

The Case of Missing Pesticide MRLs in a Destination Market for Peruvian Quinoa Exports



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Quinoa (*Chenopodium quinoa* Willdenov, 1778)

- Annual plant species with grain seeds and leaves as edible parts.
- Originating in the Andean region, traditionally grown organically.
- Considered as a pseudo-cereal crop (minor or specialty crop).
- High protein and moderate carbohydrates, no gluten, and with high amount of amino acids.
- High genetic diversity and highly tolerant to extreme agro-ecological conditions (soil, temperature, altitude, and rainfall).
- Highly adaptable to many environments.
- It has been identified as a key crop for addressing global food security (FAO).



Quinoa is currently grown in many countries around the world and continues to grow in consumer popularity as a 'health food.'

Global Production

Great increase in global consumer demand (high prices)



Country	1990		2012	2013	2014
Peru	6.3		44.2	52.1	114.7
Bolivia	16.0		50.9	63.0	74.4
Other	0.6		0.8	0.8	0.8
	22.9		95.9	115.9	189.9

Source: FAOSTAT

Traditionally organic
One crop cycle
Very low pest pressure

Vs.

Expansion of production into Coastal areas
Year-round production
Proximity to other crops



Increased pest pressure and damage



Peruvian quinoa exports to the U.S. (in thousand tons)

Main destination
market
United States



2009	2010	2011	2012	2013	2014	2015	2016
1.2	3.0	4.8	6.7	9.7	18.3	18.1	13.8

Source: Ministerio de Agricultura, Peru.

Before December 2016, USEPA only had one pesticide MRL established for a relative amaranth plant (leaves as cattle fodder)



**Illegal
pesticide
residues**



Number of FDA Import Refusals- Peruvian Quinoa

2012-13	2014	2015	2016	2017
3	16	8	9	2

Source: Ministerio de Agricultura, Peru

Impacts

ECONOMIC

- Losses to farmers and agro-exporters
- Increased sampling (laboratory analysis) in destination markets for import shipments
- Increased need for monitoring and control of production

NON-ECONOMIC

- Reputation of Peruvian quinoa as contaminated with illegal pesticides

What was done to correct export violations?

- Main responsibility for meeting destination market requirements falls on farmers and agro-exporters.
- Proper GAP information by government and Peruvian Agro-Export Association.
- USEPA establishes an additional 9 pesticide MRLs (IR-4) by including quinoa as a pseudo cereal in the Cereals Crop Group and by extrapolating data from Cereal Crop Group.
- In April 2017, CODEX includes quinoa in the Cereals Crop Group.
- Yet, what does need to be done quicker on missing pesticide MRLs?