



Miro, a trained truffle dog, and his harvest (Credit: Simon Egli, WSL)

## Radioactive truffles?

Truffles are a rare type of mushroom that can be found under the ground by trained dogs or pigs. They look a bit like dark, deformed potatoes, but they have a very particular flavour and delicious smell, making them an expensive food some people love to eat.

A group of scientists, led by Ulf Büntgen from Switzerland, decided to check whether one type of popular truffles, called Burgundy truffles, are radioactive. In 1986, there was a nuclear accident at Chernobyl, in Ukraine. This disaster released lots of radioactive particles – which in large quantities can damage our health – into the atmosphere. These particles were transported by winds and then deposited on the ground by rain in many parts of central, eastern and northern Europe.

Even though a long time has gone by since the Chernobyl accident, the top layers of the soil in many parts of Europe still have some left over radioactive particles. In most areas, the radioactivity levels are too low to affect us, or the food we grow. But some foods, such as wild porcini mushrooms, can accumulate dangerous levels of radioactivity because of how they draw nutrients from the soil they grow in. Therefore, it is important to check that all the foods growing in radioactive soil are safe to eat.

Ulf and his team used trained truffle dogs to find truffles in parts of Switzerland, Germany, France, Italy and Hungary, which they analysed. All of the 82 truffles they checked were free from dangerous levels of radioactivity. So, if you can find this rare food (and can afford to buy it), don't be afraid to eat up!

## Find out more

### Discuss with your teacher or parents

What is radioactivity? And how can it affect people? This educational resource can help you find out more: <http://encyclopedia.kids.net.au/page/ra/Radioactivity>.

*This is a kids' version of the European Geosciences Union (EGU) press release 'Screening truffles for radioactivity 30 years from Chernobyl!'. It was written by Bárbara Ferreira (EGU Media and Communications Manager), reviewed for scientific content by Laurel Kluber (Soil Ecologist at Oak Ridge National Laboratory, US) and Katherine Todd-Brown (Computational Biogeochemist at Pacific Northwest National Labs, US), and for educational content by Monica Menesini (Teacher, Liceo Scientifico A. Vallisneri, Lucca, Italy). For more information check: <http://www.egu.eu/education/planet-press/>.*

