

#### A MESSAGE FROM OUR CHAIRMAN

**Edward Byrt** 

espite the turmoil of challenges that the global pandemic has created, Papyrus Australia has experienced a productive few months, with many exciting technology and business developments.

A trial to produce biodegradable moulded food packaging has now been completed. This successful trial is a major milestone for Papyrus as it demonstrated two key points. First, that our banana fibre is a viable alternative to wood pulp typically used in moulded food packaging products. Second, that it is suitable for producing commercial quantities of food packaging on standard moulding machines.

This is a significant step forward for Papyrus as it allows us to pursue our plans to break into the lucrative food packaging market. I would like to take this opportunity to thank all our team involved in this trial and for reaching this incredible milestone.

In another exciting development, we have now lodged an Australian patent application for this banana fibre moulded food packaging process. This will allow us to acquire broad-ranging international patent protection for this state-of-the-art zero waste process.

Specifically, these developments are vital steps in furthering our plan to reduce plastic and forest-sourced products, replacing them with reusable and sustainable alternatives developed from agri-waste.

In other news, we have now executed a promotional services Deed with Sydney-based BPE Investments Pty Ltd and Union Pacific Investments Pty Ltd (UPI) to assist the company with our international business.

We look forward to the months ahead where we will continue to refine our research and development so we can continue to fine tune our technology and processes.



istorically, refined banana fibre has been overlooked by industry experts as a viable ingredient in moulded food packaging but that's set to change thanks to Papyrus Australia's recent proof-of-concept trial.

Completed in September, the successful trial demonstrated for the first time, the commercial viability of using 100% refined banana fibre in the production of moulded food packaging such as pizza boxes, burger clamshells and serving dishes. The success of the trial will undoubtably have a huge impact - not only on the way we package food in the future - but also on the sustainability of our planet.

Banana fibre is sourced from banana palm trunks and is a byproduct of banana production, meaning it's renewable and already grown in abundance. There are approximately 3,000 hectares of banana plantations in Australia and it is estimated that globally, banana plantations cover more than 10 million hectares, with approximately 2.2 billion tonnes of agri-waste created annually.

By harnessing this globally available agri-waste product in the production of moulded food packaging, the environmental benefits are four-fold:

- Banana trunks are a sustainable, renewable fibre source
- Using a product which would duces otherwise have gone to waste, reduces the emission of methane gas from decomposing agri-waste
- 🔽 Papyrus Australia's patented process of converting banana palm trunk into refined fibre is zero waste and chemical free, unlike many alternative recycling and production processes
- The banana fibre naturally decomposes in landfill

This successful trial opens the door to using the millions of tonnes of waste banana plantations create every year to produce clean, sustainable, environmentally friendly, degradable packaging products to displace the plague of plastic packaging harming our planet.



#### **AUSTRALIAN PATENT APPLICATION LODGED**

A fundamentally important next step in the Papyrus journey

Papyrus Australia has lodged an Australian patent application for its innovative banana fibre production process which produces a costefficient environmentally friendly fibre, ideal for use in moulded food packaging products.

This Australian patent application is an important first step in the Company acquiring broad-ranging international patent protection for this state-of-the-art zero waste process.

Papyrus Australia's Managing Director Ramy Abraham Azer said:



"this new patent complements the two existing patents already held by the Company – covering the processes of treating waste banana tree trunks and creating homogenous banana fibre chips from veneered banana fibre with zero waste."

### NEW PROMOTIONAL AGREEMENT WITH BPE INVESTMENTS AND UNION PACIFIC INVESTMENTS

apyrus Australia welcomes onboard NRL legend turned businessman Ben Elias of BPE Investments Pty Ltd and Mr Siew Hong Koh of Union Pacific Investments Pty Ltd as part of a new promotional arrangement.

BPE and UPI will be working closely with the Papyrus team to promote the Company to potential technology partners and raise the company's opportunities and profile in Australia and internationally to increase value for shareholders.



Mr Elias said "I am committed to the international growth and success of Papyrus. Given the company is 100% environmentally friendly, this is a small step towards achieving a greener world."

Mr Koh reinforced that support for Papyrus and said, "Ben Elias is a champion advocate for the company with enormous business vision.

Together we will assist Papyrus to succeed".



#### **MEET THE TEAM**

**Mr Ramy Abraham Azer** *Managing Director* 

Founder of Papyrus,
Ramy was responsible for
the initial development
of Papyrus' technology.
His combination of
business and engineering
degrees and passion for
sustainability, gives a
solid base for creating a
successful company based
on innovative engineering.

Ramy has lived and worked in Egypt, Germany and Australia, and has been a regular guest lecturer and speaker on issues including sustainable business development and innovation.



# TAKE, MAKE, WASTE, REPEAT.

How can the food packaging industry adapt to a circular economy model?

We are living in the midst of a throwaway economy.

It's an economy dominated by a linear approach to consumption: take, make, waste, repeat. This can be observed both in the way we consume products, according to our 'throwaway and replace' culture and in the way we package those products.

Operating under this model, we consume an unnecessarily high amount of limited resources and produce a staggering volume of waste.

It is widely accepted that we use a lot of natural resources, energy and water in the production of packaging. According to Environment Victoria, over the last 30 years we've doubled the amount of natural resources we use in packaging in Australia (per capita) including aluminium, tin, steel, sand (for glass), and trees (for paper and cardboard).

When you consider that we throw most of that packaging away after just one use, this is a huge waste of natural resources.

## What is a circular economy?

A circular economy is one that seeks to 'close the material loop' thereby maintaining the value of materials while minimising waste, raw material and energy usage.

Our natural world is the perfect example of a circular economy where materials and energy flow from one area to another in a way that does not produce waste. Energy is sourced from the sun, one organism produces waste that feeds another, animals and plants grow and eventually die returning nutrients to the soil, in turn promoting new growth.

It's a circular economy as old as time, and one that we need to learn from to move away from our current linear economy.

To continue reading the full blog article <u>click here.</u>

