SLOW MEAT
TOO MUCH AT STEAK
How to choose your meat; less, and good, clean and fair
Produced by Slow Food and ActionAid, this guide takes a closer look at one of our most popular foods: meat.

The numbers are unforgiving: continuing to eat meat at current Western levels of consumption, a rate which developing countries are now approaching, is unsustainable. Every US citizen consumes around 120 kilos of meat annually, with Europeans eating 80,6 kilos and a sub-Saharan African inhabitant consuming less than 20 kilos. Western countries can afford this level of meat consumption, thanks to the fact that two thirds of the remaining world population currently eat very little of it. However, if both the Chinese and Indian populations began to consume the same quantity of meat per capita, the Earth’s surface would not be sufficient to feed all the necessary livestock.

The most alarming figure concerns the global meat consumption trend, which increased fivefold in the second half of the twentieth century and which, according to FAO estimates, is set to double by 2050. This increase in consumption has caused the livestock and meat production sector to change, producing a series of negative consequences for the environment, human health, animal welfare and social justice.

We offer you this little guide, in its updated version, to help remind you that each time you shop, your individual choices can help determine a positive change in the global food system. At the market, at home, at the restaurant or canteen... by following a set of good practices daily, you can really make a difference: eat less meat, but of better of quality and pay a fair price for it. This is the motto of Slow Food’s Slow Meat campaign for a reduction of meat consumption.
If we want to eat meat to excess and pay little, it drives farmers to produce large quantities of poor quality meat. The animals' life cycles are sped up, causing them to grow or produce at speeds that their bodies cannot endure and dramatically shortening their life span. Cheap meat arrives on the market and the vicious cycle continues as the low prices encourage us to fill up our trolleys and consume more and more.

Most of our daily food shopping is done in supermarkets where the price of chicken per kilo is often lower than that of a pepper. Considering how much an animal has been eating during its life, how can it cost so little to take an animal from birth to slaughter?

Two principles drive the modern production cycle for meat: speed and quantity. The more that is produced cheaply, based on an industrialized farming model, the higher the costs for the environment, public health, animals, farmers and people's right to food. Intensive farms use more food than they produce: food resources consumed by livestock are far higher than those that they supply us in the form of meat, milk and eggs.
Percentage distribution of meat consumption on a global scale

300 Million tons of meat products

- Asia: 46%
- Europe: 20%
- North America: 14%
- Latin America: 10%
- Africa: 5%
- Central America: 4%

In the second half of the twentieth century, global meat consumption increased five times. According to FAO estimates, it is expected to double by 2050.
Environment

On small-scale traditional farms, livestock gain all or most of their feed from the land they are kept on. This means that they are kept at a lower stocking density and their manure is useful as a fertilizer.

In industrial farming, the situation is the opposite: the manure the animals produce is so abundant that it creates problems of pollution and disposal. In addition, their feed comes from intensive farming, which uses pesticides and fertilizers harmful to the environment, often from farms that are hundreds or thousands of kilometers away.

Industrial livestock production pollutes water, soil and air with excess nutrients from manure and fertilisers and is a large contributor to global greenhouse gas emissions and climate change.

Eight times the amount of water needed to produce one calorie of plant foods is needed to produce one calorie of animal origin.
(Source: UNESCO - IWE (Institute for Water Education), The Green, Blue and Grey Water Foot Print of Farm Animals and Animals Products, 2010)
80% of farmed land are destined to livestock production and 30% of cultivated grains feed those animals. The livestock and logging industries are in fact the main causes of deforestation in the Amazon region.

Corn is processed into feed for calves raised to make steaks and hamburgers, or fed to chickens, pigs, turkeys, lambs and even salmon. Animals once lived in pastures and fed on grass, but now most meat comes from large stables, with animals fed a mash of corn, soy and, often, industrial waste.
Health

The consumption level of animal proteins and fats in developed countries is so high that it is causing diseases. The excessive consumption of meat - combined with other factors - is associated with an increase in obesity and the presentation of cardiovascular disorders. Diets high in saturated fats are associated with increasing levels of cholesterol in the blood and type 2 diabetes.

The relationship between certain oncological diseases and high meat consumption (red meats in particular) have been known and highlighted for some years. Based on the evidence, the most recent guidelines (from the World Cancer Research Fund and the Harvard University School of Public Health) recommend a moderate consumption of red meat (on average two portions per week) and only occasional use of cured meats (salami, ham and sausages). Cooking methods are also important: it is best to avoid grilled meat, particularly when cooked for a long time or if it appears burnt.

Animals raised in intensive farms are commonly supplied with antibiotics to prevent diseases, which occur frequently due to cramped living conditions. This results in bacteria developing resistance; meaning antibiotics are no longer able to stop them. Antibiotics are also passed on through manure and permeate the soil, thereby contaminating rivers and lakes.

Antibiotics are also present in the meat we eat and are assimilated by human beings, making it increasingly difficult to fight off even a common flu. Such harsh preventative measures employed in industrial production are not necessary in small-scale, traditional farms where animals are generally less prone to falling sick.
If animals are fed fresh grass, hay and high quality grains, their meat will be healthier and tastier, and will have a better nutritional profile, with lower cholesterol and saturated fats found in the muscular areas.

If we eat better meat and less of it, bees will be happier!

What do bees have to do with my steak? Another hidden cost of the intensive production of meat is the loss of biodiversity and natural habitats.

The enormous fields of mono-culture crops that are required to feed animals that are kept indoors all their lives rely on the extensive use of pesticides. These pesticides are having a dramatic impact on bee populations around the world. In more traditional smaller-scale farming, farmers rotate their crops making use of nature’s natural pest control.

By eating higher quality meat, in smaller amounts, you can support the future of bees.

To find out more
Animals

Standard industrial farms, which are proper meat and milk factories, only have the maximization of production as their main goal, paying little regard to the welfare of animals, who are instead regarded as commercial commodities and are often farmed under intensive and exploitative conditions. A steer weighs around 700 kilos and reaches the slaughterhouse once it has consumed between 10 to 12 times its own weight. In order to increase growth rates or milk production in dairy cows, animals are fed with protein: out of 10 kilos of feed, 7 of these are made up of proteins such as corn and soy.

Traditional cattle breeds can live more than 15 years and will give birth six or seven times during their life. They do, of course, produce less milk than modern, selected breeds, slaughtered after giving birth three or four times, when they no longer guarantee high yields of milk. Intensive farming simply substitutes them and carries on, in disregard of animal welfare, waste, pollution and loss of animal biodiversity. The modern dairy cow is amongst the most exploited of farmed animals.

The average lifespan of a fattening calf is only nine months. Farmed sows live for three years, while normally they could reach up to 18, and pigs used for meat are slaughtered at only 5 - 6 months. Supermarket bought chickens grow rapidly, thanks to specific genetic crosses and selections, and are slaughtered beginning around 35 to 60 days of life, while domestic fowl require at least four months.
Farmers

The current meat production model is based on increasingly low returns for the farmer. Out of the retail price we pay, only 20 percent goes to the producer, while the rest goes to intermediaries, processing industries and distributors. It is a system based essentially on production increase and cost reduction. This mechanism is highly dependent on subsidies, provided by the taxpayer, to keep functioning.

Many producers in industrialized countries are abandoning their farms, with livestock farming becoming larger and increasingly concentrated. The industrialization of farming also reduces the size of the workforce required. If farmers could take the time required to produce quality products, whilst still making a living, and if consumers ate less meat and paid a fair price for it, then this downward spiral could be halted.
Right To Food

Problem: The world’s population is 7 billion and current food production could feed 12 billion, so why do over a billion people go to sleep every night on an empty stomach?

Food prices have reached very high levels in recent years, triggering serious food crises in many countries. The increase in meat consumption is one of the causes of these crises. The growth in demand for agricultural commodities is in part due to demographic increase, but also to their use for ends other than human consumption (for farming and biofuels). It is a worrying picture made worse by the increase in oil prices and financial speculation.

The global increase in demand for meat takes away land destined for the production of food for human consumption, and uses it instead for the production of animal feed.

In the global south, meat consumption is a luxury and hunger is the leading cause of death. Hunger is not a natural catastrophe, but the result of unfair policies, selfishness, exploitation and indifference.
Standard industrial farming

What is it?

The livestock industry chases an obsession of sorts: to select ever-more productive breeds who rely on a diet increasingly rich in protein, to provide high yields of meat and milk in the shortest time possible.

Little movement, no freedom, reduced life cycles and preventative treatments: To answer the growing demand for meat that is cheap and produced quickly, pastures have been replaced with animal tethering, and grass is substituted by silage.

The bond between farming and agriculture, animals and land becomes broken.

What it means for animals

Animal farming throughout the world has become increasingly intensive. This is partly a response to demand from consumers for cheaper meat, milk and eggs and to the pressure on farmers from supermarkets for cheaper produce. Animals have thereby become productive units rather than living beings.

Intensive farming across the world can involve:

- Keeping large numbers of animals in restricted spaces or cages (stables can contain up to 1000 cattle!)
- Rearing animals together in large groups, often without ever seeing the sunlight
• Practicing routine mutilations, such as tail docking, dehorning, beak trimming and wing clipping

• Using high levels of antibiotics to prevent diseases and accelerate growth

• Selectively breeding animals to grow faster or produce more meat, milk or eggs.

• Transporting them long distances for slaughter, with restricted conditions and great suffering.

Around 60 billion animals, without taking fish and other marine creatures into account, are farmed and slaughtered every year to satisfy our demand for food. It is a number set to double over the course of this century. It is important to ensure that animals are raised in respectful conditions, avoiding unnecessary stress and suffering, and allowing them to express their natural behavior. A system in which animals are raised in cruel conditions cannot be accepted.

Animals are sentient beings: they can suffer, be stressed or be happy and enjoy their own lives. The meat from animals, whose welfare has been cared for, is also better in terms of taste and health.

Animal welfare is increasingly important for consumers, making them more willing to change their food habits, by favoring foods produced with more respect for animals.
What it means for the environment

Producing one kilo of beef means producing greenhouse gasses, which are responsible for global warming, equal to 36.4 kilos of CO₂: the average equivalent emissions of a car travelling for 250 kilometers.

According to the FAO, cattle farming is responsible for 18% of greenhouse gases that trap heat within the atmosphere, increasing the global temperature and therefore contributing to:

- Melting ice caps and rising sea levels
- Natural disasters such as floods and storms
- Thinning of the ozone layer
- Ocean acidification
- Increasing desertification

But greenhouse gas emission is not the only environmental consequence:

- Soil and air are polluted because of farming waste and chemicals used in the fields
- Water resources are highly depleted because of the water used to grow feeding crops and rear the animals
- Natural habitats are often destroyed in the search for new land to farm, graze and grow.
Sustainability can be measured!

Do the animals from extensive farms consume a larger or smaller amount of natural resources than those from intensive farms? INDACO₂, a spin-off from the University of Siena, has evaluated the environmental sustainability of the farming practices in certain Slow Food Presidia, analyzing the entire life cycle of animals and their production. Through the calculation of a number of environmental indicators (carbon footprint), it was possible to compare the impact of different types of farming on soil, water and the atmosphere. The results have shown that emissions from Presidia (see page 30) farms are generally lower than those on conventional intensive and large-scale farms. In particular, the impact generated by the feed and farming methods used by the farms was very low.

To find out more: https://bit.ly/2PtjICX
Do you know what you're eating?

Have we ever thought about how many types of meat exist and how many we regularly consume? Pig and poultry are most widely consumed in Europe, while beef is favored in the US, and poultry in the East. This imbalance in variety favors the development of industrial farming. The demands of the market, in fact, encourage farmers to intensively produce these species, almost exclusively. Varying types of animals and breeds helps to relieve some of these pressures.
The same goes for cuts of meat: beef is not only made up of fillets and loin, and a chicken is not only wings and breasts. Cuts of meat less frequently demanded by consumers end up losing value and are thrown away, leading to increased waste. By rediscovering traditional recipes we can learn how to use the whole animal, taking alternative cuts into consideration, and therefore showing our respect both for the animals and those who raised them.

Mix it up! Buying turkey, duck, chicken, pheasant and buffalo meat, when farmed in conditions that respect the welfare of animals, such as outdoor free-range, can often save money. Discover traditional recipes that also use the less noble cuts of meat.
Annual consumption of meat per capita by species

- European Union
- USA
- Canada
- China
- Brazil

Source:
Meat Atlas, Friends of the Earth Europe
Animals should be respected and treated carefully during all their life, from birth to death. Unnecessary suffering should be avoided in the final phases of their life, as well as and during slaughter.

Slaughter carried out without due care has an impact on the quality of meat. If the animal suffers or is scared for a prolonged time, stress levels rise and result in an increase in adrenaline in the blood. The meat will therefore have visible defects, being pale, soft, appearing moist and often having little taste.

Slaughter is usually followed by hanging, the process of ageing meat in large pieces at temperatures between 1° and 4°C. This phase, particularly for beef and game, helps to make meat more tender, and can also influence flavor and juiciness. Short hanging times produce meat that is tough to chew and less digestible.

Ideal hanging times are a few days for poultry; between 4 to 10 days for pigs, sheep and goats; and from 7 to 20 days for beef.
Know your meat...

Meat can be divided into three categories.

**RED** Rich in myoglobin, a protein that transfers minerals and oxygen to the tissue. Red meats include beef, mutton, lamb, goat, and buffalo.
These are low in myoglobin and include pork and poultry (chicken, goose, duck).

These meats are usually dark red because of the intensive activity of muscular fibers, rich in oxygen. Game can be furred (venison, boar, hare) or feathered (pheasants, partridge, quail).
...and know its benefits

Meat, together with other foods like fish, legumes, milk and dairy products, represents a major source of protein and contributes to the intake of other important nutrients. However, it is low in fibre and carbohydrates and therefore not a complete food. In fact, prioritizing meat makes for an unbalanced diet and has possible health consequences.

What nutrients can meat provide?

Cartilage (gristle) is collagen, not fat: it has an excellent protein content, helps salivation and exercises the teeth, reinforcing facial muscles and developing the palate. Don't trim it off!

Proteins
Meat is rich in protein, essential to helping the body grow and stay healthy. The pearly covering of muscles is also rich in collagen, an important protein.

Carbohydrates, Vitamins And Minerals
The only carbohydrate in meat is glycogen, which decreases after slaughtering. Meat is rich in iron and vitamins, but they are deactivated by the heat of cooking, losing most of their beneficial functions.
Fat
The presence of fats in meat is not bad. Alongside the associated nutritional properties, features such as marbling, the presence of intramuscular flecks of fat or small white marks, are a sign that the animals have been adequately fed and farmed in good welfare conditions. However, fat and connective tissue are often automatically rejected by consumers, thus creating problems for farmers. The difficulty in selling certain cuts, especially fatty ones, forces them into bad breeding, feeding and animal welfare practices.

When meat is frozen, it loses nutrients like vitamin E and folic acid.
Ready to go shopping

How good is the meat you’re eating?

How can you recognize good-quality meat at the moment of purchase?

Tenderness is not the only factor to consider: the presence of fat, for example, is important because during cooking it helps meat stay flavorful and juicy.

Flabby meat that’s sticky to the touch does not suggest high quality, and generally meat should have a uniform pink or red color.

Paleness is often not a good sign, especially in pork, and when combined with noticeable wetness and a surface coating.

Fat should be white; yellowness often indicates that it is turning rancid, though it can also be due to pasture-based diets which in this case is a positive aspect.
What the label can tell us

Unfortunately labels do not carry the full information needed to make responsible purchases. But they can sometimes tell you:

- The country in which the animal was born, farmed and slaughtered
- The weight and commercial designation (species, category, cut)
- Expiry date
- Storage method
- The name and address of the facility that butchered the animal and packaged the cut

What the label cannot tell us

- The farming system used to rear the animals
- Information regarding the origins of meat used in processed products

It is important that labels give you all the information you need to make responsible purchases. Labeling the methods of production would be a good way to achieve this.
Slow Food’s Narrative Label

Slow Food has long been drawing attention to the importance of clear communication on food labels, to enable consumers to make informed choices and allow producers to highlight the distinctive characteristics of their products.

Slow Food created the Narrative Label project to offer consumers more complete and transparent information. Narrative labels don’t replace official labels, but they complete and integrate them by providing further information and insight on varieties and breeds, farming and food processing techniques, areas of origin, animal welfare, methods of food preservation and consumption.

For further information and to create a Narrative Label see: www.fondazioneslowfood.com/en/our-themes/what-is-the-narrative-label/
Good Practices

What should you look for when shopping?

» First of all, choose to eat less meat and of better quality (500 grams of meat per week is sufficient for a healthy adult)

» Choose meat from animals that have been farmed and slaughtered in your country and locally, where possible

» Choose high quality meat from sustainable farms that respect the welfare of animals

» Vary the species and breeds of animals you choose, considering alternative meat and native breeds

» Choose meat from cooperatives, associations or farms with strict production protocols on animal feed and welfare, who also provide clear information on the traceability of their products. And remember to always read the label carefully!

» Distrust very low prices as they are often a sign of poor animal feed quality, exploitation, hidden costs for the environment or terrible work conditions for those working in the farming and meat industry

» Be more tolerant towards fat found in meat

» Save money by making more unconventional choices, buy offal, internal organs and lesser-known cuts. Try to retrieve traditional recipes, using all the parts of the animal, and helping to reduce waste

» Ask your local butcher for high quality meat and encourage him to select meat from animals raised according to good welfare practices
Increase the consumption of legumes, pulses and plant varieties that can substitute meat (such as beans and oily seeds)

Choose local and seasonal products, and avoid those that have been imported.

**Good Practices/2**

Push your representatives and policy makers to:

- Rethink agricultural policies, providing incentives for sustainable, higher welfare farming that uses local breeds and supplies local markets; therefore discouraging the industrial production of meat

- Encourage closed-cycle farms that reuse manure as fertilizer

- Promote sustainable development policies in countries of the global south.
Native breeds protected by Slow Food through the Slow Food Presidia projects, follow strict guidelines based on biodiversity conservation and sustainable farming practices.

Slow Food believes that animal welfare is fundamental to reaching full sustainability, and is committed to improving farming conditions.

- Native breeds are favored and protected because they are linked to a specific geographic place and its traditions, as well as the local environmental, social and economic context
- The diet of the animals is based mainly on hay, fodder and a mix of grains, oats and legumes, avoiding genetically modified products and corn silage

You can find the full list of producers participating in the project here: [www.fondazioneslowfood.com/en/what-we-do/slow-food-presidia/](http://www.fondazioneslowfood.com/en/what-we-do/slow-food-presidia/)
Native breeds

Animal breeds are defined as native or local when their characteristics are tied to the climate, geographical and socio-economic conditions of the land in which they have developed or to which they have adapted over time.

Half of the breeds found in Europe at the beginning of the 20th century are now extinct, and a third of those remaining are at risk of extinction in the next twenty years. The industrialization and dissemination of large-scale forms of intensive farming are the main culprits. Industrial production of meat, milk and eggs is in fact based on a restricted amount of highly productive breeds, suited to intensive methods of farming.

Local breeds are important because over time they have adapted to different climates, environments, hostile lands and marginal areas. When sustainably raised, in their areas of origin, they provide high quality meat and milk for the production of cheese, cured meats and other products: a heritage of gastronomical traditions which is preserved and transmitted throughout the centuries by small local communities.

To find out more
www.fondazioneslowfood.com/en/what-we-do/the-ark-of-taste/
What not to do

- Eat meat every day for lunch, dinner and breakfast
- Regularly use high-temperature cooking methods and grilling, which can destroy important nutrients
- Buy meat from animals raised in factory farms that ignore considerations such as animal welfare and environmental sustainability.

How to store meat at home

Keeping meat at the right temperature is essential not just for food safety, but also to maintain its sensory quality. It is important to pay attention to temperature as soon as the meat is removed from the chiller cabinet. If the journey home is more than two or three hours and the temperature is particularly high, quality can deteriorate and it is best to use a cooler or an insulated bag.

How can you recognize badly stored meat?

- When raw, the meat "loses" water
- The fat takes on a yellowish color
- The lean parts are dark red, tending towards purplish-brown
- The meat gives off a bad smell because of the spread of microbes
There are different ways to store meat.

**Fresh**
Storage times in a refrigerator at 4°C are not long: six or seven days for whole cuts, three or four days for pieces of meat and steaks and one or two days for mince or thin slices.

**Cooked**
Cooked meats last longer (3-4 days) but when not correctly preserved, they quickly lose their organoleptic properties. If you do not own a blast-chiller, let the meat cool for 20-30 minutes and subsequently place it in the fridge in an airtight container.

**Frozen**
Freezing allows for long storage times: up to 12 months for beef, 6 months for pork and 3 months for poultry. Defrosted meat should not be refrozen, not so much for food-safety reasons but because it affects the final quality.

**Vacuum-packed**
Most suitable for prepared meats like charcuterie and cooked foods, rather than fresh meat. Vacuum-packed meat takes on a dark color that improves when exposed to air.
Resources

Reports

- *Tackling Climate Change Through Livestock*, Fao, 2013
- *Livestock and Climate Change – What if the key actors in climate change are … cows, pigs, and chickens?*, World Watch Institute, 2009
- *Livestock’s Long Shadow*, Fao, 2006

Films

- *The End of the line*, Rupert Murray, UK 2009
- *Food Inc.*, Robert Kenner, USA 2008
- *Fast Food Nation*, Robert Linklater, USA 2006
- *Earthlings*, Shaun Monson, USA 2005
- *We feed the world*, Erwin Wagenhofer, Austria 2005

Books

- *Vivre avec les animaux : Une utopie pour le XXIème siècle*, Jocelyne Porcher, 2014
- *Defending Beef: The case for sustainable meat production*, Nicolette Hahn Niman, 2014
- *Eating Animals*, Jonathan Safran Foer, 2010
- *The Omnivore’s Dilemma*, Michael Pollan, 2008
- *Beyond Beef: The Rise and Fall of the Cattle Culture*, J. Rifkin, 2002
Slow Food®

Slow Food is a non-profit association that works to promote good and quality foods produced in a manner that is respectful of the environment and protects biodiversity, as well as providing farmers with fair remuneration.

For further information: www.slowfood.com

To keep up to date with Slow Food’s Slow Meat campaign for the improvement of animal welfare and reduction of meat consumption see the website: www.slowfood.com/slowmeat

To learn more about Slow Food’s view on animal welfare and discover the results of the survey sent to European Slow Food members on the topic click here: www.slowfood.com/sloweurope/en/topics/benessere-animale/
Colophon

Authored by
Arianna Banfi
Elisa Bianco
Edoardo Maturo
Annamaria Pisapia
Emma Slawinski
Scientific coordinators
Silvio Greco
Anne Marie Matarrese
Cinzia Scaffidi
With the contribution of
Silvia Ceriani
Jacopo Ghione
Megan Larmer
Elena Marino
Bianca Minerdo
Raffaella Ponzio
Designer and illustrator
Marco Binelli

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