

# Oil palm soil helps degrade environmental isoprene

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## Video Byte

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# Abstract

Isoprene is the most abundantly produced biogenic volatile organic compound (BVOC) on earth.,with annual global emissions rivaling those of methane. Unfortunately, surprisingly little is known about how isoprene is degraded in the environment. A recent study reveals a new set of bacteria that can metabolize isoprene. Researchers used DNA isotope probing to study microbes that degrade isoprene derived from oil palm trees. Among the new genera they discovered were *Novosphingobium*, *Pelomonas*, *Rhodoblastus*, *Sphingomonas* and *Zoogloea*. Metagenomic analysis further demonstrated that oil palm soil harboured more and more-diverse isoprene-degrading bacteria than leaves. That finding suggests that oil palm soils could be a bigger sink for isoprene than previously thought. Understanding the distribution and identity of isoprene degraders in the environment is crucial. to determine the extent to which microbes mitigate the effects of this abundant but neglected climate-active gas.