ACHACHA – THE COMMERCIALISATION OF A TROPICAL FRUIT

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ABSTRACT

This paper describes how a little-known fruit from the Amazon Basin, the Achacha, was grown for the first time in a commercial plantation environment in tropical north Queensland, Australia. The fruit has been sold in Australia and exported since 2009. The paper describes the marketing and selling approach taken to launch a fruit new to the world, packaging details, research activities carried out to date, and an issue for the future – namely, to find a viable method of separating skin from pulp and seed.

Keywords: Achacha, *achachairú*, *Garcinia*, certified organic, biodynamic

1. THE FRUIT

Starch is a product of photosynthesis and is present as a semicrystalline form in plant cell plastids. In animals, starch is digested at different rates according to the structure of the starch in the starch grAs more attention is being paid to healthy diets, RS has become a focus for research activity.

The Achacha (*Garcinia humilis*, *achachairú*) is a tropical fruit from the Amazon Basin of Bolivia. It is orange in color, the size and shape of an egg, with a white edible pulp on a cling seed. Taste experts describe its unique flavour as "sweet, tangy, refreshing – like a sorbet". Its thick skin can be made into a tea which is used traditionally in Bolivia as a hunger suppressant. The pulp is low in sugar – one third that of fruits such as its cousin the mangosteen (*Garcinia mangostana*), and other tropical fruits including lychee, longan and rambutan, with which it is often compared, but it has a sweet taste. It has excellent health characteristics – rich in folate, riboflavin, and Vitamin C. The skin contains hydroxycitrate, betacarotene, and arginine (for the heart).

The fruit grows inside the foliage of a tree which has a dense tangle of branches and would normally reach 10m in height. Achacha Fruit Plantations (AFP) has 16,000 mature trees at its certified organic Palm Creek Plantation just south of Townsville, Queensland; biodynamic methods are used to grow the fruit.

AFP was the first commercial grower of the fruit and remains the largest. Over the last couple of years a Guatemalan company has joined the market, and it is believed that a Taiwanese grower may now have fruits available.

2. GROWING THE TREES

Highly prized in and around the city of Santa Cruz de la Sierra in the foothills of the Andes, the fruit was little known elsewhere until recently. In 2002 a Bolivian-Australian who had grown up with the fruit managed to convince a few friends that it should be grown in tropical north Queensland. At the time there was nothing on the web or in the readily available literature about the fruit, so a few kilos were imported in order to enable interested parties to see and taste it. Australia's notoriously strict plant quarantine rules meant that the fruit was frozen on arrival, but even so the unique flavour was appreciated.

Arrangements were made with Bolivian and Australian government agencies and seeds were imported and planted. After some months, the seeds germinated and grew into healthy plants needing a home. A former sugar cane farm of 123 ha was purchased, completely regraded, an irrigation plant installed, and over the next three years in excess of 16,000 trees were planted in 17 blocks separated every 150 m by rows of fast-growing African mahogany (*Khaya senegalensis*) as windbreaks.

Prior to its voyage half-way around the world to Australia, the fruit had generally been grown in small holdings of up to a few hundred trees in forest clearings under semi-shade conditions; there was no experience of plantation-style irrigated operations, with kilometer-long rows and no shade, so there was a lot to learn. A year or so was lost due to insufficient prior hardening of the young plants. Then the trunks grew rapidly, probably as a result of too much care and attention – bamboo supports were replaced by fibreglass ones, progressing to wooden stakes and eventually steel pickets. Eventually the root and trunk structures developed and now they are very robust and defy strong winds. As the trees are hand-picked from the ground, they are trimmed to a height of 3m, which reduces significantly their exposure to cyclones. They are also skirted in order to reduce the ability of vines to grow up and onto the trees, and to facilitate sprinkler inspection.

3. MARKETING AND SELLING

With a new fruit that looked good, tasted good, and had a long shelf life, first expectations were that marketing and selling would be relatively simple tasks. We soon learnt that an independent grower with a new product in a market replete with good fruit had to educate a conservative public in order to achieve sales.

The first issue faced was how to name the fruit, given that the common name in Bolivia, *achachairú* – from an indigenous word meaning honey kiss – would probably suffer from Australians' notorious habit of abbreviating long words. At the same time, as Bolivians were very proud of the fruit, it was felt that the name should reflect its origins. "Achacha" maintained the Latin rhythm.

Given the limited budget available, social media became the obvious and most effective method of communicating the virtues of the fruit; a decade later we still use social media wherever possible. Whilst there are many people in home markets who have never heard of the fruit, the web is alive with information on it for those who are curious enough to investigate and likely to buy. Initially social media was supported by in-store demonstrations which gave us the chance to meet with potential customers; we continue this process through growers' markets in selected locations.

As a new product on the market the fruit has attracted the attention of chefs, food writers,

bloggers, media outlets, schools, charities, and service groups. We have worked with all of these providing information, brochures, and speakers when requested. We encouraged visits to the plantation for local residents, and provided samples generously in season. It has been a long, hard but rewarding road.

In order to show how to open the fruit, we commissioned a young film maker to put together a 20 second YouTube video; he rallied his friends who borrowed top equipment from their employers and came back with a two and a half minute masterpiece called "The Chase" which continues to amuse viewers. When it first appeared a cinema advertising company in Sydney was so taken by its originality that it screened it in a variety of cinemas at rock bottom prices.

Although we had not planned to export until we had established a solid Australian market, an opportunity arose when the former Horticulture Australia Limited took a few boxes of the fruit to the huge Berlin Fruit Logistica 2011. This was the first time the fruit had been seen in Europe; it was so popular it was selected the following year as a finalist in the Innovation Award, and took out third place. This led to interest from European wholesalers, in particular the supplier to a major upmarket retail chain, which has become a regular customer. The EU sales helped raise the profile of the fruit in Australia and elsewhere resulting in regular exports to Asia, the Middle East and Canada. Other potentially profitable markets, such as China, USA, India, and Japan, are not accessible for political or other reasons, in spite of frequent requests from wholesalers. One important factor which restricts growth in the export market is the economic shipment size; air freight from Australia is sold by volume, with an LD3, which can hold about 1,350 kg of fruit, the smallest shipment container. It's a brave importer who will take on such a volume of an unknown fruit.

4. PACKAGING AND SHIPPING

Initially a 5 kg box containing about 100 pieces of fruit was designated as the standard packaging. We have added a 12-piece presentation box, and 2 kg and 10 kg boxes. Each box is supplied with an A6 flyer which describes how to use the fruit; another A6 flyer gives information on storage temperatures.

In order to persuade customers to take a kilo of fruit rather than one or two pieces, an attractive paper carry bag with handles was designed. The bag became a collector's item and helped sales when the fruit was not well known.

5. RESEARCH

Although funding has been difficult to find, some work has been done. The University of New South Wales carried out an initial analysis of the fruit, comparing its properties with the mangosteen, lychee, and rambutan. The University of Western Sydney has carried out several studies into the properties of the skin, with particular emphasis on a drink made from it. The University of Southern Queensland has studied the Achacha along with other garcinias with respect to their potential to combat metabolic syndrome.

6. THE FUTURE

Demand continues to rise for the first quality fruit. There is also strong demand for pulp. However in spite of significant effort a viable commercial method of taking the skin off the fruit has not been found. If it could, the skin would be used for drink manufacture, the pulp for sorbets, ice-

cream, sauces, drinks and so on, and the seeds for their oil. Work in this area is ongoing.

APPENDIX - IMAGES

Figure 1. Achacha fruit

Figure 2. Fruit on the tree

Figure 3. Five kg box

Figure 4. Overview – Palm Creek Plantation, Giru, North Queensland, Australia