

TO GMO OR NOT TO GMO?

Well, first of all, what are genetically modified organisms (GMOs)? GMOs are organisms which have had gene sequences from other organisms spliced into their DNA. Genes spliced into foods might code for traits that do things like make a plant produce its own pesticide, or make a plant resistant to certain kinds of diseases.

GM foods like Bt corn, soy or cotton, which have genes that code for the toxin *Bacillus thuringiensis*, could potentially 'green up' industrial cereal production because they require less use of toxic pesticides. Other GM crops have genes that code to resist certain diseases and bacteria that the species might be susceptible to- like for example research is now being done to create, for example, rice that requires less water.

So where's the rub? Sounds like GM foods could be sustainable foods after, all right?

Perhaps. The politics and ethics of GM foods are complicated, and I don't think there's as an easy 'yes' or 'no' about it.

Here are other things to consider.

- Most of the companies that have developed GM seeds are companies that also sell pesticides and herbicides- like Syngenta and Monsanto. So what? Well, for example, in the 70s Monsanto developed an herbicide called Roundup, that farmers would spray to get rid of weeds- but obviously couldn't spray their crops with. In 1996 Monsanto developed a GM corn called Roundup Ready, which had a gene that coded for herbicide resistance.
- Recently it has become possible for companies to patent the GMOs that they invent- in fact any genetic material is patentable.

On another side of things you have issues like:

- If a plant produces a certain toxin for a pesticide, eventually there is a good chance that the insect population will become resistant to that toxin, and the plant will no longer be resistant to those pests.

So - to GMO or not to GMO? That is the question. Answer- unclear.

My recommendation is to learn more about issues with GM foods. You might want to check out the documentary *The Future of Food* Deborah Garcia.



FRUITS, VEGETABLES, CEREALS cont.

Even if the plants you're eating are organic, if they traveled thousands of miles to get to you they're putting some major pounds of CO2 in the air, which might cancel out the benefits of not using chemical fertilizers. And even if your food doesn't travel a long way to get to you, if it's grown in a hot house a lot of fossil fuels are also being burned to grow it. Here are some suggestions towards eating sustainable plants:

- Buy foods from local growers. Ask your grocer which foods come from local farms, or buy from farmers markets. There are also companies- like Fresh Picks (www.freshpicks.com) in Chicago- that will deliver in season foods from local farms to your door.

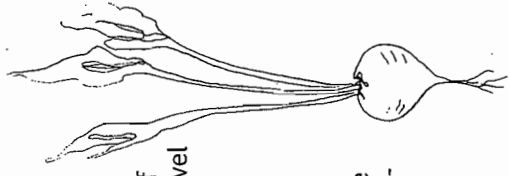
- Buy foods that are in season in your area.

- If you buy processed or preserved foods, look for those which have little packaging or whose packages are made from recycled materials and those with recyclable packaging.

And remember- the best way to making responsible food choices is to stay informed about the foods you're eating!

You may think about how much fossil fuel is consumed in producing your food, but what about water- a limited natural resource? Check this out, it takes (note- a liter = about 2.2 lbs, and litre = about 1/4 gallon)

- 20,000 liters to produce 1 kilo of coffee	- 3,000 liters to produce 1 kilo of sugar
- 11,000 liters to produce 1/4 lb of beef	- 2,000 liters to produce 1 liter of milk
- 5,000 liters to produce 1 kilo of cheese	- 1,000 liters to produce 1 kilo of wheat
- 5,000 liters to produce 1 kilo of rice	

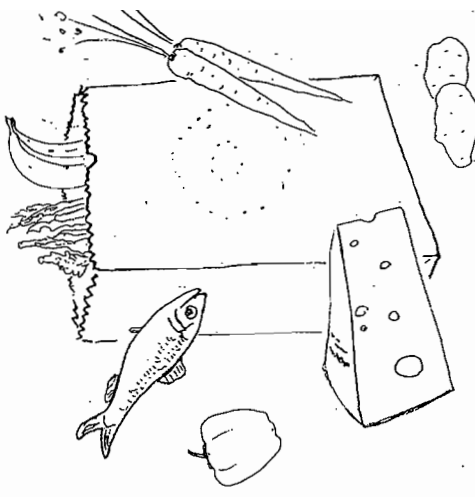


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an introduction to making sustainable food choices



WHAT'S UP WITH FOOD?

SUSTAINABLE FOODS

Making sustainable food choices- what does that mean? What I consider to be sustainable foods are: foods that are produced with a low impact on the environment (i.e. generate as little CO2 in their production as possible, don't destroy local eco systems in their production), use natural resources efficiently and don't generate a lot of superfluous waste. These considerations make things a little more complicated than simply eating organic.

The best way to be able to make sustainable food choices is to know as much as you can about the food that you eat, where it's coming from and how it's produced. This zine does not present any easy answers about how to eat sustainably- there aren't any. Rather it will highlight some things to consider when choosing foods.

If your going to eat fish, consider buying wild, line caught fish, like troll caught Alaska salmon. Also smaller fish, like herring, anchovies and sardines. (1) If this isn't enough variety for you, check out Audobon's list of recommended fish to eat and fish to stay away from: seafood.audubon.org/seafood_wallet.pdf



FISH

Fish don't belch methane, clearly, but there are plenty of things to think about when eating fish:

- Fish farming can destroy coastal eco-systems and limit access to the shore for local people, potentially destroying the livelihoods of individual fisherman and disrupting local economies. Many wild fisheries over harvest certain fish populations of fish.
- Certain methods of fishing, such as trawling and gillnetting, catch fish using large nets, which can destroy ocean floor habitats. And it requires a lot of fossil fuel to harvest and process fish, especially in fisheries of large fish, like tuna and shark.

SOME OF WHAT'S UP WITH FOODS YOU (MAY) EAT

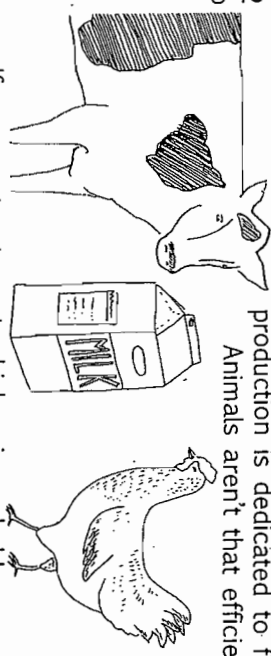
MEAT

If you've never found the empathy-for-animals argument for vegetarianism compelling, then what about cow belching? Seriously! Cows belch methane, a greenhouse gas, and when you add up all the belches of the 1.5 + billion cows that live in the world, it's a significant amount of gas. When you factor in the CO2 emissions from fossil fuels burned to run factory farms- how most cattle are raised- and the nitrous oxide emitted from nitrogen rich cow manure, you have a meat industry that is responsible for 18% of the worlds greenhouse gas emissions, more than the entire transportation sector (1).

It is estimated that 6 oz. of beef generates 9.75 pounds of CO2 equivalent. (3)

Besides greenhouse gas emission considerations, it takes a lot of food to produce all the meat that is eaten in the world, a lot of space to produce that food. It is estimated that in the U.S. 70% of all cereal production is dedicated to feeding livestock.

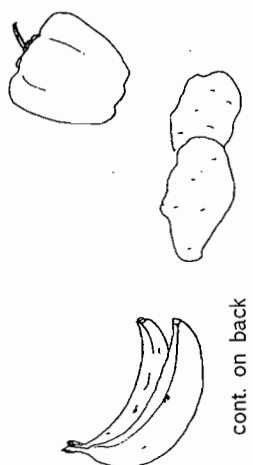
Animals aren't that efficient at turning grain into meat, either- it takes 2 lbs of grain to produce 1 lb of chicken, 3 lbs of grain to produce 1 lb of pork, and 6 lbs of grain to produce 1 lb of beef.



If you must eat meat, chicken is probably your best bet- chicken waste produces 1/10th the methane of hog and cow manure, and chickens are the most efficient converters of grain into meat.

FRUITS, VEGETABLES, CEREALS

What could possibly be unsustainable about lettuce? Organic carrots? True, tomatoes don't need to be fed six times their weight in grain, but if you buy them in February they may have been shipped half way across the world to get to you.



cont. on back Also, check out the back for info about GMOs

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