

SPECIAL POINTS OF INTEREST:

- This month's *Eco-Office* highlights some green tips for spring.
- Upcoming Sustainability Committee meetings in Lowell: 4/16, 5/21, 6/18
- March 20: First Day of Spring!
- May 25: Memorial Day!

INSIDE THIS ISSUE:

- Footprint, Meet Foodprint 1
- Basic Bicycle Safety for the Intrepid Commuter 1
- Making Strawberry Planters Out of Old Planters 3
- Spring Sweets 4
- From the Chair: Nature's Design — Biomimicry as a Problem Solver 5
- Let's Get Pumped for Eco-Commuting Week! 6

Footprint, Meet Foodprint By Myra Lawyer

Keeping it local, when it comes to food purchases, can help to reduce a person's carbon footprint.

Most folks have heard of the expression "eat local, think global." To stock your fridge with local food, there are several options to be aware of.

Shopping directly on the farm where food is produced is a great way to get acquainted with the source of your food. Many farms have taken a direct marketing approach by providing an on-farm store, stocked with products grown on their farm or a nearby farm. Most have Facebook pages that keep customers current on what is in stock

and hours of operation, which tend to vary based on activities on the farm. This communication method is a huge boost for customer satisfaction by eliminating wasted trips to the farm.

Another popular option for obtaining local food are the farmers markets. When you support farmers markets, most of the produce and products for sale are grown less than 100 miles from your house. By asking the vendor where they farm and



Photo credit: goodhousekeeping.com

learning about what they grow or if they bring products from other farms, you will be more informed about the food purchases you make. Farmers markets tend to have limited hours of operation to accommodate the seasonal schedules of farmers and to help

Continued on Page 2

Basic Bicycle Safety for the Intrepid Commuter By Clair Ryan



Photo credit: exchange.aaa.com

I have regularly ridden a bike since I was four years old and used one as my main mode of transportation in both college and grad school. And yet the thought of riding my bike to work here in Massachusetts gives me anxiety. I'm not sure if it's the constant traffic, the narrow roads, the potholes, or just me getting older and feeling less than invincible, but I've been nervous to try it. Riding

Continued on Page 2

Photo credit: www.cartoonstock.com

keep food fresh. A quick search on the internet for farmers markets in your zip code finds the directions and hours of operation. Bring your own sturdy bags and prepare to walk a bit, as some of the best markets have limited parking space.

If you do most of your shopping at a traditional supermarket, look for locally produced items. You can find information on what they carry from local farms by checking out their website. This example of [Hannaford's](#) website is one I found and there are many more.

The benefit to the community and the environment is an important relationship: the food doesn't have to be trucked from far away, the supermarket advertises the local farm in a place where more people shop, and it relieves the farmer from having to find a market for any surplus produce, thereby reducing food waste. Now you might think there are no local products in the grocery store other than produce, but supermarkets stock locally made products like salsa, locally roasted coffee, maple syrup, and all kinds of dairy items, to name a few. Some stores are designating whole

aisles to locally produced products. A colleague sent me [this cool website](#) to find out where milk is from. If there is something grown locally that you would like to see in the supermarket, ask the manager to try to get it into the store.

One of the newest trends in food shopping comes in the form of local deliveries of groceries. Select food retailers let you download a shopping list and place an order for same day delivery (not widely available on the East coast... yet!). It is a trend gaining popularity, especially during the growing season when a CSA (consumer supported agriculture) will pick and deliver your produce all within the same day. Now *that's* fresh, local



Photo credit: nonabrooklyn.com

food. Whatever the method you use to shop for food, I encourage you to find a local supplier and ask them about the ways they use to reduce our food's carbon footprint. Many farms will avail themselves of a new tool to measure their carbon footprint, known as [COMET](#). To find out more about reducing your own carbon footprint, please visit the [Shrink That Footprint website](#). To follow what's happening in the food system, be sure to check out [USDA's blog](#).



a bike in traffic will never be risk-free, but I've been bucking up my courage by reviewing bike safety. Here's what I found:

Gear: It doesn't matter if your bike is a road bike, mountain bike, BMX, or fixed gear, or if it's old or new. What does matter is that it is in good working order, which means brakes capable of making a rapid emergency stop, well-inflated tires, saddle and handlebars adjusted for your body, and a full set of reflectors. The next essential item is a helmet. Groan, I know. Bike helmets don't look cool

and they mess up your hair. However, I've witnessed first-hand a bike helmet save someone from serious injury when he went through a windshield head-first. Protect your melon! A well-fitting helmet should fasten securely under the chin, should not wobble, and the front rim should fall about two finger widths above the eyebrows. A rear facing mirror mounted on the left handlebar is also a good idea for anyone who rides in traffic regularly.

Continued on Page 3

Riding any time of day, it's a good idea to wear bright colors. Luckily, most athletic apparel manufacturers are happy to oblige. Finally, if riding at dawn, twilight, or at night, it is important to have both a front and back light. The front light should be a lamp, either mounted to the bike or to the rider's helmet, and the back light should be a red flasher. There are other items available like bells and reflective armbands: anything that will make a biker easier to see or hear on the road is a good investment.

Behavior: As much as we might like to change the behavior of motorists, that doesn't mean we should avoid doing our part. The key to riding a bike on the street is to follow the rules for motor vehicles. Bikes should ride in the roadway, either in the bike lane (if it exists) or in the right most portion of the right most traveling lane. Cyclists generally shouldn't ride on the sidewalk, and certainly shouldn't switch between the road and sidewalk at a whim. All rules of the road and road signs should be followed, including stopping at all red lights and stop signs, using turn lanes, and yielding to pedestrians at crosswalks.

Signals: When making any changes in direction or speed, it's important for cyclists to alert nearby drivers to their intention in advance. To make a left

turn, a cyclist should look over the left shoulder and hold the left arm out at shoulder height (picture 1). When any same-direction traffic is clear, the cyclist should pull the bike into the left

lane while still giving the hand signal. When opposite direction traffic has cleared, the cyclist can complete their turn. Making a right turn is much easier, (no traffic to clear), but there are two allowable hand signals for going right. The official signal of the Universal Vehicle Code is made with the left arm bent 90 degrees at the elbow with the hand above the elbow (picture 2), but drivers also readily recognize the right arm out parallel to the road (picture 3). Finally, the sign for slowing and stopping is with the left hand below the elbow, and arm either somewhat bent at the elbow or straight (picture 4). Use this signal when stopping due to a road hazard, bike malfunction, or any other reason that may be unknown to motorists.

Words of Wisdom: A cyclist's sight and hearing are his or her best lines of defense against accidents on the road. Wear sunglasses on days when

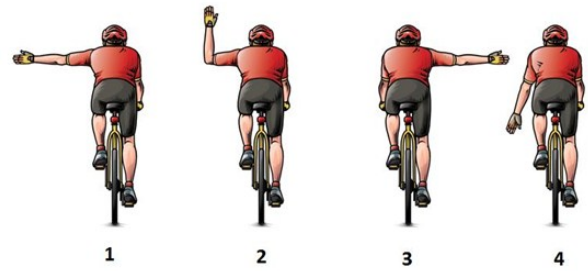


Photo credit: blog.rightturn.com

glare is likely to be an issue, and as annoying as road noise might be, it's far safer to be able to hear the traffic moving around you than it is to zone out with headphones on. My final piece of safety advice for cyclists is simply this: when in doubt, slow down or stop. Even when a driver blatantly cuts in front of you, it's better to be wronged but safe than stubbornly right and hurt. For the truly savvy cyclist who would like to learn the most common car/bike incidents and how to best avoid them, check out Michael Bluejay's "[Ten Ways Not to Get Hit.](#)" Hopefully it goes without saying, but when part-time cyclists are driving, they should drive like the motorists they wish existed! That means pulling out to give cyclists space, understanding hand signals, looking for bikes before pulling out of side streets and parking spaces, and never startling cyclists by honking or yelling. Ride on, my friends!

Making Strawberry Planters Out of Old Pallets By Jaclyn Harrison

For complete instructions and photo credits, please visit [Lovely Greens.](#)



Step 1

Choose a pallet that is in good condition and has not been chemically treated.

Step 2

Cut the pallet into 3 equal pieces and trim off the excess wood (do not discard the extra wood).



Continued on Page 4

**Step 3**

Stand the two end pieces onto the middle section and screw the pieces together from the bottom.

Step 4

Separate the extra wood from Step 2 into individual blocks and planks. Use the planks to create the sides and the blocks for feet.

Step 5

Plant your strawberries by working your way up. Fill the bottom with a layer of dirt and compost and then place your strawberry plants in the bottom slats. Repeat until your planter is full. Feel free to use straw to help with soil erosion.



Spring Sweets By Susy King

Long time readers of Eco-Office may recall that my seasonal recipes often feature rhubarb, and while I'm normally a rhubarb purist, in this issue I'm sharing a recipe that includes its common pair, strawberries. These two early crops are often ready for harvest at the same time and complement each other as the sweetness of the berries balances rhubarb's tart flavor. This recipe is a good choice for spring, not only because it can be made with locally-grown foods, but also because as desserts go, it is relatively low in sugar and fat, and high in fiber. You might even eat it for breakfast!

Strawberry Rhubarb Crisp Bars

Slightly Adapted from Smitten Kitchen

- 1 cup rolled oats
- 3/4 cup plus up to 2 tablespoons extra all-purpose flour
- 1/2 cup light brown sugar
- Heaped 1/4 teaspoon table salt
- 6 tablespoons unsalted butter, melted
- 1 teaspoon cornstarch
- 1 tablespoon lemon juice
- 1 tablespoon granulated sugar, divided
- 1 cup small-diced rhubarb (from about 1 1/2 medium stalks)
- 1 cup small-diced strawberries

1. Heat oven to 375 degrees F. Line bottom and two sides of 8-by-8-inch square baking pan with parchment paper.
2. Place oats, 3/4 cup flour, brown sugar, and salt in bottom of baking pan and mix. Pour melted butter over, and stir until clumps form. If the clumps feel soft or look overly damp, add the remaining 2 tablespoons flour. Set aside 1/2 cup of the crumble mixture. Press the rest of the crumb mixture evenly in the bottom of the pan.
3. Spread half the fruit over the crust. Sprinkle it evenly with cornstarch, then lemon juice, and 1/2 tablespoon of granulated sugar. Spread remaining fruit over this, and top with second 1/2 tablespoon sugar. Scatter reserved crumbs over fruit and bake bars for 30 to 40 minutes (firmer fruits will take longer), until fruit is bubbly and crisp portion is golden and smells toasty and amazing.
4. Let cool in pan; If you put them in the fridge, they will become crisp once chilled (less so at room temperature). Store leftovers in fridge.



Photo credit: smittenkitchen.com



From the Chair: Nature's Design — Biomimicry as a Problem Solver

By Dan Peckham

Faced with a complex problem, my initial response is to open a browser window and consult my oracle, Google. On a broader level, though, my first instinct alludes to a critical source of solutions to problems: someone out there has probably already encountered something similar,

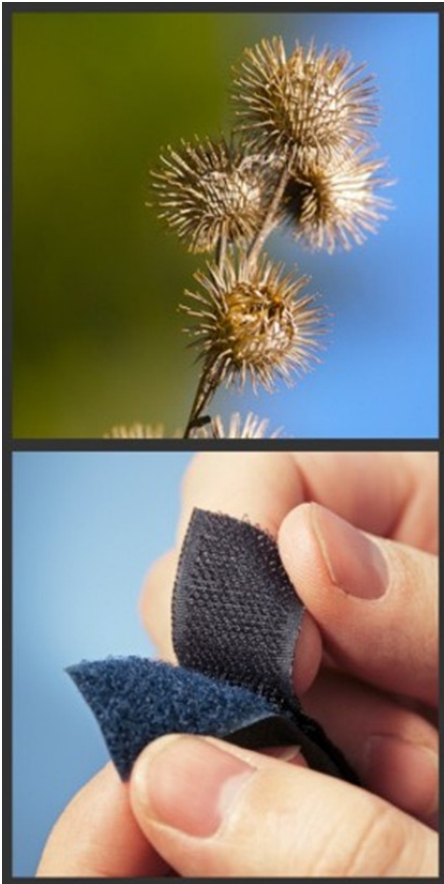


Photo credit: media.mnn.com

and has come up with a way to address it. It is amazing how much can be learned by tapping the collective power of human ingenuity.

But what about nature's resourcefulness? Millions upon millions of trial and error experiments have been conducted in the natural world by species ranging from amoebas to zucchini. Over the course of their evolution, species have developed extremely elegant solutions to problems presented by their environment, and so far, the knowledge to be gained by studying nature's designs remains largely untapped.

Cue the entrance for the emerging field of **Biomimicry**. A cohort of inventors and designers has dedicated its efforts toward seeking sustainable solutions to human challenges by emulating nature's time-tested patterns and strategies. Some historical and recent highlights of biomimicry include:

Flying: Long before the term biomimicry existed, keen inventors were studying the natural world for inspiration. Leonardo da Vinci and the Wright Brothers both learned lessons from studying the flight of birds while attempting to help humans reach new heights via aircraft.

Sticking: Have you ever wondered how Velcro was first invented? You've probably noticed its natural predecessor sticking to your leg after a hike. The multiple hooks of burrs were its inspiration.



Photo credit: treehugger.com

Distributing: There is actually a mathematical formula to represent the branching system of veins and arteries in their efficient delivery of nutrients and oxygen to all of the cells in our bodies. Interestingly, this same formula holds true for the water transport system in many plants: it is simply an extremely efficient way to transport liquids. Green building designers are looking for ways to incorporate these efficiencies into their blueprints when planning plumbing and electricity distribution.

Cooling: An entire Lake Erie's worth of water is wasted each year producing food that never reaches the consumer, much of this waste due to inadequate cooling of harvested crops. Based on an evaporative process used by bees to keep hives cooled, a team [designed a \\$6 cooler](#) to keep harvested food fresh and

Continued on Page 6

ready for market.

Packaging: Although avoiding single-use plastic water bottles completely would be an ideal end goal, anything that can be done to reduce their environmental impact is a step in the right direction. Based on the spiral growth pattern of alpine trees, Vitalis derived a solution: their bottle, the world's lightest, is just as structurally sound as competitors. The new design reduces total raw material used in production by 7%, enabling sav-

ings of 250 tons of raw material per year.

This is but a taste of the innovations of biomimicry – far more examples can be found at AskNature.org (see the *Collections* section under *Features*), the educational flagship project of the [Biomimicry Institute](http://BiomimicryInstitute.org). Designers and inventors around the world are taking up the mantle of eco-friendly design. I, for one, can't wait to see what they think up next.



Photo credit: biomimicry.org

Let's get pumped for *Eco-Commuting Week!*



Photo credit: detroitcommuterchallenge.com

This spring, we invite you to “think outside the car” for NEIWPC’s first Eco-Commuting Week! During the week of May 4-8, if you walk, bicycle, carpool, or take public transportation part of the way or all of the way to work and send us photo from your journey, we’ll enter you into a drawing for a (small) prize. Here in Lowell, Wednesday May 6 will be bike-to-work day; we’ll be coordinating one or two group rides for that morning and asking for volunteers to bring in tasty treats for an office-wide breakfast. Wherever you are, look out for details by email, because when it comes to fossil fuels not burned and climate change gases not emitted, every little bit helps.

Submit an article for our June summer issue!

NEIWPC staff at the Lowell office started putting together the Eco-Office Bulletin newsletter in September 2012 as a way for the sustainability committee to update the rest of the office on their activities, as well as to share news and tips on sustainable practices at the office and home. Distribution was expanded to include all NEIWPC employees in December 2012, and we are pleased that recent articles have come from staff in both Lowell and beyond. For future issues, we welcome article submissions from all employees. Please contact [Dan Peckham](mailto:Dan.Peckham@neiwpc.org) if you are interested in contributing.

Design: [Monica Kacprzyk](http://Monica.Kacprzyk.com)



650 Suffolk Street, Suite 410,
Lowell, MA 01854
Phone: 978-323-7929
Fax: 978-323-7919
E-mail: mail@neiwpc.org
<http://www.NEIWPCC.org>

Established by an Act of Congress in 1947, the New England Interstate Water Pollution Control Commission is a not-for-profit interstate agency that employs a variety of strategies to meet the water-related needs of our member states—Connecticut, Maine, Massachusetts, New Hampshire, New York, Rhode Island, and Vermont. We serve and assist our states by:

- Coordinating forums and events that encourage cooperation among the states
- Developing resources that foster progress on water and wastewater issues
- Representing the region in matters of federal policy
- Training environmental professionals
- Initiating and overseeing scientific research
- Educating the public
- Providing overall leadership in water management and protection