

What is an MRL Worth?

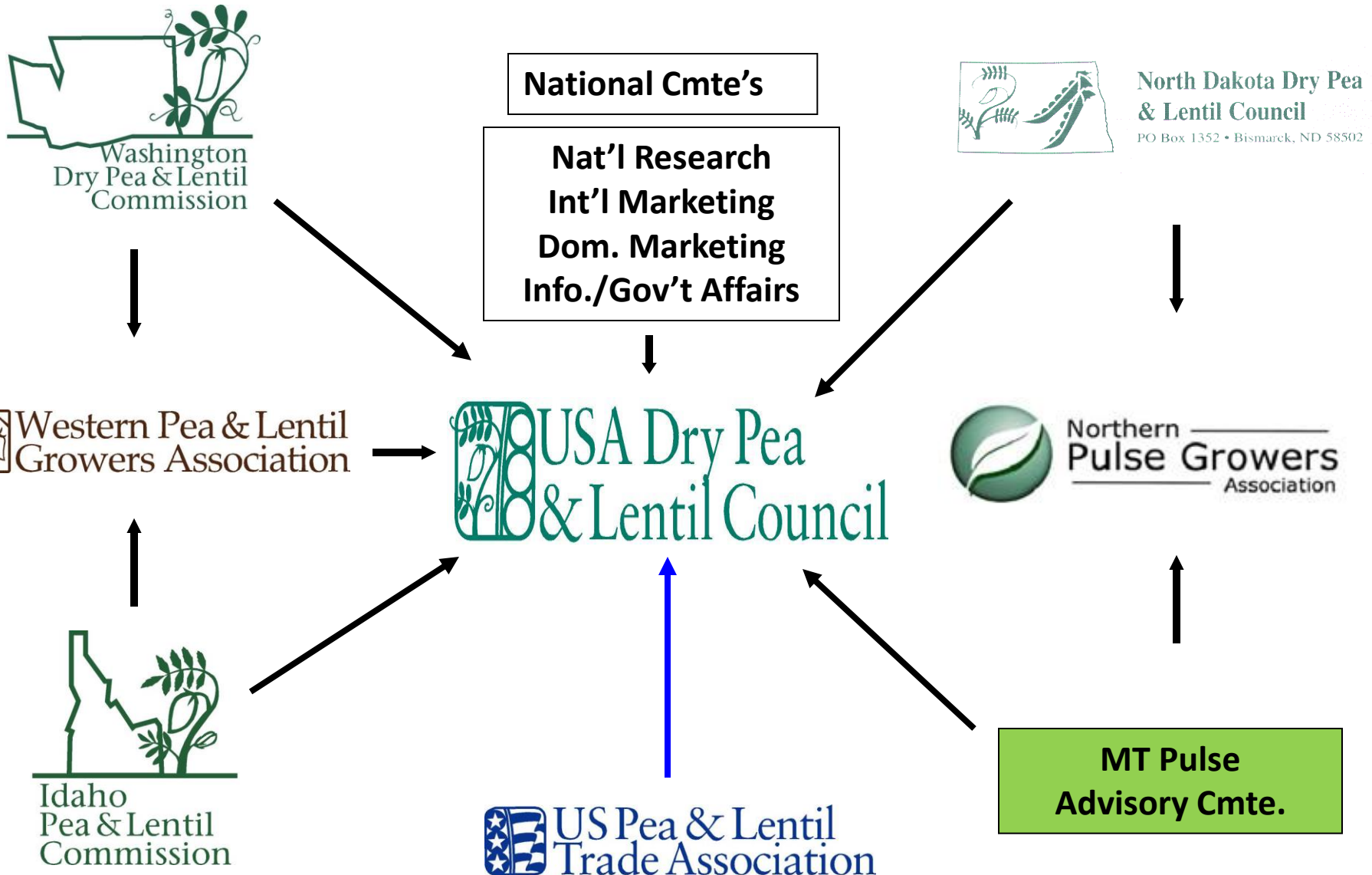
California Specialty Crops Workshop

Fisherman's Wharf, San Francisco, CA

June 6, 2013

Todd Scholz, Director of Research

USADPLC Organizational Structure



Summary

- Background
- What do MRLs Cost
- Who pays for MRLs
- What is Value of MRLs

I am a Neophyte

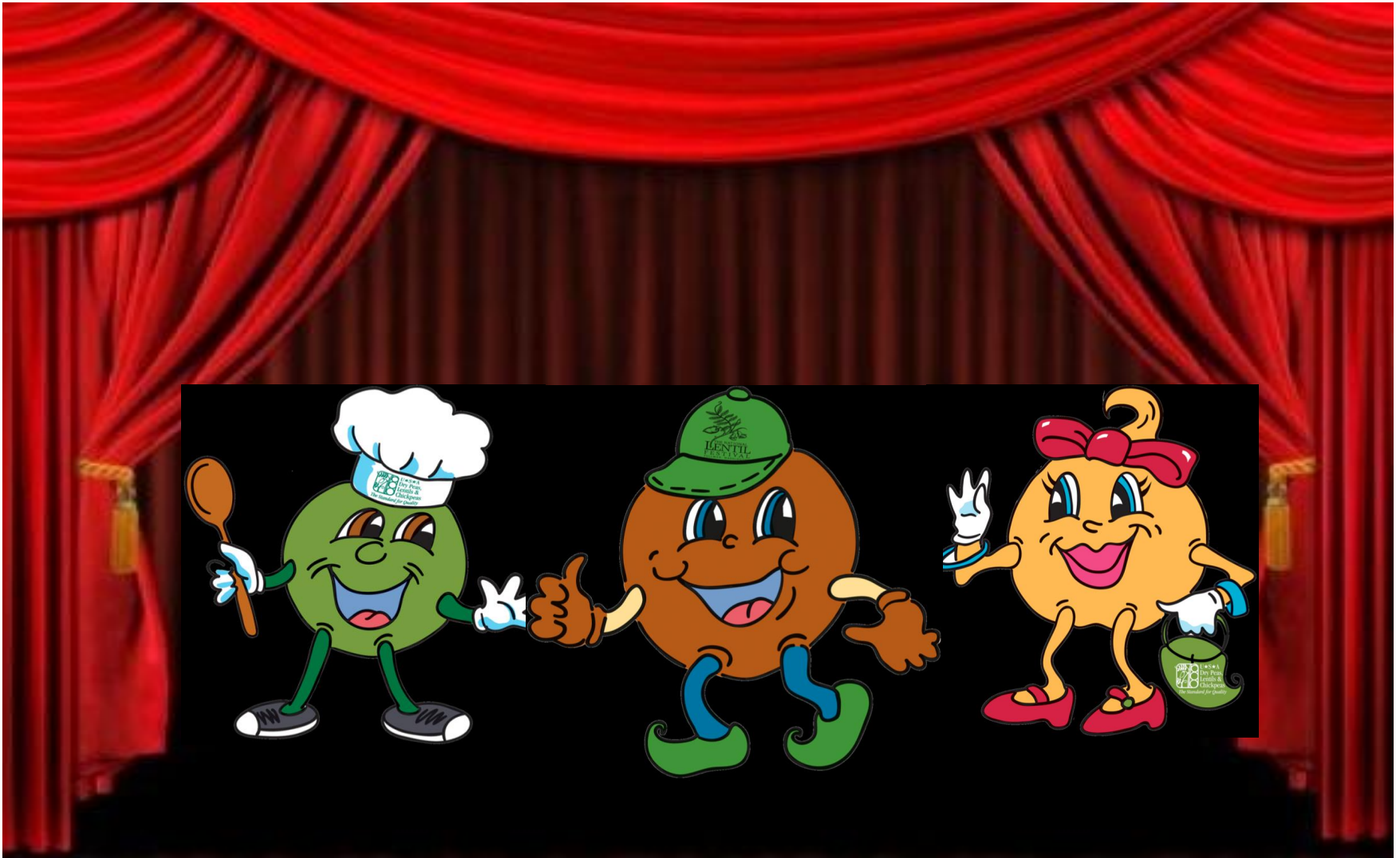


I am Neophyte

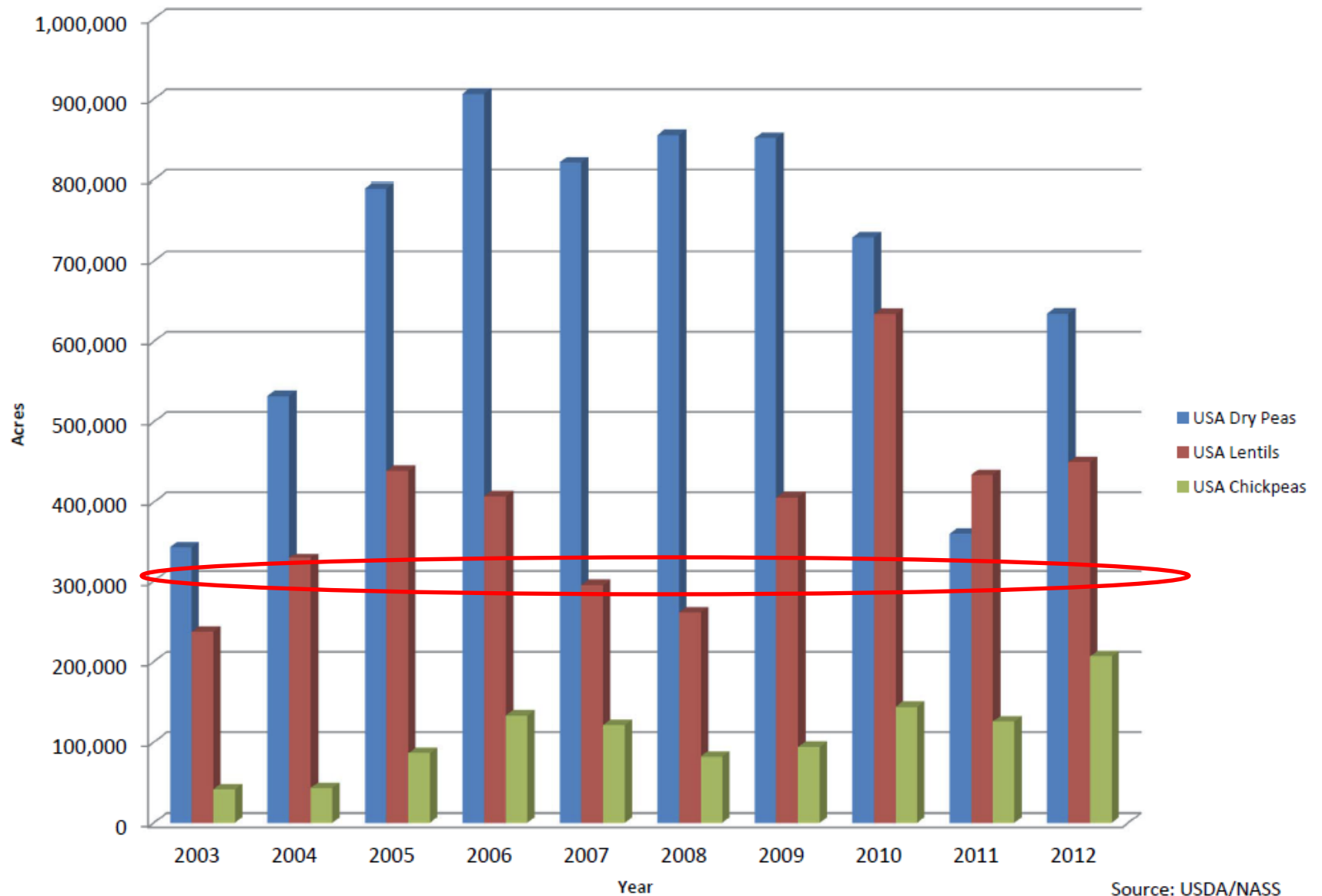


Set the Stage

Dan D Pea, Tas T Lentil, Chel C Chickpea

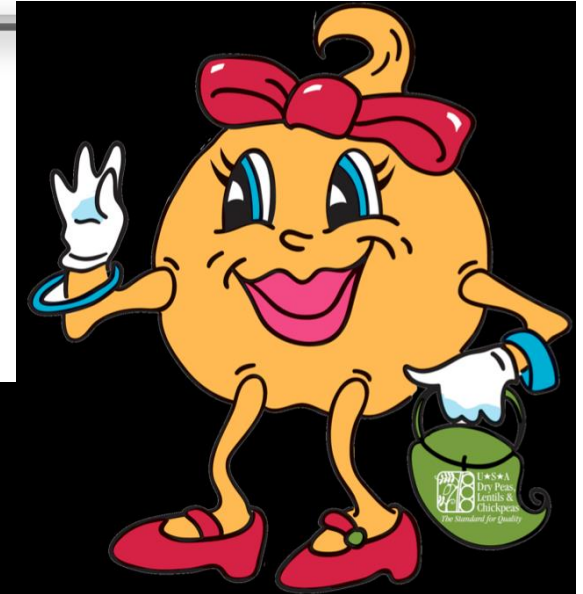


U.S. Pulse Acreage



Source: USDA/NASS

MRL Poster Children



The Situation



- Organic Trade Show in Germany
- January, 2011
- Glyphosate Found
- Exceeded EU MRL for all lentils

The Situation



- Glyphosate is often used for pre-harvest crop management in lentils
- Labeled for all Pulses in US and Canada

Roots to the Problem

- Pre-2004 every country issued its own MRLs independently
- Canadian and US pulse industry began “quest” for harmonization through NAFTA processes (part of our “Reduced Risk” strategy)
- EPA and PMRA agreed to do a Pulse Harmonization for MRL’s
- By 2007, the two countries were using same calculations and issuing coordinated MRL’s

Glyphosate MRL Comparison (ppm)

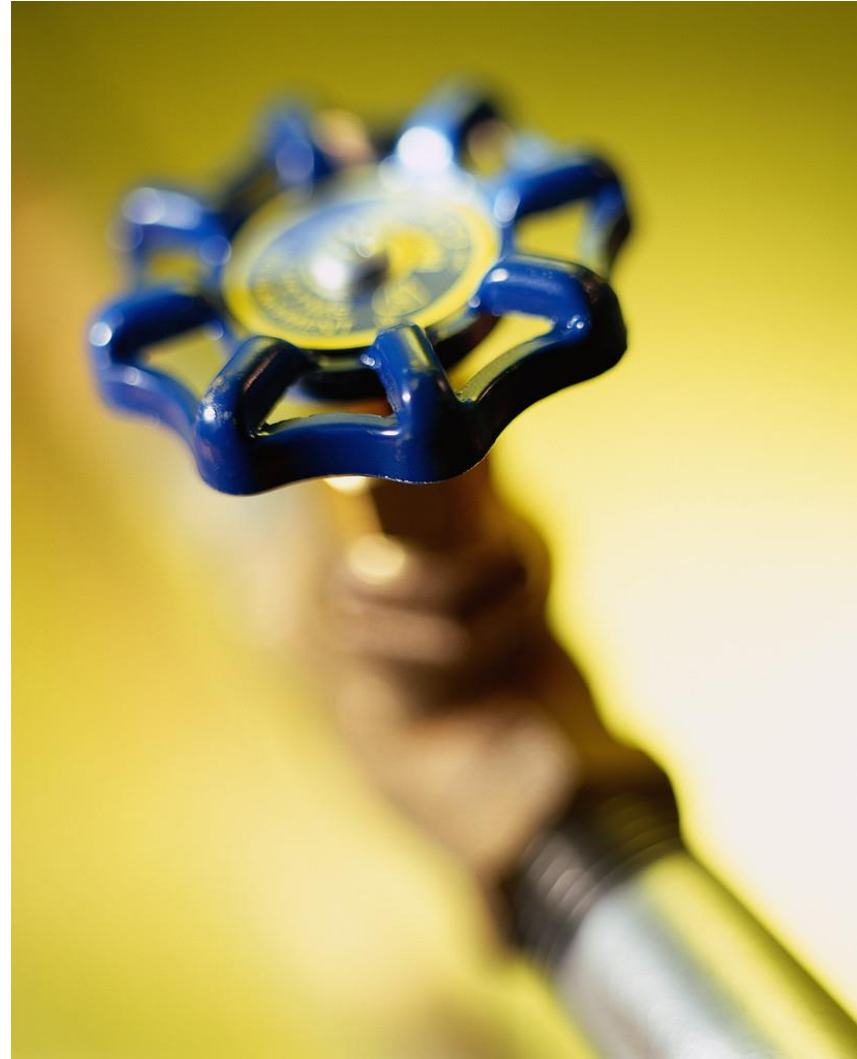
- Problem:
Glyphosate on
Lentils Vastly
Different than
other crops in
EU

Crop	EU	Canada	US
Lentils	0.1	4	8
Peas	10	5	8
Beans	2	2	5
Canola	10	10	20
Wheat	10	5	30
Barley	20	10	30
Wild Mushroom	50		

Source: UN/FAO ProdSTAT, USDA/FAS

What is MRL?

- Maximum Residue Limit
- Expressed in PPM
- Determined by Scientific Analysis of Risk
- Indicates Problem in System-Not health Risk
- Safety Valve



Glyphosate does not pose a human health risk.

- ❑ Studies show **no adverse health impacts** on daily intake of **2 mg of glyphosate per kg of body weight.** *(Source: EPA)*
- ❑ An 80 kg (176 lb) person would have to consume **20 kg (44 lbs) of foods** with glyphosate residues of 8 ppm to exceed intake threshold.

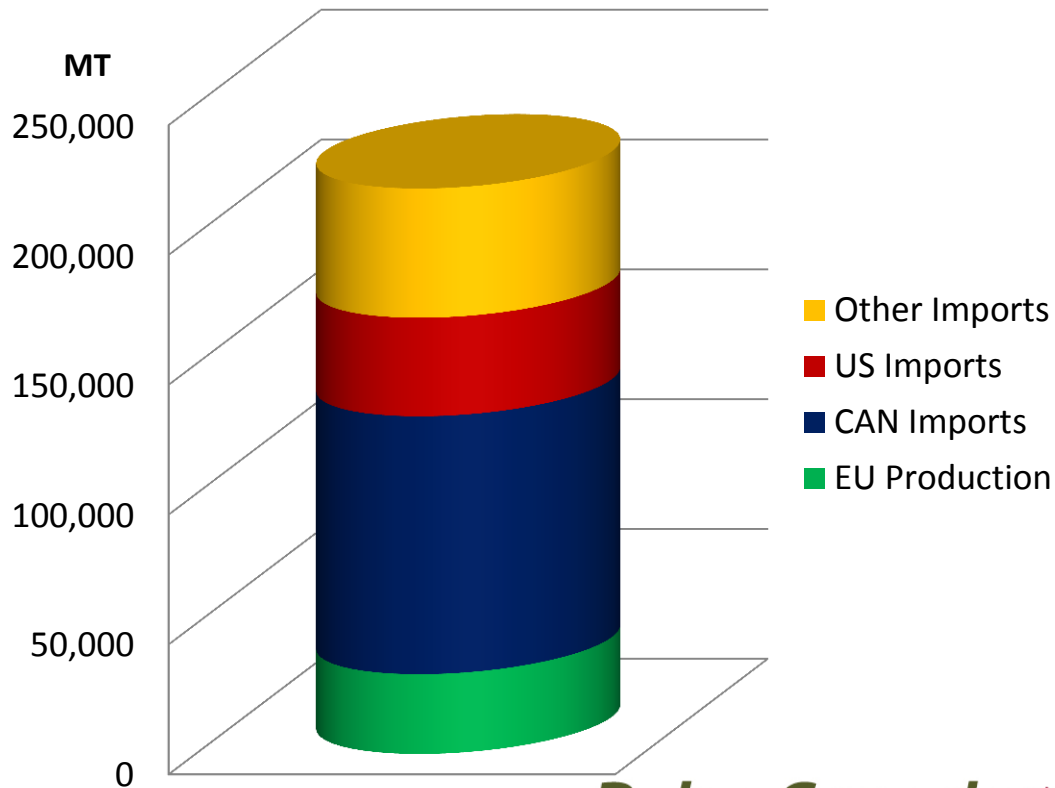


Fact Sheet

- EU lentil production falls far below lentil demand.

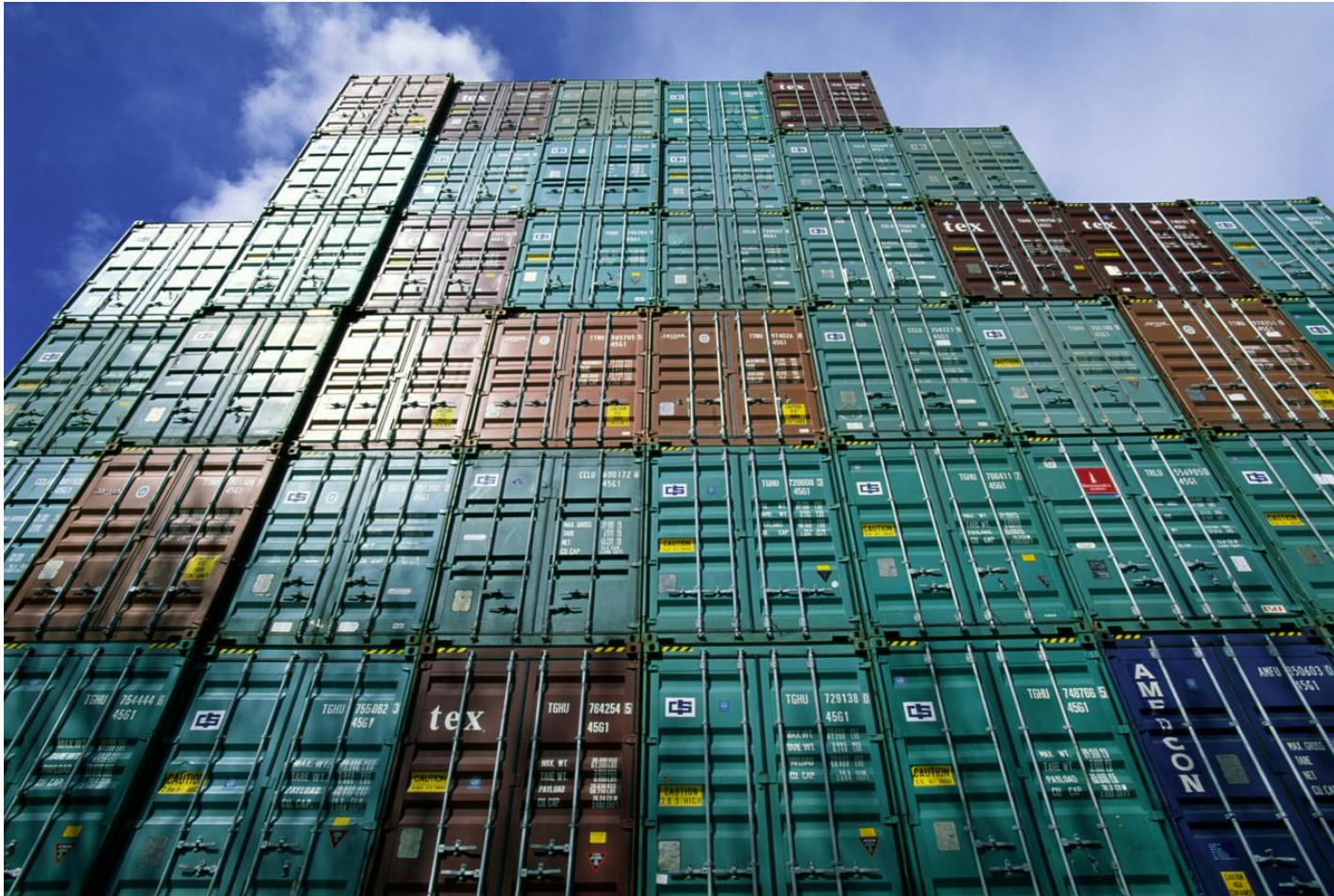
**85% of all EU lentils
are imported**

2009 Total EU Production & Imports

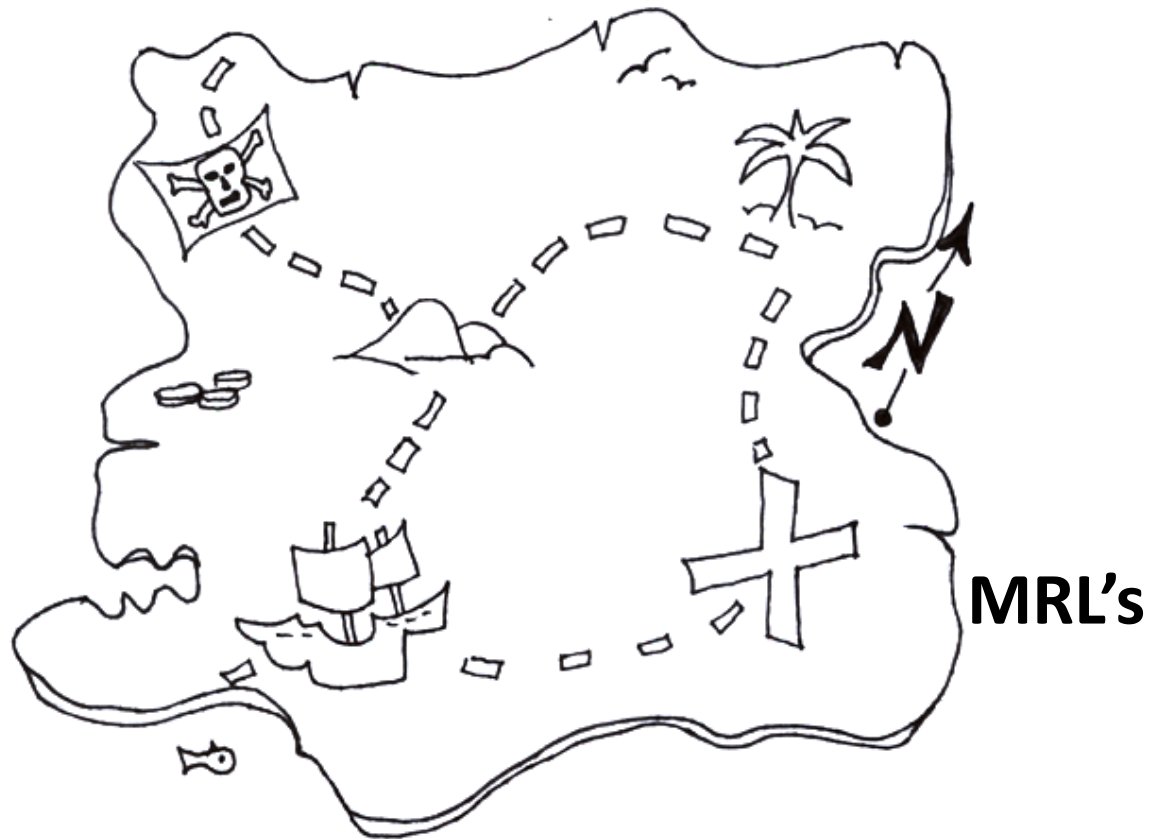


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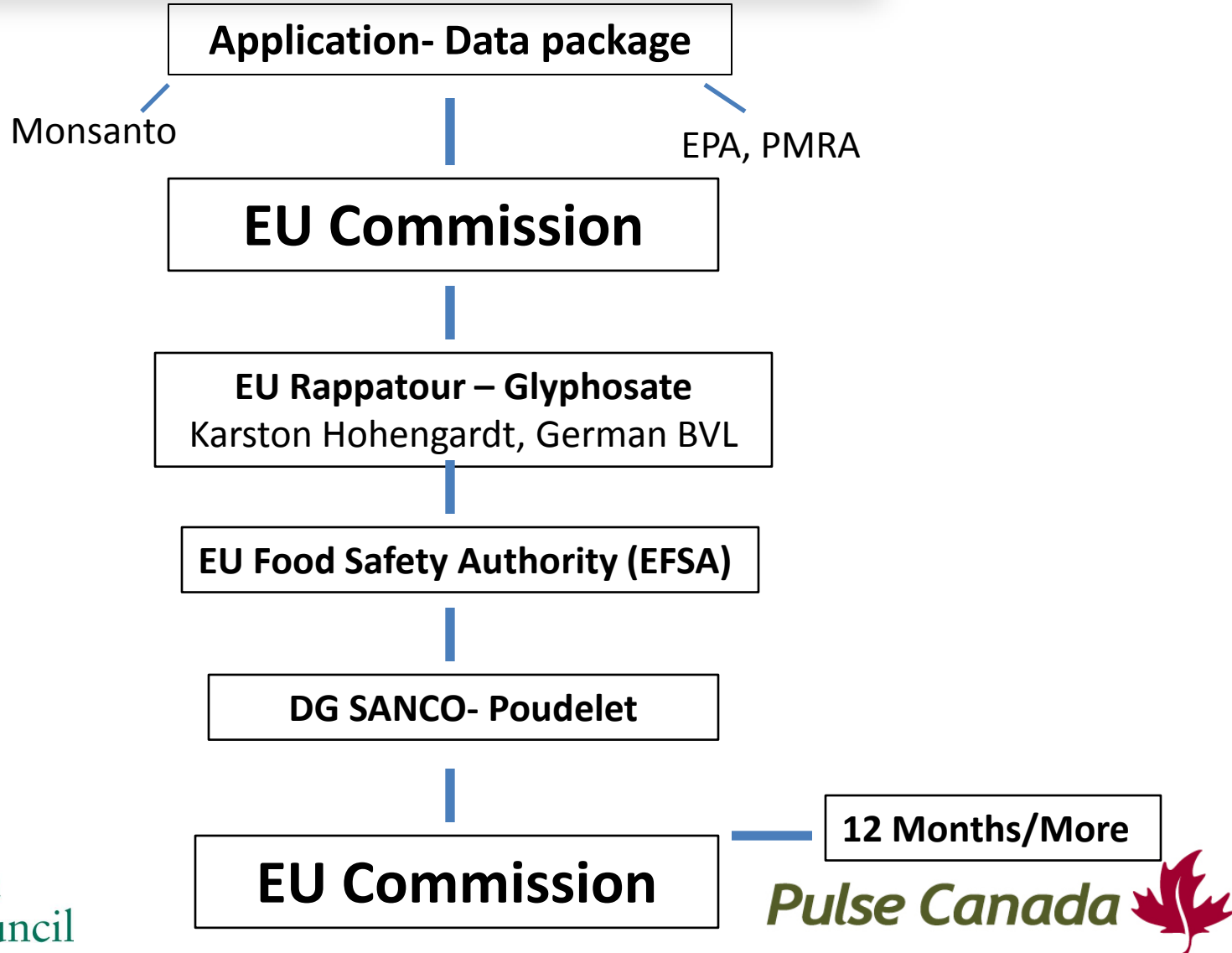
25% of US Lentils go to EU



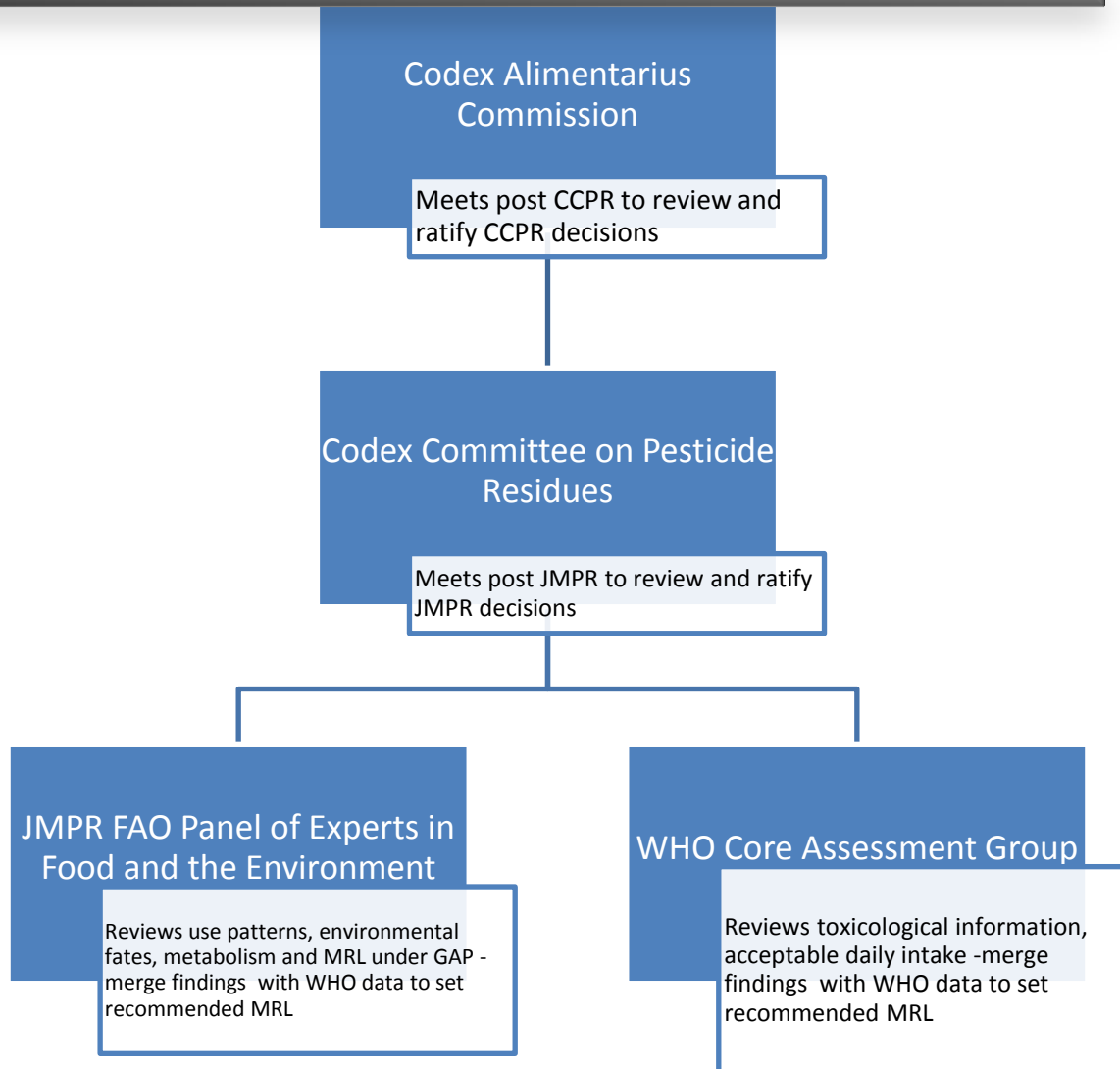
Where did we go from there?



EU MRL Process



Codex Approval Process



Codex Glyphosate MRL Lentils



- **Codex CPR**
- **April 25, 2012 3:15 Shanghai Time**

Mission Accomplished!

- Glyphosate MRL in Lentils
- Residue research for Glyphosate in Lentils
- MRL Priorities in Codex

Crop	Codex	EU	Canada	US
Lentils	5	10	4	8
Peas	5	10	5	8
Beans	5	2	2	5
Canola	10	10	10	20
Wheat	10	10	5	30
Barley	10	20	10	30
Wild Mushroom		50		

What could this have cost?

- 25% of North American Lentil Market
 - Canada and USA
 - Nearly \$30 Million in 2012—Farmgate value
- Loss of reputation of crop
 - Cost to rebuild market
 - Spillover into other pulses
- Decline in grower profits
- Loss in acres
- Sustainability of system

What did it cost?

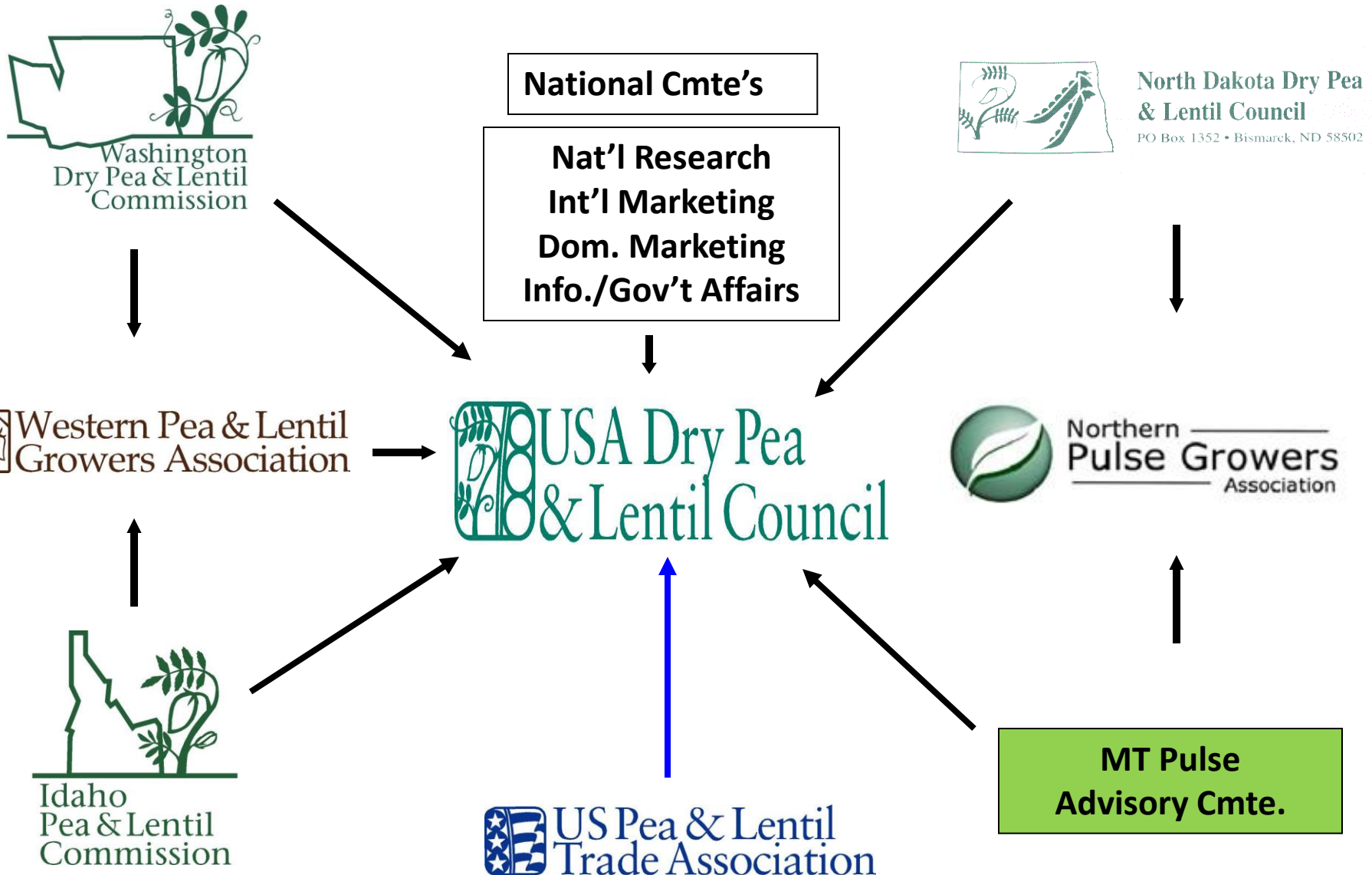
- EPA effort
- Registrant effort
- Access to markets—
management
- Grower Costs
 - Access to Glyphosate—for
growers
 - Residue trials on Lentils
 - Multiple trips to visit EU
 - Trip to Codex CPR in China



Who pays?

- Growers
- Trade
- Governments
 - EPA
 - USDA-ARS
 - IR-4
 - FAS
- Registrants
- Universities

USADPLC Organizational Structure



Just When We Thought It Was Safe!

- 2,4-D on Lentils!!
 - Japan refused shipment
 - Probably Drift
 - Presented an Action Plan

Costs of MRLs are Great!

- **Access** to markets
- **Access** to products
and ultimately----
- **Access** to nutritious food for the
world



Thank you, are there any questions?