



Huntingdonshire Beekeepers' Association

HONEY TYPES AND TEXTURES

Distinguishing between the many terms used to describe honey in the jar can be quite confusing as some have become interchangeable and some have gone out of favour. Almost all of the terms describe the nature of the crystallisation of a particular jar of honey

SET OR GRANULATED HONEY

Crystallisation (or settling) is a natural process for almost all raw honeys. It shows the honey hasn't been over-filtered or processed, as crystallisation occurs when honey contains minute particles of pollen and wax.



The crystallisation process will happen to all pure honey and is indicative of a quality product with a high glucose content. Set or granulated honey is solid and grainy depending on the flora in its makeup. Granulated/ set honey should not be confused with soft set honey.

SOFT SET HONEY (also described as whipped or creamed honey)



Creamed honey is honey that has been processed to control crystallisation. Also known as honey fondant, soft set honey, or whipped honey, it has a smooth, spreadable consistency and lighter color than liquid honey of the same floral type.

Soft Set honey also described as Creamed or whipped honey, is intentionally processed to control the crystallisation process. It's churned to create uniformly small crystals, which gives it a smooth and creamy texture.

Why it is the way it is: The process of creaming can be done with a churning or stirring action. A food mixer on the lowest speed will also produce soft set honey. Larger crystals are broken up to become uniformly small throughout the product., This results in a smooth silky in a product almost buttery in texture which spreads well. This method prevents the gritty texture that can sometimes occur with natural crystallisation.

Appeal to taste: Soft Set Creamed honey offers a texture that is somewhere between set and runny honey, with a smoothness that spreads easily on bread without dripping. It has a mild, buttery taste that appeals to those who enjoy honey as a spreadable treat. This type of

honey can no longer be labelled as “creamed” because it does not in fact contain any cream. The term “whipped” is also a little misleading as it implies the introduction of air to a foodstuff, for example egg whites, whereas in the context of honey it is a controlled process to create small crystals.

RUNNY HONEY

Clear honey is fluid and transparent. It is extracted by a process of gentle heating and filtering, which prevents it from crystallising too quickly. The filtering removes particles that might encourage crystallisation, like pollen.

Why it is the way it is: Clear honey stays runny for longer due to a lower glucose content or the extraction process. Wildflower honey, for instance, tends to crystallise slowly because of its natural composition.

Appeal to taste: This type of honey is versatile, making it popular for drizzling over foods like yogurt, fruit, or porridge. The light, often floral, flavour appeals to those who prefer honey in its most liquid form, perfect for sweetening teas or other drinks.

WHY HONEY CRYSTALLISATION IS A MARK OF QUALITY

Honey that crystallises naturally, especially raw honey, is often a sign of quality. Commercial honey is frequently filtered and pasteurised to delay crystallisation and maintain a liquid appearance, but this process also removes beneficial enzymes, pollen, and other natural components that contribute to honey’s flavour and health benefits.

In England, where honey production is often artisanal and focused on maintaining natural qualities, crystallised honey is valued by many

consumers for its texture and authenticity. The smooth, creamy consistency of crystallised honey makes it easier to spread and allows it to retain its complex flavours.

WHY HONEY TURNS MILKY WHEN IT CRYSTALLISES

Honey often takes on a “milky” appearance during crystallisation because of the formation of fine glucose crystals, which scatter light and create an opaque or cloudy effect. The size and uniformity of these crystals are largely dictated by the floral source. For example, honey derived from oilseed rape, clover, or dandelion flowers tends to have smaller, finer crystals that give it a smooth, creamy texture and milky colour.

The milky effect is particularly pronounced when crystallisation occurs evenly throughout the honey. This is often observed in honey stored at consistent cooler temperatures, where crystals form uniformly. Some honey, especially raw and unprocessed varieties, also contains tiny particles like pollen or wax remnants. These particles can act as nucleation points, encouraging faster crystallisation and contributing to the milky, opaque appearance.

THE CHEMISTRY OF HONEY CRYSTALLISATION

Honey is primarily a supersaturated solution of glucose, fructose, and water. These sugars, produced by plants during photosynthesis, are collected by honey bees from floral nectar and transformed into honey through enzymatic activity in the bee’s body. Glucose is less soluble than fructose, meaning it is more prone to forming crystals over time. When glucose separates out of the solution, honey begins to crystallise.

The rate and extent of crystallisation depend on several factors:

Glucose-to-fructose ratio: Higher glucose content increases the rate of crystallisation.

Moisture content: Lower water content in honey accelerates crystallisation.

Storage temperature: Cool temperatures (around 10-15°C) encourage crystallisation, while warmer temperatures keep honey more fluid.

HOW FLORA IN ENGLAND INFLUENCES HONEY CRYSTALLISATION

England's floral diversity, shaped by its temperate climate and varied landscapes, plays a crucial role in the composition and crystallisation patterns of honey. Different types of nectar produce honey with varying ratios of glucose and fructose, which directly affects crystallisation. Here's how some of the key flowers influence this process:

1. **Oilseed Rape (*Brassica napus*)** One of the most commonly grown crops in England, oilseed rape (often called canola) produces honey that crystallises very quickly due to its high glucose content. Honey derived from oilseed rape can crystallise within weeks of harvest, often giving it a fine, almost creamy texture. This type of honey tends to have a milky or cloudy appearance when crystallised because of the small glucose crystals.



1. **Heather (*Calluna vulgaris* and *Erica* species)** Heather honey, particularly from ling heather (*Calluna vulgaris*), is famous in the UK. It crystallises more slowly than clover or oilseed rape honey, thanks to its higher fructose content. However, when it does crystallise, it can develop a gelatinous or jelly-like consistency. Heather honey often darkens as it crystallises, maintaining a rich, amber hue instead of turning milky, unlike honey from other floral sources.
2. **Borage (*Borago officinalis*)** Known for its brilliant blue flowers, borage is a favourite among bees in the southeast of England. Borage honey is light and clear when fresh, but its lower glucose content means it crystallises slowly, often retaining its clarity for longer. When it does begin to solidify, it forms fine crystals and a smooth, spreadable consistency.