

Benefits

Making natural ingredients by fermentation confers a series of important benefits.

Better product quality

Nature often makes ingredients alongside undesirable elements (that e.g. make the product bitter, discoloured or hard to formulate). When these are similar to the desired product, it can be hard to remove them. With fermentation, these elements can be avoided. Fermentation can also provide more standardised products than agriculture. Examples: stevia, vanillin.

Improved supply chain

Crops are subject to drought, floods, pests, etc. and shortfalls can persist for months or even years. Fermentation is more stable, and shortfalls can be remedied in weeks. Fermentation also shortens and simplifies supply chains – making them cheaper, more robust and easier to safeguard. Examples: saffron, agarwood, sandalwood.

Reduced cost

Nature has not evolved to maximise the efficiency of ingredient production. The saffron crocus produces very little saffron; musk cannot be obtained from the deer without killing it; it takes over 1 million kilos of oranges to extract 1 kilo of valencene, etc. This imposes costs which in turn often limit potential uses. Fermentation allows more efficient production, making ingredients more affordable. Examples: saffron, valencene.

Improved sustainability

Many agricultural systems are sustainable. But not all. Growing the plant or raising the animal takes more land, water or energy than it should. Extracting the ingredient may need solvents or other processes that create significant waste. Fermentation can improve sustainability, freeing up resources for other uses. Examples: vanillin, agarwood.

Improved “customisation”

Many natural ingredients are mixtures of different components. With fermentation, each component can be made in pure form and the ingredient customised to particular end uses. Examples: stevia, saffron.

Improved solubility and bioavailability

Our glycosylation technologies allow many ingredients to be improved regarding solubility and bioavailability. This can improve efficacy, make them easier to formulate and reduce cost of production. Examples: vanillin

Finding new functions in old ingredients

In silico modelling followed by in vivo or in vitro screens can find new functions for existing ingredients. Examples: resveratrol.

Making "impossible" ingredients possible

Many compounds of potential use as pharmaceuticals, fragrances, etc are made in such small amounts, or the source is so rare or difficult/unethical to harvest (e.g. corals, musk deer) that they are out of reach commercially. Fermentation can make these compounds accessible. Examples: sandalwood, agarwood.

Contact Information

Evolva SA

Duggingerstrasse 23
CH-4153 Reinach
Switzerland
Tel: +41 61 485 2000
Fax: +41 61 485 2001

Evolva A/S

Lersoe Parkallé 42-44
DK-2100 Copenhagen OE
Denmark
Tel: +45 35 200 230
Fax: +45 35 200 231

Evolva Biotech Private Limited

401 - 405, 4th Floor
Ticel Bio Park Ltd
Taramani Road, Taramani
Chennai 600 113
Tamil Nadu, India
Tel: +91 44 4297 1050
Fax: +91 44 4297 1060

Evolva, Inc. (Evolva USA)

2440 Embarcadero Way
Palo Alto
CA 94303
USA
Tel: +1 650 856 2436
Fax: +1 650 856 7950

General Enquiries: info@evolva.com • Business Enquiries: busdev@evolva.com • India Enquiries: info_india@evolva.com