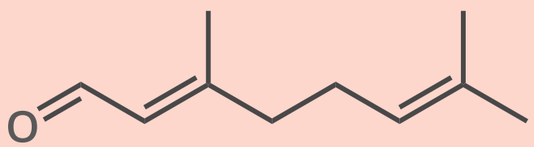
THE CHEMISTRY OF TOMATOES

SHOULD TOMATOES BE STORED IN THE FRIDGE?

(Z)-3-HEXENAL
Significant volatile compound in tomatoes

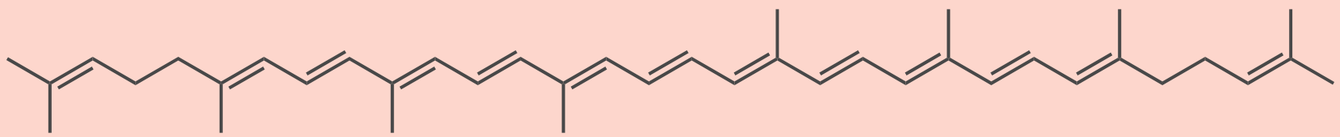
Chilling damages cell membranes in tomatoes, and inhibits enzyme activity, which can lead to a drastic loss of volatile compounds. Some of these, such as the C6 (six carbon) volatiles, do not contribute significantly to flavour, but others, such as geranial, have a noted impact on factors such as sweetness.

Taking tomatoes out of the fridge for 24 hours can lead to some recovery of volatile compounds, however, though only within a week of fridge storage. It's also worth noting that storing ripe tomatoes in the fridge can obviously be beneficial, to stop them from going off!



GERANIAL
Contributor to sweetness of tomatoes

WHAT CAUSES THE COLOUR OF TOMATOES?



LYCOPENE
Absorbs all but the longest wavelengths of visible light

Green tomatoes are so coloured because of the presence of chlorophyll. As they ripen, the pigment lycopene develops; this compound absorbs light across most of the visible light spectrum, except the red portion, causing the tomato to appear red. It absorbs most visible light as a result of its highly conjugated structure - that is to say, it has lots of alternating double and single bonds.