

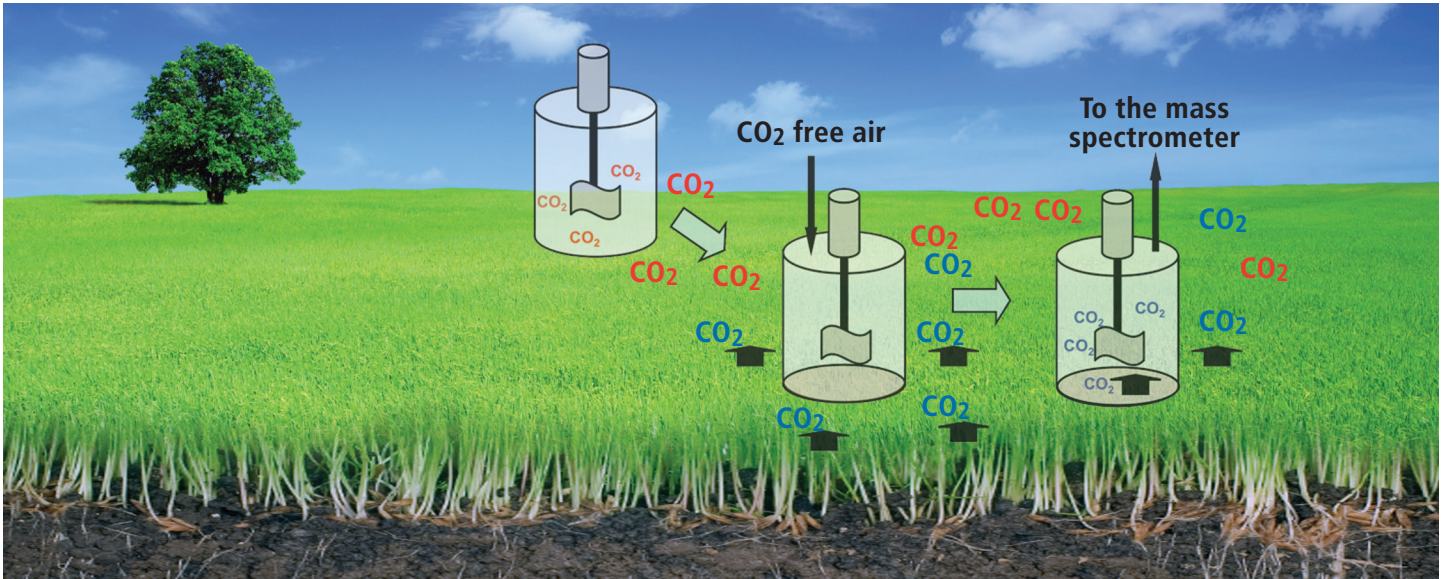
Is Scotland's soil disappearing into thin air?

How we determine the sources of soil respiration

Carbon dioxide (CO₂) released into the atmosphere by soil respiration is captured in Perspex chambers and analysed.

The chamber is placed on the soil surface and flushed with CO₂ free air to remove the atmospheric CO₂

CO₂ respired from the soil surface is allowed to accumulate in the chamber and is pumped into a mass spectrometer where the amounts of the individual isotopes carbon 12 and carbon 13 are measured



By using isotopes of carbon we can unravel the sources of the carbon in the soil and help predict how this might alter under the influence of predicted climate change

