

It's been named the Andean wonder-grain, hyped as a food source with the potential to solve the world's hunger problems. The UN has even named 2013 International Quinoa Year in recognition of the crop's high nutrient content. The publicity has pushed Bolivia, the largest producer in the world, yet the poorest nation in South America, into the limelight.

From London to New York, chefs are serving up quinoa as Western consumers' hunger for new "superfoods" continues unabated. Bolivia's exported crop, the majority destined for the US, grew 26 per cent between 2011 and 2012, in a trade worth \$800m.

In the UK, high-street health food retailer Holland & Barrett has reported a 44 per cent increase in sales this year compared to 2012. If the trend continues, commentators suggest, quinoa could transform Bolivian society.

"As well as helping Bolivians eat more healthily it could generate higher incomes which would help lift a lot of people out of extreme poverty," said José Luis Landívar Bowles, president of the Bolivian Institute for Foreign Trade, based in the city of Santa Cruz, the country's economic powerhouse. "But there's a lot of work to be done as the area of land actually used for quinoa cultivation remains small."

But with every boom there is a flipside. International prices may have nearly tripled in the last five years, but domestic costs have also risen sharply, threatening to price an Andean population, that has consumed the foodstuff for 7,000 years, out of the market.

The village of Chantani is located on the edge of the Uyuni salt flat, a vast white desert stretching for 12,000 square kilometres that is visible from space. It is one of Bolivia's major quinoa production areas. In April, growers harvest the seeds, turning the countryside into a kaleidoscope of red, black and white, the different colours of the crop.

But if the industry is thriving, it hasn't reached Chantani. The tiny village of stone houses and a lone white chapel is abandoned. Before, everyone used to work the land. Now only three families are left, the rest having gone to the nearby town of Uyuni to look for better-paid work.

Despite the image of quinoa being an adaptable crop – part of this year's UN campaign – 67-year-old Santos Quispe Cayo paints a different picture. "Sometimes you plant and get nothing back, due to a lack of rain," the farmer says. "When I was younger there was quinoa everywhere. It must be something to do with the climate."

Cayo lives with his wife and son in Chantani, a picturesque setting in the foothills of Mount Tunupa, a snow-capped dormant volcano. As well as farming quinoa, he also runs a small museum for tourists focusing on local culture. He said that if it weren't for the entrance fees, he would have left the village, too.

"We don't have tractors here and we have to work with our hands, which is why a lot of people have left," he added. When it comes to the price he's paid, he explained he was unable to compete with farmers who use more modern machinery.

Silvana Ramos, a 40-year-old mother of two from Uyuni, said that the price of quinoa had gone up significantly in the last three years, forcing her to change her eating habits.



A quinoa field south of La Paz, where it is called *chisaya mama* – the mother of all grains – the mother of all grains

AIZARRALDES/AFP/GETTY IMAGES

Quinoa: good for you – bad for Bolivians

It's the new superfood that's been hailed by the UN. But booming demand is pricing out a population who have relied on the grain for 7,000 years. By Ed Stocker in Uyuni

"I like quinoa but it's expensive, so I can only buy it once a month," she said. "Muk'una, a local bread made from quinoa flour costs BS2.50 (23p) a loaf, and I have to buy for a family of four. I can buy five times that amount of normal bread."

Both Ramos and Cayo say that they only became aware of the health benefits of quinoa recently, but that they had an idea all along. Cayo, with

weather-beaten skin but not a single white hair, explained that his mother died a few months ago aged 100 and without a stoop. Ramos mentioned cases of people who had lived to 105 and 110 in nearby villages, thanks, she says, to the local diet.

But the prices at the market in Uyuni show how quinoa is becoming a luxury for low-income households: a kilo costs BS30 (£2.80), whereas the same

amount of rice costs between BS7 and BS9 (65p to 83p). Quinoa farmers are choosing to sell their product at market instead of consuming it themselves, or, in the case of Cayo, stockpiling his most expensive product – black quinoa – waiting for the price to go up.

While previous government figures showed that domestic consumption had declined, the latest numbers from

Bolivia's National Statistics Institute say the trend is upwards. From an annual per capita consumption of 0.35kg in 2008, the figure rose to 1.11kg in 2012, with predictions for this year rising to 2kg.

In conversation with *The Independent*, Bolivia's deputy minister for rural development, Victor Hugo Vasquez, denied that there had been a dip in local consumption and blamed journalists for "belittling" the crop.

"It's not what you think: that quinoa is expensive and people can't afford to buy it," he said. "At the moment we don't have the right marketing channels within the internal market. But this is something we're building, although it's going to take time."

He also cited Bolivians' eating habits rather than economic difficulties, saying that people preferred to sell quinoa "in order to buy chicken or Coca-Cola."

As rural consumers' and farmers' attitudes towards quinoa may be changing, new consumers are also discovering the benefits of its earthy flavours. In April a high-end restaurant, Gustu, opened its doors in the southern part of La Paz. Set up by Claus Meyer, co-founder of Noma restaurant in Copenhagen – a regular winner of "world's best restaurant" awards – the aim is to promote the diversity of Bolivia's cuisine and also train a new breed of local restaurateurs and chefs.

Among the gourmet 15-course

ANDEAN SUPER-FOOD WHAT IS QUINOA?



Quinoa is a type of salt-tolerant goosefoot plant, a grain-like crop consumed mainly for its edible seeds. The "pseudo-cereal", which comes in several varieties and colours, and traditionally grows in the dry climate of the Andean mountain range, has been cultivated in the region for more than 7,000 years, becoming a food staple. As well as Bolivia, Peru and Ecuador are also major producers.

Quinoa contains almost double the amount of protein as rice, with similar energy and carbohydrate levels, properties which has seen its popularity soar over the past five years. It's also high in minerals such as calcium, magnesium and potassium. It's the only vegetable foodstuff that contains all the essential amino acids, trace elements and vitamins, as well as being gluten-free. Indeed, Nasa has said it is the perfect nourishment for long-distance flights due to its life-sustaining nutrients. ED STOCKER



"We don't have tractors; we have to work with our hands, which is why a lot of people have left"

SANTOS QUISPE CAYO Bolivian quinoa farmer

tasting menu, quinoa appears in various cuisines, although the price (BS925, or £87, with alcohol pairing) means it is unaffordable to all except tourists, diplomats and the Bolivian elite.

For Walter Schmid, 47, a Swiss chef who opened his Oberland restaurant in La Paz in 1992, attitudes are changing towards local ingredients. A growing middle class and a steady economic environment, with GDP predicted to grow by 4.8 per cent this year according to the IMF, have helped.

"When I first opened, Bolivians didn't want to eat llama or quinoa," he said. "Fast-forward 15 years and everyone is asking for them." With a science conference on quinoa staged earlier this month in La Paz, and a world summit in Ecuador in July, Latin America clearly recognises the importance of the "pseudo-cereal" to its future.

"Bolivia is producing a food that is fundamental for humanity," Vasquez said. "In a world faced with climate change and food insecurity, we're providing an alternative."

Bolivia remains the largest producer in the world, but it will also have to stave off competition from other Latin American nations – and emerging markets if the UN campaign is successful.

For now, the challenge remains keeping the price low for the poor sections of society and making sure the boom, if it continues, changes growers' lives for the better.

RUSSIA

Snowden no nearer asylum in Ecuador

By SHAUN WALKER in Moscow

The prospect of an extended stay in limbo at Moscow's Sheremetyevo Airport looms for Edward Snowden, as his lack of a valid passport may mean he is unable either to enter Russia or buy an onward flight.

Mr Snowden, who leaked information about US surveillance programmes, has applied for asylum in Ecuador, but the country's Foreign Minister, Ricardo Patino, said yesterday that any decision on his application could be months away.

Meanwhile, Venezuela's President Nicolas Maduro has stepped in and said his country would also consider providing Mr Snowden with a new home.

Mr Patino, pictured, speaking during a trip to Malaysia, said it took Ecuador two months to decide to grant asylum to Julian Assange, founder of WikiLeaks, and that for Mr Snowden to be granted safe passage while Ecuador considers his application he would have to "go to the embassy".



But it will not be easy for Mr Snowden to do so; with no passport, he is unable to clear immigration.

Russian President Vladimir Putin denied that Russian intelligence (FSB) was attempting to find out Mr Snowden's secrets, which was corroborated by WikiLeaks. "Mr Snowden is not being 'de-briefed' by the FSB," WikiLeaks tweeted.

Rumours of FSB involvement have been boosted by the fact that journalists scouring Sheremetyevo since Sunday have not once seen Mr Snowden.

QATAR

Emir will not 'take direction from anyone'



In his accession speech, Sheikh Tamim bin Hamad al-Thani, who was handed power by his

father on Tuesday in a rare example of a hereditary Arab ruler stepping down, said that the Gulf state would not "take direction" from anyone.

The new emir's first address as head of state yesterday coincided with a cabinet reshuffle that saw Prime Minister Sheikh Hamad bin Jassim al-Thani, a force behind Qatar's support for the Arab Spring revolts, replaced as premier and Foreign Minister, but he is expected to retain his powerful post as vice-chairman of the Qatar Investment Authority, a wealth fund worth up to \$200bn.

Sheikh Tamim, 33, added that sectarianism threatened to weaken Arab unity at a time when Syria's war has raised communal tension. "As Arabs we reject splitting countries on a sectarian basis... because this split allows for foreign powers to interfere in the internal affairs of Arabs and influence them." REUTERS

EGYPT

Troops move in ahead of protests

Troop reinforcements and armour have been brought to army bases near cities ahead of protests this weekend aimed at forcing the Islamist president out, security officials have said.

Clashes between supporters and opponents of President Mohammed Morsi erupted yesterday, killing at least one person in the coastal city of Mansoura.

The troop movements accompanied speculation over the army's role in the crisis leading up to Sunday's protests. Islamists accuse activists of paving the way for a coup, a charge that the opposition vehemently denies. AP



IRAN

50 tons of drugs go up in smoke

To mark the International Day Against Drug Abuse and Illicit Trafficking, 50 tons of confiscated drugs are set ablaze in eastern Tehran yesterday. BEHROUZ MEHRI/AFP/GETTY IMAGES

CHINA

Safe touchdown for space capsule

A Chinese space capsule with three astronauts, including Wang Haiping, a woman, landed safely in Inner Mongolia yesterday after a 15-day trip to a prototype space station, marking the latest success for China's manned space programme as it enters its second decade.

"Space is our dream, the fatherland is our home," mission leader Nie Haisheng told the cameras. AP



RUSSIA

Kremlin suspends election watchdog

The only independent election monitoring group has been shut down for six months after failing to register as a "foreign agent" under a controversial new law. The legislation requires any organisation receiving funds from abroad to label itself a foreign agent, or face fines and closure.

The Soviet-era language suggests subversion and espionage, and Golos along with other groups has refused to comply. Yesterday the Justice Ministry said Golos would have to suspend its work. The group was central in documenting widespread fraud in elections in 2011 that led to massive protests. SHAUN WALKER