

# FLAVOURS 101

## A brief history of flavourings

Most people tend to assume that food flavourings are a modern invention, but people have been adding extra ingredients to improve the flavour of their food since the dawn of time. Originally in the form of locally gathered herbs and spices, these quickly became an important and lucrative trade which continues to this day. The spice trade became so important that wars have been fought over it, and have shaped the world we live in – New York would be called New Amsterdam today, were it not for nutmeg. In the treaty to end a war between the English and Dutch in the 17<sup>th</sup> century, England was allowed to keep the island of Manhattan in exchange for the tiny Indonesian island of Run – ending a four year siege of the island by the Dutch, and giving them a monopoly on the trade of nutmeg (It's a sad reflection on human nature, that hundreds of people died or were cast into slavery in the name of greed – at the time nutmeg sold in Europe for 300 times the price it cost to buy. You can be assured though, that these days all of our ingredients are responsibly sourced!)

Making extracts from spices, herbs and flowers has been going on for many thousands of years. We know that the ancient Egyptians did it, and using them to flavour foods is at least as old as cookery records themselves. Some of the earliest recipes known (from 4th Century Rome & 6th Century Byzantium) refer to their use

The Berbers (Moors) are believed to have brought roses and citrus trees to Europe during the 10th century, and most likely brought the knowledge of making of extracts of these as well. The first record we have in the UK of a recipe using an extract for flavouring was published in 1573, and is for 'Marchpane' (icing), using 'flowre of Ryfe, Rofewater and Suger beaten together'

By the 17th century, flavourings appear to be in regular usage (they commonly appear in recipes). Rose water is most commonly mentioned, and 'orringe flower water' appears from the late 17th century onwards.

The commercial use of flavourings grew alongside the development of commercial food manufacturing in the 18th & 19th centuries. The manufacture of synthetic aroma chemicals began in the mid 1800's

By Victorian times the use of citrus and spice oils and extracts was already commonplace

For example, advice was being given to professional bakers to use spice extracts for hot cross buns, 'as spiced goods with a lighter crumb will prove more popular and bring a greater return than when ground spices are used'

These days, the use of flavourings in processed foods, such as ice creams and soft drinks is ubiquitous



Forest Natural Ingredients are produced exclusively by:

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## What is a flavouring?

Put simply, it is a concentrated preparation used to enhance or change the flavour of foods and drinks. They can be natural or synthetic. All of our flavourings are natural (derived from plant sources) as defined by UK and EU food regulations. If you are producing commercially, they should be listed as 'natural flavouring' in the ingredients list

The flavour of food is a combination of taste (on our tongue) and aroma (in our nose). It is mostly the aroma that allows us to recognise different foods (for example, tea and coffee taste pretty much the same if you have no sense of smell). We detect the aroma of a food by volatile chemicals within the food entering our nasal cavity and being detected by our nasal receptors. There are thousands of different aroma chemicals that we are able to detect, and the 'smell' of a food can be just one aroma chemical (such as vinegar – we detect acetic acid) or a cocktail of aroma chemicals (coffee can have over 100 different aroma chemicals).

When we develop a new flavour, our Flavourists blend together a number of natural aroma chemicals, in the correct proportions, until the flavouring is just right (A Flavourist is a bit like a perfumer, but for food. It takes many years of training and experience to become a Flavourist, our Chief Flavourist has over 30 years of experience). Most foods contain a large number of aroma chemicals and by varying the type and proportions we use, we can fine tune the flavouring to accentuate certain characteristics (eg making a strawberry more 'fresh' or 'juicy'). We then test this flavouring in our development kitchens in a variety of applications to ensure that it gives the desired taste

## What flavourings can (and can't) do

Most large food manufacturers use flavourings all the time, and for good reason – it allows them to get their products to consistently taste the way they (and the consumer) want

Flavourings are great when you need to:

- Boost the flavour of an existing ingredient
- Replace some of the flavour of an ingredient that has been lost in cooking/processing (eg adding back the 'fresh' strawberry character to a product containing cooked strawberry)
- Flavour a product where you can't add an ingredient for technological reasons (eg you couldn't flavour a buttercream using strawberry juice, adding that quantity of liquid would ruin the buttercream)
- Replace hard to get, or seasonal ingredients
- Add taste, without adding bulk (or extra sweetness, or acidity, or lumps, etc)
- Save money – expensive ingredients, such as vanilla pods, can be partly or wholly replaced using flavourings (Flavourings are usually considerably cheaper to use - even natural ones - it costs a hell of a lot less to fly a drum of cinnamon oil half way around the world than it does to fly a couple of tons of cinnamon sticks)



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As the old expression goes, you can't make a silk purse out of a sow's ear. Flavourings can make an average product taste good, and a good product taste fantastic, but a bad product will always be a bad product no matter how much flavouring you use.

For example, fruit flavourings work best when there's some sweetness and some acidity in the product being flavoured (because fruits have sweetness and acidity which contributes to the taste). If your product has neither, fruit flavourings will never taste as good as they can

### **Choosing the right flavouring for your application**

Most of the flavourings we offer are pretty broad spectrum, and will work well in most applications. However, the flavourings that have the suffix 'OS' are oil soluble only, and won't work in beverages. If there is some fat, or an emulsifying agent (such as egg), in your recipe, then they should work fine.

Conversely, the flavourings that don't have the 'OS' suffix won't work in a solely fat application, eg flavoured olive oil

### **How to use flavourings**

All of the flavourings we sell are highly concentrated, and have usage rates of between 0.1% and 0.5% (0.1% equates to 1ml per kilo or litre of mix, and 0.5% equates to 5ml). The best way to measure is by using a small graduated measuring cylinder or small measuring cups, but in cases where a small batch is being made we would recommend adding the flavour drop by drop

Getting the correct level of flavouring for your product is largely trial and error, as the amount of flavour impact depends on the base recipe and the amount of cooking/processing. A good way to start is to add flavouring at the addition rate of 0.1%, and add little by little until the desired taste is achieved

### **Safety**

The flavourings we sell are very concentrated (around a thousand times) and so have much higher concentrations of natural aroma chemicals than the fruit or spice. These aroma chemicals are harmless to you in small doses (they occur naturally in our diet), but can be harmful when in a very concentrated form. Because of this, they should never be consumed undiluted. We recommend that they are stored in their original containers, with the lid tightly closed, well out of the reach of children. Avoid contact with your eyes, and wash off your hands, or any spillages, as soon as possible with soap and water

For your safety, all of our flavourings have full specifications and safety data sheets, which are available to download from our website [www.naturalflavours.co](http://www.naturalflavours.co)

All our flavourings are allergen free (as defined in EU regulations) and GM free



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Our products are safe for food use, and all the ingredients we use are permitted under EU and UK flavourings regulations

All of our flavourings are bacteriostatic (i.e. they will not support the growth of micro-organisms and won't go 'off') and can be safely stored at cool ambient temperatures

### **Need more help?**

Are you struggling to get your product to taste just right? If you're having problems just drop us an email and we will probably be able to help. Using and developing flavourings is what we do all day, so we've managed to pick up a fair bit of experience along the way!



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