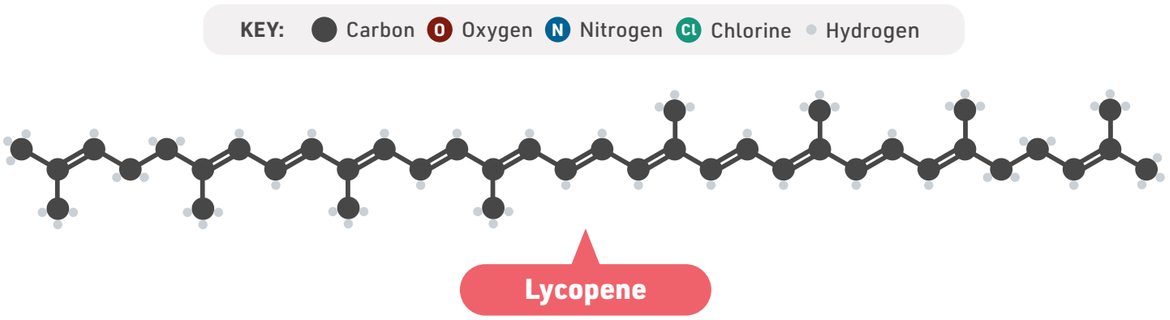
Watermelon colour, aroma, and explosions

COMPOUND INTEREST

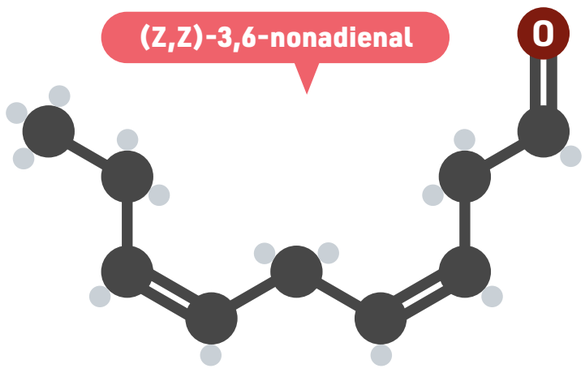
Watermelon colour and aroma

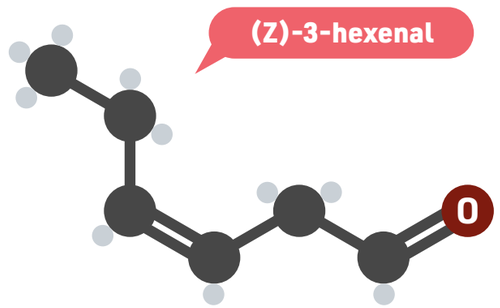
The pink colouration of red watermelon flesh is due to the presence of lycopene. This compound is also responsible for the colour of tomatoes, but it is found in even higher levels in watermelon.

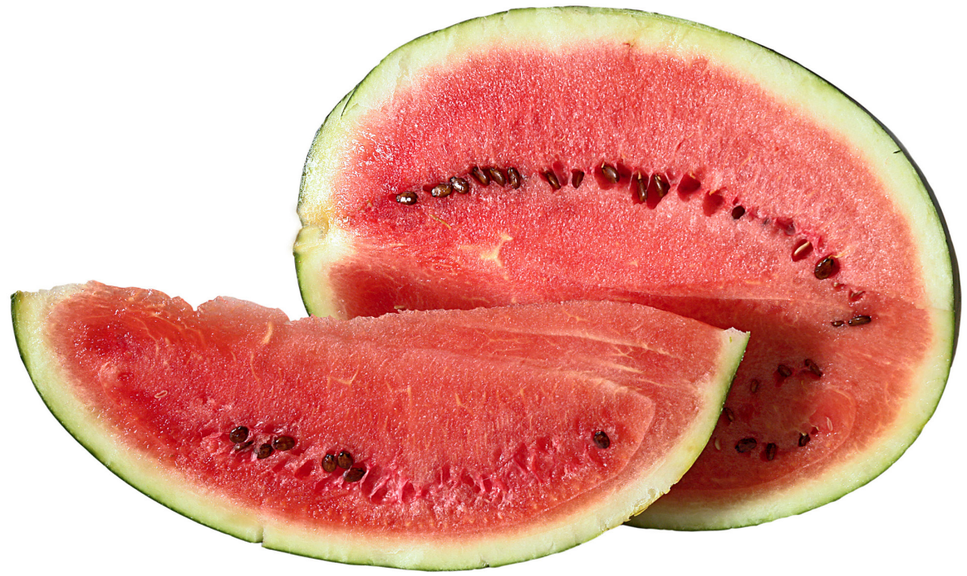


The aroma of watermelon is contributed to by a variety of chemicals, generated by enzymatic oxidation of fatty acids when the watermelon is cut. The primary aroma-impact compounds are thought to be C6 and C9 aldehydes.

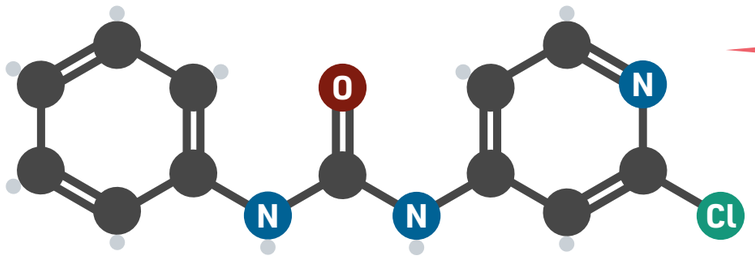
The aldehyde (Z,Z)-3,6-nonadienal is of particular significance, and is often itself described as having a fresh, watermelon-like odour. (Z)-3-hexenal, another aldehyde present, also contributes to the smell of fresh-cut grass.







Exploding watermelons



Approved in the US for use on kiwi fruits, raisins, and grapes; normally used in low quantities.

In 2011, farmers in Eastern China were hit by a spate of exploding watermelons. The farmers had treated their watermelons with forchlorfenuron, a plant growth regulator. Forchlorfenuron acts with plant auxins, naturally present hormones that play an important role in plant growth, to promote cell division and growth. Overuse of forchlorfenuron during wet weather resulted in the exploding watermelons, affecting an area of approximately 115 acres.