



SCIENCE & TECHNOLOGY

Finnish Researchers Grow Coffee in a Lab

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Finnish researchers say they have produced coffee in a laboratory that smells and tastes very similar to the real thing.

The team reports that lab-grown coffee could be important as climate change continues to threaten traditional coffee farming.

Scientists at Finland's VTT Technical Research Center created cell **cultures** from the leaves of coffee plants. The process involves floating the cell cultures in **bioreactors** filled with nutrients. The same method is used to make other kinds of animal- and plant-based products.

Heikki Aisala is a VTT researcher who oversaw the process. Aisala told Reuters news agency that cups of the cellular coffee probably would not pass taste tests comparing it to traditional coffee.

"Not like, of course, 100 percent. It tastes like a combination of different types of coffees," Aisala said. The researcher added that while the cellular coffee is not ready for the market just yet, "it certainly does **resemble** coffee at the moment."

Aisala added it is possible that the lab-grown version could one day develop into a multi-billion-dollar industry.

VTT Research team leader Heiko Rischer said cell cultures offer a more **sustainable** way to make coffee. This is because coffee is in high demand. This has led to countries opening up more land to grow coffee beans, which causes increased deforestation.

Rischer said the environmental benefits of lab-grown coffee include reduced use of **pesticides** and **fertilizer** and less need to ship coffee beans long distances to markets.

In Europe, lab-grown coffee would need to be approved before it could be marketed.

But an important question remains: Will coffee lovers actually drink the lab-grown creation? A Reuters reporter put that question to Satu, a server in a Helsinki coffee shop.

"I think someday we're going that way because of all the natural coffee sources **vanishing**," she said. "So, we have to move along...if it tastes good and the **aroma** is coffee based, so why not? I think it's possible."

I'm Bryan Lynn.

Reuters reported this story. Bryan Lynn adapted the report for VOA Learning English. Susan Shand was the editor.

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Words in This Story

culture – *n.* the process of growing things for scientific purposes

bioreactor – *n.* a device in which living organisms synthesize useful substances

resemble – *v.* to look like or be like someone or something

sustainable – *adj.* involving methods that do not completely use up or destroy natural resources

pesticide – *n.* a chemical used to kill insects

fertilizer – *n.* a natural or chemical substance that is put on land to help make plants grow well

vanish – *v.* to disappear

aroma – *n.* a nice smell that usually comes from food or drink

