British Forest Pumped Full of CO2 To Test Tree Absorption

Source: Unknown

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These huge arrays are pumping out carbon dioxide – the main man-made greenhouse gas. But this isn't an industrial plant; it's a science experiment. The ten year study wants to find out what effect rising CO2 has on a mature forest like this one in the English Midlands. SOUNDBITE (English) MICHAEL TAUSZ, PROFESSOR OF FOREST ECOSYSTEM SCIENCE AT UNIVERSITY OF BIRMINGHAM, SAYING: "The forest here sees about 40 percent more CO2 than it sees normally, because that's what it will be globally in about 2050; a value of 550 parts-per-million atmosphere, compared to 400 parts-per-million now." Three of the six arrays are 'controls'; identical to the others except no CO2 is pumped from them. The concentrated gas is stored on the edge of the forest. It's fed through pipes to the masts where it's pumped into the foliage at varying heights. Leaf samples are collected regularly and their chemistry analysed in the lab. It's long known that trees absorb CO2 from the air and lock it away as a 'carbon sink', but key questions remain. SOUNDBITE (English) MICHAEL TAUSZ, PROFESSOR OF FOREST ECOSYSTEM SCIENCE AT UNIVERSITY OF BIRMINGHAM, SAYING: "We are already much higher than we were before the industrial revolution. Until now we were sort of a little bit lucky that forests sucked up some of that additional CO2. According to estimates between 20 and 30 percent of the additional CO2 released by human activities went back into forest ecosystems. What we don't know, however, is first of all how forests did that and why, where that CO2 goes exactly, and how long forests could keep doing that." The biodiversity of the wider ecosystem, including soil, insects and fungi, is also being assessed. Called the Free Air Carbon Dioxide Enrichment – or FACE – experiment, it's the first of its kind in Europe. Two more – in Australia and Brazil – are analysing elevated CO2 levels. Deforestation is shrinking the carbon storage capacity of the world's forest. Explaining its role in climate change mitigation could convince policy makers to take heed.