



**STOP**FoodWaste.ie

WORKPLACE TRAINING

# WORKING TO REDUCE FOOD WASTE

TOPIC 3.

## STORAGE

17 PAGES - APPROX 15 MINS READING TIME



# Food Storage

Nobody wants to waste food but often our busy lives and changing plans mean that food, bought with good intentions, doesn't get eaten. Making sure you correctly store your food means that, when life gets in the way, your food can get another chance.

**FOOD GOES OFF OR SPOILS DUE TO NATURAL DECAY OR BECAUSE OF MICRO-ORGANISMS. BY UNDERSTANDING WHAT MAKES FOOD GO OFF, IT'S EASIER TO REMEMBER HOW BEST TO STORE IT.**



**WHAT'S  
HAPPENING  
WHEN FOOD  
GOES OFF?**

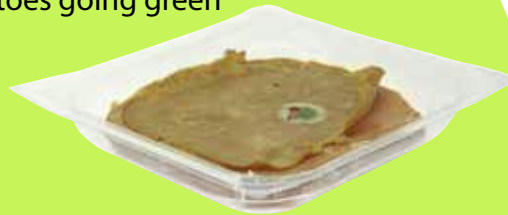
# What's happening when food goes off?

To understand how best to store food, it's good to know what makes it go off in the first place. There are two main reasons: natural decay and the growth of micro-organisms.

## NATURAL DECAY

### Chemical changes

e.g. meat changing from red to brown & potatoes going green



### Moisture loss

e.g. wilting leaves and bendy carrots



### Enzymes

e.g. peeled fruit browning when exposed to air

## MICRO-ORGANISM GROWTH

### Yeasts

Yeasts grow in sugary foods and cause fermentation e.g. lid popping when orange juice is opened.



### Moulds (Fungi)

e.g. mould on bread



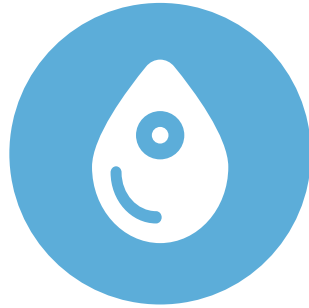
### Bacteria

e.g. this affects lots of foods including cooked rice, coleslaw, dairy

**TELL ME MORE!**

# The Food Storage Factors!

There are a few main factors which contribute to natural decay and micro-organism growth in food.  
Keep these in mind when deciding how best to store your groceries.



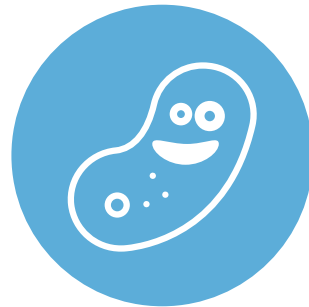
**MOISTURE**



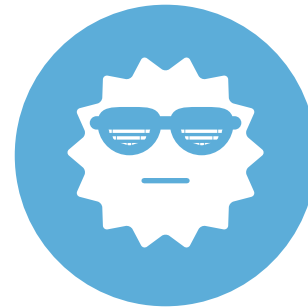
**AIR**



**TEMPERATURE**



**MICRO-ORGANISMS**



**LIGHT**





## Moisture

Many foods, especially vegetables first spoil due to moisture loss. Lettuce and other greens wilt as water leaves their cells.

To keep these foods fresh, prevent them from drying out. For example, storing lettuce heads, spring onions or celery with the bottoms (the stems/roots) in a little bit of water does the trick.

If your veg have already wilted or gone a bit soft, putting them in ice-cold water for 10-20 minutes can reintroduce moisture and freshen them up.







## Air

Exposure to the oxygen in air causes a chemical reaction (oxidisation) in many types of food. Limiting exposure to air, can slow this down.

Air also contains moisture. When exposed to air, some dry foods can absorb water (e.g. biscuits going soft), while other foods can be dried out (e.g. bread going stale).

Many packaged foods are sealed in modified atmosphere packaging. This keeps oxygen out which helps them last longer e.g. packets of crisps and crackers. Keeping these foods well sealed once opened will help them last longer.





## Temperature

The temperature that foods are stored at has a big effect on how quickly they will spoil, particularly in terms of micro-organisms.

Most micro-organisms responsible for food spoilage like to be warm and cosy at 37°C, or body temperature to be exact. Keeping foods cold slows down their growth. That's why storing food in the fridge at 1-4°C makes such a difference to the shelf life of foods.

Putting foods in the freezer at -18°C stops micro-organisms from growing all together. It's important to remember that freezing acts as a pause, not a reset. Once food is defrosted, it will not have any extra shelf-life than it did before it was frozen. This is one of the reasons labelling food for the freezer is such a good idea. For lots more info on the wonders of your freezer visit [stopfoodwaste.ie](http://stopfoodwaste.ie) for our [page on freezing](#).







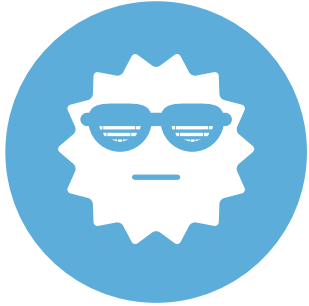
## Micro-organisms

While the micro-organisms that cause food spoilage are all around us, keeping fridges and presses clean can prevent their growth. In addition, storing foods in sealed containers can prevent these micro-organisms from finding your food so easily.

For more information on food safety visit the [Safe Food website](#)







## Light

Some vegetables, e.g. potatoes and onions, can continue to grow post-harvest. Keeping these vegetables out of the light will prevent chemical changes occurring as they try to sprout.

Download this [guide to storing fruit and veg](#) and stick it to your fridge so you know where best to store each item.

**WHAT  
ABOUT  
DATES?**



# What's the story with all these dates?

There are only two types of date you need to know about when it comes to food storage...

'Use by' and 'Best before'.



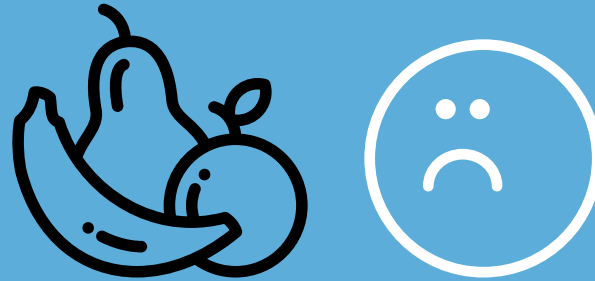
**LET'S HAVE SOME FUN**



**Do you keep all your  
fruit together in one place?**

(Click on your answer)





**Some fruits, like apples, pears and bananas give off ethylene gas which speeds up the ripening of fruits nearby. Unless you actually want to ripen other fruit, store these fruits separately.**

**GIMME  
MORE**



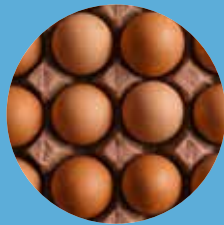


**Which of these items should you NOT freeze?**

(Click on your answer)



CREAM



EGGS



WINE



ONIONS



FLOUR



HARD  
CHEESE



**ANSWER: You can freeze All of them!**

(Always freeze food within its use by date)

The list of foods that can be frozen seems almost endless. Think outside the box!

For some more ideas, check out our [\*\*A-Z of Foods\*\*](#)

**GIMME  
MORE**



**You find an unopened jar of marmalade in the back of the cupboard. It's well past its best before date. Do you:**

**A.**

**Throw it out - it's not safe to eat anymore**

**B.**

**Open it and give it a try**

(Click on your answer)



**Answer: B - Give it a try!**

**Best before dates only refer to food quality, not safety. Even after this date, foods are safe to eat.**





# Don't just tick it, do it!

Before next week, what actions will you try?

For tips and pointers on storage and to help you prevent and reduce food waste, check out [www.stopfoodwaste.ie](http://www.stopfoodwaste.ie).

**Next week we will be covering cooking and reuse.** There are many ways to make the most of food in the kitchen whatever your level of skill. Efficient use of leftovers is an ideal way of reducing food waste when cooking.

## Try the F.I.F.O. (First In First Out) system

When you're unpacking the shopping, put the new items to the back and move the older ones forward so they're eaten first.



*Yes, I will do this*

## Try blanching

Blanching is a technique that involves exposing foods to boiling water or steam for a short period of time before freezing. This can be done with hardy greens (broccoli, sprouts and green beans) and root veggies (carrots, parsnips, cauliflower, squashes and sweet potatoes).



*Yes, I will do this*

## Have a free food freezer week!

If your freezer is overcrowded, try to use up everything in it over a week. You'll free up space and have less groceries to get!



*Yes, I will do this*

## Identify your UFO's

Take some time to find out what the **U**nidentified **F**rozen **O**bjects are in your freezer. It might be a good time to label what you have and start a new freezer system to avoid those big freezer clear-outs!



*Yes, I will do this*