

food sustainability

A General Student Resource & Club Guide

Many clubs often bring their own food to feed attendees of their events—whether it be workshops, meeting or fundraisers—with over 250 clubs all of this adds up. While purchasing processed or ready made food is convenient, please be aware that processed foods, like all of our lifestyle choices are not immune to having an impact on the environment.

The student lifestyle seems to gravitate to convenient quickly available cheap food, such as “fast food”. One must consider that the Fast Food industry like all other large scale food production conducts environmental sins like over packaging and excessive energy use. A hamburger can emit the same number of volatile emissions as a car driving 1,000 miles after production. The carbon footprint of fast food is daunting.

Commercially available processed food is often excessively packaged and creates a lot of waste. For example, individual portioned granola bars or a package of cookies with box, plastic film and plastic tray. Large scale food production also utilizes chemicals in production, packaging and the food itself. Not to mention the energy intensive processes from industrialized agriculture and mass scale food production. Large scale food production also utilizes massive amounts of fossil fuel as energy in production and transportation. Consider a can of Coke, its ingredients are globally sourced and require excessive transportation. To illustrate, a single bottle of ketchup can involve raw materials from over half a dozen countries and require 52 different stages of transportation. With fossil fuel no longer becoming a cheap energy source the environmental and economic sustainability of this practice is concerning.

One alternative if you are not feeding a large number of people would be to bring something home made which limits packaging to reusable tupperware containers for transportation and you have total control over what goes into your food! Two of the most perhaps quintessential snack foods will be used to tackle some of the broad environmental issues related to food and the industry. Please do not think of these in isolation but consider the broad themes being explored and how they relate to other foods in your diet and your lifestyle.

Before that, acknowledge that food and industry have long standing links to social histories and realities. Sugar and the cash crops of slavery come to mind, but these social issues continue to the present day. Race, citizenship-status and class are historically linked to labour struggles and food justice, and this is still the case. Even locally grown produce is at risk of being tainted by malicious industry practices. For example, Migrant Workers flood Canada seasonally and labour on farms harvesting and cultivating our produce. They are refused to unionize, providing cheap and disposable labour so profit can be produced. Canadian produce also unfortunately operates in a capitalist industry farming for wealth production not the wellbeing of its workers or the environment. This includes destroying biodiversity with mono crop farming, excessive toxin use and agroecosystem instability. Just as capital production permeates society— including our food—larger systems of colonialism, internationalization and racism have been linked to hunger, food access gaps and land dispossession. These issues of food justice operates in tandem with environmental and social struggles.

chips

POTATOES

Conventionally grown mass scale potatoes are often treated with multiple pesticides, being sprayed repetitively with fungicides, herbicides and pesticides throughout its growing season. As already mentioned in the organic food section, spraying adds chemicals into the ecosystem contaminating the soil and often running off into waterways. Buy organic whenever possible.

GMO CORN

Genetically Engineered (GE) or Genetically Modified Organisms (GMO) are a fairly new and controversial intervention of science into the food industry. GMO crops span far beyond corn including soy, wheat, canola, sugar beets, potatoes, rice and cotton. The crops are created by blending genes from different species. GMO is a self-perpetuating industry with research, seeds, and pesticides all needed from the same source because of the organisms resistance. Exemplary of this, Monsanto owns about 86% of the world's GMO seed. Early genetically altered crops were designed to resist pesticides and herbicides. Unfortunately weeds and other pests have evolved too and multiple applications of chemicals are now the norm. The safety of GMO food has not been adequately studied for both long-term health and environmental damage.

RICE

Rice is a major staple for a lot of the world's population. Rice production unfortunately creates excessive methane which is 20x more potent as an insulator than carbon dioxide in the atmosphere. Rice agriculture also accounts for one-third of the planet's annual freshwater use. While the industry is changing, for the meantime maybe consider diversifying your diet with different grains.

cookies

SUGAR

Cane Sugar production is rampant in 121 countries with over 45 millions tons of sugar produced each year according to the WWF. Production at this large of a scale take its toll. Sugar is blamed for more biodiversity loss than any other crop due to its habitat destruction, use of pesticides, water usage and the polluted wastewater produced from production and refining processes. From the Florida Everglades to Barrier Reef, fertilizer runoff and irrigation drainage are damaging environments from the sediments and chemicals. It's best to keep that sweet tooth in moderation and diversify the sweeteners in your diet.

PALM OIL

Why is palm oil not sustainable? Palm oil grows in plantation style agriculture in hot wet climates. Palm oil is alarmingly used as it is a cheap vegetable fat. It is estimated to be in 10% of US groceries ranging from baked goods, chocolate, sauces, margarine, cereal, soaps, detergents and cosmetics. Unfortunately it is harvested without using sustainable measures. The industry is linked to major deforestation and habitat degradation. Palm oil plantations currently account for the highest rates of deforestation in the world. The orangutan is particularly affected from massive habitat loss when rain forests are cut, burned and converted to agricultural land. The industry also has a poor human and animal rights track record.

UNBLEACHED AND ORGANIC FLOURS OVER BLEACHED AND REFINED

What is bleached wheat flour? It is a heavily refined white flour that is chemically treated with bleaching and maturing agents to improve the gluten. In addition to losing many nutrients in the flour, the additional chemicals are avoidable and hazardous. Like organic products that cut down on the use of synthetic and chemical interferences in a agriculture, unbleached flour is a more sustainable choice over conventional flour. Also the less time food ingredients spend in refining and processing the better, meaning less energy usage.

HIGH FRUCTOSE CORN SYRUP

Often corn for the High Fructose Corn Syrup (HFCS) Industry is grown in monoculture system meaning there is no crop rotation and the soil is eroded and depleted of nutrients and pesticides and fertilizers are required. HFCS farming has already created a dead zone with a chemical trail damaging ecosystems in the Corn Belt to the Gulf of Mexico via the Mississippi. The milling and chemical process of extracting HFCS is energy intensive. Legal action on imported sugars and tariffs also means that its usage is widespread because of its domestic production. Be wary of HFCS in everything from ketchup to bread.

REMEMBER THE ALTERNATIVES: Make your own snacks to control what goes into them, avoid mass produced snacks, GMO crops, refined/bleached flour and palm oil, diversify your sweeteners and grains, package your snacks in reusable containers to reduce waste, buy in bulk whenever possible, bring reusable containers/bags with you to stores and restaurants, purchase seasonal, organic, and local when possible. These are some tips to help lure guests to your events, keep your meetings happy but also limit your impact on the planet.

vegetarianism

WHAT'S THE DEAL?

Consumers in industrialized countries consume a disproportionate amount of animal protein. Raising livestock requires vast quantities of land, water and energy, plus feed that is often cheaply and hazardously produced with synthetic fertilizers and pesticides. By the time a factory farmed cow is slaughtered it will have required 284 gallons of oil worth in fertilizer alone. In comparison, beans require only 4% of that energy to produce a caloric equivalent. Animal waste is also a growing pollutant. Livestock waste is sometimes laced with toxins and antibiotics as well. The growth of the ranching industry is also a major player in deforestation in the developing world, and linked to labour struggles. While the idea of eliminating meat or all animal products out of your diet is intimidating, even just cutting back will have a positive impact.

food packaging

AVOIDING STYROFOAM LIKE THE PLAGUE

Did you see the section about the great Plate Club on campus? There is no need to buy disposable glasses or plates. In the event that you do please, please, please avoid styrofoam like the plague. Some estimate it takes styrofoam 500 years to decompose, other estimate it will NEVER decompose. While styrofoam recycling exists it is not widely available and instead end up in landfills. Styrofoam recycling that is available is not "closed loop". For example, a recycled styrofoam cup will not create more styrofoam cups but other products. This means that more petroleum is required to manufacture more of the initial product. In Montreal, styrofoam is not currently part of the recycling program. Styrofoam also poses human—as well as environmental—health concerns. It is comprised of Benzene and Styrene both of which are known carcinogens, and chemicals that can leach into food and ecosystems. Styrofoam is considered the main pollutant of oceans and waterways. It is also a notorious choking hazard for wildlife as it degrades into small pieces.

bibliography

Gottlieb, Robert, Anupama Joshi, **Food Justice: Food, Health and the Environment**

Holt-Gimenez, Eric. **Food Movements Unite!: Strategies to Transform Our Food Systems**

Magdoff, Fred, Frederick H. Buttel, John Bellamy Foster, Hungry for Profit: The Agribusiness Threat to Farmers, Food, and the Environment

Shields, David L.L., **The Color of Hunger: Race and Hunger in National and International Perspective**

Say No to Palm Oil, http://www.saynotopalmoil.com/Whats_the_issue.php

High-Fructose Corn Syrup: Not So Sweet for the Planet, <http://www.washingtonpost.com/wp-dyn/content/article/2008/03/06/AR2008030603294.html>

The Truth About Grassfed Beef, <http://foodrevolution.org/blog/the-truth-about-grassfed-beef/>

Understanding GMO, <http://www.davidsuzuki.org/what-you-can-do/queen-of-green/faqs/food/understanding-gmo/>

Mother Nature Network, 12 Foods that are Bad for the Planet, <http://www.mnn.com/food/healthy-eating/photos/12-foods-that-are-bad-for-the-planet/>

Fast Food, http://www.cawrecycles.org/issues/fast_food

Green Living Tips, White v Brown Bread, <http://www.greenlivingtips.com/articles/White-bread-vs-brown-bread.html>

What is the Gulf of Mexico Dead Zone?, <http://www.mnn.com/earth-matters/translating-uncle-sam/stories/what-is-the-gulf-of-mexico-dead-zone>

Sugar and the Environment - Encouraging Better Management Practices in Sugar Production and Processing, http://wwf.panda.org/about_our_earth/all_publications/?22255/Sugar-and-the-Environment-Encouraging-Better-Management-Practices-in-Sugar-Production-and-Processing

Case Study, Tomato Ketchup, http://www.youthxchange.net/main/b226_food_miles-e.asp