



**ACHIPIA**

Agencia Chilena para la Inocuidad  
y Calidad Alimentaria

# Pesticide Regulations in Chile

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MRL Harmonization Workshop, San Francisco CA, June  
2016

Alimentos seguros y saludables, tarea de todos y todas



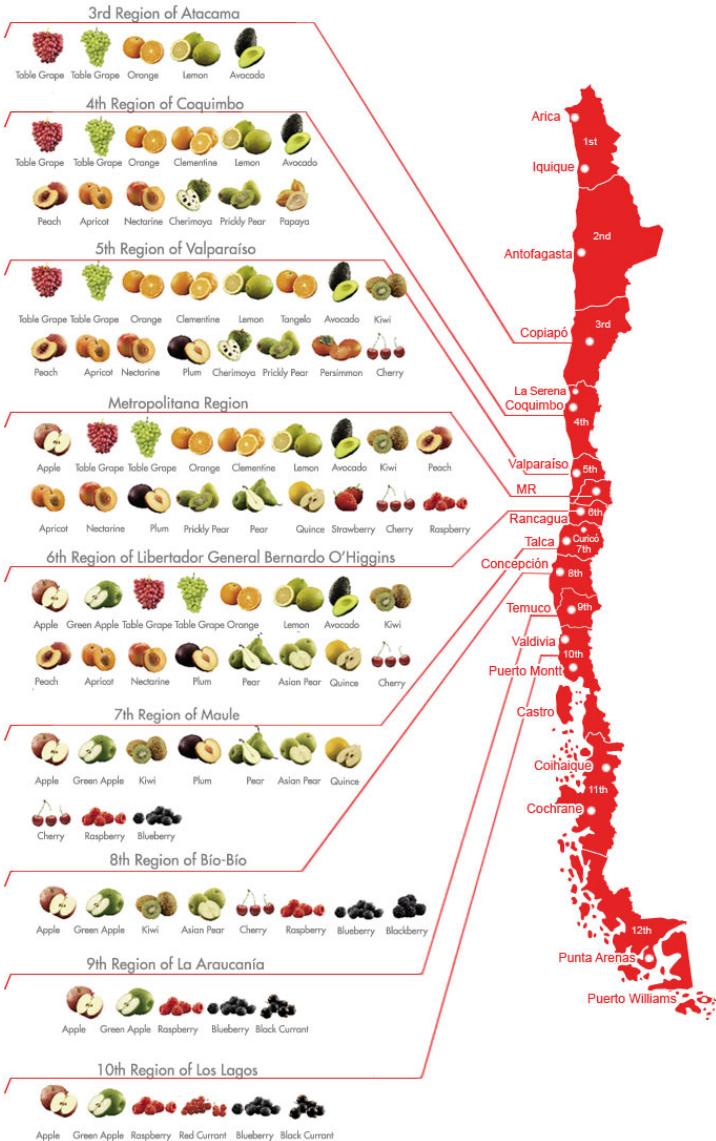


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Agencia Chilena para la Inocuidad  
y Calidad Alimentaria

**Coordinate and conduct the National Food Safety and Quality System and implement the National Food Safety Policy**



# Food Production in Chile



Value of Chilean food exports by category		
Category	US\$ (thousands)	%
<b>Fishery</b>	<b>5.079.083</b>	<b>34%</b>
<b>Fresh produce</b>	<b>4.400.660</b>	<b>30%</b>
<b>Wine</b>	<b>1.871.226</b>	<b>13%</b>
<b>Processed produce</b>	<b>1.547.409</b>	<b>11%</b>
<b>Meat and Dairy</b>	<b>1.148.827</b>	<b>8%</b>
<b>Processed food</b>	<b>611.922</b>	<b>4%</b>
<b>Others</b>	<b>76.693</b>	<b>1%</b>
<b>Total</b>	<b>14.735.820</b>	

5 Continents  
More than 180 different countries

# Chile in the global economy

Chile has 26 trade agreements with 64 markets, representing 64.1% of the world population and 86.3% of global GDP.



Asia-Pacific  
Economic Cooperation



# Pesticide Authorization

The authorization (register) of pesticides in Chile is faculty of SAG, National Agricultural and Livestock Service (Regulation 3670/1999). Authorization applies for each commercial product ( may contain 1 or more A.I. )

The process follow guidelines of:

- FAO/WHO International Code of Conduct on Pesticide Management
- Rotterdam Convention
- Stockholm Convention
- Montreal Protocol
- Basel Convention

Number of pesticides registered in Chile (dec 2018)		
Type	Formulations	A.I.
Insecticides	295	109
Fungicides	474	128
Herbicides	264	106
Others	125	52
Total	1.158	395

# MRLs in Chile

Supreme Decree No. 977/96 art 162: “The Ministry of Health through the dictation of the appropriate technical standard shall determine the tolerances for residues of pesticides in food allowed”



Regulation No. 581/1999 "Fixed Maximum Tolerances for Pesticide Residues in Food for Domestic Consumption" (only 1264 MRLs !!!)



2009 MoH convene a public/private committee to set a new MRL rule in Chile



Regulation No. 33/2010 and No. 762/2011 ( Current regulation)

# How are set MRLs in the regulation of Chile?

In Chile it is not carried out a risk analysis process for the establishment of MRLs

We need to look international MRLs regulations as a reference

What regulations?

Codex

EU Regulation (EC) No 396/2005

USA e-CFR Title 40 (Protection of Environment PART 180—TOLERANCES AND EXEMPTIONS  
FOR PESTICIDE CHEMICAL RESIDUES IN FOOD)

Scope: all authorized pesticides in Chile / 60 commodities

Criteria:

1. CODEX
2. EU or USA MRLs (depending on specific criteria)

# Troubles

Lack of Codex MRLs in more than 50% of the compounds authorized in Chile. In some cases there is no Codex MRL for certain commodities of interest.

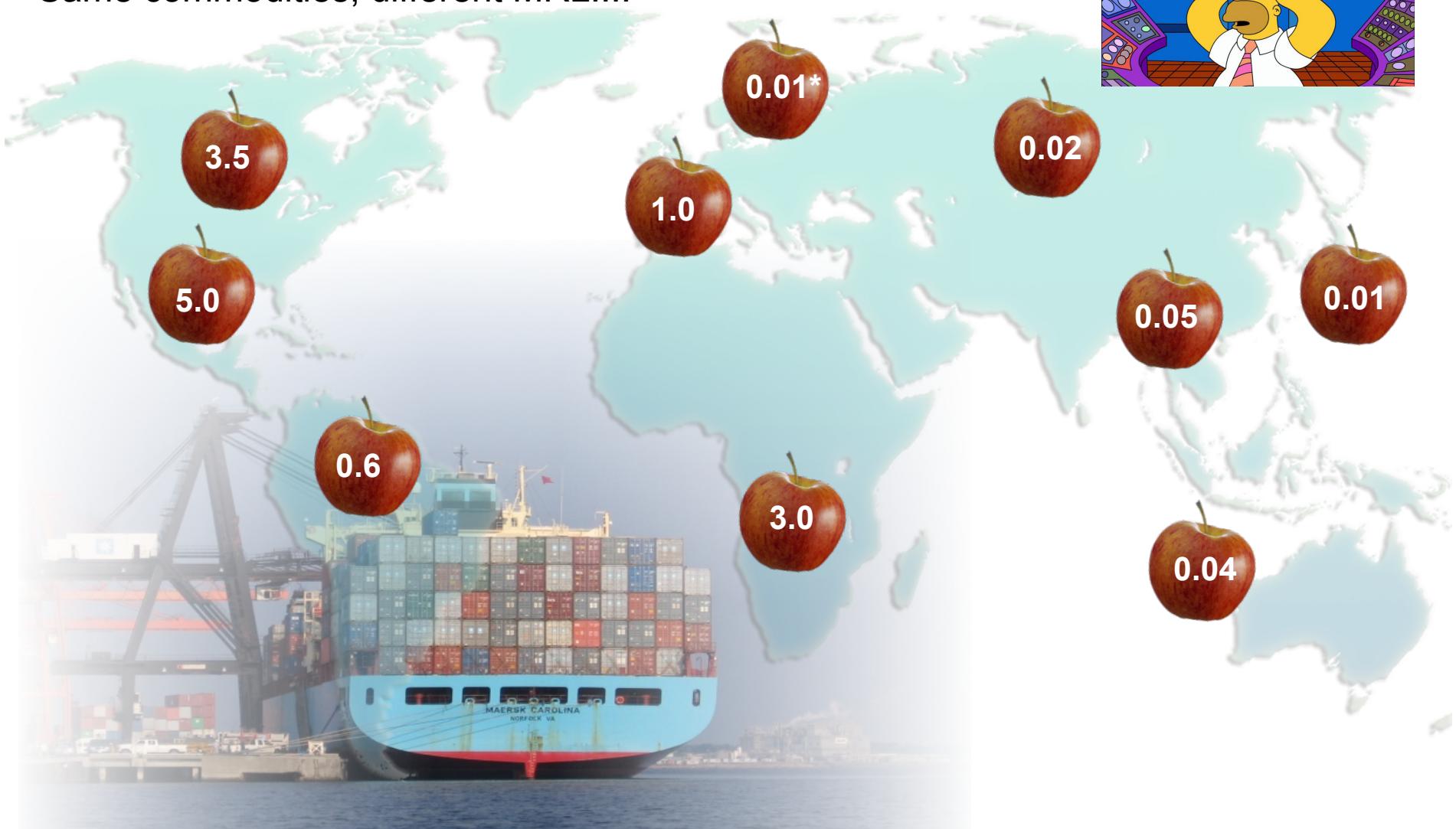
Number of pesticides with MRLs*	
<b>CODEX</b>	<b>196</b>
<b>USA</b>	<b>399</b>
<b>European Union**</b>	<b>484</b>

\* as shown in sources by may 23, 2016

\*\*Approved substances

# Troubles

Same commodities, different MRL!!!!



Adapted from Tiu, Carmen: MRLs & Import Tolerances: definitions and background information

Alimentos seguros y saludables, tarea de todos y todas

# Troubles



## Changing nature MRLs

....means constant changes in MRLs  
regulation

BRYANT CHRISTIE INC.  
MRL NEWS



A service of  
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1.	<b>Notifying Member:</b> EUROPEAN UNION If applicable, name of local government involved:
2.	<b>Agency responsible:</b> European Commission, Health and Consumers Directorate-General
3.	Products covered (provide tariff item number(s) as specified in national schedules deposited with the WTO; ICS numbers should be provided in addition, where applicable): Cereals (HS Codes: 1001, 1002, 1003, 1004, 1005, 1006, 1007, 1008), foodstuffs of animal origin (HS Codes: 0201, 0202, 0203, 0204, 0205, 0206, 0207, 0208, 0209, 0210) and certain products of plant origin, including fruit and vegetables
4.	Regions or countries likely to be affected, to the extent relevant or practicable: <input checked="" type="checkbox"/> All trading partners <input type="checkbox"/> Specific regions or countries:
5.	<b>6. Description of content:</b> These notified annex to the draft Regulation set proposed maximum residue levels (MRLs) for chlorpyrifos in Annexes II and III to Regulation (EC) No 396/2005. MRLs for these substances in certain commodities are lowered. Lower MRLs are set after lowering the toxicological reference values for this substance.
6.	These maximum residue levels (MRLs) for chlorpyrifos in Annexes II and III to Regulation (EC) No 396/2005. MRLs for these substances in certain commodities are lowered. Lower MRLs are set after lowering the toxicological reference values for this substance.
7.	Objective and rationale: <input checked="" type="checkbox"/> food safety, <input type="checkbox"/> animal health, <input type="checkbox"/> plant protection, <input type="checkbox"/> protect humans from animal/plant pest or disease, <input type="checkbox"/> protect territory from other damage from pests.

### EU Notifies WTO of Draft Propiconazole and Spiroxamine MRLs

Posted on September 25, 2015

On September 25, the European Union notified the WTO of proposed MRLs for propiconazole and spiroxamine in or on certain products.

The final date for comments is November 24, 2015. Relevant proposed MRLs will be added to Global MRL Database.

### Canada Proposes MRLs for Multiple Pesticides

Posted on September 25, 2015

On September 25, Health Canada's Pest Management Regulatory Agency (PMRA) proposed MRLs for the following active ingredients:

- [Quizalofop-ethyl](#)
- [Pendimethalin](#)
- [Benzoxacor](#)
- [Pyraclostrobin](#)
- [S-metolachlor](#)

PMRA will accept comments on these proposed MRLs through October 4, 2015. Relevant proposed MRLs will be added to Global MRL Database.

# Troubles

Different MRLs between EU and USA regulations

Default MRLs

MRLs (mg/kg)				
Commodity	Compound	CODEX	E.U.	USA
Blueberries	Propiconazole	-	0,01*	1
Table Grapes	Triadimefon	-	2	0,01
Plums	Chlorothalonil	-	0,01*	0,2
Blueberries	Chlorothalonil	-	0,01*	1

What MRL should we adopt?



# MRL definition

Maximum Residue Level of pesticide legally allowed in/on food or animal feed after use of a crop protection chemical according to Good Agricultural Practice (GAP)

## Supervised Residue Field Trials



## Toxicology and Metabolism studies



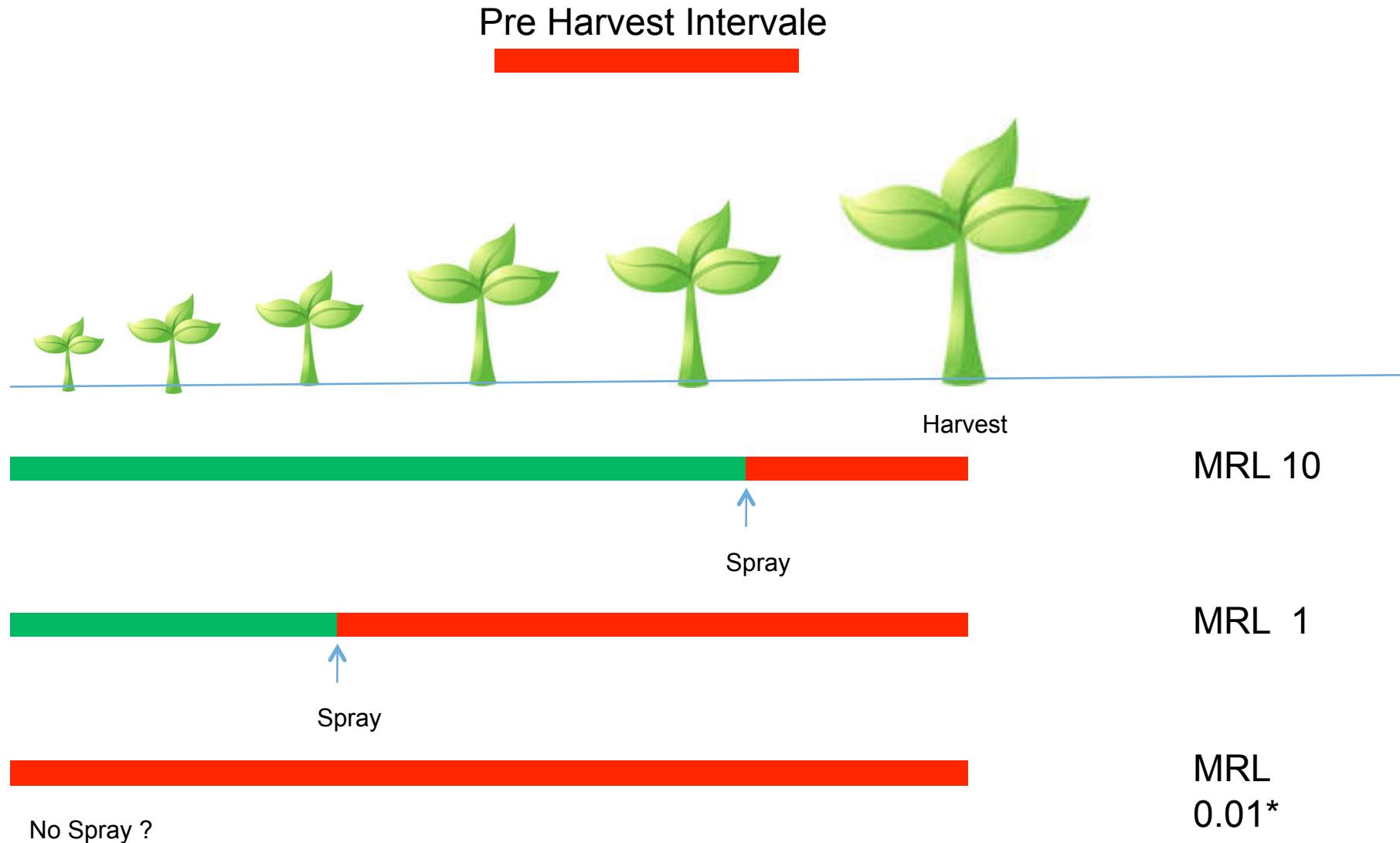
Residue level, proposed MRL

ADI, ARfD

Consumer Dietary Risk Assessment

MRL

# MRLs adoption means adaptation of GAPs



# New criteria proposal for establish MRLs in Chile

National MRLs regulation was established in 2011, need to be updated

ACHIPIA recently made a proposal to MoH

It consist the adoption of CODEX MRLs when available as the first option.

When no CODEX MRL is available for certain commodity/compound combination, we suggest to adopt always the MRL from reference regulation 1, and finally, if needed, the MRL from reference regulation 2.

We need to decide which reference regulation will be 1 and which will be 2 among EU and USA regulations.

# **What shall we consider?**

Reasons why the MRLs are different between countries

- 1. Regional/Country GAPs**
- 2. MRL Consumer Evaluations**
- 3. Crop Group Disharmony**
- 4. MRL Residue Definitions**
- 5. MRL Calculation Procedures**

# Identify GAPs and Consumption

## GAPs

Compare GAPs in Chile v/s GAPs in USA and E.U.

Should consider the incidence of pests, registration status and crop grouping



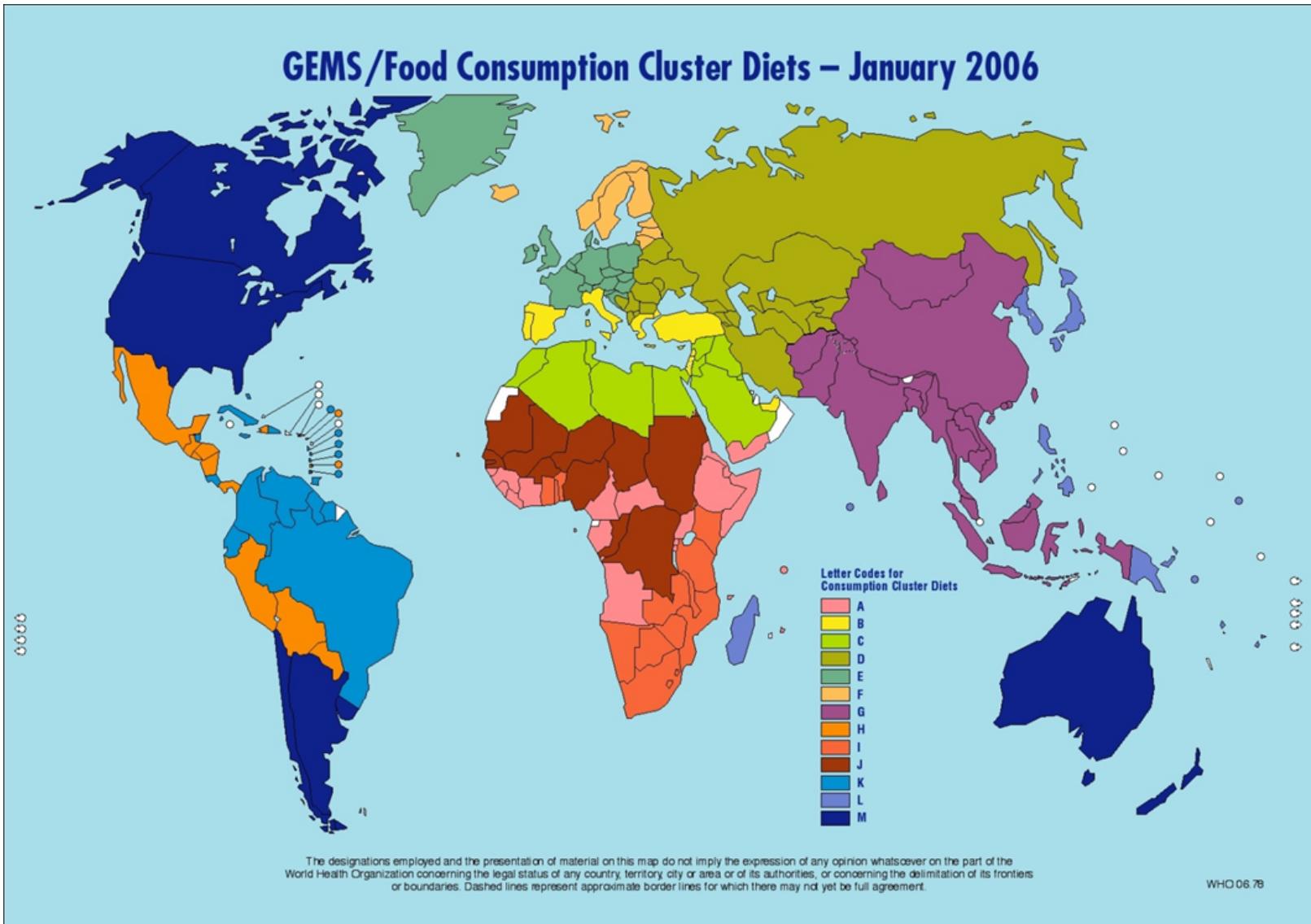
# To identify GAPs and Consumption

## Consumption

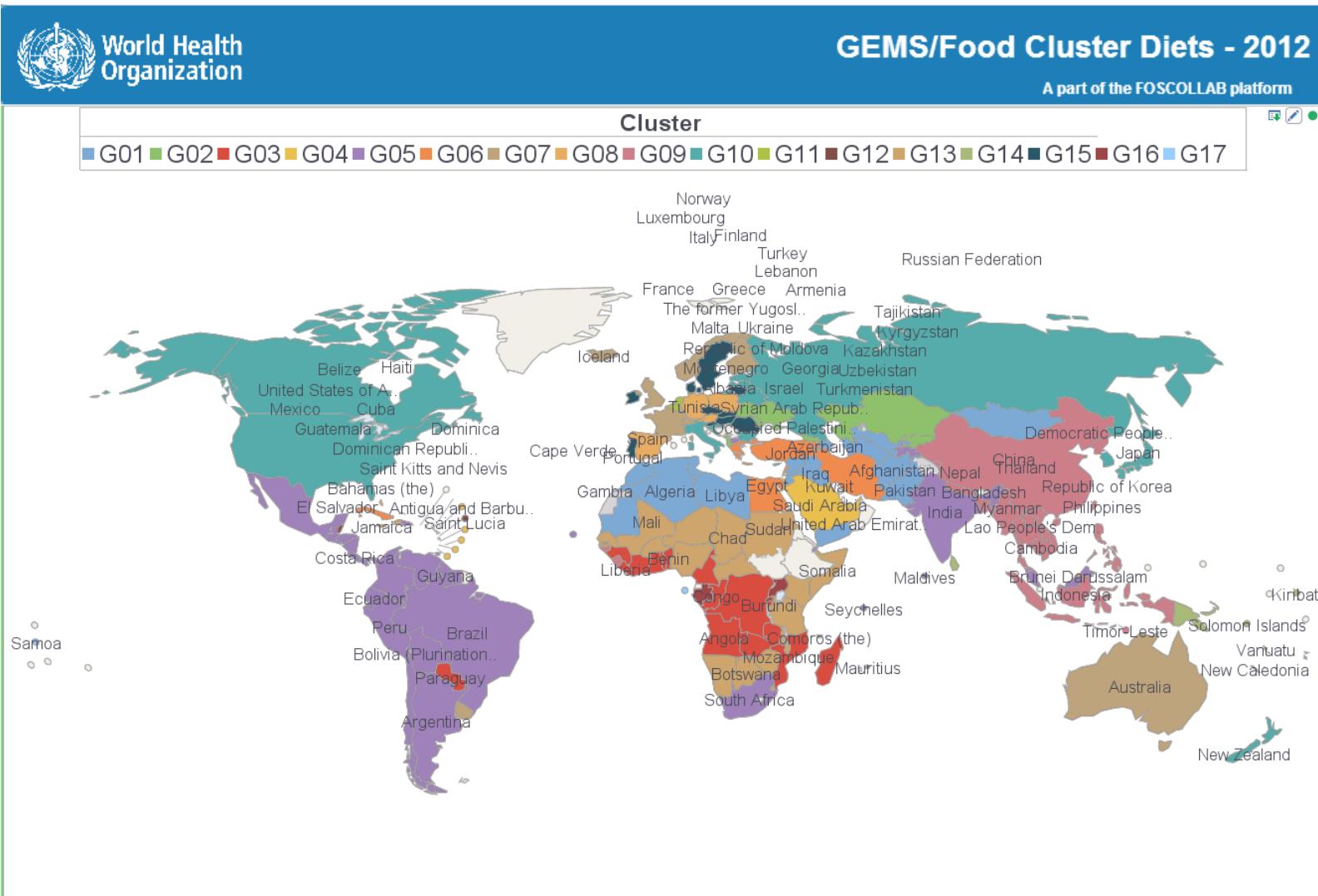
Identify which model of food consumption between the US and Europe, it is closer to the consumer in Chile..



# 2006, 13 Cluster Diets



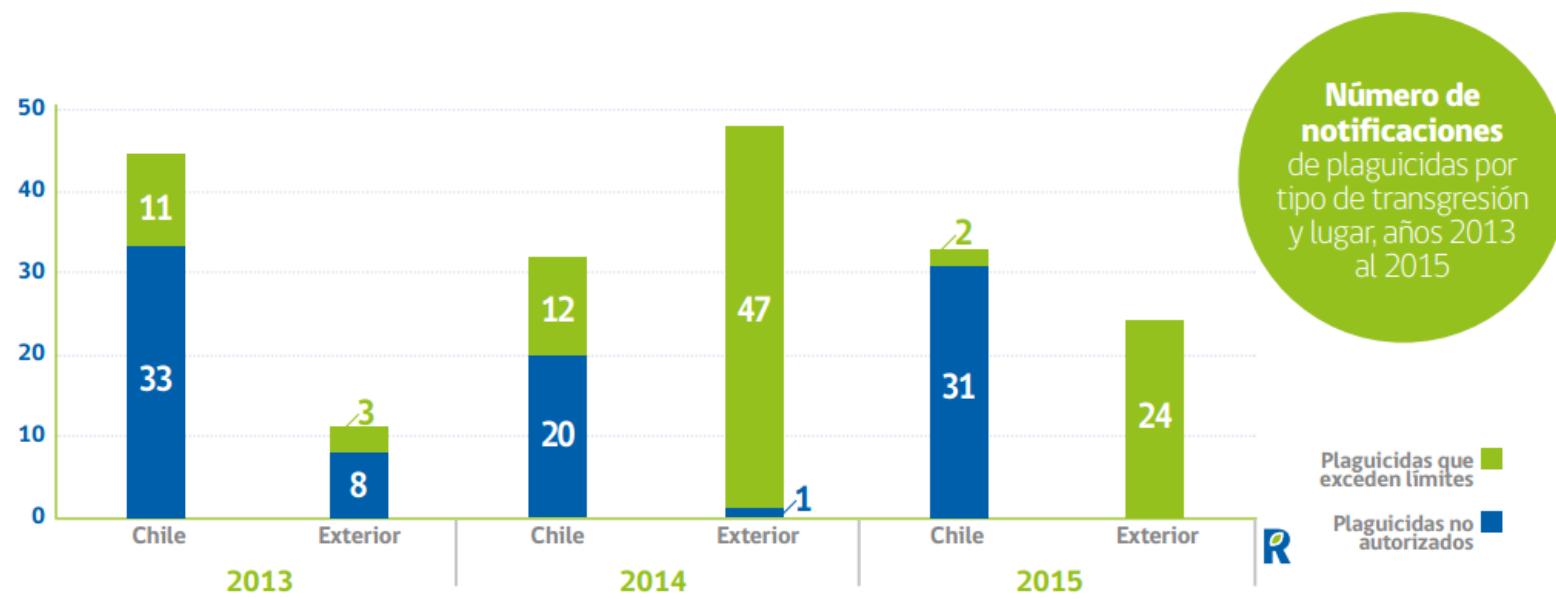
# 2012, 17 Cluster Diets



# Monitoring

Since 2009 in Chile

3,000 samples analyzed for pesticide residues in fresh produce

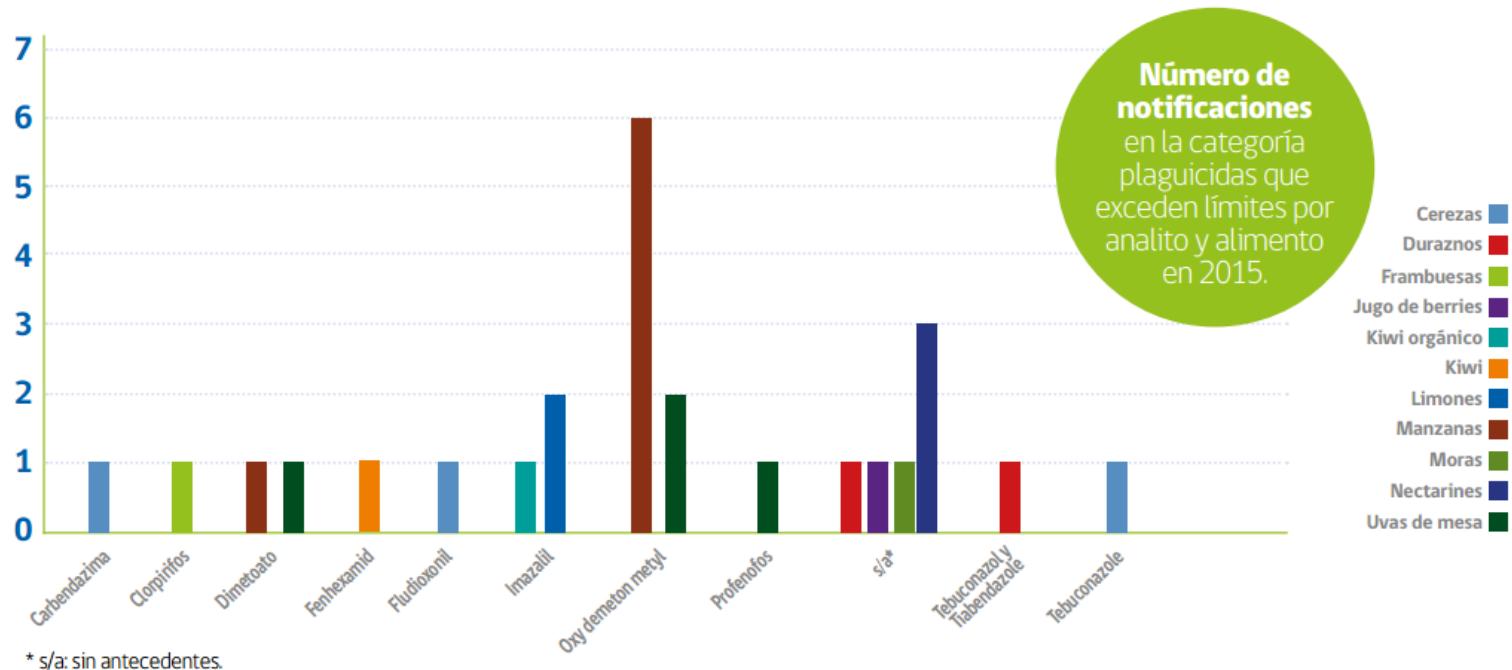


Pesticide related notifications by kind of non compliance and location. 2013 to 2015

Source: Reporte de Notificaciones 2015 de la Red de Información y Alertas Alimentarias, RIAL.

# Monitoring

Detected analites frequency by commodity in 2015  
(includes domestics samples and third countries notifications)



Source: Reporte de Notificaciones 2015 de la Red de Información y Alertas Alimentarias, RIAL.

# MRLs harmonization initiatives



APEC Food Safety Cooperation Forum expert workshops on the Harmonization of Pesticide Maximum Residue Limits (MRLs) for imported foods in APEC member economies developed the **Import MRL Guideline For Pesticides**.

An implementation workshop will take place in Australia in late 2016. Australia plan to show-case the guideline through awareness building and stakeholder engagement in the margins of SOM3 and the Food Security Week Peru, 2016.

The Strategy intends to build technical expertise to effectively implement the Guideline. This would be done through a singular risk assessment training workshop with a particular focus on dietary exposure assessments; potential in-country follow-on workshops/training; testing scenarios in the Guideline (i.e. road testing & worked examples); awareness raising / outreach / stakeholder engagement.



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todas