

Is quinoa scarcity the result of speculation? Or can fundamental factors in supply and demand explain the increase in prices and limited availability?

For a small and exotic crop like quinoa it is unusual to hit the headlines in national media. But quinoa managed just this last week in Dutch media (such as De Telegraaf, NRC Handelsblad and Biojournaal), although the occasion was its absence, not its goodness. Shelves in supermarkets and organic stores, that have only recently been conquered, remained empty. And in other stores sharp price increases were reported. So what is causing this sudden scarcity of quinoa?

Observers were quick to suggest unethical behaviour as an explanation. Speculation on the side of the exporters or farmers was mentioned. And a finger was pointed to the Americans, who are “buying up everything”. Unethical behaviour and speculation unfortunately go hand in hand with trade too often. But as I will argue below, fundamental factors in supply and demand go a long way in explaining the current situation. And what is worse, these factors are not likely to change in the short and even medium term.

International Demand

Imports of quinoa into the major export markets of the USA and Europe have exploded in 2013. The most recent figures indicate a 76% increase by volume in imports from Bolivia, Ecuador and Peru into Europe over the first ten months of 2013, reaching 8,227 tons (Eurostat data from January 2014, elaborated by Mercadero). Similar growth from 2012-2013 occurred in the US with imports increasing by 40.25 % from 13,712 tons to 19,231 tons (US International Trade Commission). These increases were produced in spite of the strong increases in import prices in Europe, from an average of €2.41 per kg in 2012, to €3.19 in October 2013 (Eurostat). In 2006, the average European import price was only €1.06. (The comparable figures concerning the US market show a similar pattern, with average import prices increasing from €2.22 in 2012 to €3.31 in October 2013.) It appears that, at this stage of development of the market, demand for quinoa in Europe and the USA is largely insensitive to price. With an average use per person of only 20 grams in Europe, it can easily be inferred that the growth potential for this ancient crop with impeccable health and nutrition credentials is still huge. Quinoa has a high protein content and contains all essential amino-acids, which make it an excellent meat replacement, and it has important minerals (iron, manganese) and vitamins (B2 and E) on board. Moreover, it tastes nice and is visually attractive, whether in the red, black or white variety. No wonder opinion makers in the food industry have discovered it, as have the media. Quinoa also benefits from the increasing popularity of the Peruvian kitchen. In a recent focus group meeting, representatives of quinoa brands explained that the demand for quinoa will continue to grow for a long time, even if prices remain high. We just don't want to miss out. But at the current growth rate of 76%, the market will have increased tenfold within less than five years.

Supply

If demand is growing so fast, can supply keep up? The answer is probably no; not in the short term. Although highland farmers in Peru and Bolivia, currently responsible for 95% of the world production, have felt the price increases trickling down, they simply cannot increase their production fast enough. They are doing their best, opening up new lands in the highlands and some of them returning from the capital La Paz to resume farming in the remote production areas. During an international quinoa event in March 2013, I also witnessed

several projects and programmes aimed at an expansion of production in a sustainable manner. But the harsh conditions in the Bolivian Altiplano, where quinoa is grown at altitudes of around 4000 meters above sea level, the lack of labour in the remote villages, and the slow process of agricultural extension, make it very challenging to expand production. Moreover, processing capacity is also limited, but essential, since quinoa needs a washing process to remove the bitter-tasting saponine. Private and cooperative entrepreneurs are making investments to expand this. With quinoa prices having gone sky high, the availability of trade finance is another limiting factor for smooth growth of exports, and, yet again, many initiatives are being taken to address this bottleneck too, one of them even involving innovative financial instruments at the Bolivian stock exchange.

Speculation?

So if supply and demand are developing at a different pace, this will increase the prices. But does speculation play a role as well? The data set of Challapata market prices, seems to indicate otherwise. At Mercaderos we have collected data at the Saturday market from this “Wall Street of Quinoa” over the past year. In the small rural town of Challapata, on the road from the salt flats of Uyuni, where the Quinoa Real is produced, to La Paz, a quinoa wholesale market is held every Saturday. At this market, both farmers, middlemen and exporters sell and buy quinoa. The price is a reference for farmers, farmer associations and traders alike. A farmer can easily sell his quinoa at this market and is then assured the going market price. But the influence of the Challapata market extends beyond the region and beyond Bolivia, to Peru and the international market. Exporters will refer to the price setting when purchasing their raw materials. In January 2014, the Challapata price was 1,950 Bolivianos per quintal, which translates into €4.59 per kg. So even before being processed and shipped, the quinoa has become very expensive. Assuming a reasonable margin for processors and exporters of 15%, which was the average of 2012, Bolivian quinoa would already cost €5.28 when put ‘Free on Board’ a ship in the port of Arica, Chile, with destination Europe, USA or Japan. This price can be considered the market minimum, since for organic quinoa and other specialities a higher price would be required. In effect, trade prices quoted by market actors in January 2014, range from US\$7–10 per kg (€5.15–7.50), depending on quality, type and trading conditions.

Balance between supply and demand

Will farmers in new production areas fill up the space between supply and demand? With the current prices, quinoa would be a very attractive crop for farmers anywhere. Mr Jason Abbott of Abbott Agra, who is developing quinoa in France, on a recent focus group meeting organised by CBI in The Hague, states that farmers in higher latitude countries can grow quinoa profitably at a price of €2 per kg. (Current Challapata price was about €4.59 as mentioned, and this is a good proxy for the farm gate price.) However, quinoa does not easily grow outside the geographical areas where it originates from. Even after pioneering French production of quinoa since 2007, production has only reached 200 tons, and it will be 5000 tons at best in ten years’ time. Similar efforts in Canada and Western Australia are likely to yield similar results, and would still contribute relatively little to total global demand. Mr Abbott sees better chances in the lowland areas of the original production countries, and probably in neighbouring countries such as Chile, Argentina and Paraguay. And in the longer term, production may expand to the continents of Asia and Africa. However, for this expansion to take effect new varieties need to be bred and introduced to farmers, which is generally time consuming. For the quinoa market it will be very important to assess how fast

these developments will take place. In the immediate future, if the signs do not deceive us, we will have to live with high prices and limited availability of quinoa. But this will not stop us from eating it.

Freek Jan Koekoek

Wageningen, 28 January 2014



Traders in Challapata, Bolivia. April 2013; A Gabriel