) or 203-381-9571.

### **May is National Bike Month**

Check out CT events at [www.connbikes.org/events](http://www.connbikes.org/events)

### **Saturday, May 14**

### **PACE Solar House Tour, Killingworth**

This house uses geothermal heating and cooling, unique passive and active solar systems, and an extremely energy-efficient building envelope. Tickets: [www.pace-cleanenergy.org](http://www.pace-cleanenergy.org)

### **Saturday, May 15 – Thursday, May 19** **DECON '11**

*Various locations in New Haven*

National conference on deconstruction, building materials reuse, and construction and demolition (C&D) debris recycling to be held at various locations, including Yale University and Gateway Community College. [www.bmra.org/about-bmra/newsupdates/239-decon-11-in-new-haven](http://www.bmra.org/about-bmra/newsupdates/239-decon-11-in-new-haven)

Spring has sprung! Get going on those cleaning tasks with help from DEP's webpages on **alternatives to toxic cleaning products** for every room in your house.



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Daniel C. Esty, Commissioner

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**Please consider the environment before printing out this newsletter.**