

## Upcycling food waste: Corn cobs, the circular economy and industrial production: Plant biomass offers alternative industrial products

The practice of [upcycling](#) –present in a variety of industries from fashion to construction– not only revitalizes discarded items, adding new values and functions, but also contributes to turning them into valuable resources. Adopting the spirit of the [circular economy](#) by harnessing [agricultural waste](#) such as corn cobs, rice straw, and sugar cane bagasse for building materials marks a fundamental shift towards sustainable practices, promoting a closed-loop system that minimizes waste and optimizes resource efficiency.

[CornWall®](#), developed by [StoneCycling](#), is a pioneering innovation in this regard. Inspired by the need to shift to a bio-based economy, it incorporates a transformative solution that addresses the pressing concerns of the construction industry's environmental impact. It is a wall-finishing material made from plant biomass, obtained mainly from the cores of regionally sourced corn cobs.

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Transformation takes shape through high-pressure pressing and heat infusion, requiring temperatures of up to 150 degrees Celsius. Remarkably, the energy that powers this critical stage of production comes exclusively from solar panels that adorn the roof of the production facilities. After pressing, precision cutting and a bio-based waterproof coating increase the material's durability and functionality. Packaged in light, thin panels –around 4 mm thick and weighing approximately 5 kg per m<sup>2</sup>– CornWall® optimizes transport efficiency compared to bulkier materials such as ceramics or HPL.

[\*\*This is an excerpt. Read the original post here\*\*](#)