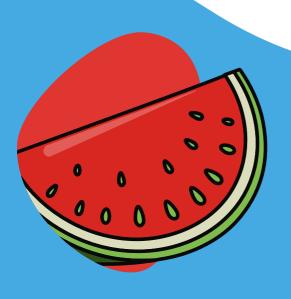
SINCERELY, FOOD

A useful little book about food waste and how to avoid it







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SINCERELY, WHAT DOES IT MEAN?

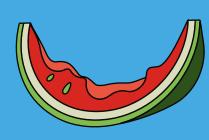
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1. SINCERELY, what's the deal with wasted food?

Food is life. We love food so much that sometimes we buy too much of it, order more than we can eat and cook more than we need. Unfortunately, this food often ends up in the bin. This leads to food waste that could have been avoided.

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Could you imagine that **in the EU around 88 million tons of food is wasted annually?**If you start to think of its monetary value - it is indeed a lot. It could be compared to a yearly EU budget for different support programs for all the member states [1].

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At the same time, globally, nearly 1.3 billion tons of food is wasted every year which is 15 times more than in the EU only. This means that one third of food produced for human consumption in the world is lost or wasted. It is better not to put this volume into monetary value because this is unimaginable [2].

Have you thought what the results are of consuming more food than we need? Well, firstly, by throwing away food we are wasting money. While an average family in Estonia throws away food worth 200 euros every year [3], families in higher-income countries might throw away food worth twice or even three times as much.



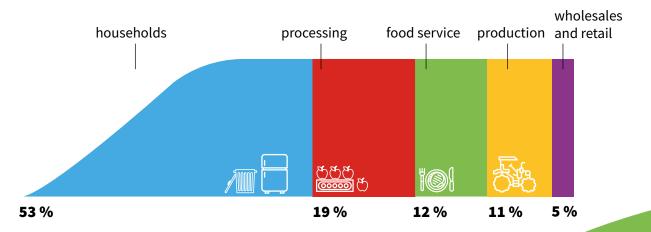
1/3 is wasted

Secondly, by wasting food we are also wasting the resources that were used to produce the food: the land, water, energy and our own hard work. You probably know that greenhouse gases are considered the main trigger for climate change. But guess what? Food waste also contributes to greenhouse gas emissions and climate change.

To find out more about how food waste is related to greenhouse gases and other issues that have an impact on our environment, see Chapter 2.

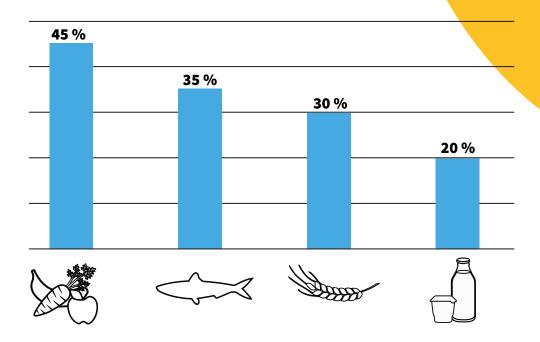
It is widely thought that most food is wasted in supermarkets, but is that really the case? **Food waste occurs all along the supply chain**: on farms, during storage and handling and transport, in the production phase, in supermarkets, in restaurants and at home. In lower-income countries most food is wasted in the agricultural and post-harvesting sector, whereas in higher-income countries most food (53 %) is wasted during the consumption phase in our own homes [1].

MOST FOOD IS WASTED AT HOME [1]



There are some food products that are wasted more often than others. For example, global quantitative food waste per year is highest for root crops, fruits and vegetables, where around 45 % of production goes to waste [4]. Studies in Finland and Estonia have shown that the most wasted food types are homecooked meals (20–35 %) followed by fruits and vegetables (ca 17 %) and dairy products (ca 17 %) [3, 5].

GLOBALLY THE MOST WASTED FOOD PRODUCTS ARE ROOT CROPS, FRUITS AND VEGETABLES IN A YEAR [4]



Unfortunately, our choices are affecting the health of our planet and the quality of life of current and future generations. Food waste is a global issue and every one of us plays a role in it. It is in our hands to make a change and avoid food waste.

To find out what the main reasons are for food waste and how to avoid wasting our precious foodstuffs, see Chapter 3.

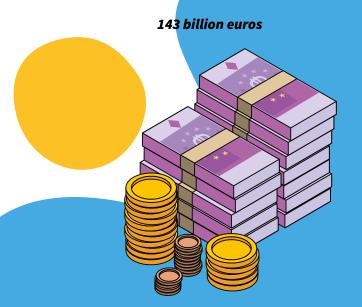
2. SINCERELY, why do we need to reduce the amount of food wasted?

The food waste issue causes both local and global impacts that are interrelated across social, economic and environmental spheres. You will learn more about it from the following subchapters.

Less wasted food = more savings

Have you ever thought that by throwing away spoiled food we are literally throwing money in the bin as well? By creating food waste as a result of improper storage, for example, we are also wasting money. Reducing food waste means reducing costs for households. 143 billion euros is the total cost of the food thrown away in homes in the EU every year [1]. With better planning of food and proper storage, this money could be used for a fun family weekend or holiday instead.

Food waste has a direct **negative impact on the income of farmers, producers and retailers as well**. Economic losses are incurred throughout the food supply chain. Food waste is a serious financial issue for higher- and lower-income countries alike. In lower-income countries it is the farmers and farm workers who lose out the most, because a lot of produce goes to waste due to outdated farming technology and bad storage conditions. At the same time, in higher-income countries it is households where the greatest economic loss occurs – as a result of the high rate of generation of food waste.



Food waste per capita per year

20 kg 47 kg 77 kg

Cost per household per year



Estonia [3] The United Netherlands [6] Kingdom [7]

Estonia [3] Netherlands [6]

United Kingdom [7]



There is a **correlation between food waste and income.** In general, EU countries with a higher-income per capita (like the UK and the Netherlands) produce larger quantities of household food waste than countries with lower-incomes (like Estonia).

Less wasted food = more happy people everywhere

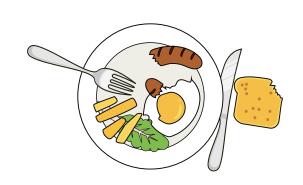
With millions of people all over the world struggling to find enough food to eat, the fact that **millions** of tons of food is wasted every year can be surprising. Food waste is also a social problem as higher income countries throw away food that could have been used, while people in lower income countries are lacking food. This problem also exists in higher income countries where many people cannot afford a proper meal while others are buying too much and letting it be spoiled.

One out of nine people globally is undernourished, the majority of the world's hungry people live in lower income countries, mainly in Africa and Asia. The growing population and demands for food will only make this situation more acute in the light of climate change and increasing competition for resources. Europe alone wastes an amount of food that could feed 200 million people [4].

Along with unequal distribution, a lot of our food is produced in countries where people don't have enough to eat. For example, most of the green beans for the EU market are produced in Kenya - a country where water is scarce and people have to compete for it to irrigate their beans (which are usually exported) or use it for other needs. It is particularly sad to realise that such a precious resource is also wasted when we throw away food.

Food waste on a global level

1.3 billion tons per year

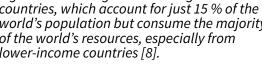


If saved it could be used to feed around

3 billion people



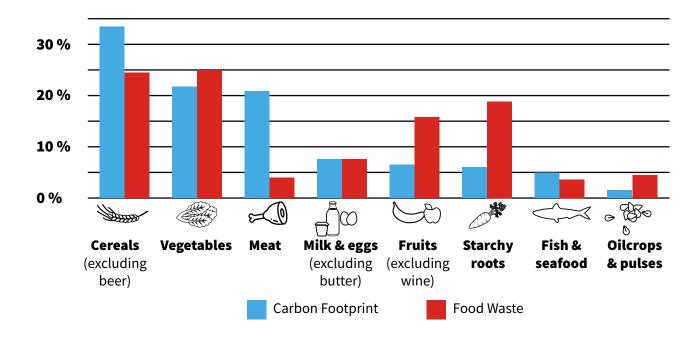
Significant wastage occurs in higher-income countries, which account for just 15 % of the world's population but consume the majority of the world's resources, especially from lower-income countries [8].



Less wasted food = good for the environment

You might be wondering how wasted food poses a threat to the environment. Let's take an example: due to the growing population and consumption per capita, as well as the fact that one-third of all food produced goes to waste, demand for cereals and grains like rice is increasing. In order to obtain a proper rice yield, farmers need to use a lot of fresh water, and more pesticides and arable land are being used. Beyond the impact on nature, land and water, rice production has a large carbon footprint [9]. Rice paddies produce methane – a greenhouse gas which contributes considerably to climate change. This is a natural process in rice growth, but if the rice is wasted, the methane has been generated unnecessarily.

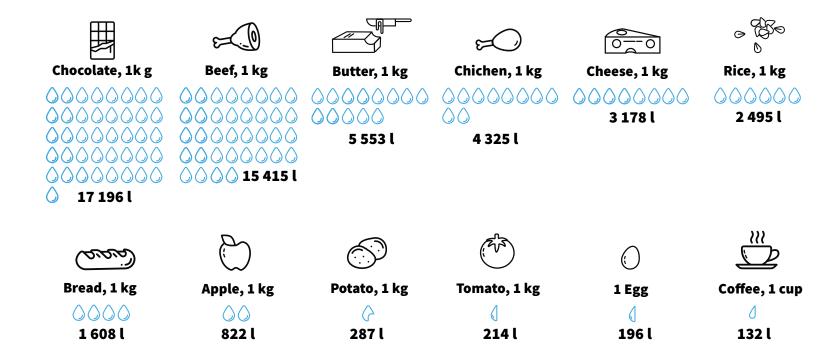
CEREALS AND GRAINS INCLUDING RICE HAVE THE BIGGEST CARBON FOOTPRINT AND AT THE SAME TIME ARE ONE OF THE MOST WASTED TYPES OF FOOD [9]

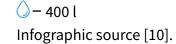


Thus, we are not only throwing away 1.3 billion tons of food that has been produced, but also an enormous amount of water, energy, land, human and other resources, and generating unreasonable pollution. Let's take a look at what might be behind of our everyday choices.

Water

Water, especially fresh water, is an important resource in food production. Every food item needs a different amount of water to be grown, to be turned into food products and to be prepared at home. For example, **meat production requires a much higher amount of water than vegetables** [10]. If we waste less food, we also waste less water.







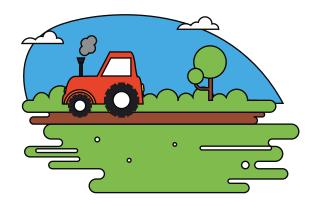
1.4 billion people already live in areas where there is not enough fresh water available to meet all needs of society [11].



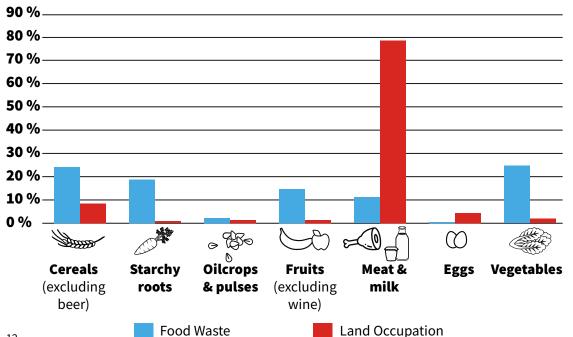
Land

Food production – growing grains or vegetables or producing meat – requires a lot of fertile land. To meet the food demand of higher-income countries, **deforestation** is taking place in lower-income countries to free up land for the agroindustry. Reducing food waste can reduce the amount of food produced, and this will reduce the need to destroy forest ecosystems.

1.4 billion hectares of land or 28 % of the world's agricultural area is used annually to produce food that is not consumed [12]. This is an area slightly smaller than Russia and larger than the whole of Canada.



AGRICULTURAL PRODUCTION OF MEAT AND MILK NEEDS NEARLY 80% OF THE TOTAL AGRICULTURAL LAND [12]

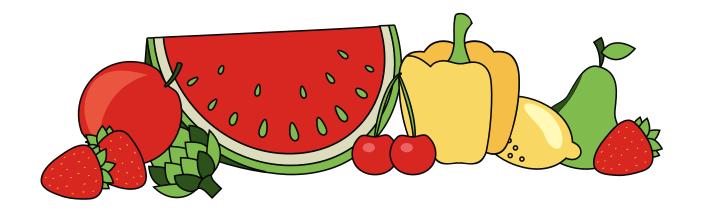


Biodiversity

As the Earth's ecosystem is a complex and sophisticated system, land use changes and agriculture in general affect biodiversity. Can you imagine there no longer being birds singing? **There are several reasons for the loss of biodiversity**. One is the use of pesticides. Those used in food production have harmful effects and can even lead to the extinction of entire species: mammals, birds, amphibians and insects (including bees). The more food is produced and wasted, the greater the impact on biodiversity. By reducing food waste, we help to feed the world in a more efficient way and thus reduce the need for pesticides and additional agricultural land, leaving more space for natural ecosystems.

WHITHOUT BEES THEY'LL ALL BE OFF THE MENU

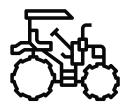
Bees and other insects are vital for global food production as they pollinate three quarters of all crops.



Energy

It's hard to think of a human activity that doesn't require energy. Sources based on fossil fuels, which are non-renewable, have become a real concern: their use has escalated dramatically, causing a number of environmental problems like air pollution and climate change. Increasing demand for energy is also being felt in agricultural production and food processing – in fact at every point in the food chain. It is approximately 70 times more energy-consuming to produce 1 kg of beef than the same amount of vegetables, cereals or fruits [13]. Why, you might ask? Most of the energy is needed for machines and transportation in different phases: to harvest the feed grain and transport it to the cattle, to transport the cattle to abattoirs, to refrigerate the meat and transport it to supermarkets, to bring it home, to refrigerate it further and then finally to cook it.

A LOT OF ENERGY IN FOOD PRODUCTION IS USED DURING THE PRODUCTION, PROCESSING AND CONSUMPTION PHASES



Productioneverything up to the farm gate

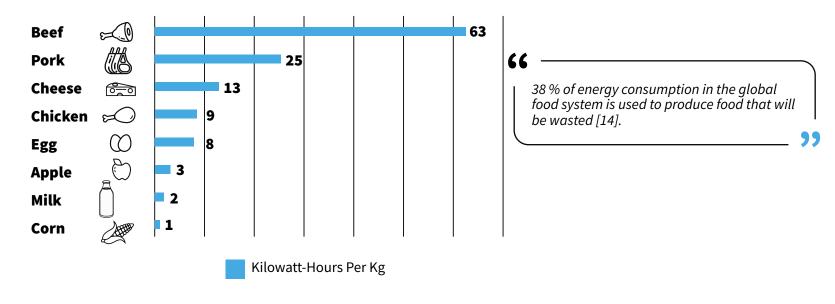


Processingbetween the farm gate and the point of sale



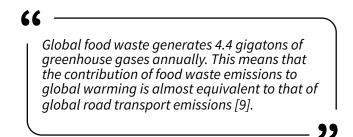
Consumption from point of sale to your mouth

THE MOST ENERGY IS REQUIRED TO PRODUCE ONE KILO OF BEEF [13]

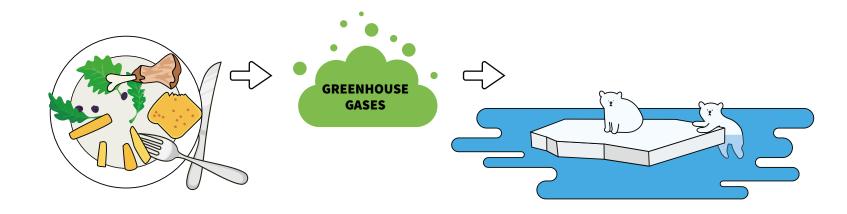


Climate change

As mentioned, our food production systems are energy-demanding, including all of the energy expended in producing, transporting, distributing and storing food. Hence, **food waste contributes a great deal to climate change** alongside transport, industry, energy production, heating et al.



You might be wondering how food that is wasted can cause climate change. Well, as we said earlier, greenhouse gases form part of the natural cycle of growing food (take a look at the example of rice again on page 10). What makes the situation unbalanced is the fact that **nowadays food is a global commodity and is transported all over the world**. You need only think about your shopping bag: grapes from Chile (12,000 km), baby carrots from South Africa (10,000 km), broccoli from Spain (1500 km), beef from Brazil (10,000 km) and more. Food travels long distances to end up on our plates. Besides, when food waste is dumped in landfill, it undergoes anaerobic decomposition and generates methane, which is a very powerful greenhouse gas.



However, it is not all bad news: of all of the causes of climate change, food waste is perhaps the easiest to deal with and the one in which everyone can make an impact in their daily lives. You have the chance to make a difference by following the tips listed in the next chapter.

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49 % European consumers consider themselves to be taking actions to combat climate change [15].

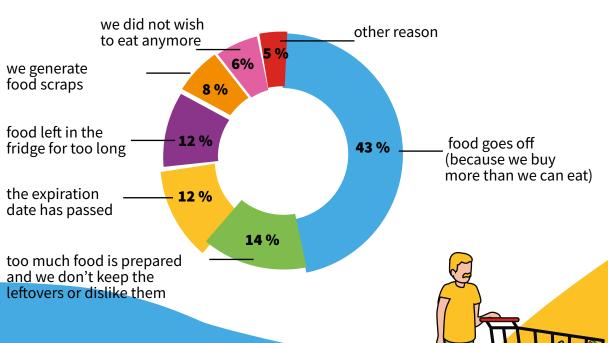
Let's increase this number!

3. SINCERELY, how can we ensure that we waste less food at home?

We often claim that we don't waste food or don't throw it away. That might be so but we have to admit that there are occasions when we open the trash bin and...

THE MAIN REASONS BEHIND FOOD WASTE ARE [3]:





We as individuals can implement little changes that make a big difference in the amount of food we throw away each year. We can do our bit by following just one suggestion or challenging ourselves to two or more.



Suggestion 1: Plan your meals

The main reason for 43 % of cases in which food is wasted is that it goes off. We forget what we have in our fridge, freezer and cupboards if we don't regularly go through them and plan our menus according to what needs to be used first. Here are some tips on how to plan your weekly menu and portions and how to make a shopping list.

See what you have and plan your meals accordingly

- Take a look at what you have in your fridge and cupboards and make a list.
- O Take time to plan a weekly menu and make a shopping list.





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Use the paper-and-pen method or notes on your phone, or download an app.

Plan your portions

This is always tricky with grains and other foodstuffs that change size when cooked. Below is a simple table on how to measure the right amount of uncooked rice, pasta, buckwheat and couscous if served as part of a main meal.

Rice		Measured In Tablespoons
Adult	60-90 g	4
Kid (4–10 years)	35-55 g	2
Pasta		
Adult	75 ~	0
Addit	75 g	8

Buchwheat	~ GS-0	Measured In Tablespoons
Adult	75 g	4
Kid (4–10 years)	45-60 g	3
Couscous	· % 。	
Couscous Adult	∘‱°。 100 g	6

But what about other food items like meat, fish and vegetables? Use your fist, palm, cupped hand and hand to use just the right amount. For kids, use their hand. This way you will waste less and won't have to worry about your waistline.

ADULT CHILD





Vegetables (non-starchy)

Your two hands cupped together is a good guide for the amount.



two hands cupped



two hands cupped



Grain foods and starchy vegetables and legumes

A portion of grain foods and starchy vegetables is the size of your closed fist.



one fist





Fish

The whole of your hand is a good portion guide for a piece of fish.



one hand







Poultry or meat

The palm of your hand is a guide for a portion of red meat, chicken or pork. The thickness of the meat should be about the same thickness as the palm of your hand.



one palm





Vegetables (non-starchy), fruits, nuts as a snack A single portion of vegetables, fruit

or nuts is what fits into the palm.



Suggestion 2: Shop smartly

Our shopping habits and the decisions we make at the supermarket are profoundly linked to the amount of food we throw out. Here are some simple tips on avoiding over-buying, saving money and wasting less food.

Don't shop on an empty stomach

Don't go food shopping if you are hungry, because you will most probably buy more than you need or won't stick to your shopping list.

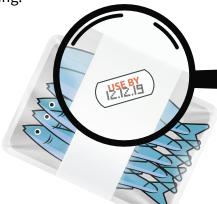


Know the difference between "use by" and "best before"

Nearly 40% of Europeans find the labels "best before" and "use by" confusing. Let's try to make it clear in order to avoid wasting food:

The "Use-by" date is about food safety. Foodstuffs can be consumed until this date but not afterwards. You will find use-by dates on foods that go off quickly, such as meat products, fish and ready-to-eat salads.

The "Best before" date is about food quality. The food will be safe to eat after this date but may not be at its best. Its flavour and texture might not be as good. Bestbefore dates appear on frozen foods, dried foods and tinned foods.



Choose the exact amount

Favour food (cheese, meat, fish, nuts, etc.) from the open counter. That way you can purchase just the amount you need and avoid over-buying and wasting food.

Think twice!

Before choosing 3-in-1 or "mega pack" items, consider whether you need them. If you do, make sure you store them correctly and consume them before the expiry date.

Funny-shaped fruits and veggies

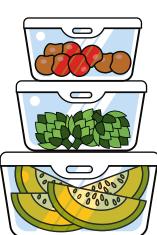
Many fruits and vegetables are thrown away because their size, shape or colour don't quite match what we think they should look like. But for the most part they are perfectly good to eat.

Suggestion 3: Store your food wisely

Much of the food we waste could have been refrigerated or frozen to eat at a later date. Proper storage and handling of food at home not only helps to ensure food safety, but it also helps you to maintain food for longer without it going off. Here are some tips on organising your kitchen, storing fruits and vegetables and getting the most out of your freezer to cut down on food waste.

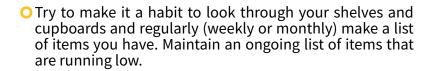


Where possible, always **favour containers made from glass or stainless steel**. Try to use as little plastic as possible to store your food. This might sound impossible because plastics are everywhere, but try. Just do some research to find the best options for you. Even glass containers can be put in the freezer – just be aware of the amount and what to store.

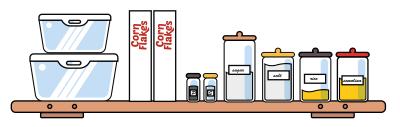


Basic tips on storing food stuffs

OBe aware of what food products you have and arrange your shelves, cupboards, fridge and freezer. Think about how and when you use different foods and group them accordingly using boxes, trays, bowls and the like. Don't forget to label them in the most convenient way.



OAnother good idea is to arrange items so that the oldest are at the front and the newer items are at the back.





When using plastic containers, prefer the ones that has a recycling symbol and a number (1, 2, 4, 5) within a triangle. Containers with other numbers might not be safe for food storage.

"

Make sure your plastic container/bag is free from BPA (bisphenol A), which is a hormone disrupter associated with cancer and other

health-related issues.

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Storage tips for fruits, vegetables and herbs

Keep fruits and vegetables separate. Most fruits produce a lot of gas called ethylene during the ripening process. Most vegetables are particularly sensitive to ethylene, which can cause them to go off sooner than they otherwise would. If you want to extend the shelf life of your fruits and vegetables, keep ethylene-sensitive products away from those that produce it. (Conversely, place them next to one another if you want to hasten the ripening process.) Bear in mind the proper place for storage – whether it is at the room temperature or in the fridge.

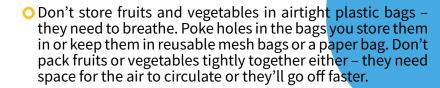
THE BEST PLACE TO STORE FRUITS AND VEGETABLES

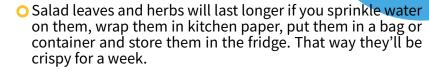
Keep these food seperated at room temp

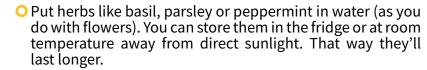
Ethylene-Sensitive Produce	High Ethylene- Producing Produce			
Bananas (Unripe)	Bananas (Ripe)			
Cucumber	Tomatoes			
Eggplant	Apricots	transfer these		
Green Beans	Avocadoes	fridge when rip		
Onions	Mangoes			
Potatoes	Melons			
Summer Squash	Nectarines			
Sweet Potatoes	Papayas			
Watermelon	Peaches			
Winter Squash	Pears			
	Plums			

Keep these food seperated in the fridge

	High Ethylene- Producing Produce	Ethylene-Sensitive Produce
-	Apples	Broccoli
-	Blueberries	Brussels Sprouts
to	Apricots	Cabbage
pe	Avocadoes	Carrots
	Mangoes	Cauliflower
-	Melons	Dark Leafy Greens
-	Nectarines	Leeks
	Papayas	Lettuce
	Peaches	Peas
	Pears	Berries
	Plums	







O Don't forget traditional methods for preserving food, like drying herbs and fruits or vegetables and canning and bottling for jams, pickled gherkins, salads et al.

Storage in a fridge

O A fridge is a high-tech device that helps you store food in the optimal conditions. Not only does a fridge have different compartments that serve different purposes, they also have different temperature zones. Read on to see if you are storing your food in the right place.

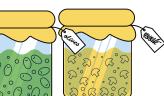


Every fridge tends to have slightly different temperature zones, depending how close they are to the cooling element. Check your fridge's specifications.









The average temperature in a fridge should be +2 to +4 degrees Celsius. The door compartment is a little warmer and might be as much as +10 degrees Celcius.

Freezer

Frozen meats and other heat- or light sensitive -18 °C items that might go ranchid Freeze soups, stocks. and sauces in plastic bags, and lay them flat to minimize freeder burn

Top Shelf

Ready-to-eat prepared +4 °C foods, condiments. pickled products, and fruits

Middle Shelf

Leftovers, cheese, eggs in carton, cold cuts, and sandwich bread

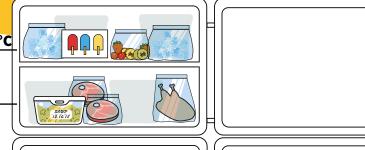
Bottom Shelf

Raw meats and poultry, fish, (best cooked dayof), milk, and other dairv products

+2 °C

Vegetable Crisper

Vegetables and herbs



Top Shelf

+10 °C Eggs, butter and frequently used cheeses. Store cheese wrapped in wax paper or parchment paper

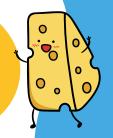
Middle Shelf

Condiments and premixed vinaigrettes

Bottom Shelf All beverages

Once opened, store foods in separate containers to prolong their shelf life (storage conditions may differ for each product). Usually the package food comes in is not airtight once opened. Products can cross-contaminate, start to smell bad or simply spoil faster due to bacteria in the fridge, etc. For example:

- O Don't put warm dishes in the fridge. Cool the dishes as quickly as possible (ideally within two hours). Don't forget to put some sort of lid on the dish to reduce the risk of contamination.
- Ouse labelling or other methods to mark the food in your fridge. You can avoid a lot of food going to waste if you write what it is and add the date. For example, use red clothes pegs/baskets/labels for items you need to eat sooner.



Never cover cheese in plastic wrap - it is a living thing and needs to breathe. Your best option is to wrap the cheese in parchment or waxed paper or loosely in a wrap or bag. This method provides a little bit of breathability for the cheese without drying it out.



Storage in a freezer

- O Food products should be tightly and carefully covered or wrapped in moisture- or vapour-proof containers or materials, ensuring that no air gets in and no moisture escapes or evaporates (otherwise the food might get freezer burn). For example, you can use glass, metal or plastic containers or bags that are BPA-free and marked as freezer-proof.
- O Write the date you are freezing the food on the bag/ container so that you know how long it's been frozen for.



Freeze your food in realistically-sized portions. Divide ready-made foods into portions you can eat in one go. If you buy a big piece of meat, cut it into portions for one meal. That way you'll waste less food and money.

For store-bought foods with a "use by" date, it is safe to freeze them any time before said date and then defrost them in the fridge and use them within 24 hours.

A LIST OF FOOD PRODUCTS THAT ARE SAFE TO FREEZE AT -18 °C

Fruits. For example, ripening bananas (peeled and sliced) are great to freeze for smoothies. Make a smoothie bag from different fruits that are starting to ripen and berries that can be easily blended. **Safe to freeze for up to 6-8 months.**

Vegetables. Most vegetables (low-moisture ones like carrots, broccoli, peas, spinach, pepper and corn) are suitable for freezing, but many should be blanched first – e.g. beans and cauliflower. **Safe to freeze for up to 8 months.**

Ready-made food. Soups, stews, pasta, rice, etc. are safe to freeze for up to 3 months.

Bread and bakery products. Sliced bread can be toasted straight from frozen. You can also freeze muffins, quiche, etc. – just take them out of the freezer and heat them up in the oven. **Safe to freeze for up to 3 months.**

Ready-made meat products (sausages, minced meat and ham). **Safe to freeze for 1-6 months.**

Herbs. It's a good idea to freeze dill and parsley in a container, a zip-top bag or an ice-cube tray mixed with oil. **Safe to freeze for up to 8 months.**

Butter and margarine for no more than 3 months.









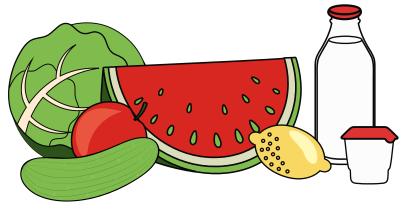


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Once the food has thawed out don't freeze it again, because the quality and safety of the food could both suffer.

A LIST OF FOOD PRODUCTS NOT TO FREEZE OR WHICH ARE NOT COMMONLY FROZEN

Produce with high water content (like green salads, lettuce, potatoes, cucumbers, sprouts, radishes), soft herbs, dairy products (like cottage cheese) which can separate, and anything carbonated.



Suggestion 4: Use your leftovers

There's always something left in the tub of yoghurt, from the loaf bread or from last night's rice. We often choose the easiest and most convenient way of making dinner – starting from scratch – but be creative and use what you have in the fridge to prepare a new meal. Here you'll find some suggestions on what to do with the most common leftovers.

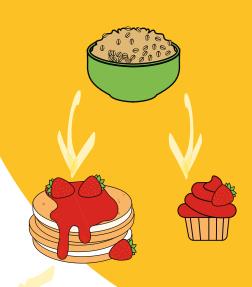
Made too much food?

- O Invite your friends over!
- O Divide food into portions that you can reheat as your next meal. And don't forget to label it!



A makeover for the most common leftovers

- Keep vegetable scraps for stock. Use a container or bag to collect the scraps, keep them in the freezer and then use them when you have enough to make stock.
- O Steamed, baked and grilled vegetables can all be used in a creamy soup. Heat them up with some vegetable or chicken stock and add some cream or coconut milk. Purée the soup and season to taste.
- O Boiled potatoes or rice, meat, sandwich toppings that are losing freshness and shrivelled-up vegetables can all be used in an omelette.
- There's often some leftover oatmeal and it's perfect for use in pancakes, muffins, cookies and even smoothies.
- O There are always a few pieces of bread sitting there going stale. You can turn them into crunchy croutons for a salad, use them as an ingredient in meatballs or make French toast, which kids love.
- O Mushroom stems are perfect for stock, providing unique umami flavour. Alternatively, just throw the stems in your morning omelette.
- Even Italians use their leftover pasta, so why shouldn't you? Use it in a cold pasta salad, for noodle soup or for spicy fried noodles.
- OThere's always some rice you can use for further meals, like fried rice with vegetables or a delicious rice pudding for dessert.





Suggestion 5: Compost your scraps

Most household waste (40 %) is compostable material like fruit and vegetable scraps, leftovers and coffee grounds. If there's no bio-waste collection system in your area there are some great ways of composting. If you live in a residential area you're most probably already familiar with outdoor composting, so let's focus instead on indoor composting.

Composting has many advantages. For a start, you save money as there's no need to buy chemical fertilisers for your herbs or plants – you have your own valuable nutrients. You also save on resources, as you keep this useful organic material out of landfill and thus you reduce the amount of greenhouse gases.



Homemade compost is perfect for balcony containers for flowers and herbs, as well as for plants. If you have more compost than you need, share it with your friends or neighbours.



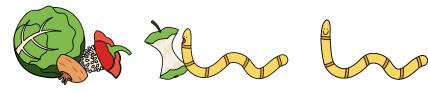




Indoor composting

The best-known way of composting indoors is using a worm bin, but not everyone is up for keeping hundreds of worms in their home. The good news is that you can set up an indoor composting system without worms. For example, a Japanese method called bokashi uses a mix of micro-organisms to cover food scraps or wilted plants in order to reduce smell, limit the risk of attracting pests and accelerate decomposition. There are various other methods and types of equipment you can use for perfect indoor composting – just do some research to find the best option for you.

You can compost all organic material that comes out of your kitchen, and from other rooms in your home (coffee grounds, tissue paper, cardboard, etc.) Just don't compost any animal matter like bones, meat and fish scraps, fats and oils, dairy products, eggs or pet waste.





4. SINCERELY, what does it all mean?

Best before = This date is about quality, not safety. The food in question will be safe to eat after this date, but may not be at its best. Its flavour and texture might not be as good. Best-before dates appear on a wide range of items, including frozen foods, dried foods and tinned foods.

Biodiversity = A contraction of "biological diversity", this term reflects the number, variety and variability of living organisms. It includes diversity within species (genetic diversity), between species (species diversity) and between ecosystems (ecosystem diversity).

BPA = Bisphenol A is an industrial chemical used to make certain plastics. Products with BPA may have a negative effect on your health.

Carbon footprint = The total amount of greenhouse gases produced directly and indirectly because of human activities, usually expressed in equivalent tons of carbon dioxide (CO2).

Climate change = A change in the statistical distribution of weather patterns when that change lasts for an extended period of time (i.e. from decades to millions of years).

Composting = A process in which organic material is decomposed and the resulting product is called "compost".

Food waste = Food which was originally produced for human consumption but was then discarded or not consumed by humans. Includes food that goes off prior to disposal and food that is still edible when thrown away.

Freezer burn = When food which has been stored in a freezer loses moisture, the resulting greywhite spots or patches on the surface of the food are known as "freezer burn". It is not harmful but will lead to the deterioration of the product. Small affected areas can be cut away from the food before or after it has been defrosted and cooked.

Greenhouse gas = A group of compounds (mainly CO2, methane, nitrous oxide and fluorinated gases) which are able to trap heat in the atmosphere, keeping the Earth's surface warmer than it would be if they were not present. These gases are the fundamental cause of the greenhouse effect. Increases in the amount of greenhouse gases in the atmosphere are amplifying the greenhouse effect, which is leading to global warming and consequently climate change.

Pesticides = Substances which are designed to control pests, including weeds, fungi and insects. The term covers herbicides, insecticides, insect repellent and more.

Use by = A date on food which is about safety. This is the most important date to remember. Foods can be eaten until the use-by date, but not after. You'll find use-by dates on food that goes off quickly, such as meat products and ready-to-eat salads.

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The handbook uses materials with our own design from the following sources:

Food portions on page 20. Heart Foundation webpage. Storing fruits and veggies on page 24. Eating Well webpage. Fridge on page 26. Serious Eats webpage.







