



The Harnessing Plants Initiative's leadership team | Photo source Salk Institute

RESEARCHERS DEVELOP PLANTS THAT CAN TRAP MORE CARBON DIOXIDE

 AGRICULTURE & ENERGY

The genetically-modified plants can remove larger amounts of CO₂ from the air

Spotted: Researchers at the [Salk Institute](#) have developed a way to improve the ability of plants to remove carbon dioxide from the air. Plants already remove CO₂ from the air, using photosynthesis to convert it into oxygen, sugars, polymers, cellulose – and carbon, which is stored in the plants' roots. The researchers plan to use genetic and genomic techniques to allow plants to develop a deeper and more robust root system that can absorb larger amounts of carbon.

Once they have developed improved model plants, the [Harnessing Plants](#) team plan to transfer the genetic traits into six common crops: corn, soybean, rice, wheat, cotton/cottonseed and rapeseed/canola. The crops will then help to mitigate climate change as they grow. The added carbon in the soil will also help promote better crop yields.

The institute calculates that once its enhanced plants are performing at peak levels, they could reduce atmospheric carbon dioxide by as much as 46 percent every year. The team also plans to consider ways to develop improved carbon storage in aquatic plants. The researchers anticipate that it will take a minimum of five years to develop the plants.

According to [NASA](#), levels of atmospheric carbon dioxide are now higher than at any time in the last 400,000 years. The Salk Institute's approach to reducing these levels would use existing agricultural infrastructure for carbon capture and storage, making it easily scalable. However, given the global backlash against GMO foods, it remains to be seen whether there will be an interest in using the

enhanced plants as food crops. But we continue to spot plants being genetically modified in various ways for the greater good, including [algae that can be used to create low-cost vaccines](#).

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Takeaway:

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