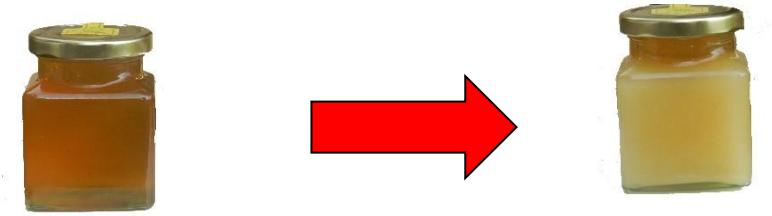
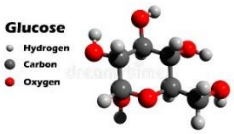
Why does honey crystallise?



Honey sometimes takes on a semi-solid state known as crystallised or granulated honey. This natural phenomenon happens when glucose, one of three main sugars in honey, spontaneously precipitates out of the supersaturated honey solution.

The honey is still perfectly eatable and has not gone off!

This supersaturated state occurs because there is so much sugar in honey (more than 70%) relative to the water content (often less than 20%).



The glucose loses water and takes the form of a crystal. The crystals form a lattice which immobilises other components of honey in a suspension thus creating a semi-solid state.

Many factors influence the crystallisation of honey.
Some types of honey take a long time to crystallise, while others do so within a few days of extraction. Oil seed rape honey crystallises very quickly whereas Acacia honey does so more slowly.
Crystallisation can be stimulated by any small particles, dust, pollen, etc. that are present in the honey. These factors are related to the type of honey and are influenced by how the honey is handled and processed.
Storage conditions, temperature, relative humidity, and type of container may also influence the tendency of honey to crystallise.
When honey is warmed, the sugar crystals redissolve, and the honey returns to its original liquid state.

If our honey crystallises, we warm the honey to ~35^{c}, the same temperature as inside the bee hive.
Under the Honey Regulations [2015] it is It is illegal to heat honey 'in such a way that the natural enzymes have been either destroyed or significantly inactivated.'
No specific temperature is set in the regulations, but it is considered to be ~70^{c}, the temperature at which food is Pasteurised.

Its recommended to use a Bain Marie to warm the honey.