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Quinoa: The Dark Side of an Andean Superfood

By Jean Friedman-Rudovsky / Challapata

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As a child, Benjamin Huarachi, 55, ate quinoa almost every day, as a matter of practicality. The crop is one of few that thrive on Bolivia's high plains, 13,000 ft. (4,000 m) above sea level, explains the farmer. His impoverished family had no idea that the colorful tall tufts yield one of the healthiest foods on the planet. Nor did Huarachi imagine that his childhood staple would one day bring economic success. "Quinoa was always *comida para los indios* [food for Indians]," he says, almost laughing, "Today it's food for the world's richest."

Over the past decade, the "Andean superfood" has become a pinnacle product for First World foodies. Often mistaken for a grain, quinoa is actually a chenopod (cousin to a beet); rich in minerals, it's the only vegetable that's a complete protein. To the added delight of politically correct health nuts, it's produced by small-scale Andean farmers like Huarachi who reap direct benefits of its international popularity. Recently, those benefits have skyrocketed: quinoa's price has tripled since 2006, triggering a boom in the poorest region of South America's poorest country. "Now we've got tractors for our fields and parabolic antennas for our homes," says Huarachi, who's also a board member of Bolivia's largest quinoa-growers association, ANAPQUI.

[\(PHOTOS: From Farm to Fork\)](#)

Growers relish in the moment and the attendant prosperity. "My quinoa sells like hotcakes," says Fidencia Huayllas, grinning. She's spent her boom cash on expanding her mud-and-brick home. Seventy percent of the region's high school graduates can now afford to attend university, Huarachi says, "thanks to quinoa." He leans forward, face brightening: "In 1983, 100 lb. of quinoa sold for 25 bolivianos — the price a T-shirt. Now that sack goes for \$100 [700 bolivianos]. That's a lot of T-shirts."

But the windfall could become a double-edged sword. In February, violence over prime quinoa-growing territory left dozens injured, and land conflict is spreading. "Sure, the price of quinoa is increasing," says Carlos Nina, a local leader in Bolivia's quinoa heartland, "but so are our problems." Apart from increasing feuds over property rights, these include the collapse of the traditional relationship between llama herding and soil fertilization, with potentially disastrous consequences of quinoa's "organic" status, and the ironic twist that the children of newly prosperous farmers no longer like eating quinoa, contributing to dietary problems.

According to historians, quinoa cultivation originated in the Altiplano around 3,000 B.C. Legend says it was a gift from the gods to the indigenous Aymara: a highly nutritious crop as small compensation for being saddled with one of earth's harshest climates. (It's an easy story to believe, since only divine intervention seems to explain how anything could sprout from the high plateau's rocky, sandy soil.)

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The present from the heavens has always been a base of the Andean diet, but only recently did the crop begin its international journey. In 1993, NASA researchers recommended it as part of a potential space-colony diet. Over the following decade, the food gained wider appeal, going from hippie hype to Costco convenient practically overnight. "Quinoa was in the eye of the storm," says Bolivian-born Sergio Núñez del Arco, founder of Andean Naturals, the U.S.'s largest quinoa importer, explaining that the product fit almost every recent health craze: whole grain, gluten-free, fair trade, organic.

Approximately half the world's supply is now grown in Bolivia. (Peru is a close second, Ecuador third.) "We worked hard to keep quinoa out of the hands of middlemen," says ANAPQUI's general secretary Ciprian Mayorga inside the association's processing plant, the entrance to which is now manned by an armed private security guard. Members' harvests arrive there, where a thorough washing removes the seeds' bitter outer layer before its direct export to the U.S. and Europe. Strong growers' unions have also kept multinational agro companies at bay. Production remains family based, average plots range from 1 to 15 hectares (2.5 to 37 acres). Free of genetically modified organisms, or GMOs, Bolivia's export is 90% organic. This

fair-trade model has elevated the superfood's image. "You can feel good about drinking well," says reviews for France-based Fair's new (Bolivian-grown) quinoa vodka, echoing virtually every quinoa ad campaign out there. Consumers feel confident supporting a product with just roots.

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But despite good intentions, a dangerous cycle may be under way. "When you transform a food into a commodity, there's inevitable breakdown in social relations and high environmental cost," says Tanya Kerssen, a food-policy analyst for the U.S.-based food and development institute Food First. February's conflict is a harbinger, notes Kerssen. Global warming has led to fewer frosts, resulting in more prime land available for quinoa cultivation. That has led to a near free-for-all. For three days in February, hundreds of farmers fought over what was once abandoned land. Four people were temporarily kidnapped, dozens were injured and, according to local leader Nina, a dynamite blast left one man armless. "I've never seen anything like this in my life," says Nina, 70, adding that since the government is ignoring pleas for military monitoring of the upcoming harvest, the situation will likely worsen.

What's more, territorial bickering is spreading. "Every week, I visit two or three communities with land disputes related to quinoa," says Nina, who, as *mallku* (traditional indigenous authority) must resolve these quarrels personally. Many families don't have land titles, he explains — they weren't needed when the ample arid soil was communal herding ground. Also, quinoa's high sale price is prompting a reverse migration of those who had long ago abandoned the Altiplano, triggering property disagreements.

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Environmental problems are emerging too. Traditionally, quinoa fields covered 10% of this fragile ecosystem, llamas grazed on the rest. Now, llamas are being sold to make room for crops, provoking a soil crisis since the cameloid's guano is the undisputed best fertilizer for maintaining and restoring quinoa fields. (Other options like sheep poop appear to encourage pests.) Increased production also means erosion and strains on limited water sources. "It's frightening to think

that a region that has sustained Andean civilizations for millennia could become sterile," says Kerksen.

Equally troubling is the fact that growers themselves are eating less of their gift from the gods. Last year, the Bolivian government acknowledged that national quinoa consumption over the previous five years had decreased 34%. Now there's worry of malnutrition in the quinoa heartland as growers admit that it's tempting to sell their entire harvest while prices are high.

[\(PHOTOS: Bam! How Culinary Culture Became a Pop Phenomenon\)](#)

But, they add, decline in rural consumption can't be blamed entirely on price spikes. "My kids eat quinoa — because they are obligated to," says Huarachi, explaining that the next generation simply prefers Coca-Cola over homemade quinoa soda, cookies over quinoa bread. Ironically too, growers note that as villagers climb out of poverty, a badge of upward mobility is the replacement of the nutritious *comida de indios* with processed "city" foods.

The Bolivian government says it includes quinoa-based products in school breakfasts and maternal-nutrition baskets nationwide. "We've got people in [the Amazon] eating quinoa," says Bolivia's Vice Minister for Rural Development and Agriculture, Victor Hugo Vásquez, explaining that before quinoa's mass production for export, Bolivians outside of the western highlands didn't even know it existed. The government also provides low-interest loans to small farmers, aiming to increase production, which could eventually make the product more affordable there.

But it may be too little too late, says Kerksen: "Quinoa is now a free-market phenomenon. This is a boom, and there's definitely going to be a bust."

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