

New species of truffle found in Finland

May 16 2013



A species of truffle that is considered to be rare has been found for the first time in Finland. Previously it has been thought to exist only in the Pacific Northwest region of the United States. The truffle was found in Puumala, growing under a pine tree.

The truffle was identified on the basis of its shape, as well as through methods of [molecular biology](#). On the basis of phylogenetic analysis ([evolutionary tree](#)) the truffle was identified as a *Tuber anniae*. Aalto University and the Juva Truffle Center will study the new truffle's edibility and its commercial potential.

Truffle species have spread around Asia, Europe, North Africa and North America. There is extensive variation among truffle species in Europe. Truffles are ecologically [symbiotic fungi](#) that can form a

[symbiotic relationship](#) with trees, including pine, birch, spruce and oak. Truffle research is fairly new in Finland. So far, Aalto University and the Juva Truffle Centre have found only a few wild truffles, including the *Tuber foetidum* and the *Tuber maculatum*.

Research with a bioreactor

'Our research today focuses on the development of DNA-based techniques. The aim is to determine the "fingerprint" of the truffles so that the different Finnish species of truffle can be distinguished from each other. This would allow them to be listed according to species on the lists of the Sienikauppa mushroom store. Different truffle species have different prices which are based on a number of factors, including their availability and nutritional value', says Aalto University researcher Salem Shamekh, D.Sc. (Tech.), who is also the director of the Juva Truffle Center.

'We also study the production of the fungal mycelium of the truffles in a bioreactor, as well as the isolation of flavours and antioxidants. We planned to collaborate with Aalto University researchers in [organic chemistry](#), including the group led by Professor Reija Jokela. '

'We have succeeded in implanting truffle spores in Finnish trees (such as the Black Diamond Truffle and the Summer Truffle) which makes it possible to set up a company based on truffles.'

'We are the first research group to have produced truffles in a [truffle garden](#) in Finland', Salem Shamekh, D.Sc. (Tech.), says.

Provided by Aalto University

Citation: New species of truffle found in Finland (2013, May 16) retrieved 10 July 2024 from <https://phys.org/news/2013-05-species-truffle-finland.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.