



## Why Do Harmonized/Import MRLs Matter?

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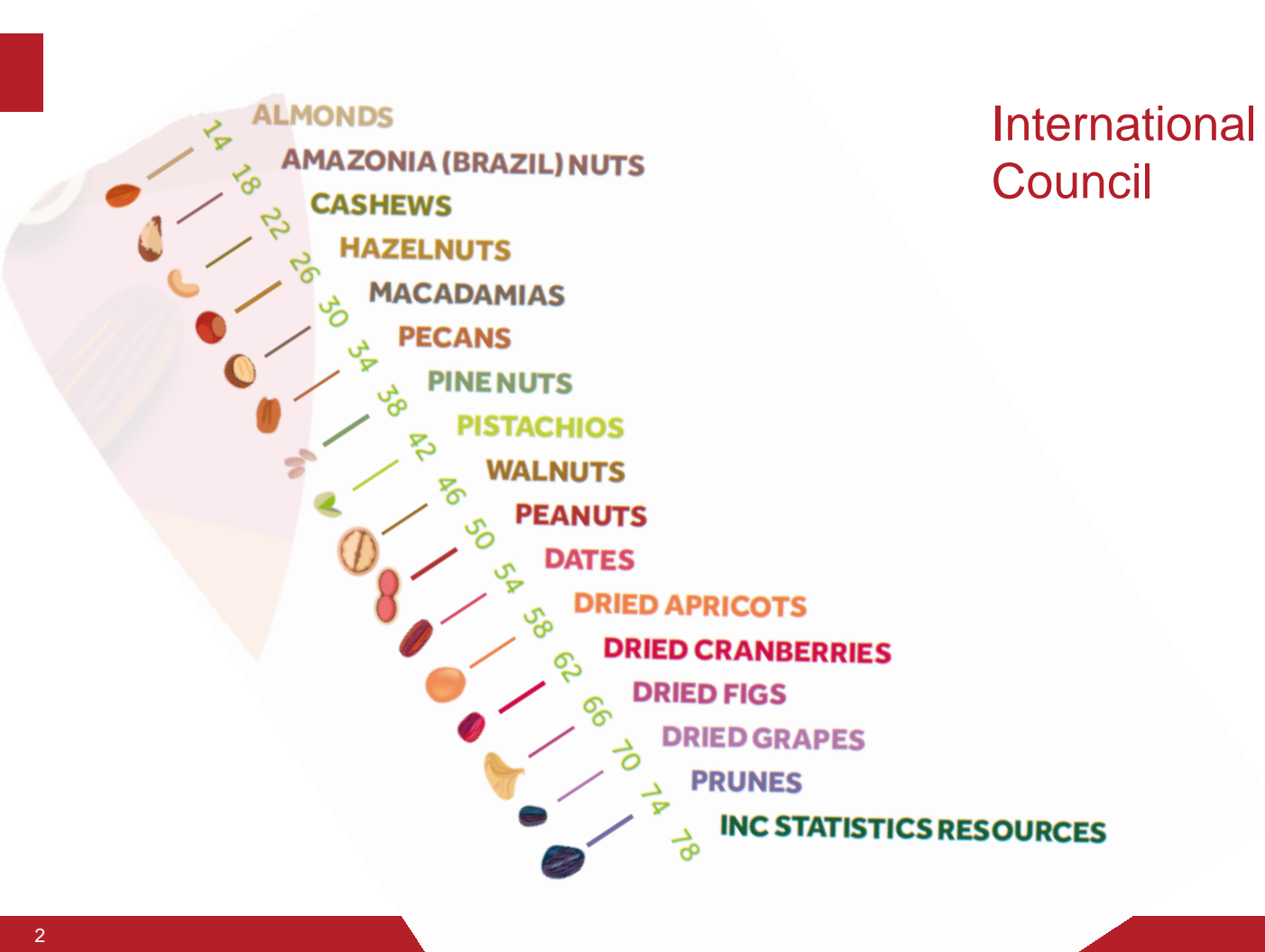
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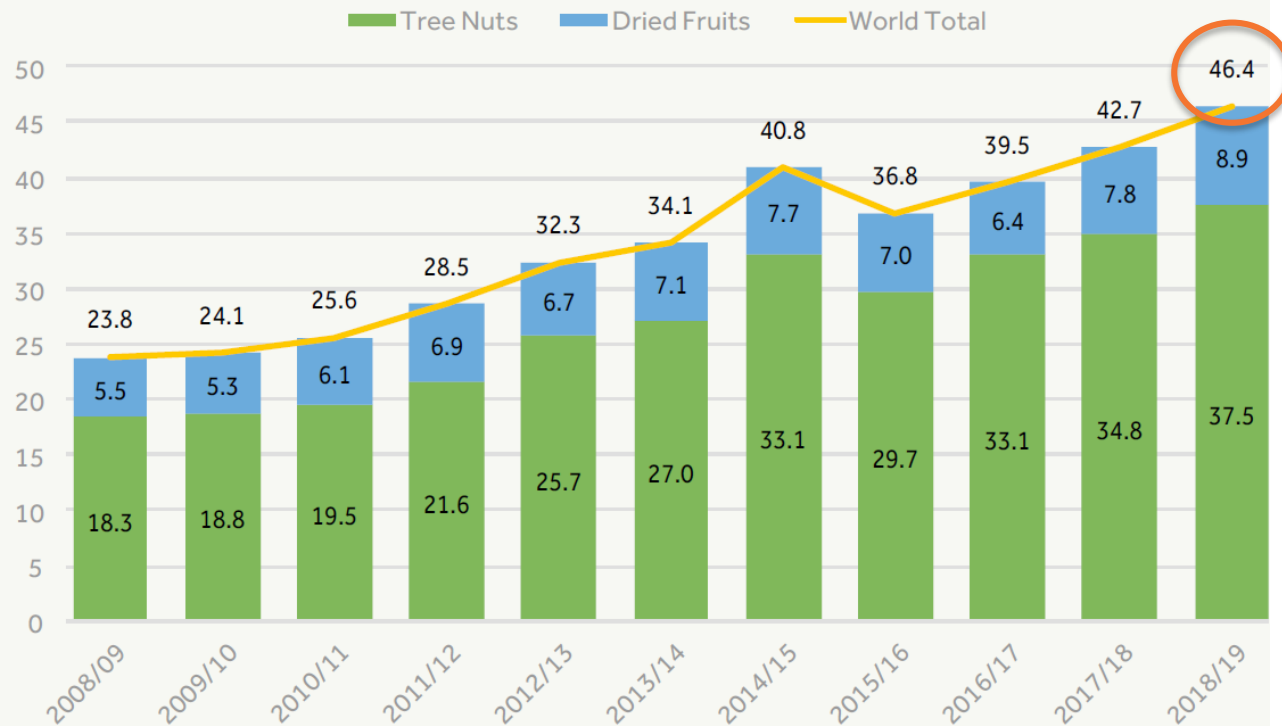
International Nut & Dried Fruit Council



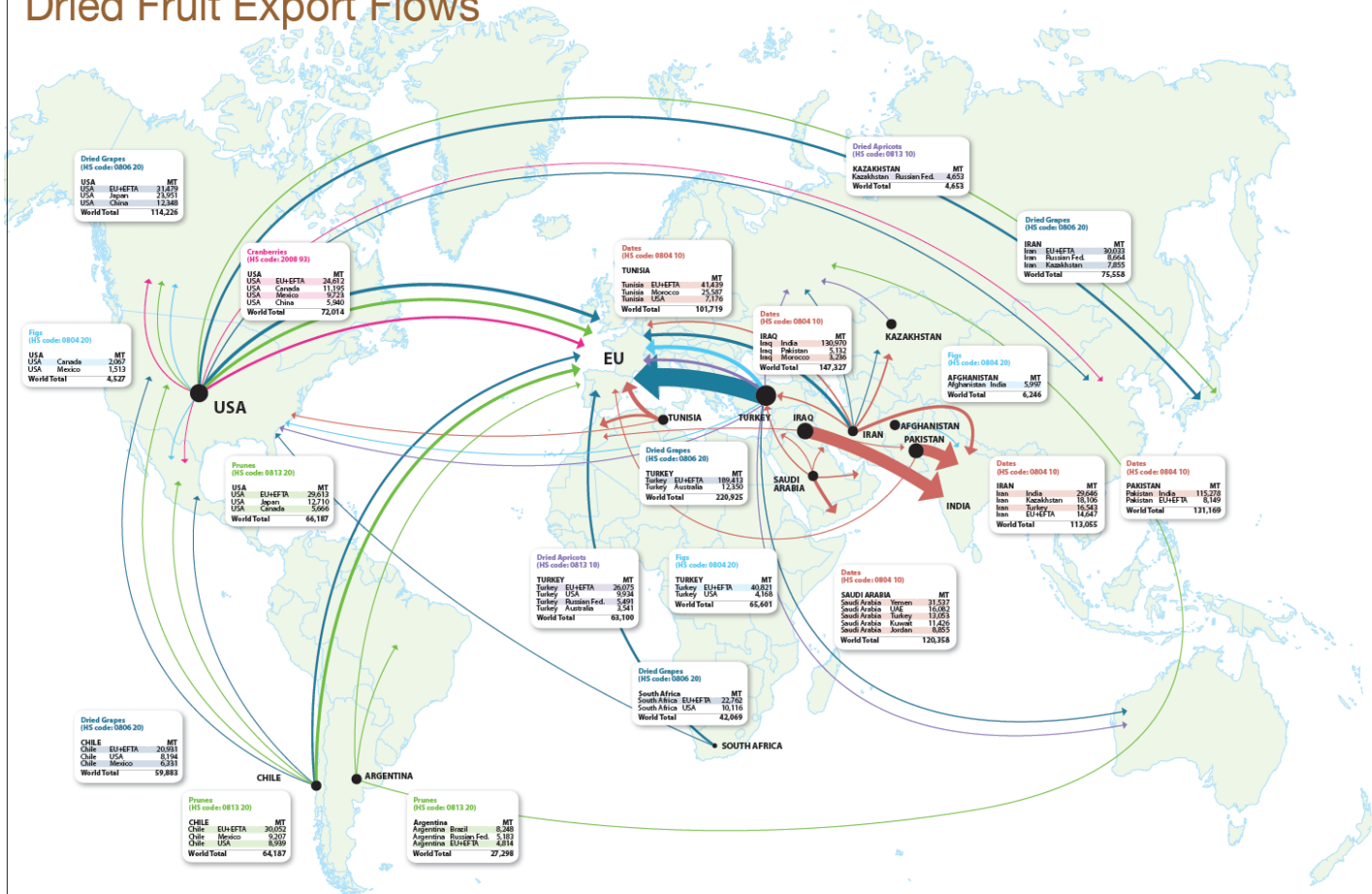
# International Nut & Dried Fruit Council



## TREE NUT AND DRIED FRUIT SUPPLY VALUE (Billion \$)

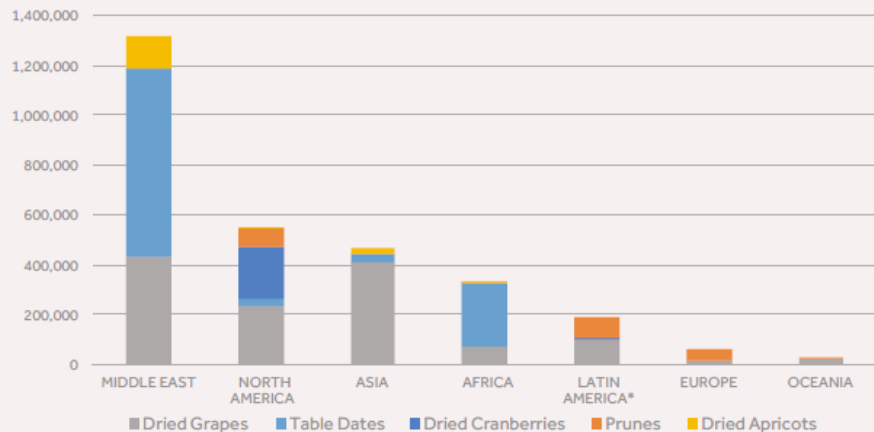


# Dried Fruit Export Flows



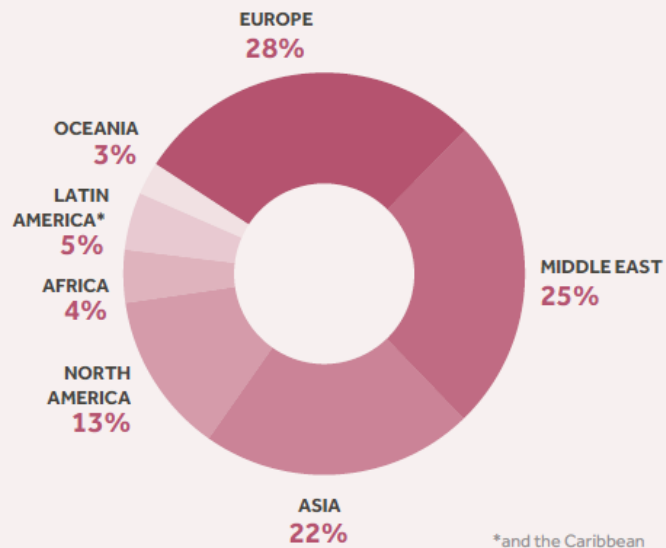
Craneberries are either prepared or preserved (HS code 2008 93).

## 2018/2019 WORLD DRIED FRUIT PRODUCTION BY REGION (Metric Tons)



\*and the Caribbean

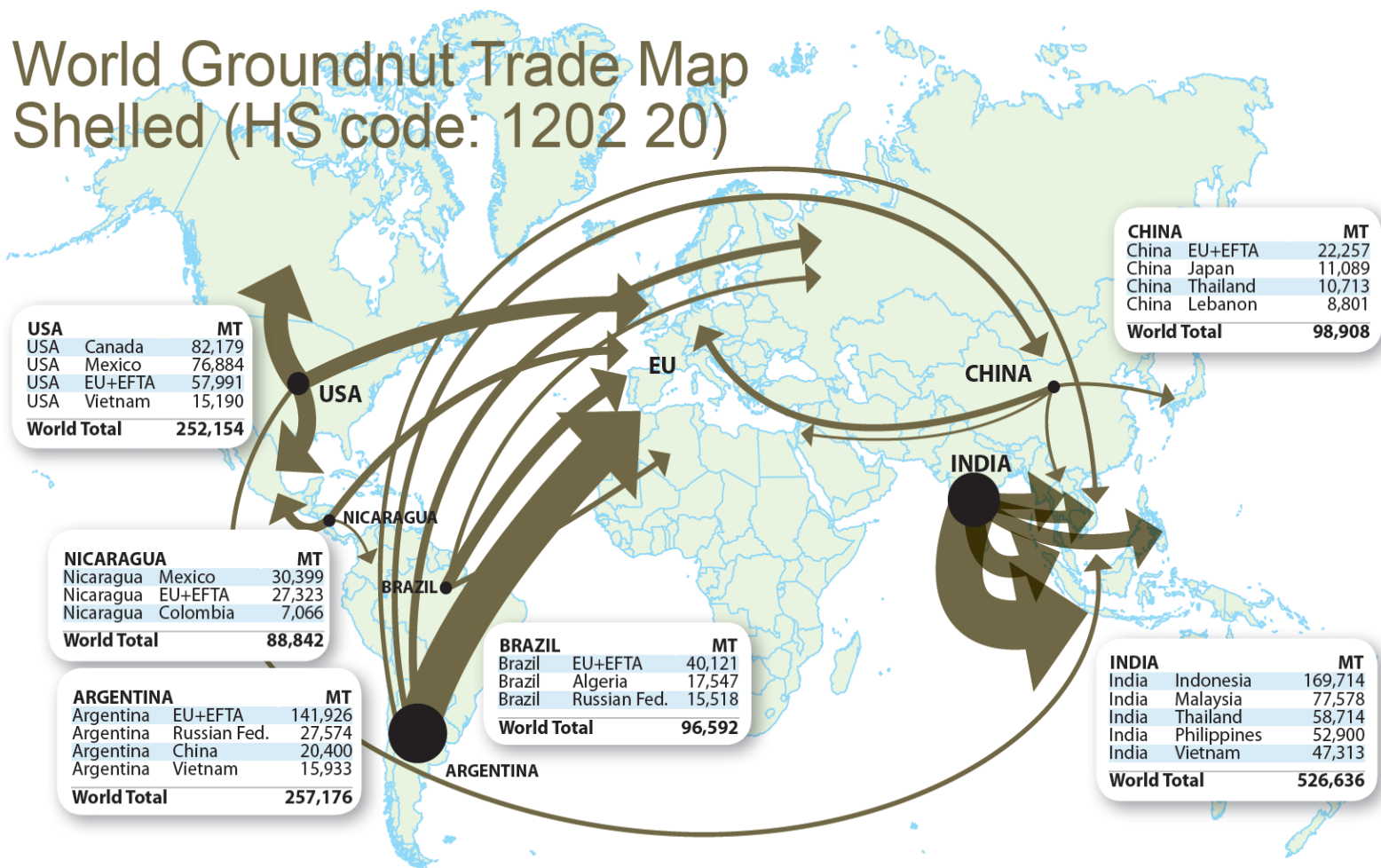
## WORLD DRIED FRUIT ESTIMATED CONSUMPTION BY REGION (2017)



\*and the Caribbean

<b>Raisins</b>	<b>Boscalid</b>		<b>Chlorantran- iliprole</b>		<b>Imidacloprid</b>		<b>Iprodione</b>		<b>Malathion</b>		<b>Methoxyfenozide</b>	
<b>Australia</b>	Dried Grapes	15	Dried Fruits, Grape	2	Grape, table	1	Grape, table	20	Dried Fruits	8	Dried Grapes	6
<b>Chile</b>	Grape, table	5	Grape, table	1	Grape, table	1	Grape, table	10	Grape, table	5	Grape, table	2
<b>China</b>	Dried grapes	10	Grape, table	1		----	Grape, table	10	Grape, table	8		----
<b>Codex</b>	Dried grapes	10	Grape, table	1	Grape, table	1	Grape, table	10	Grape, table	5	Dried grapes	2
<b>European Union</b>	Grape, table	5	Grape, table	1	Grape, table	1	Grape, table	20	Grape, table	0.02	Grape, table	1
<b>Hong Kong</b>	Dried grapes	10	Grape, table	1	Grape, table	1	Grape, table	20	Grape, table	8	Dried grapes	2
<b>India</b>	Grape, table	5	Grape, table	0.01	Grape, table	1	Grape, table	10	Dried fruits	8	Grape, table	0.01
<b>Indonesia</b>	Raisins	10		----	Grape, table	1	Grape, table	10	Grape, table	5	Raisins	2
<b>Japan</b>	Grape, table	10	Grape, table	2	Grape, table	3	Grape, table	25	Grape, table	8	Raisins	3
<b>Korea</b>	Grape, table	5	Grape, table	2	Grape, table	1	Grape, table	10	Raisin	0.5	Grape, table	2
<b>Malaysia</b>	Dried grapes	10	Grape, table	1	Grape, table	1	Grape, table	10	Grape, table	5	Dried grapes	2
<b>New Zealand</b>	Dried grapes	10	Grape, table	1	Grape, table	1	Grape, table	10	Grape, table	5	Dried grapes	2
<b>Philippines</b>	Dried grapes	10	Berry crop group	1	Grape, table	1	Grape, table	10	Grape, table	5	Dried grapes	2
<b>Singapore</b>	Dried grapes	10	Grape, table	1	Grape, table	1	Grape, table	10	Fruits (dried)	8	Dried grapes	2
<b>Thailand</b>	Dried grapes	10	Grape, table	1	Grape, table	1	Grape, table	10	Grape, table	5	Dried grapes	2
<b>United States</b>	Grape, raisin	8.5	Grape, raisin	5	Grape, raisin	1.5	Grape, raisin	300	Grape, table	12	Grape, raisin	1.5
<b>Vietnam</b>	Dried grapes	10	Grape, table	1	Grape, table	1	Grape, table	10	Grape, raisin	5	Dried grapes	2
			= default MRL		All MRLs in ppm		Not sure how each country translates table grape MRL to raisins					

# World Groundnut Trade Map Shelled (HS code: 1202 20)



Including groundnuts destined for oil production.

# Peanut (Groundnut) example MRLs from APEC Members

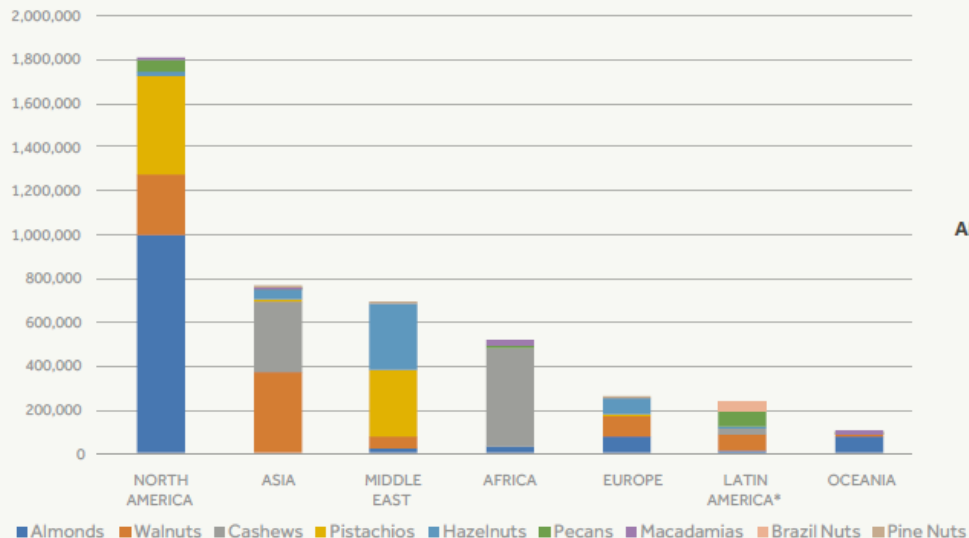
<b><i>Peanut</i></b>	<b>Boscalid</b>	<b>Chlorantran- iliprole</b>	<b>Malathion</b>	<b>Methoxyfenozide</b>	<b>Imidacloprid</b>	<b>Iprodione</b>
<b>Australia</b>	0.1	0.06	0.05	0.03	0.05	0.05
<b>Chile</b>	1	0.06	----	0.03	1	----
<b>China</b>	----	----	----	----	0.5	----
<b>Codex</b>	1	0.06	----	0.03	1	----
<b>Eur. Union</b>	1	0.06	0.02	0.03	1	0.01
<b>Hong Kong</b>	1	--	8	0.03	1	--
<b>India</b>	0.01	0.03	0.01	0.01	1	0.01
<b>Indonesia</b>	--	--	--	0.03	1	--
<b>Japan</b>	1	0.06	8	0.03	0.7	0.5
<b>Korea</b>	0.05	0.06	0.5	0.09	1	0.5
<b>Malaysia</b>	1	0.06	0.01	0.03	1	0.01
<b>New Zealand</b>	1	0.1	0.1	0.1	1	0.1
<b>Philippines</b>	1	0.06	----	0.03	1	----
<b>Singapore</b>	1	0.06	----	0.03	1	----
<b>Taiwan</b>	0.1	0.3	0.5	0.5	1	0.1
<b>Thailand</b>	1	0.06	0.01	0.03	1	0.01
<b>United States</b>	0.05	0.06	8	0.02	0.45	0.5
<b>Vietnam</b>	1	----	----	0.03	1	----
		= default MRL		All MRLs (ppm)		



## 9

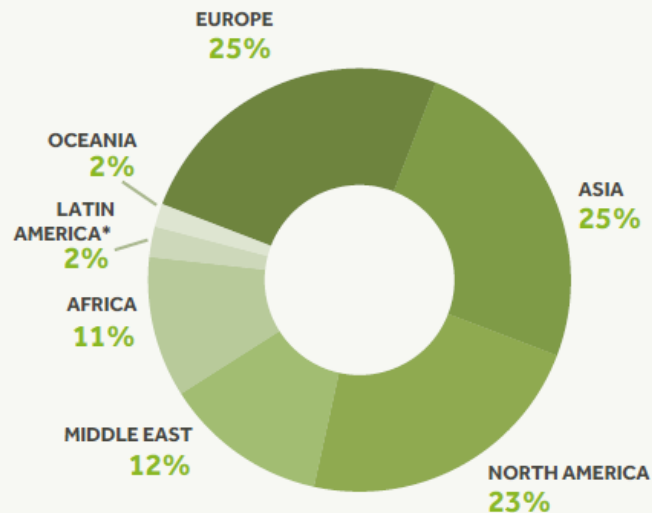


## 2018/2019 WORLD TREE NUT PRODUCTION BY REGION (Metric Tons) Kernel basis, except pistachios in-shell



\*and the Caribbean

## WORLD TREE NUT ESTIMATED CONSUMPTION BY REGION (2017)



\*and the Caribbean

# Cashew (nut)

<i>Cashew (nut)</i>	Boscalid	Chlorantran- iliprole	Pyracl- strobins	Methoxyfen- oxide	Imidacloprid	Phosphine/ hydrogen phosphide
Australia	0.5	0.02	0.01	0.03	0.05	0.01
Canada	0.7	0.02	0.04	0.1	0.05	0.1
Chile	0.5	0.02	0.02	0.1	0.01	0.01
China	----	0.02	----	----	----	0.01
Codex	0.05	0.02	0.02	0.1	0.01	0.01
European Union	0.05	0.05	0.02	0.1	0.05	0.09
Hong Kong	0.05	0.02	--	0.1	0.05	----
India	0.01	0.01	0.01	0.01	0.01	0.01
Indonesia	----	----	----	----	----	----
Japan	1	0.02	1	0.1	0.04	----
Korea	0.05	0.02	----	0.09	0.01	0.1
Malaysia	0.05	0.02	0.02	0.1	0.01	0.01
New Zealand	0.1	0.1	0.1	0.1	0.1	0.01
Philippines	0.05	0.02	0.02	0.1	0.01	0.01
Singapore	0.05	0.02	0.02	0.1	0.01	0.01
Taiwan	0.05	----	----	----	----	0.01
Thailand	0.05	0.02	0.02	0.1	0.01	0.01
United States	0.7	0.02	0.04	0.1	0.05	0.1
Vietnam	0.05	0.02	0.02	0.1	0.01	0.01
	= default MRL		All MRLs in ppm			

# Pest Management Needs in California Almonds

- Insects
  - Navel Orangeworm (worm damage can lead to aflatoxin contamination), Peach Twig Borer, web-spinning mites, leaf-footed bugs, ants, etc.
- Diseases
  - Bloom diseases: brown rot (*Monilinia*), *Anthracnose*, shot hole, jacket rot
  - Summer: *Alternaria*, hull rot, scab
  - Root pathogens and nematodes: replant disorder, *Phytophthora*, *Verticillium*, oak root fungus
- Weeds
  - Keep irrigation system clear, frost protection, clean floor for harvest
- Vertebrates
  - Ground squirrels, pocket gophers, coyotes, birds, etc.
- Post-harvest
  - Storage insects, human pathogens, phytosanitary requirements



Shot hole lesions on fruit and leaf.

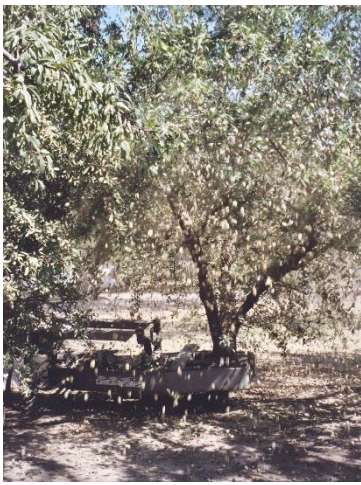




Unable to grow individual orchards/fields for a specific export market in many cases



# Almond Processing – Sorted by Size & Quality





# Costs of MRL Disharmony

- Rejection of a load at the port
  - Storage, return, lost opportunity costs: \$5,000-\$15,000
  - If perishable, lost product
- Detection by government authority → recall
  - Cost of recall \$millions
  - Lost business trust
  - Targeted controls by regulators and importers
- Detection by government or NGO → Media
  - Cost lost business, lost consumer trust
- Delayed use of new products/ loss of registered products
  - Sometimes processors won't allow use of certain pesticides due to lack of key export market MRLs
- Tools to deal with new pests
  - Missing/loss/more restrictive MRLs make it more difficult to employ pest control tools in the wake of new pest issues



# 2014/2015 World Nuts & Dried Fruits Trade Map

Sponsored by:  
**INC**  
international  
Nuts&DriedFruit  
www.nutfruit.org

**BALSU**  
www.balsugida.com

Example of  
Trade Flows of  
Nuts and Dried  
Fruits = Need  
for Harmonized  
or Import MRLs

