

Papyrus bends bananas to a new use

Paper bags are just one of the possible applications for the technology that Papyrus has developed, **Tony Kaye** reports

IF Ramy Azer and other companies have their way, all of us could eventually be carrying home our shopping in bags made from paper produced from banana tree trunks.

The managing director of newly listed Adelaide company Papyrus Australia has already held talks with the German-based supermarkets company Aldi and other groups on the potential to create a bag made from banana ply paper to replace the environmentally unfriendly plastic ones used by most supermarket stores.

"We're all working together trying to design and get a bag that will replace the supermarket shopping bags and we're doing a good job," Azer says.

"But they can only change over when we have the capacity to produce millions of tonnes of paper so that we can produce billions of bags. It's still a long way off before we can move to that."

The paper bags are just one of the possible applications for the technology that Papyrus has developed over the past 10 years with help from the University of Adelaide that enables paper to be produced from banana trees.

Listed in April, Papyrus has just completed the first stage of a six-stage program it has under way, which is likely to culminate in the commissioning of a commercial trial production line for banana ply paper in north Queensland in the next 12 months.

Papyrus is working to build a production facility capable of producing 20,000 tonnes of banana ply paper a year using the trunks of trees that are normally discarded once the banana crop has been harvested. Australia grows just 1 per cent of the world's bananas, so Papyrus is aiming to prove up its technology so it can be taken globally.

"It's a totally new type of technology and business," Azer says of the Papyrus patented technology. "It's not just that we're using a renewable and sustainable raw material, it's also the way the whole technology works that is very new and modern too. We don't use any water, we don't use any chemicals, and we have a zero waste policy. There is nothing that comes out of the factory unless it's a sellable product."

Azer says that in 2001 the paper industry was using 55 tonnes of water to produce 1 tonne of paper. Improved processes have allowed that to be cut down to 28 tonnes of water to produce 1 tonne of paper.

"But still, 28 tonnes of water is enormous," he says. "We use zero, we use no chemicals whatsoever, and there is no effluent — we don't even have an effluent pipe that comes in and out of our factory. When we designed the technology we took all the things that were considered to be a dream for any industry and we built it in the development."

Azer, an engineer by training, says that as well as having a huge market into the paper-finishing industry, which would process Papyrus's fibrous paper into refined paper products used for printing, the waterproof banana paper also has massive application in the building sector. For example, paper is widely used for industrial purposes, such as for capacitors in the electrical industry, sanding paper, and for gyprock and fibre cement, doors and comices in the building sector.

"There is enough bananas at the moment grown to build over 20,000 factories, so there is certainly no shortage of fibre supply and the bottleneck is how fast can you duplicate the machinery in Australia and export that machinery, set them up, commission them and bring the paper on line," Azer says.

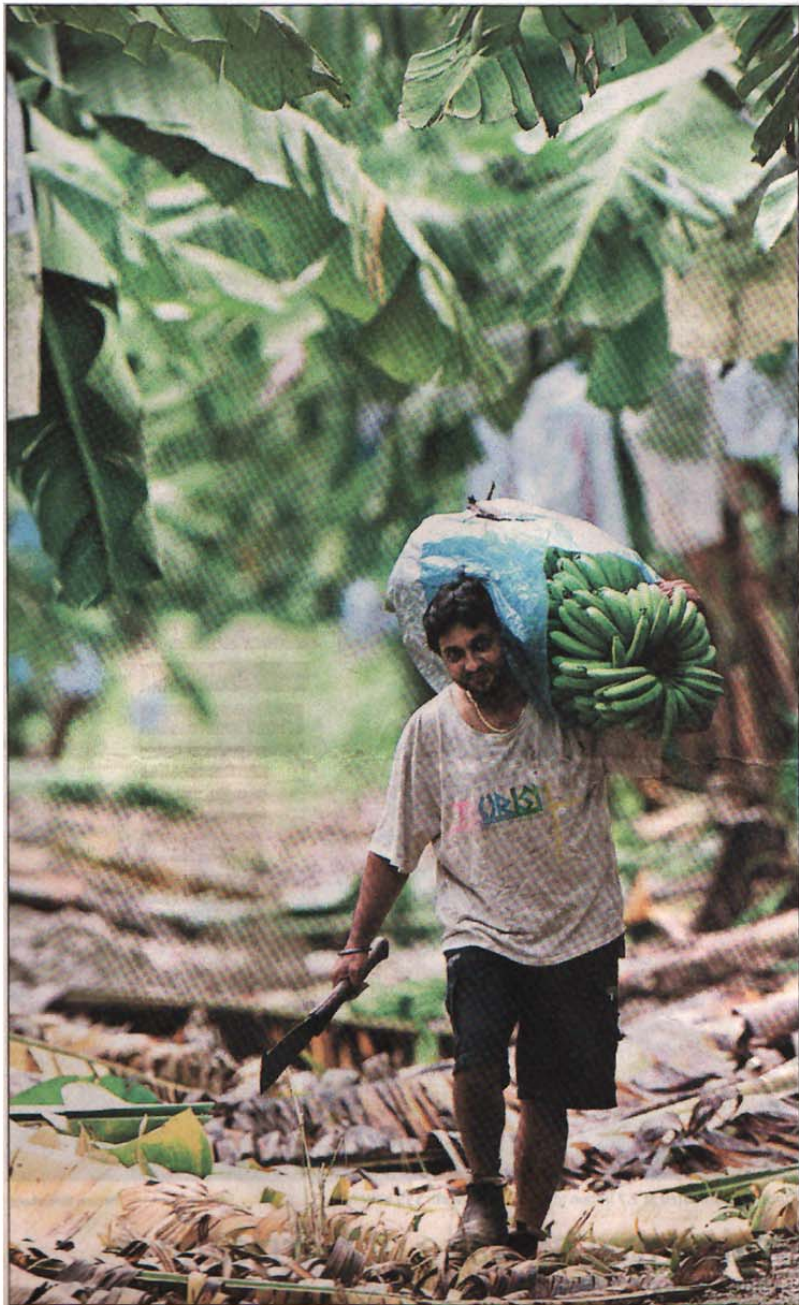
Papyrus's processing machines have been designed so they can be easily put on the sites of banana plantations, eliminating transport issues and reducing any environmental impacts.

"Our machines are actually small in size and you cannot make them bigger," Azer says. "The only way to increase capacity is by having more of the production lines. We would have small plants scattered around the banana plantations, decentralised, so that the transportation of the raw material is at a minimum."

Azer says that while Papyrus is developing its production technology so each line can have a capacity of 20,000 tonnes of paper, the company doesn't plan to produce that amount of paper.

"Our aim is to prove and know the boundaries of the technology because that is what we're trying to commercialise. It's the technology that is the product of Papyrus Australia, not the paper.

"We are more interested in learning everything about the technology, proving everything about the technology, so it will allow us to go all around the planet and sell as many of those factories that are made here in Australia throughout the planet. And others will use those factories to make the paper."



Peeled back: There's no shortage of raw materials for the Papyrus paper process