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FOOD WASTE CONVERTED INTO FIBRES FOR TEXTILES

 SUSTAINABILITY

A material science startup company is focusing on recycling agricultural and post-consumer waste into high quality sustainable textiles.

Today, just 65 percent of fibres used in textile manufacturing derive from natural sources. At the same time, a huge amount of natural fibre goes to waste each year in the form of food excess. Estimates show that the banana industry alone generates 270 million tons of waste each year. All peels and stems are either burned or left to rot, producing methane gas which contributes to global warming. Now, Isaac Nicholson and his startup, [Circular Systems](#), are hoping to do something about this by converting natural waste fibres into usable materials.

Circular Systems uses three different technologies. One is the Agraloop Bio-Refinery, which converts crop waste into textiles. This system targets farmers, helping them to create additional revenue streams and allow food crops to become a major source of fibres. A second technology, Texloop, converts used clothing and other types of textile waste into new threads and fabrics. This technology could cut down on the amount of clothing that ends up in landfills. The third system, Orbital, combines food waste fibres and textile waste fibres into new ones. This fibre is both durable and moisture wicking. According to Circular Systems, major sportswear brands have already shown interest in the new fibre.

Nicholson's inspiration came from the realisation that the textile production process uses a large amount of toxic chemicals. He and his partners felt that the time was right for the textile industry to move away from chemical production. Circular Systems was recently awarded a USD 350,000 Global Change Award grant from the [H&M Foundation](#).

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Takeaway:

We have seen such innovations in fashion before at Springwise with other products such as shoes made from [used gum](#), and [‘vegan’ leather](#) grown from mushroom roots. What other recycled products could create clothing?