



CITRUS
Essential Oils



FRAGRANCE & FLAVOUR
INGREDIENTS



ORIGIN

The origin of citrus fruit goes back more than 4,000 years to central Asia, an area with a hot and humid climate suitable for citrus cultivation. China is thought to have been the place of origin for the majority of citrus fruit.

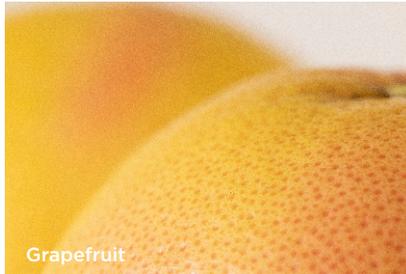
The diversity of the Citrus genus at that time mainly consisted of pomelo (*C. maxima*), mandarin (*C. reticulata*) and citron (*C. medica*) trees.

Around 1,500 years later, the Greeks and Romans brought citrus fruit to Europe via the Silk Road; archaeological evidence has been found confirming their daily consumption.

It was later in the evolution of citrus the cultivation of hybrid varieties appeared (orange, Seville oranges, lemons...), made possible by their great adaptability to different terrains and climates.

Thanks to the rise in maritime trade, the production of citrus fruit spread quickly throughout the world, current reaching more than 140 million tons.

A LITTLE BOTANICAL INFORMATION



CITRUS FRUIT BELONGS TO 3 MAIN GENERA FROM THE CITRUS GROUP IN THE RUTACEAE FAMILY :

- *Citrus (vast majority of citrus fruit)*
- *Fortunella (kumquats)*
- *Poncirus*

Each genus is then divided into species and cultivated varieties (cultivars) or not; hence the considerable complexity.

The number of species is subject to controversy due to their ease of hybridization. Currently, some citrus fruit specialists list more than 2,500 different varieties.



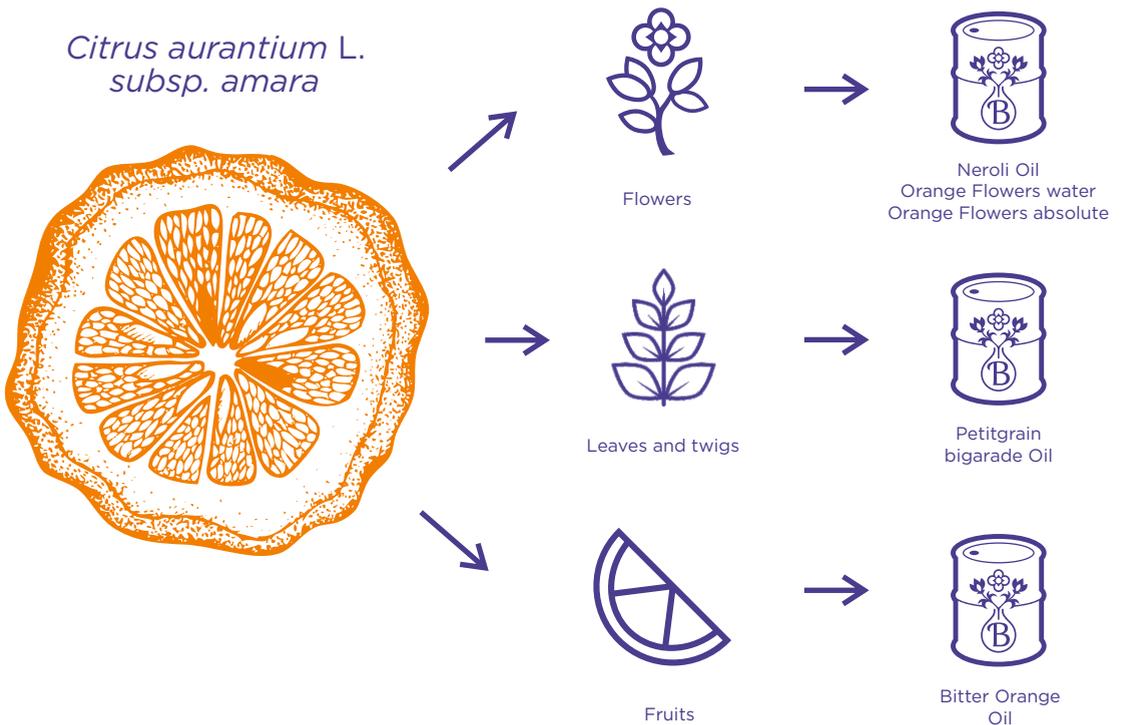
SPECIFIC PROPERTIES OF CITRUS FRUITS

The originality of citrus fruit comes from their internal composition of segments filled with juicy vesicles (pulp). No other fruit has this appearance.

All parts of the tree contain essence glands; branches, leaves, flowers, and fruit.

In the case of the bitter orange, most parts of the tree are used to produce multiple essential oils and absolutes with very diverse fragrances, and the zest is also often used in cooking.

Due to their sparkling, zesty, and fruity flavours and fragrances, these fruits are synonymous with energy and good mood. Thanks to advances in agronomic techniques, it is possible today to consume them all year round.



HARVESTING SCHEDULE



Manual harvesting of Bergamot in Calabria

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
Bergamot (Italy)												
Bitter Orange (Tunisia)												
Grapefruit (Florida)												
Grapefruit (Israël)												
Green Mandarin (Brazil)												
Lemon (Spain)												
Lime (Mexico)												
Petitgrain Citronnier												
Petitgrain Paraguay												
Tangerine (Brazil)												
Yellow Mandarin (Italy)												



CITRUS ESSENTIAL OILS

Production :

Most citrus essential oils are produced by **cold pressing**. In some cases, such as limes, distillation can be used.

By pricking or pressing the outer part of the fruit zest (epicarp), **the essential oil contained in the oleiferous vesicles is released**. This process takes place at room temperature and water is used to collect the essential oil in the equipment.



Fresh water wash



Pelatrice for Bergamot processing



The oil is then separated from the water or the juice by centrifuge - depending on the type of machine used.



Filtration



Bergamot essential oil flowing from the centrifuge

OUR LONGSTANDING EXPERTISE IN CITRUS

Throughout the last 30 years, Bontoux has established **strong partnerships with Italian and Spanish citrus producers.**

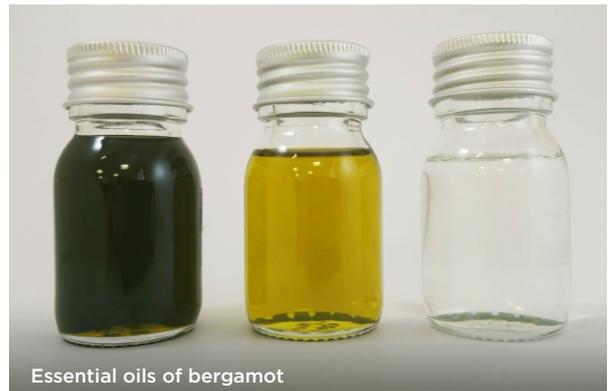
This connection, as close as possible to the fruit and the production of its essential oil, has allowed us to acquire and perfect our citrus expertise: both at an **analytical level and in the specific product characteristics linked to variety, method of production, and impact of the terroir and the climate** on the quality of the essential oils.



With this knowledge, we have developed **innovative cutting edge techniques** to make the crude essential oil compliant with current specific legislation on perfumery, cosmetics, and food. For example, we pay very particular attention to the agro-residues which are subject to an internal analysis for each batch.

The challenge taken up by Bontoux is to preserve the beauty, freshness, and complexity of the essential oil obtained by a cold mechanical process - throughout the product optimization process: furocoumarin content reduction, colour rectification, etc.

Via complete mastery of the process used (molecular distillation, rectification, concentration), our commitment to guaranteeing you impeccable quality ensures we meet the expectations of your customers for their applications.



EXCLUSIVE AGREEMENT

At the beginning of 2019, Bontoux strengthened its position and its commitment to Citrus fruit by partnering with **Patea Azienda Agricola**. Based on the eastern Ionian coast of Calabria in the far south of Italy, the agricultural company Patea grows, collects, and processes bergamot fruit - with its characteristic zesty and fruity aromatic profile.



The Patea team with our Bontoux experts

The partnership established ensures our ability to secure supply for certified organic bergamot essential oil and allow us to respond positively to the growing demand for dependable, reliable supply channels, with monitored organic credentials.

For any queries, please contact us at sales@bontoux.com

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