

Sustainable cooking

Some words and ideas to... feed the debate!

Food has a special place among all concerns related to sustainable development, for several reasons:

- 1- Food is a daily need, **essential** to life,
- 2- Some people have (far) enough food, whereas some others lack **quantity or quality**,
- 3- The **demand** for food is continuously increasing, due to population growth and diet changes,
- 4- Productive **lands** are steadily decreasing, because of urban sprawl, pollution and desertification,
- 5- The way we choose, prepare and eat our food is often deeply rooted in our **culture**,
- 6- **Globalization** and international trade also impacts food supply and eating habits,
- 7- Food meets many topical **stakes**: Green House Gas emissions, (fossil) energy consumption, depletion of natural resources, waste management and other risks of pollution...

Therefore, cooking is more than ever at the **crossroads of environment, health and culture**. At the same time it is both a worldwide, long term, political concern and an immediate lever for action at the household level.

What is sustainable cooking?

The word 'sustain' means to be continued over a long time.

It means that, like all our other activities and decisions, cooking should try and comply with key advice to reduce pollution and consumption (and especially wastage) of energy and materials, but also expenses and trouble to other people's health and well-being.

What can we do?

✓ Changing our food:

Not all, but many people in developed countries, tend to eat more **meat** than their actual needs. Of course, this is a matter of taste and culture, but we must be aware that it takes the equivalent of about 3 kg of cereals to make 1 kg of poultry or pig meat, and even up to 10 kg for 1 kg of beef. Sure, we need ruminants to convert grass into food we can eat, but part of our meat can be replaced by proteins from **legume seeds**, or even other vegetables or fruit that are usually insufficient in our diets. Vegetable based alternatives also exist to eggs, cream, cheese... For the future, insects are already considered as a high quality source of protein that could be grown efficiently (energy wise), quickly and cheaply, even from waste!

✓ Growing our own ingredients:

Even in towns, growing fruits, vegetables and herbs is possible for well **informed and motivated** individuals or groups of individuals. If you are lucky enough to get a small garden, then a significant part of your yearly food supply can come from it. You just need to know **which plant is suitable** to the available space and how it should be grown. For instance, forget about coconut trees in Lyon!

✓ Using local/regional foods:

Even with a great and well managed garden, you will likely not supply all your food needs. For what you still need to buy, you'd better choose products **grown and processed as close as possible** to your home. This reduces the energy consumption and the pollution due to transportation. It also supports local producers who offer fresher products. There must be a market or a **farm shop** close to your dwelling or workplace. When in supermarkets, you should **check the labels** and pay attention to where the products are originated from. But again, do not feel guilty when buying a pineapple once in a while...

✓ Preferring seasonal food:

You should know at which time of the year each vegetable is harvested. If it is sold at a very different period, it means that it has been through a **costly refrigerated storage** and/or a long-distance **transport**. For instance, in France, cherries are to be expected in summer, pears in autumn, leeks in winter, strawberries in spring. Of course, some vegetables like lettuces can now be grown locally all year round in green houses, but their **environmental balance**, their taste and nutritional qualities may lead to discussion.

✓ **Avoiding pesticides:**

The widespread use of pesticides leads contributes to the decline of **biodiversity**. Residues of pesticides accumulate in the food chain and they are now proved to cause many **health** problems. By preferring products grown with less pesticides, and especially organic products, we reduce the impact of our food on the environment. But be aware that even “organic” does not always mean “perfect”, because such products may also be grown far away, on large farms and require a lot of fuel instead of pesticides...

✓ **Buying products which are value for money:**

Sustainable cooking should not be expensive. Unless you are looking for an exotic touch in your meals once in a while, the most expensive products are not necessarily the most **nutritious**. Conversely, quite cheap local and seasonal vegetables may have high contents in energy, protein, minerals and vitamins. Besides, buying a **larger packet** of food which can be used over a long period of time works out cheaper than buying lots of smaller packages. Pasta and rice are two examples of basic foods which can be bought in bulk. But please resist the temptation of **so called “good deals”** (like the famous “two-for-the-price-of-one”) that would make you buy much more than what you will reasonably eat during the shelf life of the product. Should this happen, read next item about surpluses...

✓ **Reducing food waste:**

As much as possible, **cook what you intend to eat... and eat what you cooked!** Fortunately, most food leftovers can now be preserved refrigerated for several days and then be **served again**, as such or differently (see next item about food recycling). This can even be a strategy to save time and money by cooking in advance for several days. Provided you do not cook too much! You may also be willing to **share** with relatives, friends and neighbors. Whether regularly or occasionally, that’s also a good way to save time, discover new recipes and maintain good relationship by the way.

Last but not least: do not be mistaken with the **shelf life**. Regarding health hazard, you may worry about an expired “**use-by**” date for very perishable goods like meat for instance, especially if it visibly spoils! But please keep in mind the different notion of “**best-before**” date, which is usually much more approximate, long term and indicative. It is set by the processor and it only means that the taste or the texture of the product is gradually altered and it may be significantly different after a certain time, according to storage conditions. This is typically the case with biscuits, some canned food, or yoghourts, that can be safely edible even for months after their “best-before” date. So do not throw them out!

✓ **Using leftovers:**

Preserving foods helps to reduce food waste. Beside **chilling and freezing, pickling, bottling and jam** making are other possible means of preservation. In order to reduce the amount of wasted food, do not hesitate to **be creative** with leftovers. For instance, meat from a roast chicken may help filling a chicken pie, sandwiches or baked potatoes. But **never thaw and then refreeze** food, especially animal products, unless they are cooked in between. If not, possible microbial growth would induce a serious **hazard of food poisoning**. Beyond the recycling of the usual edible part of the products, some people try to promote the use of... preparation wastes, such as the **peelings** of some fruits and vegetables! This is easier to consider with carrots or apples than with potatoes or oranges...

✓ **Reducing the environmental impact:**

The minimum food waste – that you really cannot - eat will be preferably sent to **compost** rather than to **land fill**. More and more **biogas** production plants develop and enable to produce renewable energy from organic matter, while avoiding GHG emissions.

Selecting foods with **less packaging** also helps to reduce land fill waste. Local, raw or slightly processed farm products usually meet this requirement. Some research teams also work on fully biodegradable or even edible materials for packaging food in the future.

Also remember that the action of **cooking as such requires more or less energy** according to the mean of cooking: boiling, frying, baking in the traditional oven, or microwaving.

Maybe a time will come when no more cooking will be necessary, should some microorganisms be selected to prepare the food for us... Science fiction? This would not be greater a change than from wood fire to microwave!