

# New banana puree plant will ramp up Guatemalan output

By Amy Booth

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Guatemalan processing company, Antigua Processors, has opened a large banana puree factory which will double its output. *FOODNEWS* was invited to the opening ceremony on April 5 to find out more.

The new plant is in Rio Bravo, in western Guatemala's banana growing area. It is the company's second factory, and will have a technical capacity of more than 50,000 tonnes. Processing started in the first week of April. Antigua Processors is a subsidiary of the German company, Fruit Processing Partners, which is related to the juice and puree trading company, Böcker.

Martin Wegener, managing director of Böcker and president of Antigua Processors, told *FOODNEWS* about the company's rapid growth. Antigua Processors was founded in 2012 when Fruit Processing Partners took over Delicia's factory. Within six months, it tripled its production, to 15,000 tonnes of puree per year (equivalent to 30,000 tonnes of raw material).

"Purely because of this increase, the need for a new factory became apparent," Wegener said. "We were running at 100% capacity, and... in the long term, you need a certain buffer."

The new factory is notable for its logical, efficient setup. For instance, it has been laid out so that forklift trucks are used as little as possible, reducing energy costs and the risk of accident. It will focus on high-quality product. "This was always meant to be a model factory. It was never meant to be a cheap factory," Wegener said.

Barbara Galuszka of Polish juice company, Grupa Maspex, identified some advantages of the new plant. "This is the biggest volume available – much more than in the past," she said.

"Our Polish customers now get our products directly free delivered to their plants in Poland. This is an advantage for them and this is achieved by the professional logistical department of Böcker," Wegener commented.

"It's better to do it direct than via Rotterdam," Galuszka continued. "From this year, we can buy directly, which makes them much more competitive than before." Banana puree is a relatively cheap product, so the freight price is a significant part of the final cost.

## **Puree production**

Banana puree production is concentrated in Costa Rica, Ecuador and Guatemala. A sizeable new processing facility in Guatemala helps to mitigate the risk of problems in the supply chain. The country was the world's third largest exporter of fresh bananas in 2013, with shipments totalling 1.89 million tonnes. Most of this went to the US. Ecuador topped the list at 5.26 mln tonnes, and was followed by Costa Rica with 1.93 mln tonnes.

Ecuador is at a slight logistical disadvantage because its products have to be shipped through the Panama Canal. In Costa Rica, meanwhile, there are several large, international processors. The competition for raw material means prices there are rising. "In the past two years, there were problems with fresh bananas, so there was not enough for processing," Gałuszka said.

As far as the Guatemalan market is concerned, there are two companies: Antigua Processors and a factory owned by the Ecuadorian company, Banalight. "My personal analysis of the market is that reliable new sources are sought after, since Chiquita has reined in its operations somewhat... The market is ready for new producers."

In Poland, banana and carrot is a popular children's drink. Grupa Maspex owns the Kubus brand. "It is not as popular in Western Europe, but here, it is an old drink that became popular years ago," she said.

The factory is prioritising HACCP certification. Wegener is also on the board of Sure Global Fair (SGF), a food and beverage industry association which organises self-regulation, especially within the fruit juice industry. As such, Antigua Processors will be pursuing International Raw Material Assurance (IRMA) certification.

"All our customers, even those from other countries such as the US, set very high store by this certification," Wegener said.

The company is also open to other forms of certification, such as Fairtrade, organic and Rainforest Alliance, but is initially monitoring the demand for and value of these certifications.

The new plant will be able to ramp up its output, Wegener explained. "We are producing 50,000 tonnes, and we will be able to double that gradually. We will install more ripening rooms – as far as the technology goes, we have a capacity of 50,000 tonnes, but the bottleneck for bananas is usually in the ripening rooms. You have to ripen bananas before you can process them."

## **At the factory**

It is better for processing bananas to be transported while they are still green, because softer, yellow bananas are more easily damaged. Antigua Processors washes the raw material using water containing ozone, rather than the more common 100ppm chlorine. Currently, the safety of chlorates and perchlorates is being discussed in some markets, so this method will avert any future legislative pitfalls.

At the new plant, the ripening chambers hold 54 tonnes each. The bananas are ripened at 20°C for six or seven days, bringing the fruit to 22-23° brix, and then ripened with ethylene. The ripening rooms have an internet connection with their German manufacturers, FrigoTec, meaning that the manufacturers can fix many problems remotely.

Once the bananas have been ripened, they are peeled manually. It is possible to peel bananas by machine, but this method can lead to more brown spots and a more bitter flavour entering the final product.



After the bananas are crushed, the company uses steam to prevent oxidation and browning, rather than a blanketing gas such as nitrogen.

The factory can produce either low-acid product for uses such as baby foods, or acidified product containing citric acid or lemon juice.

In addition to banana puree, Antigua Processors will start offering clarified banana concentrate. The factory is also equipped to process other tropical fruits. MD2 pineapple is grown in the region, and Wegener says this will probably be processed into NFC, rather than concentrate. The plant is also equipped to process mango. The cultivars concerned are Tommy Atkins and Ataúfu mango. The latter is a Mexican cultivar closely related to Alphonso.

“We have substantial volumes of Tommy Atkins, and we’ll be bringing it to market at competitive prices,” Wegener said. Planned future developments include production lines for other products – in particular, high-ratio grapefruit juice.

To encourage small farmers to invest in new crops and techniques, Antigua Processors has a demonstration farm. It uses this area to show farmers new pesticides and cultivars in use. This helps farmers to be better informed and prepared before they take a risk by planting something new.

“Farmers tend to think conservatively, because if they invest their resources in an unknown new venture, it can put them and their families on shaky ground financially,” Wegener explained. “There are too many people who say ‘Go ahead!’ and then don’t take on the responsibility later. We want to show them what is possible with the land. It gives them greater depth of trust in us.

“You cannot force a farmer to plant something that won’t grow. The farmer loses money like that. But if the farmer can see that the product does grow, you gain trust. We do this by helping with planting, and to that end we have

hired an agronomist. The farmers will start small [with these new crops] but we have time. We're not under time pressure here."

### **Social engagement**

Supporting smallholder farmers is an important part of the company's social engagement activity. "The classic banana farmer has at least a couple of hundred hectares. That can make access to the industry difficult for smaller farmers. We want to encourage them to do things like plant new crops like pineapple, or citrus – citrus grows wonderfully here.

Antigua Processors also provides substantial support to the local school, which is opposite the factory. Wegener says that plans are under way for an exchange programme with Germany. It also provides a kindergarten for its workers, many of whom are single mothers. "It is better if we take charge of the childcare ourselves," Wegener commented.

There is a clinic for the workers in the plant's offices. "We have a duty of care for our workers, and we want to live up to that," he said.

Sustainability is another important theme in the company's corporate social responsibility plans. It is working with a technical university in Germany to create a biogas facility, which will enable it to supply a substantial part of its own energy requirements. It will probably produce around 500-600 kilowatts of electricity per hour.

One pilot project is a cooling system based on a heat exchanger using the heat the factory produces. This will be used to cool the production line and storage facilities. "I have always said: 'We need cooling here, not heating. What use is heating?' So we developed this," Wegener commented.

These technologies, it is hoped, will be rolled out to other plants once it has been tested in the Rio Bravo facility.

The company does not guarantee a minimum price for bananas, although it makes long-term contracts with its suppliers. However, it does pay a minimum price – and offer a guaranteed market - for newer, riskier products such as pineapple.

The plant is another step in Böcker's vertical expansion from trading into processing. Wegener said that the company is open to the possibility of expanding into other countries that process banana, too.