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OBSERVATORY

A Carbon Keeper: Crop Waste Sunk to the Ocean Deep

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A leading idea to fight global [climate change](#) is to permanently remove some of the carbon dioxide building up in the atmosphere.

Here's one way to do it: deep-six much of the world's agricultural waste.

Plants remove CO₂ from the air through photosynthesis, incorporating the carbon in their tissues. So dumping corn stalks, wheat straw and other crop residues into the deep ocean, where cold and lack of oxygen would keep them from decomposing, would in effect sequester atmospheric CO₂ on a time scale of millennia.

In a world that celebrates high technology, the idea sounds too simple to succeed. But Stuart E. Strand of the [University of Washington](#) and Gregory Benford of the University of California, Irvine, concluded that crop waste storage would make more sense than other proposals for carbon sequestration, including gas storage, sequestration directly in the soil, planting of more forests to take up more CO₂, and fertilizing the oceans to foster more algae growth. Their findings are published in the journal Environmental Science and Technology.

The researchers calculated that crop waste burial would be more

efficient than some other methods and could be adopted sooner, in part because existing technology and infrastructure could be used. Stalks could be baled in the field, transported to ports and loaded on barges for deep-water dumping. The researchers suggest any environmental impact could be minimized by concentrating the dumping in one area.

They estimate that large-scale agriculture produces enough waste worldwide that dumping it in the ocean could reduce the global annual accumulation of CO₂ by 15 percent.

<https://www.nytimes.com/2009/02/03/health/03iht-03obcrops.19885845.html>