The EPIB Trail

In This Issue:

Eco Fact: If just 25% of U.S. families used 10 fewer plastic bags a month, we would save over 2.5 BILLION bags a year.

From your editors...

After the turbulent whirlwind of the past weeks, the October edition of the Trail is finally here. As we cope with so many turning points condensed into such a short time, we must not neglect to take time to reflect and feel gratitude for being a part of such a resilient and engaged community. This spirit of engagement was embodied by 2012 representing an ever-growing percentage of youth turnout at the election polls, and the many wonderful volunteers who offered their help following Hurricane Sandy. While the winds of Hurricane Sandy are long past, the turmoil and destruction remains for many of our friends and family. One of the best ways to express gratitude is through sharing, helping, and with Thanksgiving fast approaching, the timing couldn't be more appropriate to focus on how we can lend support to one another.

Wishing a fantastic Thanksgiving to all, and Happy Trails!

Evangelina & Kimber

Thanks To Our Wonderful Staff!

Andrew, Arielle, Cody, Daniel, Denise, Evangelina, Holly, Jinal, Julia, Katie, Kimber, Lauren, Luke, Mary, Nicole, Rachel, Rebecca, Renee, Scott, Selen, Tami, Wendy, Will

Advisors:

Kristen Goodrich & Dr. Clark

Special Thanks To

Professor Rudel

Hurricane Sandy Relief

Volunteering & Donation Information (Page 2)

Happy Thanksgiving!

Back to Index

Hurricane Sandy Relief Efforts

Red Cross website: www.redcross.org/Hurricane_Aid

FEMA: http://www.fema.gov/disaster/4086

Rutgers Sandy Efforts: http://www.rutgers.edu/about-rutgers/sandy-relief-efforts

Kitchen Corps: http://www.kitchencorps.com/sandy.asp

Salvation Army: https://donate.salvationarmyusa.org/disaster

Feeding America: http://feedingamerica.org/

AmeriCares Foundation: www.americares.org

Recovers: https://recovers.org/communities

ASPCA http://www.aspca.org/

United Way www.uwsandyrecovery.org

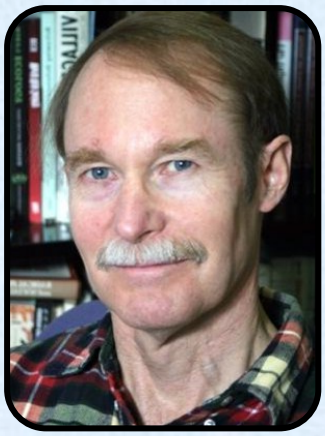
Back to Index

Faculty Spotlight

FACULTY SPOTLIGHT: PROFESSOR RUDEL

INTRODUCTION

Tom Rudel conducts research on land use change. He has researched the driving forces behind tropical deforestation both through case studies in the Ecuadorian Amazon and through quantitative analyses at the global scale. The latter set of studies has included work on 'the forest transition'. He has also done research on the forces that have driven suburban sprawl, primarily through field studies in the northeastern United States. He currently has just finished a book, entitled 'Defensive Environmentalists and the Paths to Global Environmental Reform', to be published by Cambridge University Press.



What's your favorite thing about teaching on Cook?

⇒ I like teaching about the things I research— it's certainly more fun to teach things you're interested in. I've done a lot of research in South America on tropical rainforests, mostly focusing on destruction and regrowth.

What courses do you teach now and what have you taught in the past?

⇒ This semester, I'm teaching Research Methods in Human Ecology. Next semester I'll be teaching Environmental History. I also teach graduate courses and, in addition to the courses I teach in the Human Ecology department, I also teach in the Sociology department at Rutgers.

What's your favorite course to teach?

⇒ I loved teaching Intro to Sociology quite a few years ago. You can teach about pretty much any kind of sociology. There's a great deal of choice, making it fun to teach. I also enjoy teaching Environmental History.

Do you have any advice for past, present, and future students?

⇒ I would tell them to balance the fun with the work, and vice versa.

Back to Index

FACULTY SPOTLIGHT: PROFESSOR RUDEL

What's your favorite place you've traveled? If you could go anywhere next, where would you go?

⇒ My favorite place I've traveled— the most awesome place— was Machu Picchu. It was an incredible setting. You're in this small community with fields and ruins stretched along a peninsula. You can look up at 20,000 ft. mountains, and in the same spot look down to the river a few thousand feet below you. There was also great weather when I was there. If I had the chance, I would visit Indonesia or Ethiopia. They're both beautiful in different ways.

What do you like to do when you aren't teaching?

⇒ There's always housekeeping and lawn work to do. I also like to fish for trout, ski, and hike for fun.

What's your favorite place to eat around Rutgers?

⇒ There's a great Greek place in Highland Park, but I can't remember what it's called.

What's the craziest thing anyone's ever done in one of your classes?

⇒ I had a student in one of my Environmental History classes who went on to become an actor. He was from Kansas and he was gay, and he got a part in "Real World" on MTV. He was just so funny! He would talk about growing up gay in Kansas. He would start these commentaries and two sentences in, the whole class would be in stiches.

If you could chose any superpower to have, what would it be?

⇒ I guess I would ban automobiles. I drive one, but I don't like it!

INTERVIEWD BY HOLLY BERNMAN

Back to Index

EPIB 101

GMOs: Friends or Foes?

by Julia Hardenberg

The technical definition for GMOs, or genetically modified organisms, is "plants or animals created through the process of genetic engineering" which "forces DNA from one species into a different species." What's the result of this process? "Unstable combinations of plant, animal, bacterial, or viral genes that cannot occur in nature or traditional breeding" (1).

There has been a growing amount of controversy involving GMOs over the past few years as consumers become more aware of the prevalence of GMO foods—according to ucbiotech, an estimated 80% of processed food may contain a genetically modified crop. Of particular concern is the safety of GMOs and speculation over whether we are going to see detrimental impacts from them in the future.

Genetically modified organisms and crops were developed for good reason. For example, in the United States, corn has been genetically engineered to resist earworms, which are one of the most costly crop pests in North America. Other potential benefits of genetically modified foods include a longer shelf life, protection against viruses and benefits to human health.

However, the folks that run the Non-GMO Project believe that these benefits are exaggerated in order to conceal the grave potential for damage that is posed by GMOs. . According to the Non-GMO Project, none of the GMO traits that are currently on the market offer increased yield, drought tolerance, enhanced nutrition, or any other consumer benefit despite what the biotech industry claims. The project claims that most developed nations do not deem GMOs to be safe and that in nearly 50 countries, including Japan, Australia, and all countries within the European Union, there are either restrictions or bans on the production and sale of GMOs. Evidence is starting to show a marked connection between GMOs and health problems, environmental damage, and the violation of the rights of farmers and consumers.

The GMO Project tells their story about the truth behind GMOs. Over 80% of the GMOs developed worldwide are used to enhance herbicide tolerance, which has allowed for an increase in the use of toxic herbicides such as Roundup. Developed by Monsanto in the 1970s, Roundup was initially claimed to be "as safe as table salt" and environmentally friendly. However, in 1996, the Attorney General of New York sued Monsanto for presenting false and misleading advertisements; the case was settled for $250,000, though Monsanto admitted no wrong-doing. Particularly alarming is a recent two year feeding trial conducted by Seralini et al (2012) which showed that rats fed on a diet containing Roundup tolerant GMO corn or given water containing Roundup (at levels that are permitted in drinking water) developed cancers faster and died earlier than rats fed on a standard diet. The female rats developed mammary tumors and pituitary and kidney problems. The males died mainly from severe liver and kidney chronic deficiencies.

Recent studies have shown that over 90% of Americans want to know whether their food is genetically modified or not, and just in the past year nearly 1.2 million Americans have contacted the FDA demanding the implementation of mandatory labeling on GMO foods. A dozen states have already taken up GMO labeling bills, with more states prepared to follow suit.

Mandatory labeling sounds like a great idea for American people that want to be informed, but what about our beloved furry little friends? According to Dr. Michael W. Fox, the mid 1990s were characterized by a rapid surge in the usage of genetically engineered corn and soy products in both pet food and farm animal feed. Soon after this, Fox noticed that more and more cat and dog owners were writing letters to his column regarding their pets, who were suffering from a broad variety of unusual health problems. After taking their pets to their veterinarian, the animals were diagnosed with a range of ailments including allergies, asthma, atopic dermatitis and other skin problems, irritable bowel syndrome, vomiting, indigestion, and organ and immune system abnormalities. The owners wrote that the treatments prescribed often failed, so Dr. Fox offered a different solution.

According to Dr. Fox, novel proteins are generated in the production of genetically modified crops, and this may harm the immune system and result in allergic reactions. Therefore, he suggested that the animals be taken off all foods that contained corn and soy. Many animals then made full recoveries, supporting the hypothesis that their diets were a main, or full, contributor to their medical problems.

The same scenario has been seen in humans following the widespread introduction of GMOs to the market. The US Centers for Disease Control and Prevention reported that there was an 18% increase in allergies in children under the age of 18 between 1997 and 2007. If Dr. Fox was right, this may very well be related to the use of genetically modified food.

Back to Index

Genetically modified foods have never been proven safe for human or animal consumption, but they have also never been proven unsafe. There is evidence claiming that they are dangerous, and there is evidence claiming that they are beneficial, at least in regards to the production of the crop itself.

So where do we go from here? There are currently no labels on food in the United States that tell the consumer whether they are eating genetically modified food. Additionally, there is no known evidence on what the long-term impacts of these organisms may be. The Non-GMO Project was created to help address all of these uncertainties. They believe that consumers deserve to be able to make an informed decision as to whether or not they will consume genetically modified foods. There are more than 5,000 Non-GMO Project Verified products. To learn more about them, log onto www.nongmoproject.org.

The rest is up to you

Sources:
(1) www.nongmoproject.org

(2) http://basilbandwagon.com/flyers/OCTOBER%202012%20FLYER.pdf

(3) http://www.naturescountrystore.com/roundup/

(4) http://ucbiotech.org/answer.php?question=15

(5) Genetically Modified(GM) Ingredients in Pet Foods: Dogs and Cats at Risk by Dr. Michael W. Fox, S.Sc, PhD, B. Vet

Floating Farm

By Arielle Wortzel

Just because city dwellers don't live on farms doesn't mean they can't grow their own food. In recent years, members of the urban community have proved themselves more than capable of creating new ways to cultivate their own herbs and produce despite limited space and resources. Just when I thought I'd heard it all—rooftop gardens, window farms, community co-op gardens— I was introduced to the Science Barge.

The Science Barge is a greenhouse that is docked along the Hudson River in Yonkers, NY. Environmental engineer Ted E. Caplow created the barge in order to launch his vision of promoting sustainable food production in urban areas.

The barge is unique in that it functions solely off of renewable energy. The electrical system is powered by solar, wind, and biodiesel energy while a rainwater trapping system provides water for the plants. That's right— the barge is a waste-free design that produces delicious crops like tomatoes, cucumbers, squash, and red peppers for consumption at churches and schools in the surrounding community.

Not only is the barge an excellent resource for food, but it also acts as an educational foundation— a place for students and members of the community to come see, learn, and experience what it means to grow his or her own food locally in a way that does not harm the environment.

Too often people are forgetting where their food comes from. Establishments like Ted Caplow's Science Barge gives city dwellers the chance to get back to nature, get their hands dirty, and learn what it feels like to grow the food they eat in an environmentally friendly way. The opportunities for urban agriculture are endless— all it takes is a vision, creativity, and motivation to turn city's concrete jungles into a green oasis where urbanites can grow and produce their own food.

Back to Index

Rutgers Eco News

Why Foods Pair Up

by Scott Sincoff

Researchers say they have figured out the facts behind why specific foods work well together as a pair.

Rutgers University scientists say that food combinations—such as wine and cheese or oil and vinegar—combine an astringent food. This makes our mouth pucker up, with a fatty food that makes it feel slippery. The researchers also state that these specific pairings are caused by a sensation in the mouth known as the "mouthfeel".

Lead researcher Paul Breslin, professor of Nutritional Science at Rutgers University, said that the mouthfeel sensation is a combined awareness of both physical and chemical interactions between the mouth's tissues, saliva and the chemicals in foods. He also added that "the kernel of this idea of pairing astringents with fats is found in gastronomies all over the planet, but it's never been clear how or why these pairings work".

According to Breslin, the oily fat in certain foods lubricate the inside of the mouth, making it feel greasy and slippery. He also said that when combined with astringent foods' chemical compounds, like the tannins in wine and green tea, the mouth becomes dry and rough. The foods' chemical reactions chemically bind with the lubricant proteins in saliva. Because of this, he said the proteins bunch together and become solid; this process leaves the tongue and gums' surfaces without their natural layer of fat.

Breslin said that the balance between the two kinds of foods is a fine line because people do not want their taste buds and mouths over-lubricated. "We don't like slimy, but we don't like puckered up, either," said Breslin.

He also said that his research team is unsure of how the balance is struck because green tea and other astringent foods are only mildly astringent. "In our study, we show that astringents reduce the lubricants in the mouth during a fatty meal and return balance," said Breslin.

Source: http://news.rutgers.edu/medrel/special-content/fall-2012/why-wine-and-tea-pai-20121009

Photo Credit: The Examiner

Back to Index

Making a Difference in New Brunswick through Youth Empowerment Services!

By: Mary Ruffner

Interested in getting involved in New Brunswick? An amazing non-profit organization called Youth Empowerment Services, also known as Y.E.S, has many different programs to help local kids in the community. The program's founder, Barry Smith, has a passion for helping people and is committed to helping kids throughout the personal struggles that they may face today.

Y.E.S has many great opportunities for the children to get the support and guidance that they need needed. There is a mentoring program that places individual children with a mentor who helps guide them through difficult times and helps them reach their potential through a supportive and trusting relationship. In addition to mentoring, there is a great after school tutoring program, weekdays from 3:30 to 5:30, where volunteers help kids with their schoolwork. The children are given a structured place to do homework and are given supplies and tools to help them further their learning.

The part of Y.E.S that I am involved in is called X-cite Night. It is a free, once a week session where kids have a healthy environment to play and express themselves. In this session, kids are encouraged to work together in interactive team-oriented games, which help them learn how to work together in a respectful and productive way. I really enjoy working X-cite nights because it is rewarding to see the kids having fun and learning at the same time. The kids are rewarded with points for good behavior and are encouraged to show respect and kindness to each other. At the end of every meeting, the children are given snacks and Barry, or whoever is leading the meeting, talks about an important theme or idea that they hope the kids learned. At this time, the kids are encouraged to talk about what they think or how they feel about certain topics. This is an important part of the night because it is essential to hear what each of them has to say. X-cite night is an excellent experience and one that all the kids that are part of Youth Empowerment really enjoy.

Youth Empowerment Services works diligently to help the youth of New Brunswick in many ways . Everyone in the community can make a difference!

If you are interested in donating your time or services contact Youth Empowerment Services at (732) 937-9377 or visit them at www.youthempowerment.us

November Biking in New Brunswick

by Selen Altiok

Ah, the wonderful Fall days in New Brunswick are ones to look forward to. The leaves are changing, the weather is cooling and people are wearing colorful, big sweaters. Hot coffee and tea are consumed throughout the day, which provides warmth to cold hands. Most importantly, people are preparing their stomachs for a wonderful Thanksgiving feast. Despite how pleasurable November can be, as a biker, this month has its positives and negatives—especially in bustling New Brunswick.

Since it is getting colder, our bodies want more layers and students enjoy the warm buses more. Thus, buses become more desirable for transportation even from the Food Science Building stop to Biel Road, which are three blocks apart. What could be more disappointing than finding countless students patiently waiting for the same bus? Well, bikers certainly can skip out on the waiting and the crowdedness by biking to their destinations. Also, Fall is particularly a beautiful season with all of the colors and the fresh, cool breeze. It is particularly pleasant to bike and be outdoors outside of class hours. Cook Campus to College Avenue is a little over two miles and it can be biked in a range of 10-20 minutes. When this realization occurred to me about a year ago, taking the bus was no longer an option. When a biker gets to class, they proudly peel off their sweaty layers upon layers knowing that they have survived another day biking in New Brunswick.

Despite the adrenaline rush and excitement while biking, the downsides of biking in this city, especially on George Street, have been more prominent. One of my favorite ironies is biking with a mindset of wanting to be environmentally friendly and healthy, yet getting stuck behind a massive, dirty bus. Consuming all the bus' exhaust is not desirable in any way. On the bright side, at least a little of the greenhouse gases is going into my body rather than into the air; so much for wanting to be healthy. Another drawback is that the traffic lights on George Street tend to not be in a biker's favor. When it is particularly cold, waiting at those lights can be terribly painful, especially when our fingers, noses and cheeks become numb.

November can be a tricky month in deciding what to wear, which makes it even trickier in deciding what to wear before biking. 'Will a scarf make it too hot? Is this sweater too thick? One layer or two?' Walking into class sweating is something bikers have gotten used to. The most troubling days are those when it is indeed chilly and the biker has dressed for a chilly day, but they find themselves biking and removing excessive clothing at any chance. The last thing that can be quite exhausting for every season is that last hill to Cook/Douglass campus. It is just the last push! When it is a cold day, the frigid downward wind occasionally creates this urge to make use of the warm, crowded buses.

Back to Index

Get "Bogged" This Fall at New Jersey's Cranberry Fields

By Daniel Pelligra

As Thanksgiving begins to approach, the smell of a fresh roasted turkey pushes to the forefront of many of our imaginations. But what's a turkey without all the trimmings? Stuffing, gravy, and many people's favorite – cranberry sauce. Whether you prefer to make your own sauce or to buy a canned variety, you may be surprised to learn that there is a fairly large chance that those little berries were grown closer to home than you may have previously thought. In fact, New Jersey is the 3rd largest producer of cranberries in the nation, right behind Massachusetts and Wisconsin.

With its sandy, acidic soil and slow moving streams, the Pine Barrens— located in the southern portion of our state— are an ideal area for growing cranberries. The historic Double Trouble State Park in the Pine Barrens is named after the Double Trouble Company, who owned one of the largest operations in the state during the early 20th century. While the increased mechanization of cranberry cultivation rendered the labor force of the Double Trouble Company obsolete, cultivation continues today through the undertaking of various leaseholders.

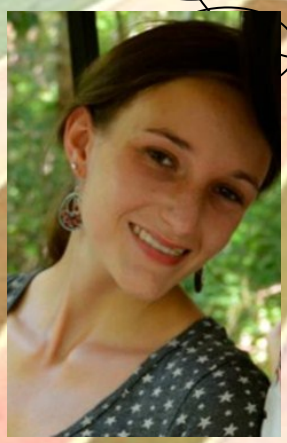
From the end of September until early November, cranberry bogs across the state are flooded to facilitate easier harvesting with minimal damage to the vines themselves. The berries are rounded up in a floating ring of plastic and then pumped from the bog. Once harvested, the berries are ready to be processed into juices, sauces, and other products. Tours of the harvest are a popular activity at this state park, as well as at other bogs across the state, since the harvest is quite a sight to see. For more information about harvests at Double Trouble State Park, visit their website listed below. While the Jersey tomato may take up spotlight during the summer, the fall is the cranberry's time to shine. So, when your turkey makes its way to the table this year, take a second thought about where some of your food may actually be coming from – they don't call it the Garden State for nothing!

http://www.state.nj.us/dep/parksandforests/parks/double.ht

What do you think about Dr. Clark's meaning of life?

I think it's saying that there really is no lack of ways to spice up life! Regardless of how bland the day may be, there will always be an opportunity to make it spectacular!

I see his response as a nod towards how we find it fulfilling to seek meaning in our lives. Each time that we choose to draw meaning from one thing and not another, we reinforce the subjective nature of this experience. When we come to terms with the constant influence that we have over our evaluation of our experiences, we are free to more powerfully impact the fluid nature of our perspective.



Back to Index

Best Trails to Hike!

By Jinal Kansara

Are you looking to expand your hiking experience? Are you more of a novice to nature's trails? Or are you a die hard, wanting to delve head-first into the toughest obstacle courses nature has to provide? Whatever your preference is, here are a few of the world's most highly recommended hiking trails for anyone wanting to experience what the world has to offer!

Mount Kailash Pilgrimage, Tibet
Best for: Spirituality seeking hikers
Distance: 32 miles
When to go: April – September

This mountain is considered sacred to many different religions— the Hindus, Buddhists, Jains, Ayyavazhi, and the Bon religion of Tibet. Although it is not permitted to climb the mountain itself, the importance of this area is being able to make the pilgrimage around the mountain. Kailash draws many pilgrims hoping to obtain some spiritual enlightenment and good graces from being in the area. There are also numerous meditation sites and waterfalls, providing a serene and ambient atmosphere for one to relax and feel at ease with nature and the spiritual energy around them.

Cinque Terre, Sentiero Azzuro, Italy
Best for: Families, romantic setting seekers, and older hikers
Distance: 7 miles among 5 towns
When to go: Spring and fall. Avoid summer months, especially August.

This is a charming little trail that hugs the Mediterranean Sea as it weaves through five different villages – Monterosso al Mare, Vernazza, Corniglia, Manarola, and Riomaggiore. The Blue Trail follows up through the Ligurian coastline. It can be accessed either by foot or by train. The train is quite convenient and fun for children and the elderly if the trek seems to be getting tiresome. The path then continues through various vineyards and offers the most romantic setting for watching the sunset while listening to the sea and the breeze around you.

Back to Index

Santa Cruz Trek, Cordillera Blanca, Peru
Best for: Anyone wanting to travel the South American trails
Distance: 30+ miles
When to go: April – September

This high-elevation trail provides the perfect balance for those who do not want to hike the Himalayas and prefer a less crowded route than that of Machu Picchu. The Santa Cruz provides lots of flexibility because it does not reach altitudes that are likely to cause sickness. Also, the trekker does not have to have a great amount of experience in order to enjoy this trail. The trail begins in the city of Huaraz. The great part about the flexibility of this trail is that you can hire a tour guide or go at it on your own.

Laugavegurinn/Fimmvörðuháls Pass, Iceland
Best for: Vulcanists and anyone who wants to see the Icelandic wilderness
Distance: 48 miles round trip
When to go: Huts are open from late June to mid-September

When the Eyjafjallajökull volcano erupted in the spring of 2010, this popular route had to be shut down. However, a reroute was opened once the volcano stopped erupting in May of 2010. Following a path known as Thórsmörk , this route has a view of two glaciers that sit just above the North Atlantic horizon. This small area is a park where there is some green life, such a trees. Down the path, there are huts that house both hikers and natives. The real beauty of this trail, however, is in the walk from Fimmvörðuháls to Skógar. It follows a ravine that has waterfall after waterfall until it ends in the massive 200-foot high waterfall of Skógafoss. It is best to visit this trail as soon as possible before another volcanic eruption leads to the closing of this majestic place forever.

The Snowman Trek, Bhutan
Best for: The hardcore trekkers
Distance: Over 200 miles, averaging about a 25 day trip
When to go: Best times to avoid the snow are in October and April

This is one of the most arduous and long hikes on the planet. By law, you must have a guided tour company in order to walk through the Snowman Trek. These trails have an average elevation of 16,000 feet, and even reach 17,388 feet on the Rinchen Zoe La Pass. With altitudes this high, health concerns become a real risk. This is a true test for those who are hiking experts. Not even half of those who begin the Snowman end up finishing it. However, if completed, the reward is rich. Bhutan has a strict tourist policy; therefore, you will find very few other hikers along your path. You will feel unencumbered by technological devices, as this is also a cultural experience, for Bhutan itself is unspoiled by the bombardment of technology.

Article Link: http://adventure.nationalgeographic.com/adventure/trips/best-trails/worlds-best-grail-trails/?source=photomaindl#/mount-kailash-tibet_56342_600x450.jpg

Back to Index

Thanksgiving humor !!

Q: What did the mama turkey say to her naughty son?
A: If your papa could see you now, he'd turn over in his gravy!

Q: What happened when the turkey got into a fight?
A: He got the stuffing knocked out of him!

Q: Why did the turkey cross the road?
A: It was the chicken's day off!

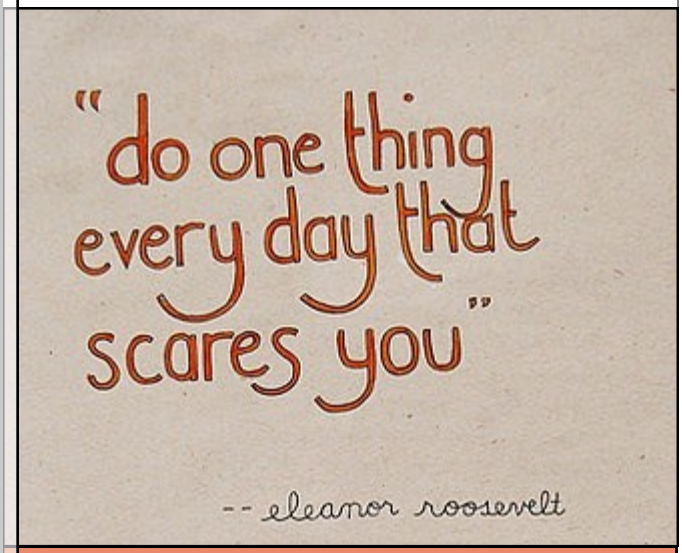
Q: What was the turkey suspected of?
A: Fowl play.

Stephen Colbert:
"Thanksgiving is a magical time of year when families across the country join together to raise America's obesity statistics. Personally, I love Thanksgiving traditions: watching football, making pumpkin pie, and saying the magic phrase that sends your aunt storming out of the dining room to sit in her car."

Kevin James:
"Thanksgiving, man. Not a good day to be my pants."

Jim Gaffigan:
"Thanksgiving. It's like we didn't even try to come up with a tradition. The tradition is, we overeat. 'Hey, how about at Thanksgiving we just eat a lot?' 'But we do that every day!' 'Oh. What if we eat a lot with people that annoy the hell out of us?'"

Thanksgiving Page



- Bake the desired sugar cookies and cool down for about 10 minutes
- Spoon chocolate frosting into 1-quart Ziplock storage bag; seal bag. Cut off tiny bottom corner of bag. On each cookie, pipe frosting on outer edge of half of cookie. Arrange candy corn over frosting for feathers.
- Pipe orange icing onto each cookie to resemble turkey face and feet. Use orange icing to attach baking bits to turkey face for eyes. Pipe black gel on baking bits for centers of eyes.

For nutritional information:

http://www.pillsbury.com/recipes/thanksgiving-turkey-cookies/cbe3fa0f-585e-4f8f-af22-d834060252d9#

Back to Index

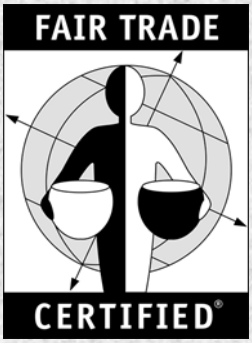
Choose Fair Trade

by Evangelina Pena

Despite how often we hear the term, the exact definition of fair trade still eludes many individuals. This is because the term is very broad. Not only does fair trade involves providing many workers throughout the globe with fair prices for their goods—it also helps the environment because produce is grown without GMOs. It involves no hazardous chemicals in our food and is against child labor.

Many developing countries want to be able to work in better conditions but cannot do so because consumers constantly want cheaper products without taking the effects into consideration. Finally, fair trade products are not necessarily all organic, but they are certainly of higher quality. Consumers want to be aware of fair trade and non-fair products because it is important to know what consumers are supporting by buying those products.

One important example of fair trade is the growing movement towards providing coffee bean growers in Ethiopia with a fair price for their beans. Even though they suffer as a consequence, the Ethiopian farmers are compelled to sell their coffee beans to the global market because they do not have many other options whom to sell it to. The global markets have the resources to the able to distribute and expand their otherwise localized business.



Many Ethiopian farmers are still in poverty because they must sell their beans for such low prices that they are unable to grow financially. By asking for fair trade products the growers simply want access to basic amenities—clean water, sufficient food, and enough money to be able to afford to send their children to school.

Large corporations that do not want to get involved with fair trade are the ones that are hurting the farmers the most. These mega-corporations are worried about making maximum profit. They are pressured since they have worldwide competition. The capitalist market excludes the effects that products have besides the outcome prices in order to succeed in the marketplace.

The transition to how to change the market preferences is up to us as consumers in order to for fair trade to be successful in a capitalist society-"be the change you wish to see in the world" type of deal. Consumer often don't fully comprehend how this phenomenon functions on a global scale, the corporations know exactly what the results of their actions are when it comes to impacting the farmers in the industry.

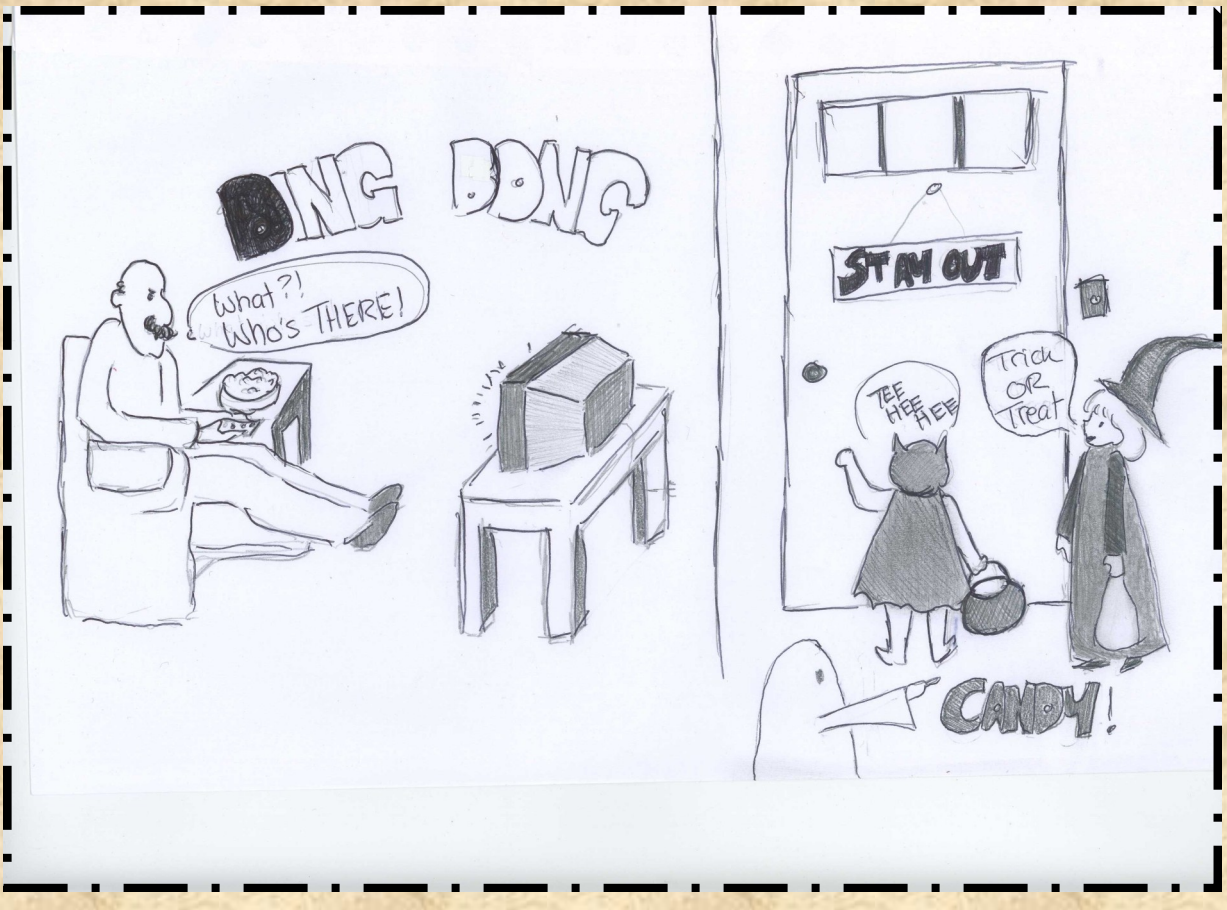
It is very sad to see how large corporations that could do much good in these countries' economies and growth continue to find it more profitable to exploit these foreign workers. Even a $0.20 increase per kilo of coffee beans bought from the farmers would make a high improvement in their way of life.

When consumers start demanding these changes in the marketplace by purchasing more fair trade products, we will be able to finally bring justice to developing countries such as Ethiopia. This shifts the bias from saying this is an intentional action of the corporations, to saying that this is simply the current economic state of things, and that it is within our power to change it.

You can help this ongoing issue by choosing Fair Trade-labeled for products such as:
Tea, cocoa, fruits, vegetables, herbs, spices, sugar, honey, wine, flowers, grains and rubber products.
Check out the many companies that provide us with fair trade products, you'll find that there are many available to you!
Click on products and see the companies: http://www.fairtradeusa.org/
Informational video: http://www.youtube.com/watch?v=pXDQVkwdzV0

Back to Index

Drawings by Tami Segal



Back to Index

Eco News

Would pay a dollar to help the environment?!

By Lauren Segreto

Have you ever thought about how many plastic bags you use? Or where they go when you throw them "away"? Where exactly is away?

According to www.reusethisbag.com, the average American uses anywhere from 350 to 500 bags a year per person, totaling around 100 billion plastic bags a year. To produce this amount of plastic bags, it takes 12 million barrels of oil a year- a nonrenewable resource! And after that, they usually are only a single-use product, generally only making its way from the supermarket to your home. These bags are not biodegradable; in fact, they dissolve into tiny particles and make their way into the oceans. Environment California says that the plastic bags are a result of about 1 million sea creatures every year since they are mistaken for food. To sum it up, we take a non-renewable resource, create a large amount of pollution, to create plastic bags that we will use for maybe 10 minutes; because after all only about 1-3% of plastic bags are recycled. Doesn't make any sense!

-So what can we do?

Well, Doublin, Ireland, according to the New York Times, tried to eliminate the use of plastic bags by passing a tax that now requires customers to pay 33 cents for every bag they take at the register. Within weeks of the mandated tax, plastic bag use dropped by 94 percent! Within a year, nearly everyone had bought reusable canvas bags. This tax money is then collected by the government to use to finance environmental enforcement and cleanup programs.

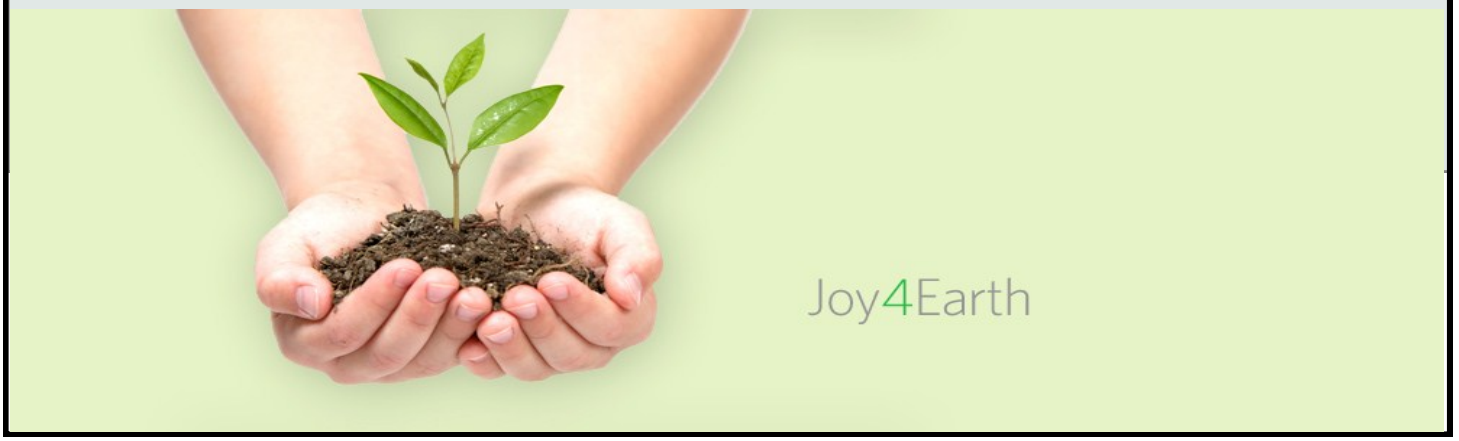
And they're not the only ones! The District of Columbia now have a 5 cent charge for plastic bags, and San Francisco, as well as 50 other California cities, have also banned plastic bags at supermarkets, pharmacies, retail stores, and all restaurants according to The Huffington Post. These trends and policies are becoming more wide spread in an effort to reduce our carbon footprint; so what can Rutgers do?!

Pacific Plastic Island

The Great Pacific Garbage Patch is nicknamed the 'plastic floating island' because it is a large mass of garbage that has piled up in the Pacific. This result shows the globalized result that are locals communities have. We cannot think about everything we can do to help the environment but taking into consideration small changes can make a big difference.

The Good News!!

Since last year over 1.5 million plastic bags were used in Dining halls here at Rutgers; we decided that we wanted to reduce our carbon footprint, and what other way than to reduce plastic bag use?! According to the Daily Targum, Rutgers take-out at Brower Commons, Busch Dining Hall, Livingston Dining Commons, and Neilson Dining Hall, are now offering canvas bags instead of plastic! Guess what else?! Meal plan holders receive the first take out bag FREE! With additional bags only costing a $1 each with RU express. It can fold up small enough to fit in your bag, and big enough to hold all of your food, even your roommates'! I got mine, where's yours?!



Back to Index

Eco News

Being at Peace with Fleece

By Nicole J. McElrath

One fond memory I have is my Grandmother taking me to zoo to see the springtime sheep shearing. It was about a 5 minute process for each sheep. Besides a few tiny cuts and the sheep wriggling around, it looked like a painless haircut. More recently I have become aware of the treatment of animals in the meat industry and became a vegetarian. This year when I put my wool lined boots on something new had occurred to me. Were any sheep hurt to make my boots or were they the result of a sheep's haircut? Upon investigating the issue I discovered there is one practice called mulesing that could be viewed as harmful to sheep.

Mulesing is the surgical removal of skin of the hind region of a sheep without the use of anesthesia (Hemsworth). It was created in order to prevent flystrike, which is when a fly larva embeds in the tissue of an animal. Flystrike is fatal and can wipe out herds of livestock.

Australia is one of the main producers and distributors of wool. Mulesing is done to around 80% of sheep in Australia (Lee,Fisher). Austrialia and Commonwealth Scientific and Industrial Research Organization (CSIRO) developed regulations, standards and policies for mulesing. The code provides guidelines of mulesing that include; you must have completed a mandatory accreditation program to carry out the mules operation. Another standard is that only lambs are to be mulesed and after are to be observed from a distance, being left alone in clean pastures until their wounds heal. Australian law does not require the use of painkillers but often farmers use them anyway to ease the discomfort of the animal.

However, research has shown that mulesing creates stress in sheep and increases cortisol levels up to about 3 weeks after mulesing (Hemsworth). Some alternatives to mulesing suggested are selective and genetic breeding of sheep that are less susceptible to flystike. Other alternatives are increasing chemical use and flock inspections. If these techniques were perfected we could keep flystrike rates to what they presently are in some production systems without the use of mulesing (Lee,Fisher).

Currently New Zealand is phasing out the use of mulesing and Australia had plan that by 2010 it would phase it out as well, but has since retracted the deadline. If you want to take a stand against mulesing you can buy faux shearling, cotton, cotton flannel, or polyester fleece. Websites like www.veganchic.com and www.alternativeoutfitters.com offer stylish, affordable, and cruelty free apparel. Some companies such as H&M, Abercrombie & Fitch, and Timberland have vowed to not use wool until mulesing has ended.

Being curious about what I dress myself in everyday has made me realize vegetarianism is not just about changing your diet. If you do not believe in unethical treatment of animals for meat slaughter you should also be consistent and take notice if animals were harmed for your clothing

http://www.peta.org/issues/animals-used-for-clothing/wool-fur-and-leather-hazardous-to-the-environment.aspx

Back to Index

Eco News

The Large Orange Melon by Renee Leventon

The month of October came and went faster than all the pumpkins could be painted. With all the leftover pumpkin seeds from decorations, delicious treats can be made. But before indulging, where did pumpkins come from?The large melons originated in the ancient Americas, and were planted along creek banks along squash, corn, and beans. Native Americans knew to grow those three crops near one another because together they thrive at an exponential pace.

Pumpkins were a favorite crop of the Native Americans since they served many purposes. During the long winter months, pumpkins were a main food source and seeds could be roasted over campfires. Also, the blossoms were put in stews, dried pumpkin was ground into flour, and the seeds served as an ingredient in medicines. Other uses for pumpkins include the shells were used as containers to store beans, seeds, and grain. The dried up pumpkin flesh was woven into mats and sold for a profit.

Today, pumpkins are used to celebrate a fun tradition at the end of October. Adults and kids alike, enjoy painting and carving pumpkins. Recently, cooking magazines have made pumpkin cookies a popular dessert in their October/November issue. The recipe below is a quick, and easy way to impress friends and family at the next social gathering.

Pumpkin Seed and Chocolate Chip Oatmeal Cookies

makes 15-18 cookies

Ingredients:

1 1/2 cups whole-wheat flour
1-cup oats
1/2 tsp baking soda
1/4 tsp salt
1/2-cup butter (at room temperature)
2/3-cup sugar
2/3-cup brown sugar
1/4-cup applesauce
1 tsp vanilla
1 egg
2/3 cup roasted, salted pumpkin seeds
2/3-cup semi-sweet chocolate chips

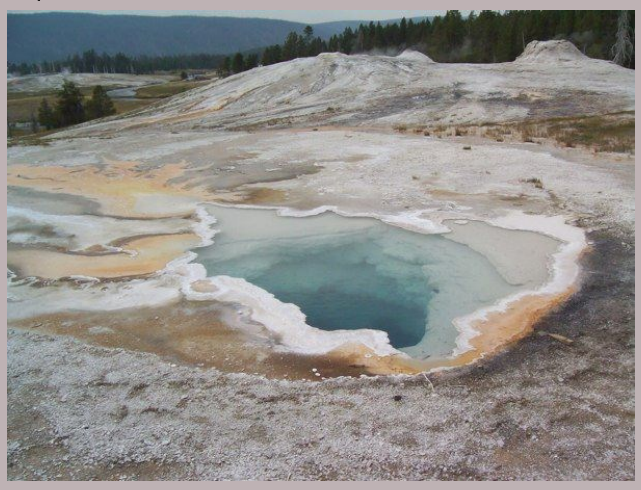
Directions:

1. Pre-heat oven to 350 degrees.
2. Grease a baking sheet with baking spray.
3. In a large bowl, sift together flour, oats, baking soda and salt. Set aside.
4. In a separate bowl, use an electric mixer to combine the butter, sugar, brown sugar, applesauce, vanilla, and egg.
5. Add the wet mixture to the dry mixture and use a wooden spoon to combine.
6. Add the chocolate chips and pumpkin seeds and mix again until evenly distributed.
7. Using hands roll the dough into balls and space evenly across your baking sheet.
8. Bake for 10-12 minutes
9. Let cool (or not) and enjoy!

Back to Index

Eco News

Yellowstone: An Exploration of Our National Parks!



By Rachel Alm

Yellowstone is America's largest National Park, comprised of parts of Utah, Wyoming, and Montana. I took a vacation there this summer, and fell in love with the sights and sounds. There are many interesting facts about Yellowstone, and its history is rich.

For one, there is a massive caldera, or depression, in the center of the park that holds miles of bubbling magma below the surface. Volcanic activity beneath the park is responsible for the numerous hot springs and mud pots. There are famous bacterial beds (you can even see signs warning you not to step on them!) that turn the ground a rusty brown, and high concentrations of iron and silicon in the sediment near the geysers leave trails of bright yellows and tinted greens and reds from years of water flow.

It is also home to many endangered and threatened species, including the *bison bison*, the buffalo breed at the Park, which came to near extinction towards the ends of the 19th century. More than 3,000 now roam the Park, but they used to be population numbers in the millions. There is actually no *original* American buffalo in existence today; the first populations became so scarce that the US government called for interbreeding with species in Canada, therefore creating the modern species populating the park today. They tend to cross the road at their own leisure, and can cause back-ups of traffic as whole herds wonder on or across the pavements.

There are many hot springs, even some that people can bathe in. I got the chance to dip my feet in one of them, called the Boiling River near the town of Mammoth, and the water was warm. It flowed down the rock of the area from an underground spring, but was cooled as it flowed and mixed with the cooler river water. Not many hot springs are accessible and some can reach temperatures of 199°.

Overall, the park is a beautiful visit. It is full of trails to hike on and hidden sights and falls to see. The official park website does little justice, but its beauty is world-renowned. If even given the opportunity to visit this amazing place, seize it, because this park is ever changing, yet filled with timeless beauty!

To check out the website: http://www.nps.gov/yell/index.htm

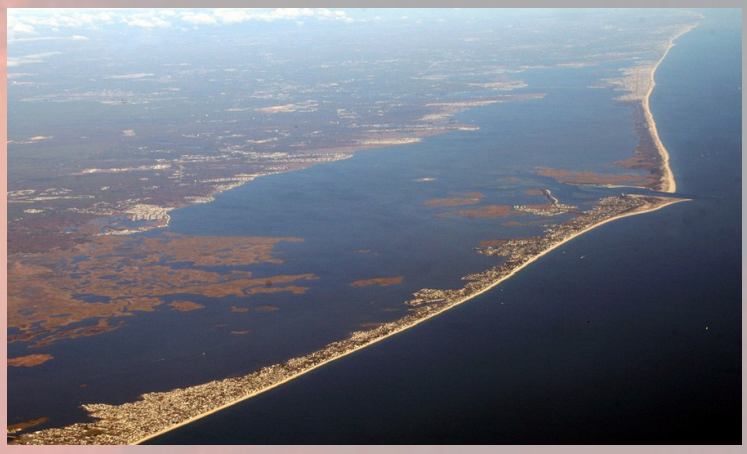
Back to Index

Cleanup or Photo-Op?

Barnegat Bay, NJ

By Luke Dougherty

If you're a New Jersey resident, and most of us at Rutgers are, there's a very good chance you have been to, or at least heard of, Barnegat Bay. The bay is a genuine treasure of the state and has long been known for its aesthetic, economic, and recreational value. Both commercial and recreational fishing has long been a mainstay of the region, as the bay contains a vast variety of fish species such as Summer Flounder, Striped Bass, Bluefish, and Mackerel, among many others. In addition, Barnegat Bay has emerged as a popular boating destination, and today it ranks number one as New Jersey's most popular recreational boating site. However, the ecological health of the bay and encompassing watershed has been waning due to non-point source pollution, overdevelopment, and a dramatic rise in watercraft use. As a result, the watershed's water quality and aquatic habitat has been substantially impacted, and there is a pressing need to prevent future degradation and restore the body of water as much as possible.



New Jersey Governor Chris Christie has enacted a "10 Point Plan" to address the ecological health of the 660-square-mile watershed, and on October 18 the Department of Environmental Protection launched a cleanup effort called the Barnegat Bay Blitz. This massive cleanup involved thousands of volunteers ranging from Waste Management employees to the Coast Guard Auxiliary to local elementary school students, all of whom helped by collecting and disposing of trash and litter from nearby streams, wetlands, catch basins, storm drains and Barnegat Bay itself. The exact numbers aren't available yet, but in May, a similar effort included 6,800 volunteers who collected over 3,800 bags of trash and recyclables. That big of a turnout can't be deemed anything but a success, and I think it is fair to say that continued efforts such as this have a great potential to make a positive difference.

On the other hand, there are those who dismissed the effort as a "publicity stunt", such as the NJ Sierra Club Director, Jeff Tittel. Frankly, he might be right. One can easily question Governor Christie's motives in focusing on Barnegat Bay while he continuously opposes environmental legislation on most other fronts. For instance, the Governor recently vetoed legislation preventing fracking waste from coming into our state, thus putting our drinking water at risk. However, regardless of Christie's political motivations and his lack of more substantial actions on environmental issues, the work of thousands of people who took their time to clean up the bay cannot and should not be diminished. The environment surely doesn't care who picked up the trash or why they did it, and I think the right approach is to at least applaud the results of a cleaner Barnegat Bay.

Back to Index

Dates to Keep in Mind...

Course Add/Drop Period Begins for First-Year Students	Sept. 5, 2012
Last Day to Withdraw from Courses (without a "W" grade)	Sept. 11, 2012
Last Day to Add a Course	Sept. 12, 2012
Last Day to Withdraw from course (with a "W" grade)	Oct. 29, 2012
Registration for Next Semester (based on degree credits)	Nov. 4-16, 2012
Thanksgiving Recess	Nov. 22-25, 2012
Last Day for Complete Withdrawal (all "W" grades)	Nov. 26, 2012
Regular Classes End	Dec. 12, 2012
Reading Days	Dec 13, 2012
Exam Days	Dec. 14-21, 2012

Clubs in S.E.B.S.

- ⇒ Alpha Zeta (Service & Honor Co-ed)
- ⇒ Collegiate 4-H Club
- ⇒ Cook Organic Garden Club
- ⇒ Cook Pre-Med/Pre-Dent Society
- ⇒ Designer Genes
- ⇒ Ecological Change Coalition
- ⇒ Environmental Science and Engineering Club
- ⇒ Equine Science Club
- ⇒ Exercise Science & Sport Management Club
- ⇒ G. H. Cook Biochemistry & Microbiology Club
- ⇒ H. O. Sampson Collegiate FFA
- ⇒ Landscape Architecture Club
- ⇒ Meteorology Club
- ⇒ Molecular Biology and Biochemistry Society
- ⇒ Mounted Patrol
- ⇒ New Brunswick 4-H Team
- ⇒ Nutrition Club
- ⇒ Outdoors Club
- ⇒ SEBS Governing Council
- ⇒ Seeing Eye Puppy Raising Club
- ⇒ Students for Environmental Awareness
- ⇒ Turf Club
- ⇒ Undergraduate Food Science Club
- ⇒ Veterinary Science Club

More Campus Volunteer Opportunities

- ⇒ Cook Student Organic Farm
- ⇒ Rutgers Gardens

Back to Index




Uncorked:

Where cork comes from, how it's made, and what to do with it after the wine is gone.

By: Rebecca Noah

All natural corks and cork products begin in the forest, a cork forest so to speak. Corks are made from the bark of Cork Oak Trees that originate in the Mediterranean. Majority of Cork Oaks are grown and harvested in the Spain and Portugal.

The Cork Oak grows in forests that experienced harsh conditions such as droughts, fires, and temperature fluctuations and as a result it has evolved many protective qualities. The outer bark of the Cork Oak is water, fire, termite resistant, impermeable to liquids or gas and a great insulating material allowing the tree to withstand temperature fluctuations. All of these unique properties are what make corks the perfect stopper for wine.

Cork trees must be 25 years old before the bark can be harvested, making going into the cork business a very long-term investment. After 25 years the trees' bark can be stripped every 9 to 14 years. A very careful process is taken to remove only outer bark thus interior bark is not damaged. The outer bark will grow back if the interior bark is left undamaged, making cork a continuous, renewable resource.

Once the outer bark is removed from the tree the cork is stored before processing. The proper way to store the cork bark is on concrete or cement rather than earth because it may increase the contamination risks.

The first step in processing the cork is boiling it, which softens and cleans it. The water that the cork is boiled in is constantly filtered and replenished to remove any contaminants. Boiling leaves bark planks that are flatter and easier to work with.

The cork is then cut into smaller, more workable pieces. Some of the pieces will be used to punch natural corks out of while other will be used to make technical corks such as agglomerate corks, and other cork products. High-end wine corks will be hand punched, others are mostly are machine punched and sorted.

There are several types of corks that can be made from cork trees. Natural corks are punched out of the best pieces of bark. Natural cork stoppers are the highest quality and important for aging wine beyond five years. Agglomerate corks are essentially the particleboard of cork making; leftover, unusable scraps are glued together, rounded and cut into corks. Agglom-

Back to Index

erate corks are often used for cheaper wines and should not be used to seal wine beyond a year. The cork that is between high-end and conditional wine is the technical cork. Technical corks are made with an agglomerate cork center and a natural cork disc that is glued to the top and the bottom. Both technical corks and agglomerate corks are useful in corking an unconventional sized bottle.

Wine bottles today are also increasingly being stopped with synthetic corks made of plastic and metal screw tops. A small percentage of wines can be contaminated by bad corks, known as "cork taint", as a result, a niche market developed synthetic corks and twist top wine stoppers.

Synthetic corks cut the risk of contamination out, but are made from nonrenewable plastic. Although they can be recycled the plastic isn't reused but made into a new product in a cycle that eventually turns to waste. Screw tops also eliminate contamination, but can contribute to waste if not recycled. If recycled they are a more environmentally friendly option than synthetic corks because metal is a more reusable recyclable than plastic. Natural corks are sustainably harvested renewable, biodegradable and recyclable. Natural corks are the friendliest option especially if reused, recycled or composted.

In my opinion the best part about natural corks is the sheer number of craft projects. About a year ago, I came across a do-it-yourself cork bath mat that requires nearly 200 corks; I probably have about 70 so far. Still have a lot bottles to pop I guess!

5 DIY CORK CRAFTS

1. Make your own bulletin board
2. Cork wreath (paint the corks to make them more festive!)
3. Cork Letters
4. Cork planters
5. Cork Trivets

Oh and apparently someone made a chair out of corks… !

Works Cited:

http://www.wineanorak.com/corks/howcorkismade.htm

http://home.howstuffworks.com/question550.htm

Back to Index

Throw and Grow

By Will Shinn

Cities are often referred to as concrete jungles. When you think about it, it's kind of ironic considering jungles are known for their dense vegetation and cities tend to have none at all. There are often empty plots, or semi open spaces for something to grow, but no efforts are made to better the dull scenery. However, there is a new method of gardening, appropriately referred to as "guerilla gardening." These green rebels are hoping to liven up barren plots, or any space lacking in plant life, with their secret weapon "the seed bomb."

Seed bombs are being thrown in the hopes that their contents germinate, and populate empty plots in urban areas. The idea is that seeds that can't be properly planted are housed in small balls of organic material that will foster early growth. Once the seeds are successful, they can take root and begin to transform the landscape. The best part is that production of these "bombs" is actually quite simple. That being said, if anyone is interested in building one, I've decided to give the basic steps.

Ingredients clay, compost, water and seeds.

1) Have a 5:1:1 ratio, have 5 times as much clay as you do compost or seeds. After obtaining the appropriate amount of each, you have to mix the seeds and compost in a large bowl.
2) Once the two are sufficiently mixed, you add the clay.
3) The clay, assuming it is in its silt form from the start, will need some water. Add in just enough water to get the whole mixture moist, then mold your future seed bombs into their spherical shape.
4) Let them dry, and you are ready for guerilla warfare.

http://www.guardian.co.uk/environment/video/2008/apr/25/seedbombing

America Recycle Day

By Andrew Holloway

While November may be a month most popularly known for its tradition of eating turkey and fattening up for the cold winter to come, it is also home to a less well-known day dedicated to recycling – America Recycles Day (ARD). The intention of this day is to inform the public about the social, environmental, and economic benefits of recycling, and to encourage more people to recycle, creating a better natural environment.

Starting in 1997, November 15th has been dedicated to encouraging Americans to conserve resources, recycle, and buy recycled products. The main objective of this day is to decrease environmental degradation by reducing the amount of waste sent to landfills, and increasing recycling programs on an industrial and community level. ARD has also helped millions of Americans become better informed about the importance of recycling and buying products made from recycled materials. Sponsored by the National Recycling Coalition (NRC), many organized events are held nationwide, focusing on raising awareness about the benefits of recycling.

Recyclables include anything from corks, glass, aluminum cans, milk and juice cartons, paper, batteries, and plastic bags, and that's just naming a few. Recycling is not just about throwing plastic bottles into a blue bin though – knowing what is recyclable and where to recycle are just as important as the act of recycling itself. For cell phones and printer cartridges, go to your nearest office works store for free recycling, and for batteries look for battery collections sites in your local community. Without recycling these items correctly, toxic chemicals like mercury and lead can be exposed, harming the environment by seeping into the soil, water, and air around us. So do your part, and recycle correctly!

http://environment.about.com/od/environmentalevents/a/america_recycle.htm

Back to Index

A Positive Initiative in Camden

The Center for Environmental Transformation

By Cody Beltis

In many cases, change in our world starts from the bottom up. Grassroots organizations are often the pioneers of making a difference. On October 6, the Rutgers Initiative for Permaculture Education (R.I.P.E.), a club dedicated to educating students on independent and sustainable agriculture, went on a trip to the Camden Center for Environmental Transformation. I attended the field trip, and felt privileged to get a chance to see the great things the Center was doing.

In a city with a significant number of citizens below the poverty level and a high crime rate, community driven activities and initiatives for positive change are important to help Camden. The city is also heavily urbanized, so there are few locations where gardens can thrive. The Center for Environmental Transformation wants to change this, and brought the beauty of a series of community gardens to Camden. Interaction with and input from local residents is highly encouraged. This nonprofit's mission statement, on their website, says that they are "dedicated to the environmental transformation and environmental justice particularly in the Waterfront South region of New Jersey."

In 2005, the Sacred Heart Church of the Waterfront South area thought of creating the gardens to communicate the importance of environmental care and stewardship to the greater Camden community. Soon after the seeds of this thought were planted, construction began on abandoned land. With R.I.P.E., as well as students from four other universities of New Jersey and Pennsylvania, I got to help plant a number of diverse plants native to New Jersey. These included black-eyed susan, goldenrod, aster, milkweed, and yarrow.

"These flowers will attract beneficial insects and pollinators as well as increase the health of the soil", said Gabby Green-Aron, a devoted R.I.P.E. member.

The gardens take up over an acre, and host 24 raised-beds, a greenhouse, chicken coops, and several other smaller crop spaces dispersed where there is space. There is a native plant nursery, two vegetable gardens, a fruit orchard and a tree nursery. Children's paintings bring vibrant colors to the greenhouse and chicken coop, and a theater right around the corner offers a close connection to the arts.

People of all ages participate in keeping the garden alive. There are several activities the garden offers for children and adults to help get them involved. Citizens can help plant or water crops, tend to the chickens, or help sell or purchase produce sold at their farmer's market. The crops sell for extremely reasonable prices. The Center also offers a cooking class where fresh bread is baked in a brick oven, and other delicious dishes are made with the fresh foods from the garden.

Andrea Ferrick, the director of sustainability at the Center of Environmental Transformation, said "A lot of our curriculum is about seed to table food production, planting over 13,000 heirloom seedlings every year in this greenhouse, and bringing them to other community gardens in the city."

A unique aspect of sustainable infrastructure at the Center was a rain garden that was designed to help manage storm runoff in the city. Runoff is also collected in large bins while a pump—run by a bicycle— uses this water for the plants inside the greenhouse.

Being able to see this initiative in Camden allowed me to feel the power of hope in this troubled city. Watching children having such a great time getting their hands dirty was wonderful. The most memorable part was an elderly man, who appeared burdened by the stress of poverty. He walked by and bellowed, "God bless this place, God bless you Andrea."

Work Cited:

http://camdencenterfortransformation.org/

http://vimeo.com/33436659

http://ruripe.wordpress.com/

Back to Index

Opportunities at Bonnie Brae

By: Denise Galianos

With an average of 10% of all 2011 graduates, an undergraduate degree in Psychology has become one of the most popular choices at Rutgers University. Psychology is an excellent major because students gain a better understanding of themselves and others. Learning about people's behavior is an important skill that is transferable to all situations. In addition to this, psychology exposes students to a wide variety of career opportunities. Among this wide spectrum of career fields is clinical psychology, sports psychology, health psychology, industrial-organizational psychology, human factors psychology, and education psychology.

I am most interested in pursuing a career in clinical psychology. Clinical psychology focuses on the preventing, assessing, diagnosing, and treating mental disorders. Clinical psychologists can work with all different age groups and in a wide variety of settings. These trained specialists use their communication skills and therapeutic techniques to provide the best possible assistance to their clients. A great way to gain better insight into this field and get hands on experience in the work environment is to apply for related internships.

An excellent internship opportunity for students who are interested in clinical psychology is offered through Bonnie Brae. Bonnie Brae's mission is to provide a haven for young men to reclaim their potential through education and therapy. Bonnie Brae is an entirely government funded residential treatment center for boys ranging from ages 12-18. Currently, there are a total of 104 boys being treated in this facility. The children housed at Bonnie Brae receive appropriate therapy, quality education, a wide range of extracurricular activity options, and are surrounded by individuals who are supportive and eager to watch these children succeed. Bonnie Brae also offers their students appropriate after-care programs; even after a child graduates from Bonnie Brae, they are always considered a part of the family.

Bonnie Brae offers its interns an excellent working environment, full of positive energy and welcoming attitudes. Interns do not follow a daily routine at Bonnie Brae; the staff makes an effort to expose interns to all the different opportunities available on campus. As part of the internship experience, students will also gain valuable research experience. Observing daily routines, meeting with different workers, and asking questions is also a tremendous part of the internship. Being a part of the Bonnie Brae team is not only a fantastic way to gain a better understanding of clinical psychology, but is also a very rewarding experience.

The insight gained through an internship with Bonnie Brae can enhance any type of career choice. In today's evolving work environment, being able to work on a cohesive team is becoming increasingly important. Additionally, interning at Bonnie Brae instills a sense of commitment and optimism that is essential for success in any field—especially in the environmental field, where many folks get to wondering if there is any use in trying to make an impact.

Back to Index

Giving Thanks to Diversity

By Katie Fudacz

The Fudacz Thanksgiving tradition is truly unique and amazing, with origins reaching back to when my mother and father were in their twenties. At that time, they were busily preparing to move – all the way from the crowded neighborhoods of Chicago to a black and white house that sits comfortably in the middle of a cul-de-sac in New Jersey. Moving from very segregated neighborhoods in the south side of Chicago to the multicultural salad bowl that is New Jersey, my parents were amazed by the diversity of their new neighborhood. The six other families living in the cul-de-sac moved in at about the same time as my parents, representing various states and countries. Strong friendships were formed amongst the adults as the neighborhood soon flooded with kids.

Growing up in such a tight-knit community, my neighbors were my best friends. Every day after school we would do our homework together then play outside until dusk. Our parents would carpool us to school, church, swim team, the beach…you name it! Fall was mutually everyone's favorite season because all the kids loved Halloween and Thanksgiving. Every year, each family takes a turn hosting a potluck style Thanksgiving celebration at their house. Together we eat Indian, Spanish, Hawaiian, Portuguese, Irish, Polish, Italian and Vietnamese style dishes. Vegetable dhal, cheese empanadas, Bhindi Ki Subji (stir-fried Okra), coconut curry soup, Kimchi (cabbage), Lomi Lomi Salmon, spring rolls, and pasties de Nata (custard bread) are a few of the staples in our Thanksgiving dinner.

Having Thanksgiving with our neighbors is truly enriching. It is a time to celebrate each other, our upbringing, and cultures. We always carried the importance of giving back close to our hearts, and acted on this by volunteering at our church's soup kitchen, the morning of Thanksgiving. Usually I help set up, serve the vegetables and clean up. My favorite part of the morning is connecting with and celebrating people of all walks of life. It is really amazing how grateful our guests are for preparing them a Thanksgiving meal. Although it is only two hours out of my Thanksgiving morning, my service and company means the world to others. Thanksgiving is a wonderful time of celebration that reminds us to carry a grateful and selfless heart.

Back to Index

Lightning and Climate Change

By Kimber Ray

Barry Commoner, the founder of modern ecology, stated that "The first law of ecology is that everything is related to everything else." So, try as we might, no amount of sidestepping can release us from an eternal tango with the lithospheric, hydrospheric and atmospheric biospheres. We're going to dance the night away whether we like it or not. However, Waldo Tobler's First Law of Geography states that "Everything is related to everything else, but closer things are more closely related." All these common sense maxims added up to a much more elaborate puzzle when trying to understand and describe the relationship between thunderstorms, lightning strikes, and climate change.

The overall pattern of lightning and climate change is clear: as climate change advances, the number of thunderstorms is decreasing, while the intensity of thunderstorms is increasing—but the details remain elusive. For one thing, unlike CO2 levels or global temperatures, there are no proxies to measure past lightning activity. It was only recently that we became able to accurately record global lightning data through the use of ground- and satellite-based lightning detectors.

Compounding this lack of long-term data is the difficulty of even understanding lightning, which remains a more mysterious than even Sasquatch. For example, how does lightning even form given the relatively low electrical field strengths inside the clouds? Or how does lightning produce x-rays at temperatures that should be far too low to perform such a feat? The mysterious nature of lightning remains as a pressing impediment to fully understanding how thunderstorms will be affected by climate change.

However, despite unanswered questions in lightning research, there is still a substantial amount of research analyzing how climate change may contribute to fewer, and more intense, thunderstorms. The briefest of summaries is this: areas that are hot and dry—though not so dry as to be a desert with no rainfall—have fewer and more intense thunderstorms; a large swath of the planet is on track to fit these criteria.

In a more detailed summation, higher global temperatures are influencing three main factors that contribute to thunderstorms: the freezing level of the troposphere, the dew point temperature of water vapor, and upper tropospheric moisture content. Current speculations suggest that lightning is the result of an electrical current created from hail and graupel falling through a cloud containing super-cooled water droplets. Therefore, a cloud must extend above the freezing level in order to generate a thunderstorm. As the height of the tropospheric freezing level rises, there will be fewer thunderstorms, but those that occur will have had a significantly more powerful updraft force, leading to a more intense storm. As temperatures climb, the dew point temperature of water vapor is climbing too, meaning that air parcels have an increased capacity to hold water vapor before reaching the saturation point. This, in turn, means that there will be more droughts and more floods when air parcels release their heavy loads. Finally, a warmer climate increases the amount of moisture in the upper troposphere, which becomes caught in the updraft of brewing storms. As this upper tropospheric moisture is pushed to the freezing level, it releases latent heat that further fuels the storm along

What's more, when thunderstorms occur in areas that are hot and dry, the chance of forest fires is significantly increased. We've already witnessed just how devastating forest fires can be with the scorching Midwestern blazes this past summer. While it would be impossible at this point to halt the mounting dangers of climate change, we can still mitigate the impact through sound environmental policies. Just before the fires began in Colorado this summer, I was driving through the mountains with my aunt, who has written a book on controlling forest fires. In what would seem to be unwelcome premonition of the future, we looked out at the sea of brown pines devoured by invasive pine beetles, and my aunt commented on the looming risk of forest fires and the need for more controlled burnings. Bound though we are to our interactions with the environment, we must embrace our reality and take the lead if we don't want to dance our way to destruction.

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Back to Index

An underwater tragedy:

Devastation of the Great Barrier Reef

By Wendy Chiapaikeo

The Great Barrier Reef (GBR) is the world's largest coral reef system with more than with more than 3,000 reefs; it stretches over 300,000 km2 along the eastern coast of Australia. It is a biodiversity hotspot home to over 1,900 fish species. Even from outer space, the GBR can be seen!

Last month, I had to opportunity to go on a trip with my marine class to Heron Island, in the southern part of the GBR. We had to board a ferry from the port in Gladstone, Queensland. Upon arriving to the marina, I was shocked to find that Gladstone was a prominent mining town, full of coal export terminals. Several huge cargo vessels were anchored just a few kilometres away. During the 2-hour ferry transfer, I noticed the water quality change from a murky green to a crystal clear blue. It was appalling that this was in such proximity to the GBR, a world heritage site.

A recently published report by the Australian Institute of Marine Science (AIMS) affirmed that coral cover on the GBR has declined by more than 50% in the last 27 years (De'atha et al., 2012). The three major causes of coral destruction are: tropical cyclones, predation from crown-of-thorns (COT), and coral bleaching. While it may not initially seem like it, these are all indirect results of human activities. Climate change due to increases in greenhouse gas emissions globally affects weather patterns and is causing ocean waters to warm at alarming rates. Although corals are quite resilient, they are not able to withstand more frequent and intensified storms. Increases in water temperature cause zooxanthellae, single-celled algae that inhibits coral and provides energy through photosynthesis, to become stress and abandon the coral, resulting in bleaching and eventually death. COTs are naturally occurring sea stars that feed on coral. Eutrophication increases from river catchments and runoffs due to human land uses has caused superficial COT outbreaks.

The tremendous expanse and `magnificence of the Great Barrier Reef represents the wonders of Mother Nature's magnificence over hundreds and thousands of years. The beauty of the GBR is overwhelming. While SCUBA diving, there were moments when I would forget to breathe! It's easy to become submerged in the peaceful calm of being underwater with just the sound of inhaling air and exhaling bubbles. Staring at bright coloured corals, schools of tropical fish, and immense megafauna going about their casual business in their ecosystem can be one of the simplest pleasures. However, it was upsetting to think that the beauty I saw on my dive was actually a deterioration of what used to be just a few decades ago. This underwater paradise could be wiped out within the next three decades if things don't change.

From experience talking to Australians, it's obvious that they care about the environment. The GBR especially is highly revered in their hearts. Throughout the world the GBR is an iconic symbol of nature and the underwater world. The GBR Marine Park Authority, reef restoration programs, and further policies are being implemented in efforts to help the GBR. There is always something that can be done. Community activism is a strong key component in protection of the GBR. Regardless of where you are, any support to save the GBR can help! If you care, then care to do something. Take action!

The 27–year decline of coral cover on the Great Barrier Reef and its causes by Glenn De'atha, Katharina E. Fabriciusa, Hugh Sweatmana, and Marji Puotinenb (edited by a professor from Rutgers! – Paul Falkowski)

Great Barrier Reef: http://australia.gov.au/about-australia/australian-story/great-barrier-reef

Back to Index

TRAIL MIX

You must be the change you wish to see in the world.

-Mahatma Gandhi

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Dr. Clark's Strange Tales

Brazil has a robust democracy but with very few controls on what candidates may call themselves on ballots. Among those running for offices this election season, according to a September New York Times dispatch from Rio de Janeiro: "John Kennedy Abreu Sousa," "Jimmi Carter Santarem Barroso," "Ladi Gaga," "Christ of Jerusalem," a "Macgaiver," five "Batmans," two "James Bonds," and 16 people whose name contains "Obama." "It's a marketing strategy," said city council candidate Geraldo Custodio, who apparently likes his chances better as "Geraldo Wolverine."

Challenging Races: (1) Richard Wagner Jones, running for a school board seat in Granite, Utah, told reporters in June that since the job is mainly about taxes and budgets, he would not have to make site visits to schools. That is fortunate, for Jones is barred from schools as a registered sex offender based on a 1990 conviction.

(2) Mike Rios, a former school board member in Moreno Valley, Calif., said in August that he was still considering running for the town's council despite his March arrest for attempted murder and April arrest for pimping (allegedly caught with several underage recruits).

KINDNESS IS AN INNER DESIRE THAT MAKES US WANT TO DO GOOD THINGS EVEN IF WE DO NOT GET ANYTHING IN RETURN. IT IS THE JOY OF OUR LIFE TO DO THEM. WHEN WE DO GOOD THINGS FROM THIS INNER DESIRE, THERE IS KINDNESS IN EVERY-THING WE THINK, SAY, WANT AND DO.

- Emmanuel Swedenborg

Back to Index