



Corn absorbs more CO2 than other crops and CROPS intends to sink bales of crop residue to the ocean floor | Photo source [CROPS](#)

[Innovation](#) > [Sustainability](#) > [A new plan for storing carbon under the sea](#)

A NEW PLAN FOR STORING CARBON UNDER THE SEA

 SUSTAINABILITY

A startup is proposing to store carbon under the ocean in the form of bales of corn waste

Spotted: As the world ramps up the fight against global warming, there is a growing realization that no single technology will provide all the emission reductions needed to meet climate goals. Rather, a portfolio of mitigation measures will be needed – and carbon capture and sequestration will form an important part of this portfolio. A new enterprise—called CROPS (‘Crop Residue Ocean Permanent Sequestration’)—is aiming to sequester carbon from crop residue by storing that carbon deep under the ocean.

CROPS was founded by NASA award-winning entrepreneur David Mitchel and Nebula award-winning scientist Gregory Benford. It focuses on corn, which extracts a larger proportion of carbon dioxide from the air than most other crops and therefore supports a greater level of carbon being locked away. The plan would package ‘stover’—corn waste made up of stalks, root and leaves—into enormous 1500 pounds bales, that would then be sunk thousands of feet below the ocean’s surface.

At those depth, the bales would decompose very slowly due to the lack of free oxygen alongside low temperatures and high pressures. As a result, the carbon the bales contain would be locked away for around 1,000 years. This is far longer than what can be achieved through other forms of carbon capture and sequestration.

According to CROPS, the key benefits of this method are that it is quick, low cost, and can be scaled rapidly. Moreover, the ocean floor is effectively limitless and the CROPS process requires no carbon capture plants.

A short documentary on the CROPS system is now available on non-profit streaming platform ecoflix.com.

At Springwise, we have seen a number of innovations in carbon capture and sequestration, many of which focus on improving efficiency and scalability while reducing costs. Recent advances include technology that captures CO2 from [ambient air](#) for use in greenhouses and an [artificial leaf](#) that can capture 100 times more carbon than other systems.

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Takeaway:

Global agriculture is a major source of greenhouse gas emissions. According to a 2019 report by the IPCC (Intergovernmental Panel on Climate Change), agriculture is directly responsible for around 8.5 percent of all greenhouse gas emissions. However, global agriculture also provides 8 billion tonnes of crop waste each year. CROPS estimates that between 1 to 3 billion tonnes of this can be safely stored. To kickstart its project, CROPS is currently vying for the \$100 million XPRIZE – a competition funded by the Musk Foundation, that offers funding to projects that can remove carbon from the atmosphere. If successful, the company could make a big splash in the field of carbon capture and sequestration.