

# New Canaan Conservation Commission Electronic Newsletter



Spring/Summer 2015

## Catch the Buzz

Spring is here, and this issue is bursting with earth- and wallet-friendly tips that will inform and inspire the reader to make the most of our hard-earned season! Town was *buzzing* on Earth Day with this year's theme, "Give Bees a Chance." The rapid decline of bees and other pollinators threatens ecosystems, the food supply, and our economy, as bees pollinate *every third bite* of food. Pollination is valued at \$20-\$30 billion annually—that's a lot of food and a lot of green, for families putting meals on the table or restaurants fueling our local economy. Look here for ways to help, and also for advice on sunscreen safety, golfing more *greenly*, sustainable summer travel ideas, companion planting, and learn about New Canaan's own pesticide-free Hall of Fame. Enjoy!

--Robert E. Mallozzi III, First Selectman



### Did You Know?

An idling vehicle emits 20 times more pollution than one traveling at 30 miles per hour.

# Golf and the Environment



Golf courses can cause significant point-source pollution due to the intense chemical management of turf. Here are some easy suggestions on what you can do to help public health and the environment on the greens:

**Walk** the course instead of using a golf cart. If you do use a golf cart, keep your cart on the designated path.

**Urge your golf course to replace** its carts with electric-powered ones, which greatly reduce both air and noise pollution.

**Replace** all divots.

**Carry your trash** with you until a waste container is available.

**Recycle** glass, aluminum, and plastic on the golf course. If your course doesn't have its own recycling program, urge them to start one.

**Buy recyclable products** (biodegradable golf tees, golf balls made of rawhide instead of plastic).

**Adhere to local rules** that may restrict access to environmentally sensitive areas on a golf course. Golf courses are managed land areas that should complement the natural environment. Respect environmentally sensitive areas of the course.

**Accept the natural** limitations and variations of turfgrass plants growing in a natural environment. (e.g., brown patches, thinning, loss of color). Be willing to play on brown grass during periods of low rainfall.

**Support** golf course management decisions that protect or enhance the environment and encourage the development of environmental conservation plans.

**Support maintenance** practices that protect wildlife and natural habitat.

**Encourage maintenance** practices that promote the long-range health of the soil and turf and support environmental objectives. Such practices include aeration, reduced fertilization, limited play on sensitive turf areas, reduced watering, etc.

# WHAT Is Happening to Bees?

Honeybees and other pollinators have been rapidly declining in the U.S. and throughout the world. In 2012-2013, beekeepers reported average losses of bees between 45%-70%.

Neonicotinoids (including clothianidin, thiamethoxam, and imidacloprid) are a class of insecticides that are highly toxic to honey bees and other pollinators. They are *systemic*, meaning they are taken up by a plant's vascular system and expressed through pollen, nectar, and guttation droplets from which bees forage and drink. Even low-dose, chronic exposure can cause great damage.



**EARTH DAY**  
**New Canaan**  
**April 22, 2015**  
**GIVE BEES A CHANCE**

Neonicotinoid exposure can disrupt bees' reproduction, mobility, navigation, feeding, foraging, memory, learning, and overall hive activity. These chemicals are also suspected of affecting honey bees' immune systems, making them more vulnerable to parasites and pathogens. Such wild pollinators as butterflies, bumblebees, and other beneficial organisms are also vulnerable to these insecticides. In June 2013, tree application of the neonicotinoid dinotefuran killed over 50,000 bumblebees in Oregon.

## WHY Are Bees Important?

This crisis threatens the stability of ecosystems, the economy, and our food supply, as *one in three bites of food depends on pollinators*.

Threats to pollinators concern the entire food system. A May 2013 report by USDA finds that pollination is valued at \$20-\$30 billion annually. A single beekeeper pollinating almonds, blueberries, pumpkins, apples, and cherries can contribute an estimated \$5 million value to the agricultural economy.



## HOW Can We Help?

- **Make your yard or local park a "Pesticide Free Zone."** Neonicotinoids have been widely implicated as leading factors in pollinator declines. By limiting exposure to these highly toxic chemicals, we will not only be beneficially impacting pollinators but also our own health, water, and soil.
- **Plant bee-friendly plants.** Flowering varieties will not only provide habitat and sustenance to the pollinators, but will also help your plants to flower more plentifully. Bees are attracted to most flowering plants, and are especially fond of blue and yellow flowers. Other colors such as purple, white, and pink also serve to attract bees. Make sure your specimens have not been treated with neonicotinoids! Gardens with 10 or more species of flowering plants attract the greatest number of bees. The best plants are those native annual and perennial wildflowers which naturally grow in our region.
- **Quench their thirst.** Bees also need sources of water. Water can be provided in very shallow birdbaths or by adding a quarter inch of sand to a large saucer, such as those designed to fit beneath clay flower pots. Fill the saucer so that the water rises about a quarter inch above the sand. Add a few flat stones, some should rise above the water and some should just touch the surface. These stones will allow bees and other insects to drink without drowning. To avoid creating a mosquito breeding site, be sure to change the water at least twice a week.
- **Give them shelter.** Many bees do not live in hives or colonies. Bumblebees, for example, hibernate and nest in abandoned rodent nests, birdhouses, snags, and logs. They also are attracted to piles of cut vegetation, compost heaps, and mounds of earth and rubble. Leaving some areas in your garden bare, preferably in a sunny location, provides other ground-nesting bee species areas to dig tunnels into the soil to create nests. Brush piles, dead trees, and some dead branches or dried pithy stems attract stem-nesting bees such as leafcutter bees, while others such as the blue orchard bee prefer to use mud to build their nests.
- **Become a backyard beekeeper.** For those who may be feeling highly motivated, there is also the option of keeping your very own colony of bees in your backyard. Honeybees are safely kept in artificial hives for their shelter. This provides a safe haven for the bees while also allowing you the opportunity to harvest the fresh honey!
- **Go organic.** Choosing organic food is not only good for your health, but it also helps protect honey bees and wild pollinators. In addition to serious health questions linked to residues of toxic pesticides on the food we eat, our food buying decisions support or reject hazardous agricultural practices and protection of honey bees and wild pollinators, as well as contributing to healthy working conditions and communities for farm workers and farm families.



PLANT THESE

HERBS



LAVENDER



CATNIP



SAGE



CILANTRO



THYME



FENNEL



BORAGE

PERENNIALS



CROCUS



BUTTERCUP



ASTER



HOLLYHOCKS



ANEMONE



SNOWDROPS



GERANIUM

ANNUALS



CALENDULA



SWEET ASYLUM



POPPY



SUNFLOWER



ZINNIA



CLEOME



HELIOTROPE



TO HELP SAVE BEES

# Top 10 Summer Travel Tips



Image: Ancient history/flickr

**Whether you're heading to the beach, the woods, or a hotel this summer, keep these summer travel tips in mind to lessen your impact on the environment.**

**1. Take a "staycation."** Stay local instead of jetting halfway around the world—you'll not only use less energy, but save money and time, too. Visit New Canaan Library for passes to local art museums, science centers, and state parks that entitle you to free or significantly discounted admission.

**2. Make it educational and inspirational.** [Sierra Club Outings](http://www.sierraclub.org) ([www.sierraclub.org](http://www.sierraclub.org)) will take you to some of the most beautiful places on the planet while teaching you about conservation, wildlife, and other environmental issues. Make sure your trip is protecting the environment and local

# Hall of Fame

The Pesticide-Free New Canaan “Hall of Fame” is a list of addresses in New Canaan whose residents care for their lawns and gardens without chemical pesticides, herbicides, and fertilizers. Some may display the Pesticide Free Zone sign, some may not; some devote greater time and resources to the “look” of their property, some do not. To us, they are all heroes!

We list them at this website to recognize their efforts, as well as to create a self-guided tour of pesticide-free properties. (See [www.PesticideFreeNC.org](http://www.PesticideFreeNC.org) and click Hall of Fame.) Our hope is to grow this list to a critical mass so that rather than having people conform by adding chemicals to their lawns, they are conforming by *refraining* from adding chemicals! Please remember to respect the residents’ privacy and concern for safety.

If you own a home in New Canaan and do not use chemical pesticides, herbicides, and fertilizers on your lawn, we encourage you to add your address to the Hall of Fame by emailing us at [www.pesticidefreenewcanaan@yahoo.com](mailto:www.pesticidefreenewcanaan@yahoo.com). In the body of the email give your street address and write “We are pesticide free!” and write "Hall of Fame" in the subject.

Pesticide-Free New Canaan is a growing group of parents and neighbors who are concerned about the negative health effects of lawn pesticides on our families, pets, and water supply. Our mission is to raise awareness and reduce the presence of these harmful chemicals in our lawns and yards, as well as to grow lawns and gardens that are healthy, robust, and low in maintenance. Visit us at [www.PesticideFreeNC.org](http://www.PesticideFreeNC.org).



communities by following Conservation International’s tips on ethical travel at [www.conservation.org](http://www.conservation.org).

**3. Driving? Avoid peak travel times.** Traveling off-peak can prevent your hitting congested highways, cutting down on idling and fuel usage.

**4. Flying? Avoid layovers and red-eyes.** Frequent takeoffs and landings use more fuel, and the pollution emitted on night flights has a more detrimental impact on the climate.

**5. Offset what you can’t avoid.** Inexpensive carbon offsets help mitigate the impact of your air or car travel. Calculate your carbon footprint with [Carbonfund.org](http://Carbonfund.org), and they’ll tell you how much it will cost to offset your travel.

**6. Pack light.** Extra weight causes airplanes and cars to lose efficiency and use more fuel to travel. Leave the kitchen sink at home!

**7. Volunteer.** Join projects to protect endangered species, work on an organic farm, reforest eroded hillsides, or convert abandoned railroad tracks into hiking and biking trails. Plug in your destination into [www.volunteermatch.org](http://www.volunteermatch.org) to find opportunities near you.

**8. Leave your destination better than you found it** when vacationing outdoors by following the “Leave No Trace” guidelines ([www.lnt.org](http://www.lnt.org)).

Source: earthshare.org

## A Closer Look at Sunscreen

It's important to protect your skin from UV damage by wearing sunscreen daily, but a closer look indicates that some sunscreens could cause serious environmental damage and negatively impact your own health.

### Sunscreen's Impact on Coral Reefs

Coral reefs contain biodiversity unlike any other ecosystem in the world. As the National Oceanic Atmospheric Administration explains, coral reefs are our “medicine cabinet of the 21st century,” as they will likely yield important new discoveries and help cure diseases. Coral reefs also protect coastal areas from storms and erosion, and even remove and recycle excess carbon.

But coral reefs are increasingly threatened. A study published in the *Journal of Environmental Health Perspectives* found that by promoting viral infection, sunscreens potentially play an important role in coral bleaching. It is estimated that up to [6,000 tons of sunscreen](#) is released annually by tourists in reef areas, and because sunscreens are often petroleum based, they don't biodegrade.



Sunscreen chemicals cause coral to become stressed and vulnerable. As coral reefs lose their biological inhabitants due to toxins, pollution, and increased temperatures due to global warming, they also lose their pigments, becoming “bleached.”

## Possible Health Impacts

You may be surprised to learn that many sunscreens still lack the UVA protection needed to fully protect you from the sun, and some sunscreens contain chemicals that may even pose health risks.

**Here are sunscreen culprits you should watch for:**

### ***Nanotechnology***

Beware of sunscreens that could contain potentially harmful nanomaterials. Because technology often outpaces regulation, the FDA has not yet been able to fully evaluate the possible health impacts of nanoparticles, which are often added to many sunscreens to make them appear clear after drying.

### ***Oxybenzane***

A 2008 study from the Center for Disease Control found that 97% of Americans had traces of a potentially harmful chemical, oxybenzane, which has been linked to babies with low birth weight, hormone disruption, cellular damage, and even allergies. Oxybenzane is used in many cosmetics to encourage absorption, but it is most commonly found in sunscreen.



The Environmental Working Group releases an annual study of sunscreens sold in the U.S.; oxybenzone is the most common active ingredient found in 60 percent of the 500 beach and sport sunscreens in EWG's 2011 database.

### **Make sure your sunscreen is safe and effective**

What can a health conscious individual do if they still want to protect themselves from sun damage?

First, make sure to always bring along other sun protection like sunglasses, hats, and umbrellas when you know you're going to be outside during the midday hours.

Second, use your consumer savvy and purchasing power to find a sunscreen that protects your health the environment. Look for sunscreens that are free of petrochemical active ingredients and nanoparticles. By all accounts, old fashioned zinc-oxide is as safe as ever!

Sources: [earthshare.org](http://earthshare.org), [ewg.org](http://ewg.org)

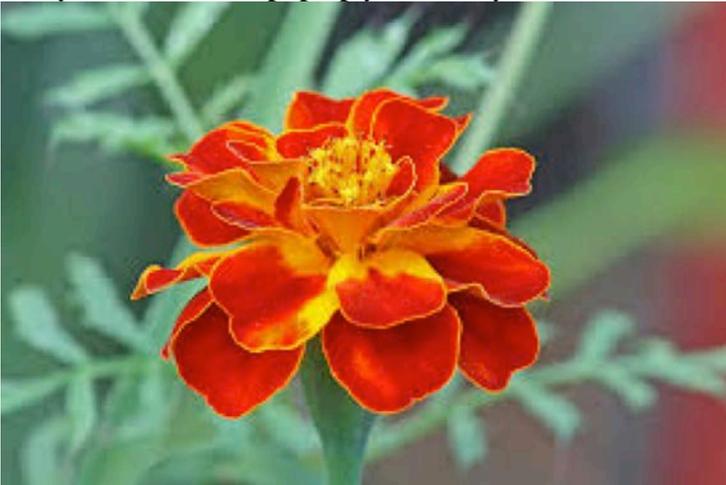
## *Companion Planting: How To Deter Pests and Encourage Beneficial Insects*

Flowers among vegetables attract pollinating insects to fertilize the flowers of beans, peas, tomatoes, and all those crops that depend on pollination to produce a crop—plus they're colorful!

In some cases they may act as a decoy or a repellent to harmful insects such as aphids. Some are beneficial to and attract predatory insects such as ladybugs, wasps, and hoverflies. These are particularly useful in controlling pests naturally without your intervention.

Some also act as soil improvers, either by fixing nutrients in the soil or acting as green manures if dug into the ground at an early age. Some just look pretty, attract the bees, and provide some lovely blooms for cutting for the house.

1. **CALENDULA:** The hardy pot marigold, calendula looks at home in the vegetable garden or alongside vegetables in raised beds or containers. The petals can be used as a lively addition to salads. Bees and other pollinators will visit for the nectar and pollen. Grow single flowered varieties and allow it to seed itself. It is a hardy annual so will pop up year after year on most soils.



2. **NASTURTIUM:** Always looks at home amongst vegetables, especially later in the year. Both flowers and leaves are edible, as are the seeds which are sometimes used pickled as an alternative to capers. Visited by bees, it is also a magnet for caterpillars, so a good indicator plant.

3. **POACHED EGG FLOWER:** *Limnanthes douglasii* is the ultimate flower to grow anywhere around crops that need pollinating. It forms a low cushion of feathery foliage smothered in shining flowers. Bees swarm to it, as do hoverflies which will prey on those pests.

4. **DAISY:** Practically all simple daisies are highly attractive to bees, butterflies, hoverflies, and predatory wasps. Chamomile fits in anywhere in the open ground, raised beds, or containers. You can use the flowers to make a fragrant, sleep-inducing infusion.

## COMPANION PLANTING, CONTINUED

5. **GIANT HYSSOP:** The prairie flower giant hyssop (agastache) has spikes of blue flowers in late summer. It is not often recommended as a flower for the vegetable garden, but it is a magnet for bees and looks lovely with orange and yellow marigolds.

6. **FRENCH & AFRICAN MARIGOLD:** Used to deter aphids, they contain some natural pyrethrins, are pungently aromatic, and are supposed to repel nematodes in the soil. They attract hoverflies, which prey on the aphids, and the single and semi-double varieties seem to be popular with bees.

7. **PHACELIA:** Sometimes called scorpionweed, it can be grown as a green manure—in other words you dig the green plant into the soil as a fertilizer. If left to flower it is highly attractive to pollinators and its soft lilac flowers are highly attractive, too.



8. **CLOVER:** Clover is a legume, in the same family as peas and beans. This means it has nodules on its roots that contain nitrogen-fixing bacteria. These fix atmospheric nitrogen, providing food for the plant. Used as a green manure, or if the roots are left in the ground it feeds the soil. Clover is widely used in organic farming. Red clover looks lovely and its prevalence as the nectar source for honey is testament to its attraction to pollinators.

9. **COSMOS:** An easy-to-grow hardy annual with feathery foliage and beautiful single or semi-double blooms that are superb for cutting. Bees, other pollinators, and butterflies love it and it is particularly useful later in the season to attract pollinators to your runner beans and tomatoes.

10. **COMFREY:** For the shadiest corner of the vegetable plot. You may need to contain it but it does make great ground cover. If you have fruit trees, grow it under them. The flowers are a good nectar source and the leaves a great addition to the compost heap. Organic gardeners will brew comfrey tea as a fertilizer for plants.



Source: Andrew McIndoe, [www.my-garden-school.com](http://www.my-garden-school.com)