

Understanding the mechanisms of natural cocoa fermentation

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The fermentation of cocoa beans relies on a complex interaction between bacteria and yeasts. This natural process is the first stage in the manufacture of chocolate and is essential for generating chocolate flavour.

A [new study](#), involving scientists from the Nestlé Research Center, Lausanne, Switzerland, improves our understanding of the precise collaboration of the microbes involved in cocoa fermentation. The findings have been published in *Applied and Environmental Microbiology*.



By mapping the metabolic pathways of acetic acid bacteria, the scientists discovered an important interaction involving acetic acid bacteria, lactic acid bacteria and yeasts. The complex collaboration among these microbes is critical for optimal cocoa fermentation, an important first step in producing chocolate with superior taste and quality.

Acetic acid bacteria: a key player during cocoa beans fermentation

Article reference:

Philipp Adler, Lasse Jannis Frey, Antje Berger, Christoph Josef Bolten, Carl Erik Hansen and Christoph Wittman. *Applied and Environmental Microbiology* 2014. [The key to acetate: Metabolic fluxes of acetic acid bacteria under cocoa pulp fermentation simulating conditions.](#)