



# Economic Report

## Emerging Commodities: Quinoa

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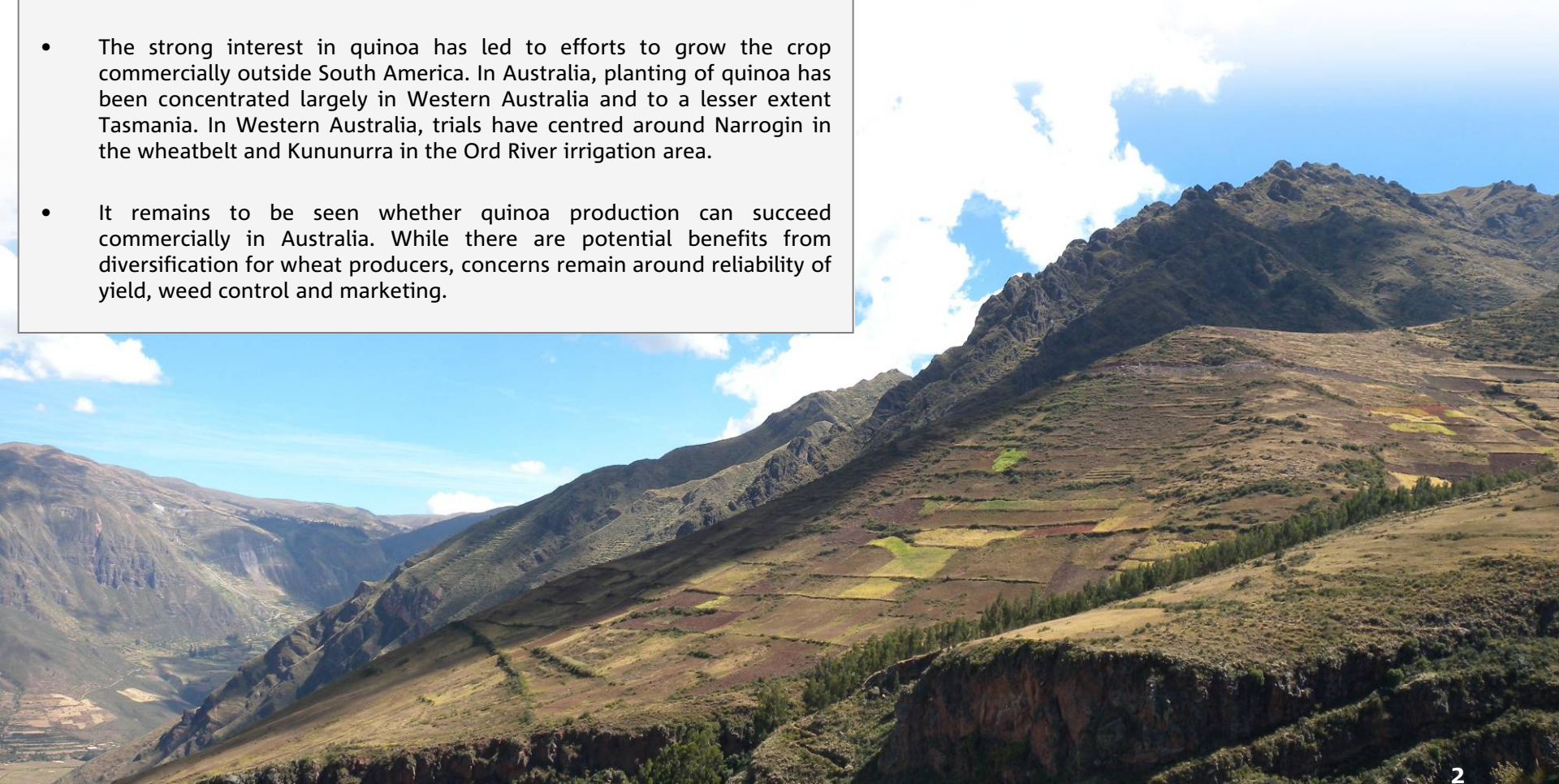


## Key points

- Quinoa is a high protein, gluten free grain native to the Peruvian Andes. It has been cultivated in the Andes for several thousand years and has long been a staple in Bolivia and Peru. Since 2008, global quinoa consumption has rapidly increased. Prices in Bolivia rose from around 40-50 US cents/kg in the 1990s and early 2000s to US\$6.50/kg in early 2014 before falling to around \$3.40 in January 2015.
- The strong interest in quinoa has led to efforts to grow the crop commercially outside South America. In Australia, planting of quinoa has been concentrated largely in Western Australia and to a lesser extent Tasmania. In Western Australia, trials have centred around Narrogin in the wheatbelt and Kununurra in the Ord River irrigation area.
- It remains to be seen whether quinoa production can succeed commercially in Australia. While there are potential benefits from diversification for wheat producers, concerns remain around reliability of yield, weed control and marketing.

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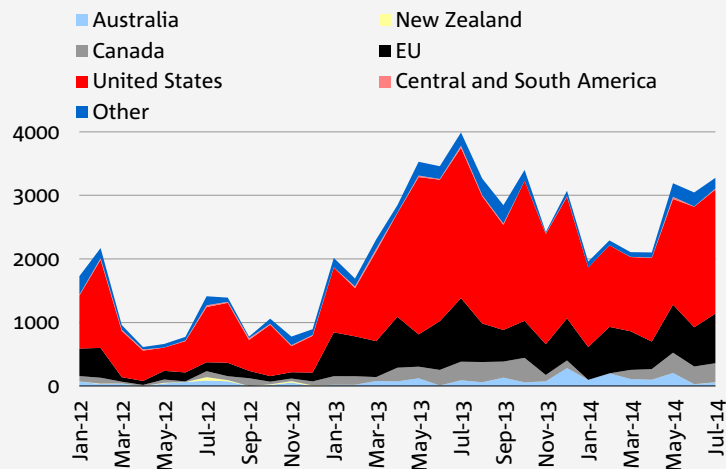


## Consumption in selected export markets

The rapid growth in global quinoa consumption has been brought about through changing consumer preferences, particularly in Europe, the United States, Canada and Australia. Previously almost unknown in these areas, quinoa became popular around 2008. Figure 6 shows Google search interest in quinoa beginning to rise around steadily around 2008 and showing strong growth until early 2014.

With minimal production outside the Andes, much of the international demand for quinoa is sated by production in Bolivia, Peru and Ecuador. Figure 1 shows quinoa exports from these nations, with much of the total sent to the United States. While exports skyrocketed in 2013, volumes for the first half of 2014 have been slightly lower.

**Figure 1: Quinoa exports from Bolivia, Peru and Ecuador to selected markets (tonnes)**

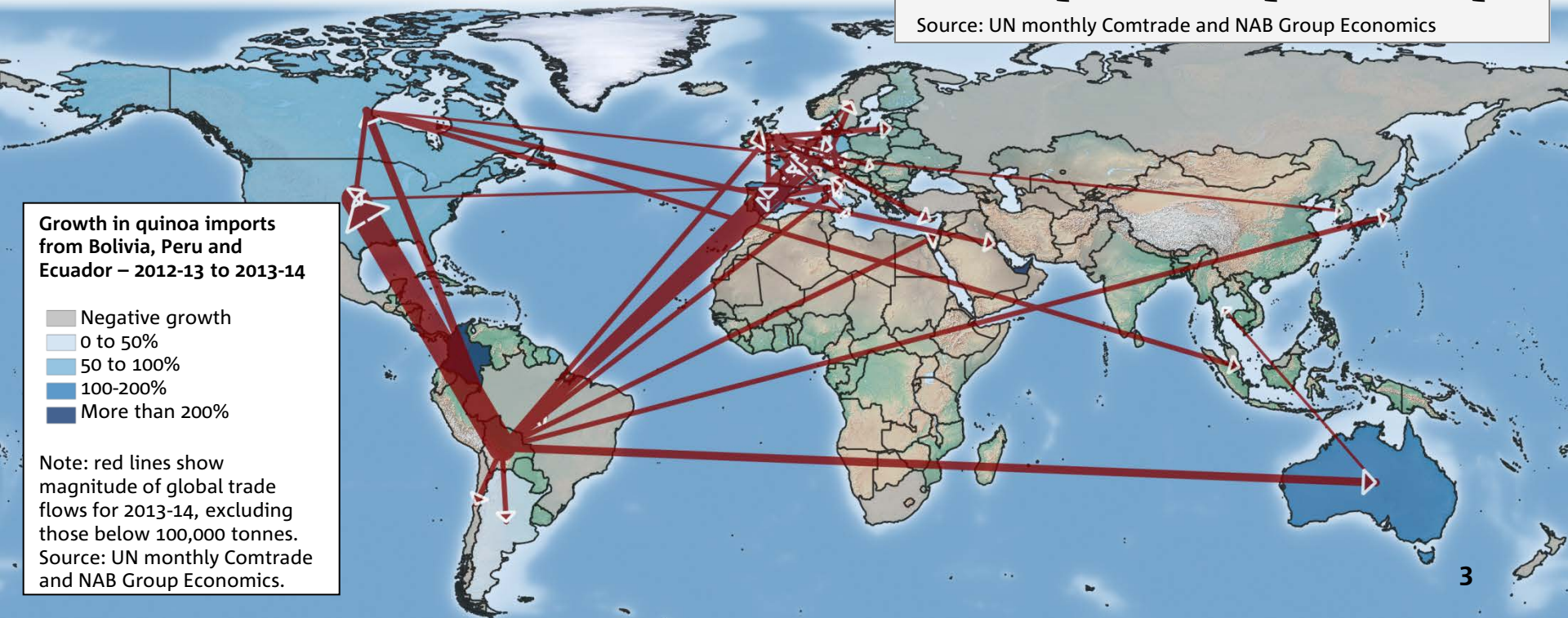


Source: UN monthly Comtrade and NAB Group Economics

**Growth in quinoa imports from Bolivia, Peru and Ecuador – 2012-13 to 2013-14**

- Negative growth
- 0 to 50%
- 50 to 100%
- 100-200%
- More than 200%

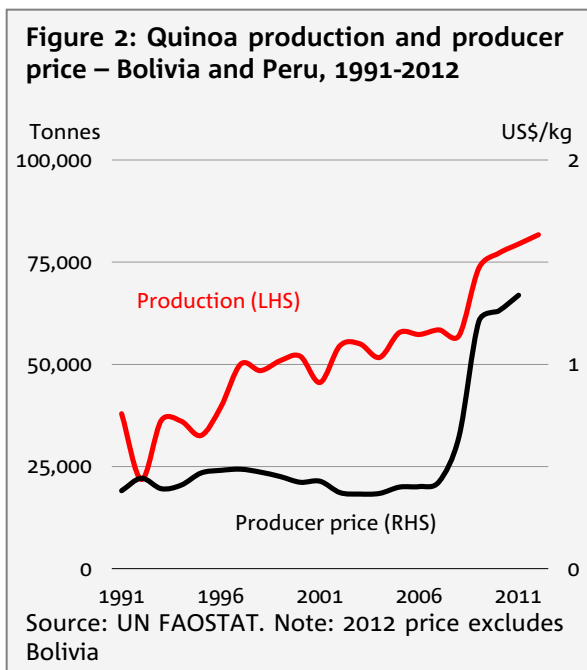
Note: red lines show magnitude of global trade flows for 2013-14, excluding those below 100,000 tonnes.  
Source: UN monthly Comtrade and NAB Group Economics.





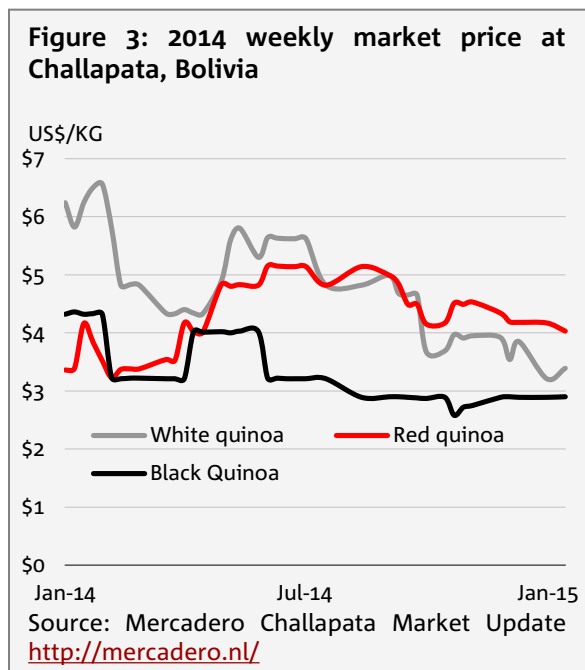
## Price trends

With the vast majority of world production concentrated in Peru and Bolivia and existing producers struggling to keep up with demand, quinoa prices have seen strong growth since 2008 (Figure 2). International prices doubled in 2013 alone as higher demand outpaced supply growth in the Andes.



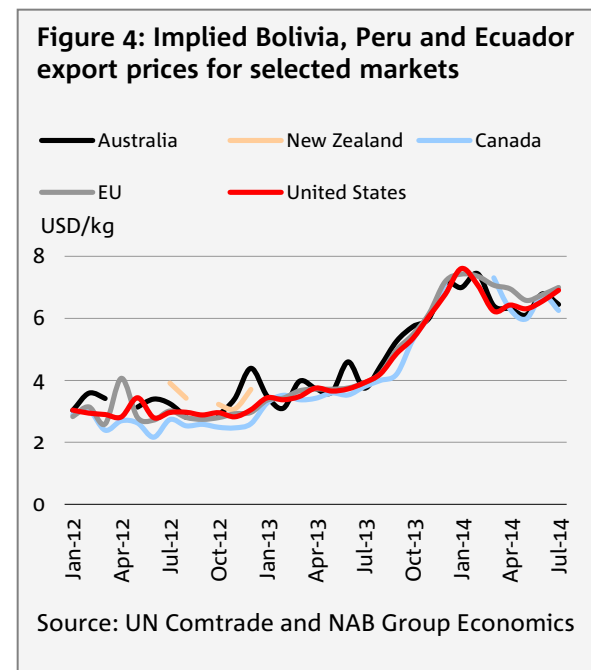
It remains to be seen whether these price trends will continue. 2014 producer prices at Challapata, Bolivia declined for the popular white quinoa as well as black quinoa, while red quinoa enjoyed increasing prices from the first half of 2014, before declining (Figure 3).

These trends have been mirrored on international markets: implied export prices from Bolivia, Peru and Ecuador to the United States peaked in early 2014 at US\$7.61/kg and fell to US\$6.90/kg as of July 2014 (Figure 4).



As supply becomes available from other countries, there may be further downward pressure on prices. Likewise, while consumers have embraced quinoa for now, it is difficult to gauge whether the grain will remain popular over the coming years.

It is possible that the fall in prices since early 2014, combined with slightly lower search interest, foreshadows increasing market maturity and that further price increases are less likely.



## Prospects for local production

Growing enthusiasm for quinoa has led to considerable interest in growing quinoa in a number of countries, including Australia. Several properties around Australia as well as the Western Australian Department of Agriculture and Food have harvested crops and a fledging market for the local product seems to be developing.

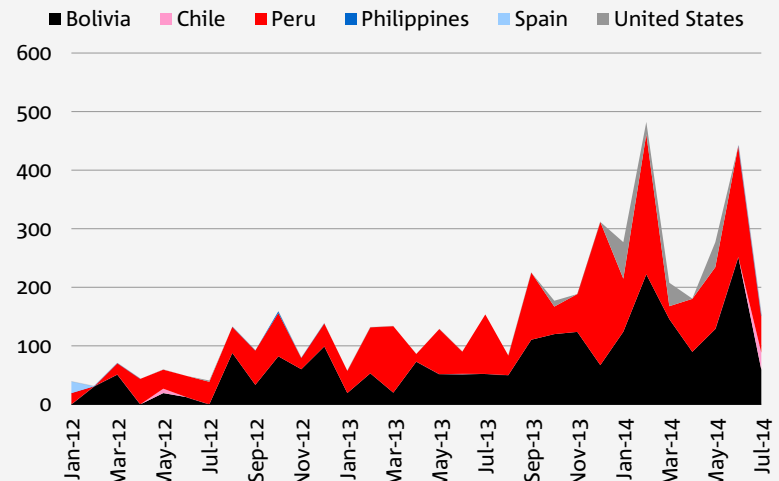
While the strong price growth may tempt producers to switch to quinoa, there are a number of risks. Cultivation of the crop is at a trial stage only in Australia, and problems have been encountered with weed control, poor tolerance of water-logging, a highly variable yield and a lack of domestic transport and marketing arrangements.

In South America, quinoa is traditionally harvested by hand, but trials in the Western Australian Wheatbelt have introduced greater mechanisation with some infrastructure shared with wheat production. As much of quinoa's appeal stems from its gluten free status, the shared use of headers and silos used for wheat may cause cross-contamination and pose gluten free certification problems.

Quinoa trials are expanding in Western Australia this year. As the trials continue and growers gain more experience, it will become clearer whether quinoa cultivation has a commercial future in Australia. Although quinoa will not be a replacement crop for wheat at this point in time - it may have future use as a break crop.

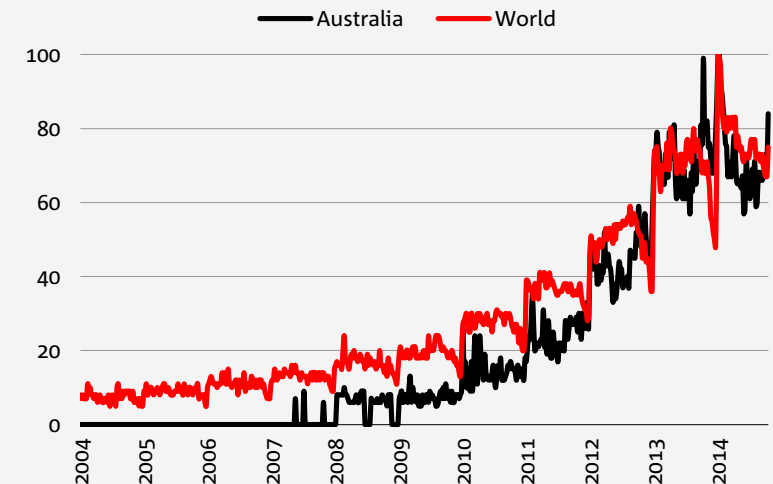
Growers are continuing with more trials, and have expanded the trial sites this year to farms over the Upper Great Southern, the Wheatbelt and the Mid West regions.

**Figure 5: Australian quinoa imports by source country (tonnes)**



Source: UN Comtrade

**Figure 6: Google search interest for quinoa**



Source: Google. Note: 100 = maximum value

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