

Knowing yeast genome produces better wine

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The yeast *Dekkera bruxellensis* plays an important role in the production of wine, as it can have either a positive or a negative impact on the taste. Researchers at Lund University in Sweden, among others, have analyzed the yeast's genome sequenced by the US Department of Energy Joint Genome Institute, giving wine producers the possibility to take control of the flavour development of the wine.

Yeasts are an important ingredient in the production of various types of food, for example wine, and they make a major contribution to the taste. One of these yeasts is *Dekkera bruxellensis*. It is responsible for the aromatic fingerprint in around half of [red wines](#). Yet the yeast can cause huge [financial losses](#) for the [wine industry](#) – *Dekkera bruxellensis* can produce a phenolic flavour that is usually described as medicinal. In high concentrations it makes the wine undrinkable.

Despite the fact that *Dekkera bruxellensis* plays a significant role in the wine production process, relatively little research has been carried out on the [yeast](#). However, in an international collaboration, researchers have now decoded the genome of *Dekkera bruxellensis*. The researchers have mainly studied the yeast's genetic background and properties of relevance to food production.

"We now know a lot about how *Dekkera bruxellensis* acts in the aroma formation process during wine production. Wine producers can use this knowledge to their advantage", says Professor Jure Piskur of the Department of Biology, Lund University.

In recent years, the wine industry has become increasingly interested in the properties of yeasts because they influence the character of the wine. The mapping of *Dekkera bruxellensis*'s genome can be used as a tool for wine producers worldwide to take control of flavour development.

"At the end of the day this could lead to more new and interesting wine tastes and greater financial savings for the [wine](#) industry", says Jure Piskur.

More information: The research results were published recently in the *International Journal of Food Microbiology*.

[www.sciencedirect.com/science/ ... ii/S0168160512002565](http://www.sciencedirect.com/science/.../ii/S0168160512002565)

Provided by Lund University

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