



Cactus-based plastic is healthier for the environment than other alternatives because it is carbon neutral | Photo source George Pagan III on Unsplash

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## RESEARCHERS TURN CACTUS JUICE INTO BIODEGRADABLE PLASTIC



### The material is more environmentally friendly than other biodegradables and disintegrates in water and soil

**Spotted:** Researchers at Mexico's University of the Valley of Atemajac are using crushed cactus leaves to create biodegradable plastic. Cactus-based plastic is healthier for the environment than other alternatives because it is carbon neutral and non-toxic if consumed.

The process is straight forward. First, leaves from prickly pear cactus are blended into a juice. The liquid, which is bright green, thick and slimy, is mixed with glycerine, animal fat and wax. The result is thin and durable enough to be used for bags, the team says.

The material breaks down in the soil within a month and disintegrates in water in just a few days.

The material is better for the environment than other biodegradables, Sandra Pascoe Ortiz, the research professor who developed the material, **says**. For instance, unlike corn, cactus grows on land that cannot be used for farming. It does not require fertiliser or resources to grow.

The material is not commercially available yet. But the team is currently working with a company to produce it.

Springwise has spotted other innovative efforts to create biodegradable plastic, like **bioplastic made from used cooking oil**.

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Website: [univa.mx](http://univa.mx)

## Takeaway:

An estimated **eight million pieces of plastic** end up in the ocean every day. That is just a small portion of the over 320 million tons of plastic produced in 2016 alone. There are estimates that the global population will produce twice that amount by 2034. Plastic alternatives, like the cactus-based material, will be necessary to reduce plastic waste in the future.