

THE PASSIONFRUIT MARKET – IS IT CONTROLLABLE ?

Ulrich M. von der Linden

INTRODUCTION

The Yellow Passionfruit (*Passiflora edulis forma flavicarpa*) has been in the focus of the fruit juice market for quite a while already, mainly due to its increased price volatility and severe supply problems.

This paper deals with the structure of the demand and supply side of the passionfruit market and its seasonality as well as with the singularity of the passionfruit cycle.

1. SUPPLY SIDE STRUCTURE

The passionfruit market is dominated by four countries:

- Brazil
- Ecuador
- Colombia
- Peru

Brazil is both the world’s largest grower and consumer of fresh and processed passionfruit, accounting for 50-60 % of the total world production with its numerous and extensive plantations predominantly in the provinces of Bahia and Sergipe. Domestic consumption of passionfruit-based nectars and drinks is growing impressively. According to a survey conducted by Tetra Pak in 2005, passionfruit had a share of 11 % of total ready-to-drink (RTD) juices and nectars. In fact, during the height of the passionfruit cycle (see 3.), Brazil was importing passionfruit juice concentrate in order to satisfy increasing local demand.

Ecuador is the world’s largest exporter of processed passionfruit – purée, juice, concentrate and from-the-named-fruit (FTNF) aroma. Ecuador’s processing plants are usually buying the fruit from a third party, the so-called “centros de acopio” (fruit collection centers), which act as intermediaries between farmers and processors. Thousands of farmers and their families depend solely on cultivation and fresh fruit sales; they deliver the fruit to

the collection centers, who, in turn, sell it to processors. In Ecuador, you will find a highly condensed “oligopolistic” market structure with four processors controlling the market.

Contrary to Ecuador, in Peru and Colombia, processing companies either buy from contract farmers with no intermediaries involved or get fruit from their own orchards. But, comparable to Ecuador, there are not many companies dedicating themselves to the export of processed passionfruit. Again, the supply structure is showing oligopolistic features.

2. SEASONALITY OF PASSIONFRUIT

Brazil (Bahia/Sergipe)											
JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Yellow	Yellow	Orange	Red	Yellow	Yellow	Yellow	Yellow	Yellow	Red	Red	Yellow
Ecuador											
JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Orange	Yellow	Red	Red	Yellow	Yellow	Orange	Orange	Yellow	Orange	Red	Red
Peru											
JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Orange	Orange	Yellow	Yellow	Yellow	Yellow	Red	Red	Red	Yellow	Yellow	Yellow
Colombia											
JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Red	Orange	Yellow	Yellow	Yellow	Red	Red	Orange	Yellow	Yellow	Yellow	Orange

In spite of the fact that all these countries are part of the so-called "tropical belt", seasons differ from one to the other.

Severe droughts and torrential rainfalls take their toll on the fruit harvest and could heavily influence the maturing pattern. However, in "normal years", i.e. without adverse weather conditions, tropical countries are blessed with two annual crops (shown in red colour). In Ecuador, an additional "intermediary crop" accounting for 10-15 % of annual fruit in-take (orange colour) usually takes place between July and August.

Taking the seasonality of passionfruit in Peru as an example, it is worthwhile to mention that approx. 50 % of the fruit is harvested between July and September (main crop) and approx. 30 % between January and March, as shown in figure 1.

3. ROOM FOR GROWTH – DEMAND SIDE OF THE MARKET

Demand for passionfruit is growing in:

- France, which is reporting a tremendous increase in consumption of single strength juice, mainly in the catering industry (for re-export) and new recipes with mixed flavours, like orange/passionfruit and orange/mango/passionfruit
- UK, where single strength juice is required for premium smoothies
- Europe in general, using more and more passionfruit FTNF aroma for beverages and fruit preparations
- Australia, Israel and South Africa, where imports have been picking up gradually. In the "critical year" 2005, Australia imported more than three times more passionfruit than in 2003, mainly as pulp with seeds, a product which is used for desserts and yogurts. During the same period, South Africa and Israel had nearly doubled their imports of passionfruit-juice concentrate
- USA and Canada with people getting more accustomed to Latin American eating and drinking habits

As a matter of fact, the demand side of the market is very heterogeneous, and processors are widening their range of passionfruit products. Of course, juice and concentrate will always be the predominant products but special items or derivatives such as FTNF aroma, pulp with seeds, seeds, oil, etc. help to create new applications, and develop niche markets.

Taking it to the point, due to its versatility, there is still room for growth in the passionfruit market.

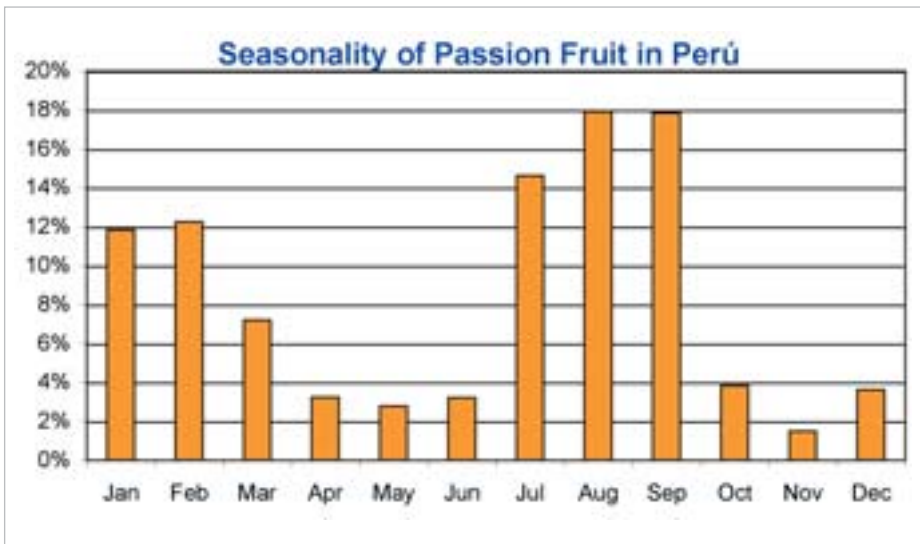


Fig. 1

(Backus)

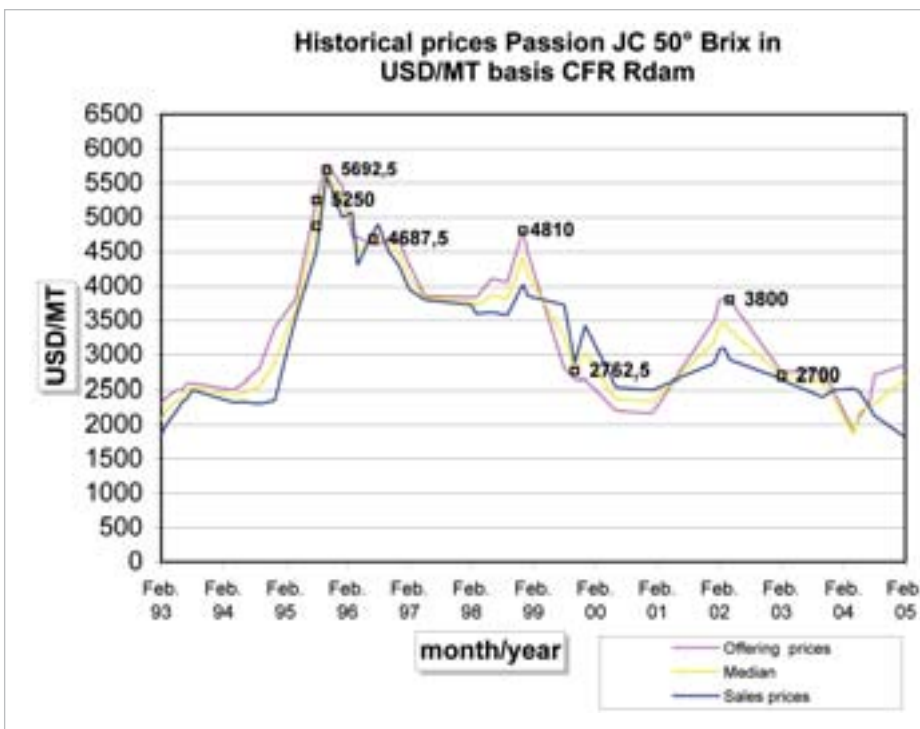


Fig. 2

(Carrière)

4. OUTLOOK – MOVING ALONG THE CYCLE

The outlook for early 2007 is stable, even though it will not be possible to build up substantial reserves, as practically every ton of product seems to be literally absorbed by the market.

The decisive period for passion-fruit will be January 2007 till April 2007.

Next crop peak's outcome could be impeded by "El Niño", the well-known weather phenomenon, which, according to the US Climate Prediction Center/National Oceanic and Atmospheric Administration (NOAA), should intensify during the next 3-4 months, and is likely to persist till April 2007. Since April 2006, the so-called ocean and upper-ocean heat content anomalies have been positive, i.e. ocean surface temperatures and those measured at an altitude of 0-300 m above sea level were higher than average. In September, NOAA observed increasing anomalies between +0.6 and +0.9 °C, which indicate a rather weak "El Niño" – at least for the time being. In November, these anomalies have intensified, reaching +1.2 to +1.3 °C. But, as experienced in 1997, temperature can drastically change from one season to the other.

For more information please click on www.cpc.ncep.noaa.gov/products/precip/CWlink/MJO/enso.shtml#forecast

If "El Niño" is accompanied by moderate precipitations between December and April, the next peak in March/April 2007 will be normal, also taking into

consideration that farmers have renewed their plantations this year. Thanks to a short vegetation period, the passionfruit vine usually bears first fruit 9 -11 months after having been planted. But, the vines must be replaced every 2.5 - 3 year and logically, farmers only renew if it is worthwhile. The higher the fruit price, the more pronounced their wish is to plant new vines. Thus, farmers always act pro-cyclical – a general pattern that is illustrated in graph Fig. 2:

In October 1995, the median defined as the average between offering prices (supply) and effective sales (demand) was approx. USD 5,700.-/MT.

If we assume that

- farmers already started to plant in August 1995 (offering price USD 5,250.-/MT)

and

- vegetation took 10 months, results must have been evident by June/July 1996

In fact, in July 1996, the median was at approx. USD 4,700.-/MT – a substantial decrease. Same applies for December 1998/January 1999, when the offering price was USD 4,810.-/MT. Ten months later, in October/November 1999, the average price stood at USD 2,760.-/MT. The same pro-cyclical attitude showed in April 2002 with an offering price of USD 3,800.-/MT, and its effect seen ten months later, in February 2003. Up to now, every attempt to control or stabilize this boom-and-bust cycle failed. The Ecuadorian passionfruit processors intend to establish a foundation with the ambitious task to ensure a more consistent raw material supply by developing new varieties. Time will tell whether these efforts will help to smooth the cycle.

5. ACKNOWLEDGEMENTS

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AUTHOR

Ulrich M. von der Linden
 Carrière GmbH – Committed to Taste
 D-20097 Hamburg/Germany
www.carriere.de