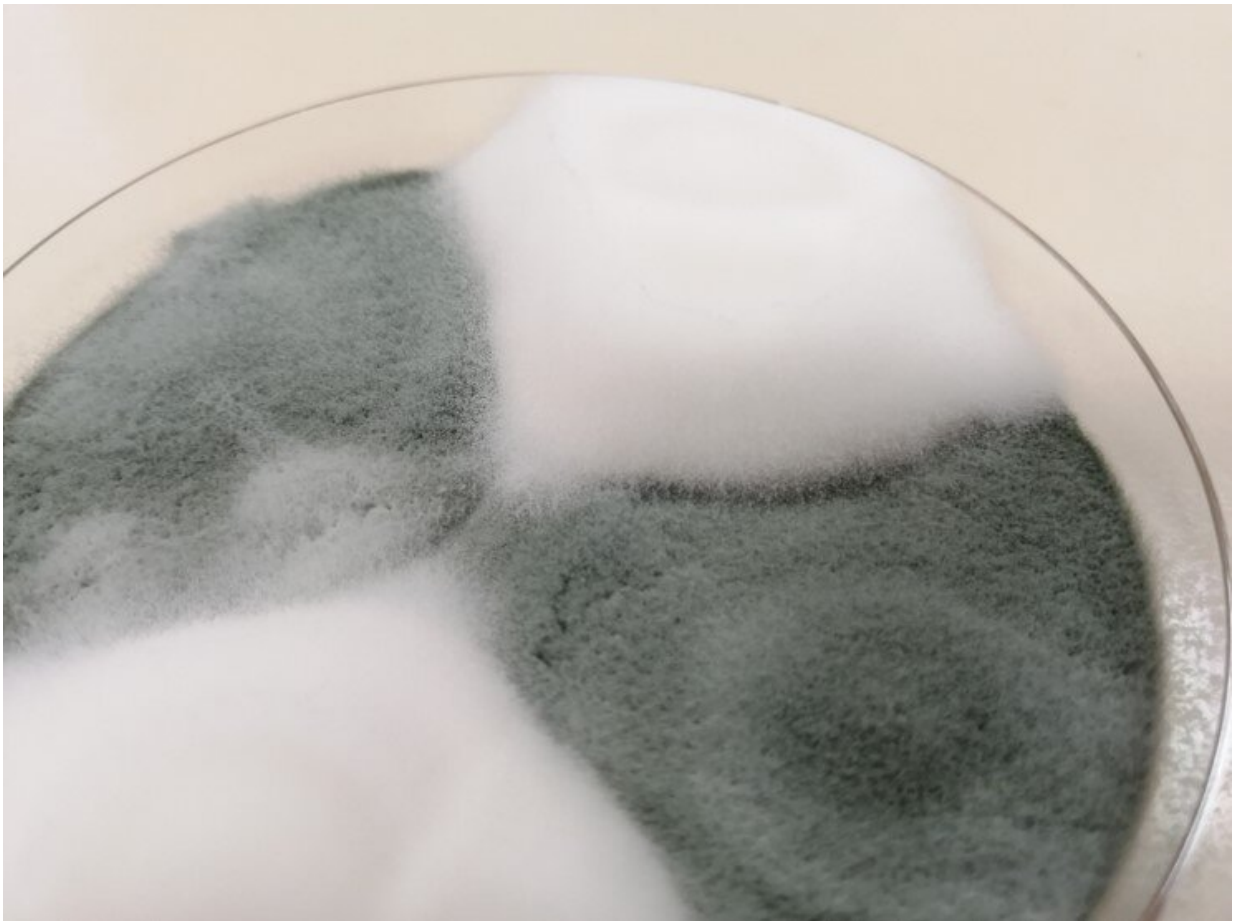


Penicillium camemberti: a history of domestication on cheese

September 24 2020



Cultures of *Penicillium camemberti* (white and fluffy) and *Penicillium bifforme* (grey-green) in a Petri dish. Credit: © Tatiana Giraud, CNRS researcher at the Ecology, Systematics and Evolution Laboratory (CNRS/Université Paris-Saclay/AgroParisTech), CNRS Silver Medal 2015

The white, fluffy layer that covers Camembert is made of a mold resulting from human selection, similar to the way dogs were domesticated from wolves. A collaboration involving French scientists from the CNRS has shown, through genomic analyses and laboratory experiments, that the mold *Penicillium camemberti* is the result of a domestication process that took place in several stages.

According to their work, a first domestication event resulted in the blue-green mold *P. biforme*, which is used, for example, for making fresh goat's [cheese](#).

A second, more recent [domestication](#) event resulted in the white and fluffy *P. camemberti*.

Both domesticated species show advantageous characteristics for maturing cheese compared to the wild, closely [related species](#): they are whiter and grow faster in cheese-ripening cellar conditions.

In addition, they do not produce, or only in very small quantities, a toxin that is potentially dangerous to humans; they also prevent the proliferation of undesirable molds.

This research, published on 24th September in *Current Biology*, may have an impact on cheese production, by steering the selection of molds according to the desired characteristics.

More information: *Current Biology* (2020). [DOI: 10.1016/j.cub.2020.08.082](#)

Provided by CNRS

Citation: Penicillium camemberti: a history of domestication on cheese (2020, September 24) retrieved 29 June 2024 from <https://phys.org/news/2020-09-penicillium-camemberti-history-domestication-cheese.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.