

Auckland Uni start-up seeks investment to commercialise alternative flour made from apple waste

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Silas Villas-Boas (far left) and Ninna Granucci, Ivan Luis Ullmann and Niloofar Rafati

Scientists behind a nutrient-rich flour made from fermenting tonnes of fruit pulp normally sent to waste are seeking investment to help commercialise products from the technology.

Biological scientists at the University of Auckland have set up a spin-off company, Green Spot Technologies, to own the intellectual property for the fermentation process and its first product, the Ample Apple flour.

PhD student Ninna Granucci has been doing the research for the past two years under the supervision of Associate Professor Silas Villas-Boas. They're 50:50 shareholders in the spin-off company, and are currently seeking \$600,000 in investment to fund a pilot plant to further test the technology.

They've accessed a \$35,000 pre-incubation grant through one of the three government-funded technology incubators, Tauranga-based WNT Ventures, and

have also had some funding through the Bioresource Processing Alliance which is aimed at creating value from biological waste.

WNT ventures chief executive Carl Jones said they're in talks on whether to invest more, with the incubator putting in \$150,000 and the government \$450,000 under Callaghan Innovation's repayable grants which are only available through the tech incubators.

"We're big on the whole waste to goods story," he said. "We've got a lot of background and capability in the food technology space so we think we can add value to it."

Villas-Boas told the NZBio conference in Auckland today that he and Granucci had "done a lot" in a short time.

Fermentation experiments carried out in the laboratory so far have involved pomace (the pulpy waste) from apples, oranges, kiwifruit, olives, carrots, and grapes.

Typically fruit waste from the juicing process ends up in landfill or sold as low value animal feed. An estimated 22 to 25 tonnes of apple pomace alone is produced each year in New Zealand while the figure rises to between 35 to 45 tonnes for grapes.

Fermented foods have been predicted to be one of the big global food trends, along with alternative flours, Villas-Boas said.

The secrets behind the novel fermentation technique are being kept under wraps because patents are still pending.

Villas-Boas said the process means there's zero-waste as they use all the pomace. The first product is a flour made from apple waste that ticks a lot of boxes for consumers seeking an alternative to wheat flour - it's gluten-free, GMO-free, dairy-free, and vegan-friendly while also being high protein, low calorie, low fat, and a natural source of vitamins, minerals and antioxidants.

Other products the pair plan to trial once the new factory is set up include fibre for snack bars and supplements, though the main focus will be on the Ample Flour and getting consumer feedback on that.

Tests so far have indicated the flour can be produced at a competitive price by processing as little as 100 kilograms of pomace and the first product could be on the

market as early as 2018, he said.

(BusinessDesk)

BusinessDesk receives funding to help cover the commercialisation of innovation from Callaghan Innovation.

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