# The EU:
## Legislative and Regulatory Developments of Plant Protection Products

2012 MRL Workshop
San Francisco, June 05, 2012
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BASF
The Chemical Company

# Outline

- Regulation (EC) No 1107/2009 – Basic regulation
- Regulation (EC) No 396/2005
  - History, Basics and Procedure
  - Maximum residue levels (MRLs): Definition and setting
  - MRL classes
- What is the reason for different MRLs around the globe?
- Monitoring of pesticide residues in the EU
  - MRL exceedances and multiple residue findings
- Perceived and real risks of pesticide residues
- NGO campaigns in the EU and supermarket reactions

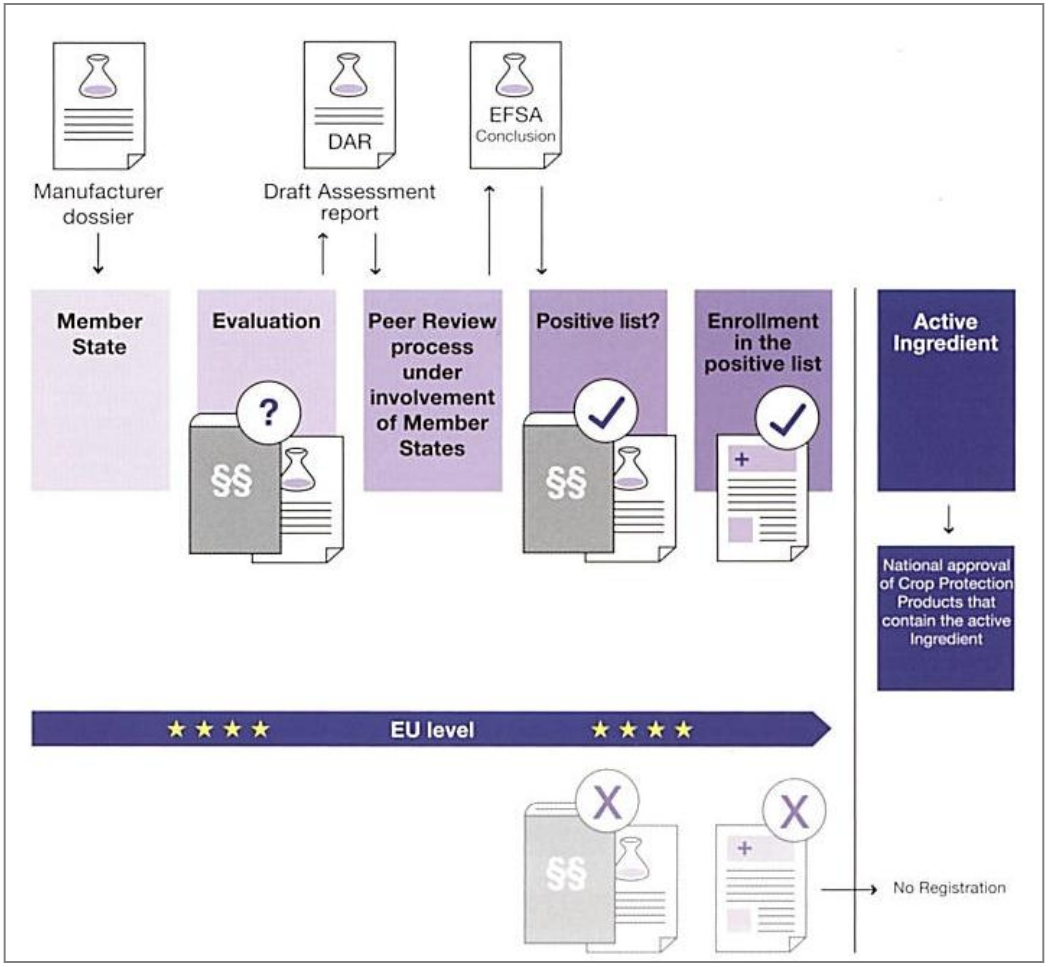
# Regulation (EC) No 1107/2009 – Regulation on placing of Plant Protection Products on the market

**Basic Regulation for plant protection products in the European Union is Regulation (EC) No 1107/2009**

Active ingredients are registered on EU level

Products are registered on country level

New in EU:
Introduction of hazard based approved criteria
(CMR , POP, PBT, ED, …)
…




Link: Regulation (EC) No 1107/2009; http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2009:309:0001:0050:EN:PDF

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# Historical background of EU MRLs

**No harmonization** of MRLs
**No harmonization** of crop and crop groups
**No harmonization** of residue definitions
**No harmonization** of risk assessment approaches

| 76/895/EEC | 86/362/EEC | 86/363/EEC | 90/642/EEC |
|---|---|---|---|
| Framework | Cereals | Animal Products | Fruits, Vegetables |



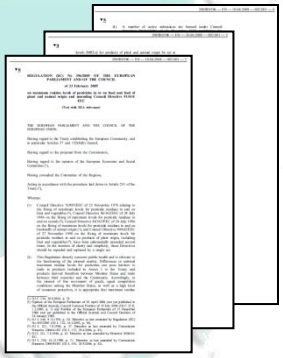

Existing EU MRL **Directives** are repealed and replaced by

EU MRL **Regulation** (EC) No 396/2005

Link: Regulation (EC) No 396/2005; http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CONSLEG:2005R0396:20080410:EN:PDF

# Regulation (EC) No 396/2005 – Basics

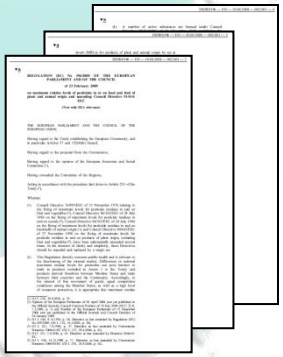
- Regulation: directly applicable
  → consolidation of existing four directives into one single act
- Lists of all EU MRLs
  → default value 0.01 mg/kg for all pesticides not listed
  → Member States will not set national MRLs anymore
- Responsibilities of Commission (= risk management), EFSA (= risk assessment) and Member States clearly defined
- High level of consumer protection



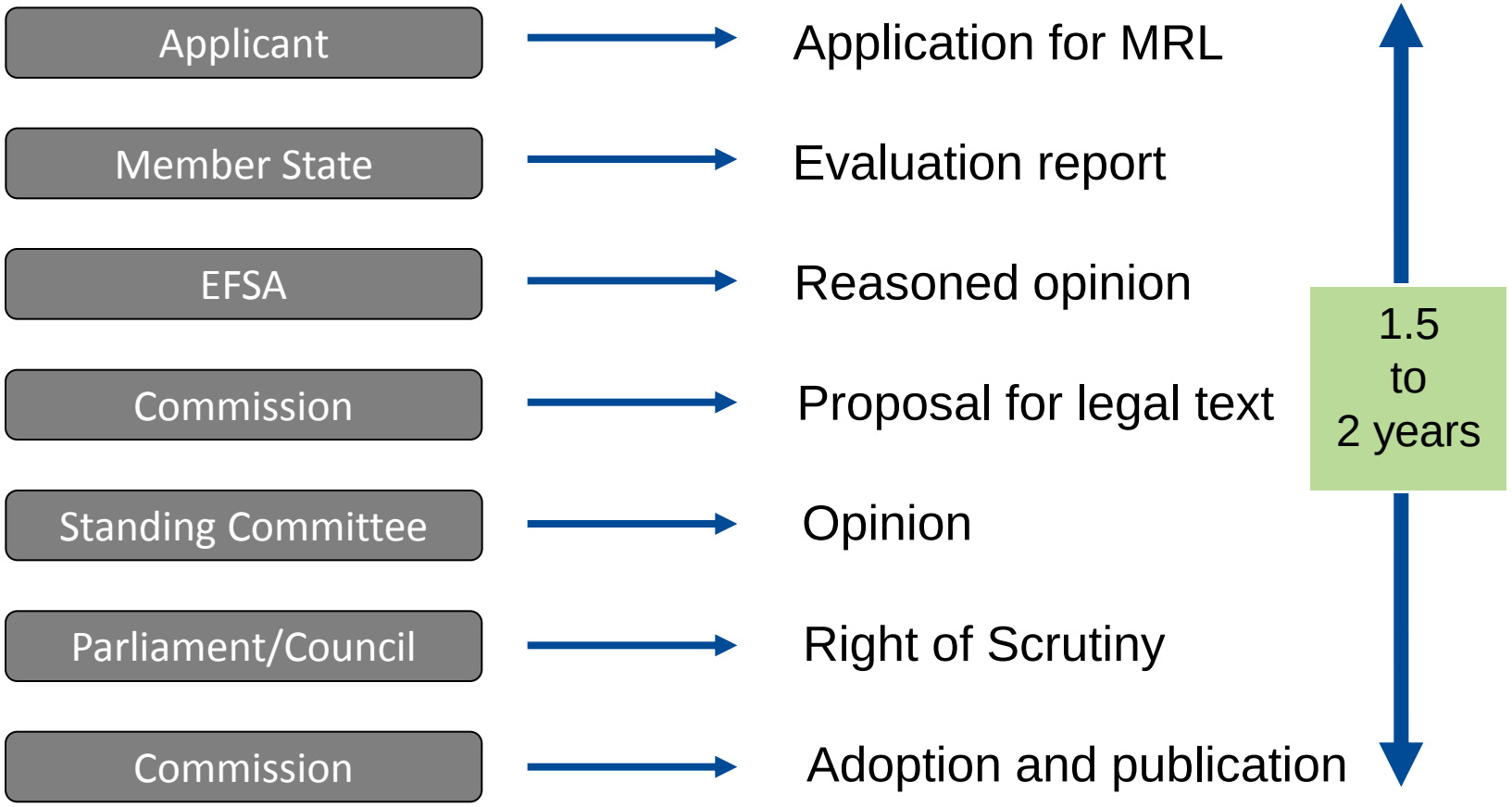
**→ MRLs are now harmonized within the European Union!**

# Regulation (EC) No 396/2005 – Basics

- Applicable for food and feed of plant and animal origin
- Clear rules for the establishment of import tolerances (e.g. crop not grown in the EU, higher MRLs necessary due to different pest pressure)
- CODEX CXLs will be taken into account
- ALARA principle
  As Low As Reasonable Achievable
- Simplification
  500.000 national MRLs → 100.000 EU MRLs



# Regulation (EC) No 396/2005 – Procedure



# What is a maximum residue level (MRL)?

‘Maximum residue level’ (MRL) means
the upper legal level
of a concentration for a pesticide residue
in or on food or feed
set in accordance with this Regulation,
based on good agricultural practice and
the lowest consumer exposure necessary to protect
vulnerable consumers.

Source: Regulation (EC) No 396/2005

➔ **MRLs are not toxicological safety limits!**

# How is an EU MRL derived?

- An MRL is set for a defined combination of a crop and an active ingredient (according to the residue definition)
- The application must be justified by biological efficacy results
- Defined number of residue trials conducted according to the critical Good Agricultural Practice (GAP)
  - *Major crop*: 16 trials (8 N-EU and 8 S-EU in 2 years, e.g. citrus)
  - *Minor crop*: 8 trials (4 N-EU and 4 S-EU in 2 years, e.g. almond)
- Residue trials run according to a particular GAP
  - Max application rate
  - Timing of application
  - Max number of applications
  - Minimum spray interval between applications
  - Shortest Pre-Harvest Interval (PHI)

# How is an EU MRL derived?

- MRLs are always set for the tradable commodity (e.g. unpeeled banana / orange fruits, wheat grain, soybean seeds) and not for the product as consumed
- Extrapolation within defined boundaries is possible!
- Statistical evaluation and rounding to next higher MRL level

Database on EU Pesticide Residue MRLs

- Information on Active Substances (Regulation (EC) No 1107/2009)
- Information on Pesticide EU-MRLs (Regulation (EC) No 396/2005)

http://ec.europa.eu/sanco_pesticides/public/index.cfm

# Example for tradable commodity

| Code number (1) | Groups to which the MRLs apply | Examples of individual products within the groups to which the MRLs apply | Scientific Name (2) | Examples of related varieties or other products included in the definition to which the same MRL applies | Parts of the products to which the MRLs apply |
|---|---|---|---|---|---|
| 0100000 | 1. FRUIT FRESH OR FROZEN; NUTS | | | | |
| 0110000 | (i) **Citrus fruit** | | | | Whole product |
| 0110010 | | Grapefruit | *Citrus paradisi* | Shaddocks, pomelos, sweeties, tangelo, ugli and other hybrids | |
| 0110020 | | Oranges | *Citrus sinensis* | Bergamot, bitter orange, chinotto and other hybrids | |
| 0110030 | | Lemons | *Citrus limon* | Citron, lemon | |
| 0110040 | | Limes | *Citrus aurantifolia* | | |
| 0110050 | | Mandarins | *Citrus reticulata* | Clementine, tangerine and other hybrids | |
| 0110990 | | Others (3) | | | |
| 0120000 | (ii) **Tree nuts** (shelled or unshelled) | | | | Whole product after removal of shell (except chestnuts) |

Source:
Regulation (EC) No 396/2005
Excerpt of Annex I

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# Extrapolation

Excerpt of Table 3: Extrapolation of active substances used up to or close to harvest

| 1. GROUPS OF CROPS | 2. MAJOR CROPS | 3. EXTRAPOLATION | | |
|---|---|---|---|---|
| | | A) CROPS | B) DIRECTION | C) POSSIBLE EXTRAPOLATION |
| **1. FRUIT; NUTS** | | | | |
| (i) Citrus fruit | Lemons<br>Mandarins (including clementines and similar hybrids)<br>Oranges<br>Grapefruits | **Oranges or oranges and grapefruits (8 trials, with a minimum of four trials on oranges) and mandarins and/or lemons (8 trials)** | → | Whole group |
| (ii) Tree nuts (shelled or unshelled) | | **Any two representative ("closed nuts" and "open nuts" e.g. cashew nuts, pistachios) with the exception of coconuts (6 trials)** | → | **Whole group** |
| | | **Any "closed nut"with the exception of coconuts (4 trials)** | → | **"Closed nuts"** |

Source: SANCO 7525/VI/95 – rev. 9, March 2011
Guidance Document – Guidelines on comparability, extrapolation, group tolerances and data requirements for setting MRLs
http://ec.europa.eu/food/plant/protection/resources/app-d.pdf

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# MRL classes and rounding procedure

- MRLs consists of classes with **one significant digit** (except for MRL classes at 0.015 mg/kg, 0.15 mg/kg, 1.5 mg/kg)
- The calculated MRLs are rounded up to the next higher MRL class unless the next lower MRL class is exceeded by less than 10% of the increment between the two classes.

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 0.01 | 0.015 | 0.02 | 0.03 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 | mg/kg |
| 0.1 | 0.15 | 0.2 | 0.3 | 0.4 | 0.5 | 0.6 | 0.7 | 0.8 | 0.9 | mg/kg |
| 1 | 1.5 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | mg/kg |
| 10 | 15 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | mg/kg |
| 100 | 150 | 200 | … | | | | | | | mg/kg |

➔ **MRL classes are now harmonized in the EU and NAFTA**

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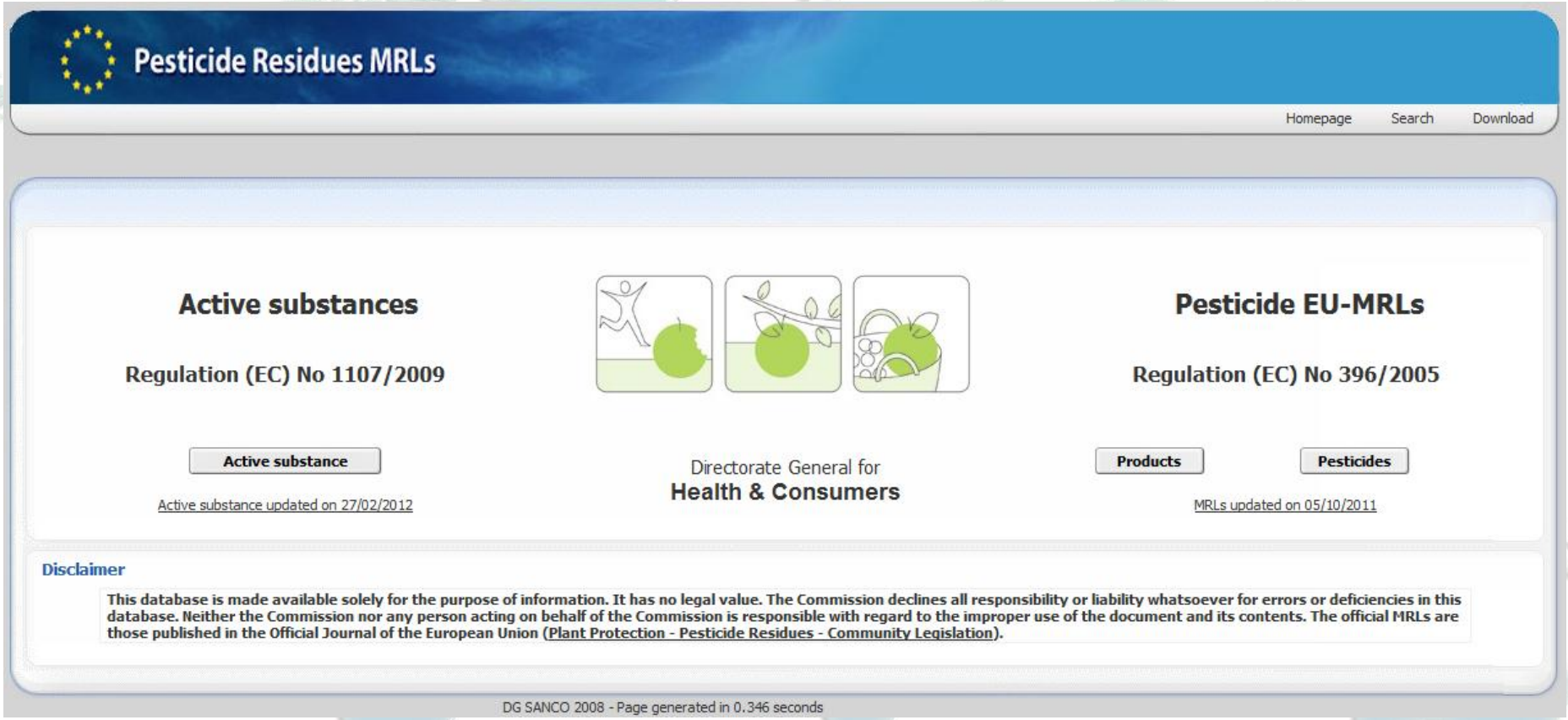
# Pesticide Residues MRLs




Link: http://ec.europa.eu/sanco_pesticides/public/index.cfm

# MRLs and consumer safety

- MRLs are derived from the good agricultural practice, not from toxicological endpoints, but…
- MRLs are set as low as reasonably achievable (ALARA principle) to protect vulnerable consumers (precautionary principle)
- US: No detectable residues allowed if no MRL has been set
- EU: In case no specific MRL has been set, a default MRL applies (set at the limit of quantification (LOQ), e. g. 0.01 mg/kg)

  This applies to all substances previously used or considered to be plant protection products (e. g. biphenyl)

➔ **Default MRLs are the main reason for MRL exceedances!**

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# Why are there different MRLs around the Globe?

- MRLs are set on regional/country GAPs
- Different residue definition in the regions
- Disharmony of crop grouping
- Not all commodities are grown everywhere
- Not all pesticide are registered everywhere
- Residues can be higher in one country than in the other
- Different dietary risk assessments
  - Chronic
  - Acute

# Different diets…

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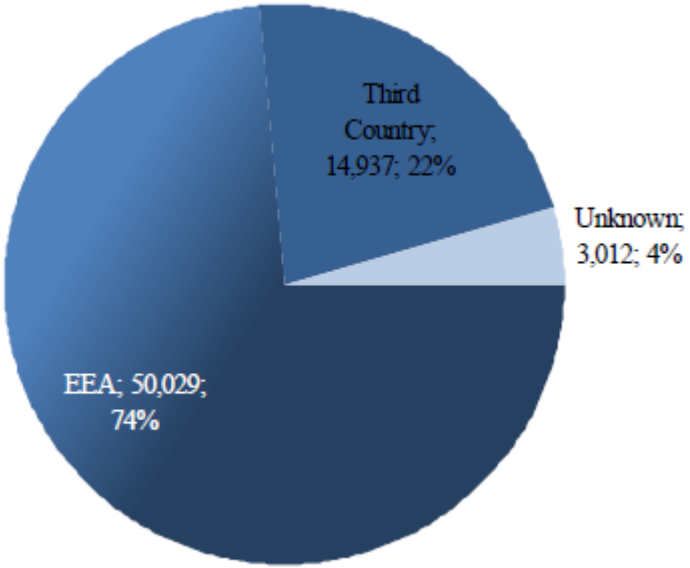
# Monitoring in the EU
# 2009 ESFA Annual Report

- In November 2011 EFSA published its Annual Report on Pesticide Residues (with data from the year 2009)
- Reporting countries: 27 EU member states plus Norway and Iceland
- Data from national programmes and the EU coordinated programme
  - 66,550 surveillance samples (national programmes)
  - 1,428 enforcement samples (national programmes)
  - 10,553 samples from EU coordinated programme
- ~ 300 different food commodities analysed
- 834 different pesticides covered with analytical methods
- 338 different pesticides detected in fruit and vegetables

*Source: The 2009 European Union Report on Pesticide Residues in Food; http://www.efsa.europa.eu/de/efsajournal/doc/2430.pdf*

# EU and national control programs 2009 Origin of samples




EU + national control program
- Origin of samples (reporting countries) surveillance and enforcement

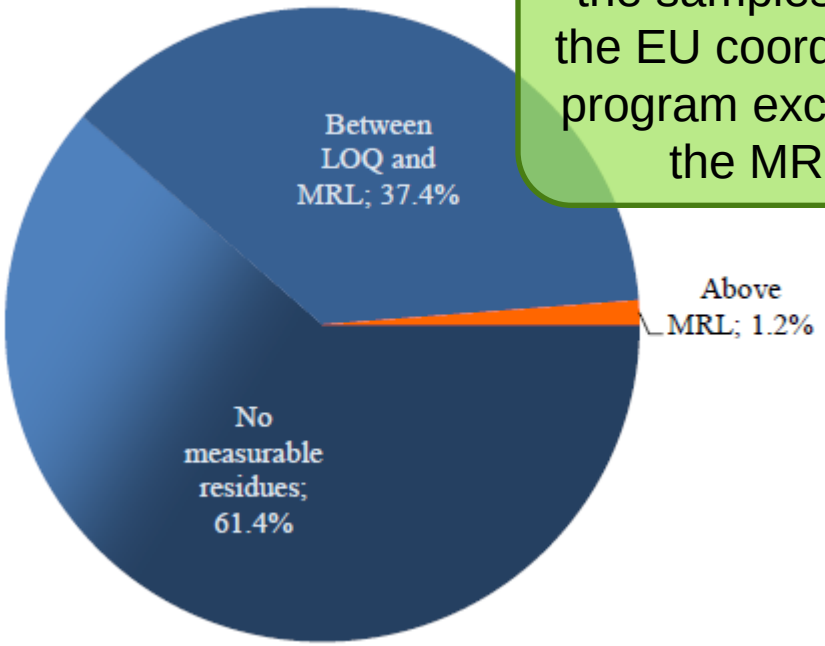
| Sample origin | Number of samples | Above MRL | % | LCL[a] | UCL[b] |
|---|---|---|---|---|---|
| EEA | 49448 | 719 | 1.5 | 1.4 | 1.6 |
| Third country | 14181 | 982 | 6.9 | 6.5 | 7.4 |
| Unknown | 2921 | 39 | 1.3 | 1.0 | 1.8 |
| **Total** | **66550** | **1740** | | | |

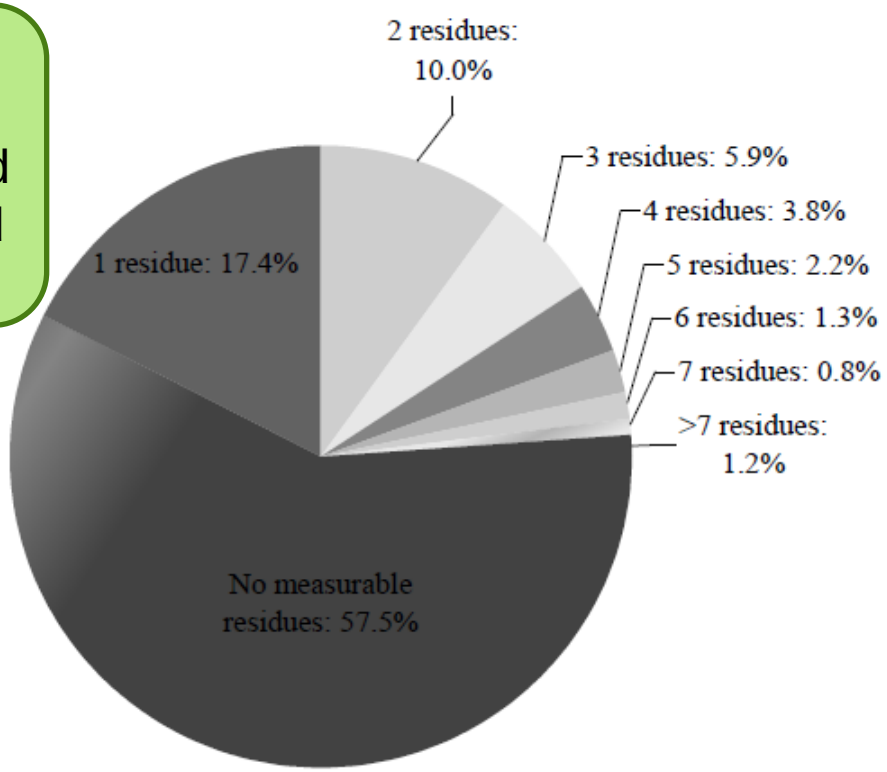
EU + national control program
Exceedances of EU MRLs according to origin of sample (surveillance)

*Source: The 2009 European Union Report on Pesticide Residues in Food; http://www.efsa.europa.eu/de/efsajournal/doc/2430.pdf*

# MRL exceedances and multiple residue findings

In 2006 4.4 % of the samples form the EU coordinated program exceeded the MRL



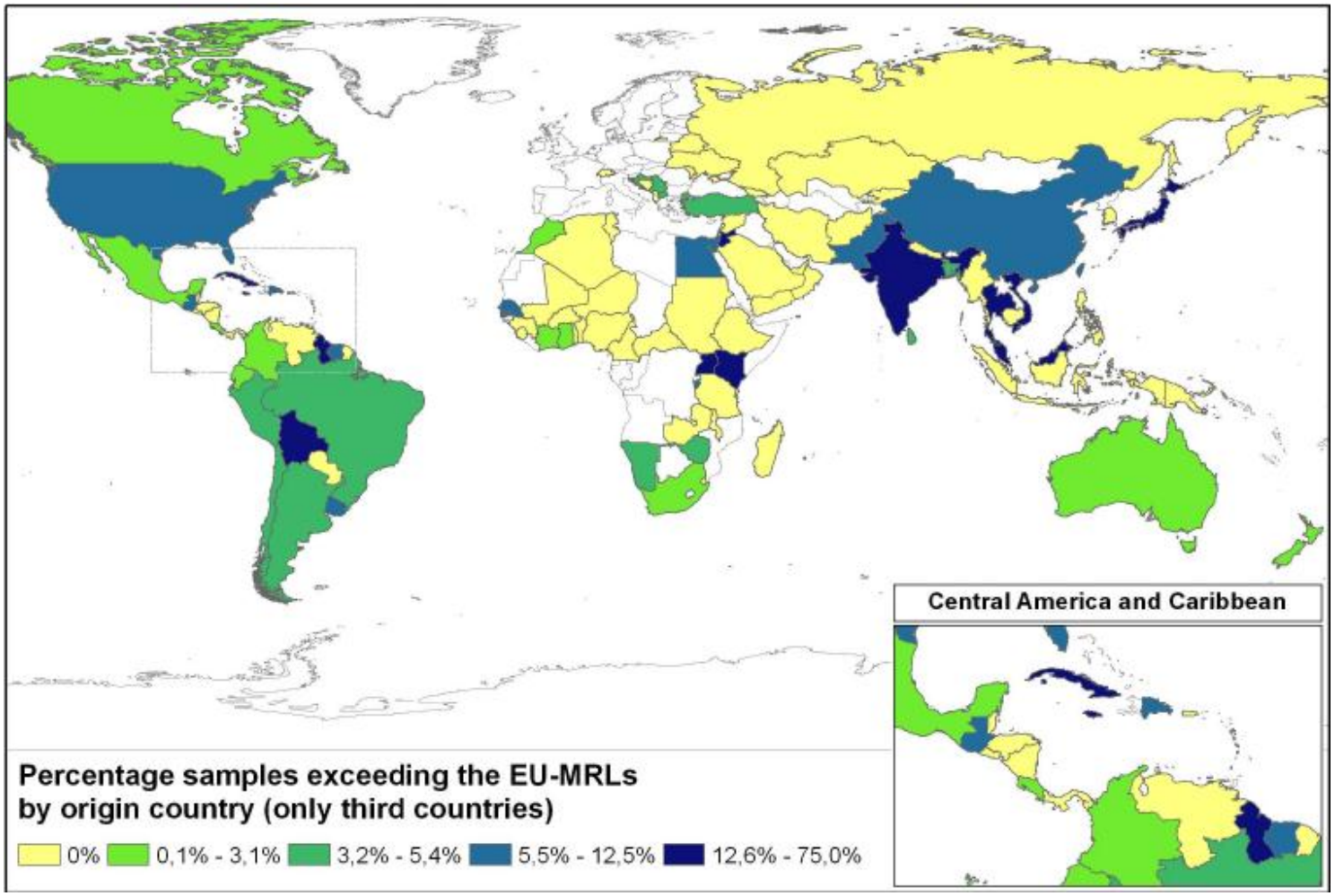




EU coordinated program
- Overall frequency of samples with and without measureable residues in 2009

EU + national control program
- Number of residues found in individual surveillance samples in 2009

*Source: The 2009 European Union Report on Pesticide Residues in Food; http://www.efsa.europa.eu/de/efsajournal/doc/2430.pdf*

# Percentage of surveillance samples exceeding the EU-MRLs by origin country (only third countries)




*Source: The 2009 European Union Report on Pesticide Residues in Food; http://www.efsa.europa.eu/de/efsajournal/doc/2430.pdf*

# Summary of analyzed samples originating from United States

Surveillance

| Country of origin | No. of samples | Samples with no measurable residues | | | | Samples with residues below or at the MRL | | | | Samples with residues above the MRL | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | No. | % | LCL[a] | UCL[b] | No. | % | LCL[a] | UCL[b] | No. | % | LCL[a] | UCL[b] |
| Ukraine | 26 | 23 | 88.5 | 70.8 | 95.8 | 3 | 11.5 | 4.2 | 29.2 | 0 | 0.0 | 0.0 | 10.5 |
| United Arab Emirates | 1 | 1 | 100.0 | 22.4 | 100.0 | 0 | 0.0 | 0.0 | 77.6 | 0 | 0.0 | 0.0 | 77.6 |
| United Kingdom | 1951 | 1360 | 69.7 | 67.6 | 71.7 | 584 | 29.9 | 27.9 | 32.0 | 7 | 0.4 | 0.2 | 0.7 |
| United States | 327 | 136 | 41.6 | 36.4 | 47.0 | 166 | 50.8 | 45.4 | 56.2 | 25 | 7.7 | 5.2 | 11.1 |
| Unknown | 2566 | 1705 | 66.5 | 64.6 | 68.3 | 829 | 32.3 | 30.5 | 34.1 | 32 | 1.3 | 0.9 | 1.8 |
| Uruguay | 72 | 25 | 34.7 | 24.8 | 46.3 | 42 | 58.3 | 46.8 | 69.0 | 5 | 6.9 | 3.1 | 15.3 |
| Venezuela | 1 | 0 | 0.0 | 0.0 | 77.6 | 1 | 100.0 | 22.4 | 100.0 | 0 | 0.0 | 0.0 | 77.6 |
| Vietnam | 83 | 50 | 60.2 | 49.5 | 70.1 | 21 | 25.3 | 17.2 | 35.6 | 12 | 14.5 | 8.5 | 23.6 |
| Yemen | 2 | 2 | 100.0 | 36.8 | 100.0 | 0 | 0.0 | 0.0 | 63.2 | 0 | 0.0 | 0.0 | 63.2 |
| Zambia | 38 | 31 | 81.6 | 66.5 | 90.7 | 7 | 18.4 | 9.3 | 33.5 | 0 | 0.0 | 0.0 | 7.4 |
| Zimbabwe | 20 | 9 | 45.0 | 25.7 | 66.0 | 10 | 50.0 | 29.8 | 70.2 | 1 | 5.0 | 1.2 | 23.8 |

(a): Lower confidence limit; (b): Upper confidence limit

Enforcement

| Country of origin | No. of samples | Samples with no measurable residues | | | | Samples with residues below or at the MRL | | | | Samples with residues above the MRL | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | No. | % | LCL[a] | UCL[b] | No. | % | LCL[a] | UCL[b] | No. | % | LCL[a] | UCL[b] |
| United Kingdom | 1 | 0 | 0.0 | 0.0 | 77.6 | 0 | 0.0 | 0.0 | 77.6 | 1 | 100.0 | 22.4 | 100.0 |
| United States | 55 | 4 | 7.3 | 3.0 | 17.3 | 24 | 43.6 | 31.3 | 56.8 | 27 | 49.1 | 36.3 | 62.0 |
| Unknown | 78 | 26 | 33.3 | 23.9 | 44.4 | 41 | 52.6 | 41.6 | 63.3 | 11 | 14.1 | 8.1 | 23.6 |
| Uruguay | 2 | 1 | 50.0 | 9.4 | 90.6 | 0 | 0.0 | 0.0 | 63.2 | 1 | 50.0 | 9.4 | 90.6 |
| Vietnam | 5 | 4 | 80.0 | 35.9 | 95.7 | 0 | 0.0 | 0.0 | 39.3 | 1 | 20.0 | 4.3 | 64.1 |

(a): Lower confidence limit; (b): Upper confidence limit

*Source: The 2009 European Union Report on Pesticide Residues in Food; http://www.efsa.europa.eu/de/efsajournal/doc/2430.pdf*

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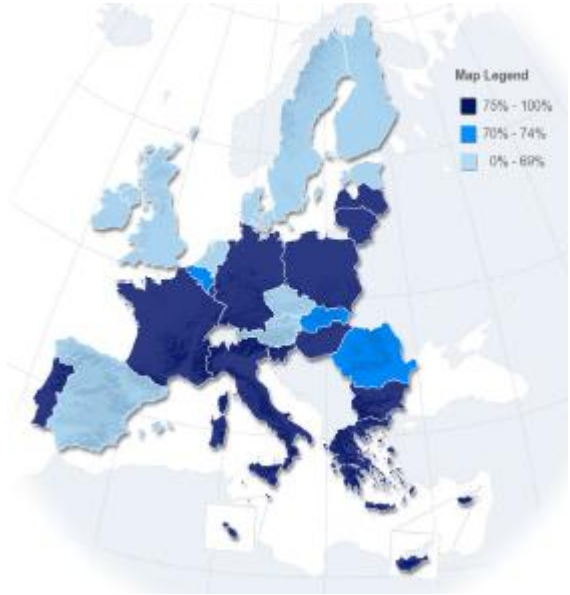
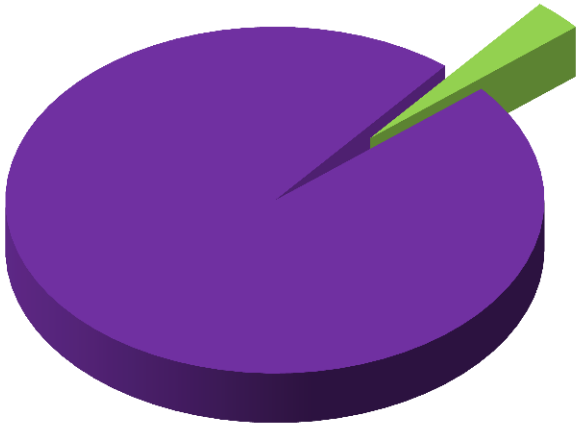
# Perceived and real risk Survey (EU) and RASFF




- 72 % of the population of the EU are worried about pesticide residues in food
  - Netherlands & United Kingdom: 53 %
  - Greece: 91 %

Source: EU, Special Eurobarometer 11/2010
http://ec.europa.eu/public_opinion/archives/ebs/ebs_354_sum_en.pdf



- RASFF Annual Report 2010
- 576 Alert Notifications
  - 152 cases: potentially pathogenic microorganisms (26 %)
  - 68 cases: heavy metals (12 %)
  - 52 cases: allergens (9 %)
  - 47 cases: mycotoxins (8 %)
  - …
  - 19 cases: pesticide residues (3 %)

Source: The Rapid Alert System for Food and Feed (RASFF) – Annual Report 2010
http://ec.europa.eu/food/food/rapidalert/docs/rasff_annual_report_2010_en.pdf

# Alerts based on pesticide residues for produce originating from the US

Search criteria | **Hazard category** pesticide residues | **Origin country** UNITED STATES (US)

<< First << << Previous 100 << Notifications **1 to 18** of 18 >> Next 100 >> >> Last >>

| | Classification | Date of case | Last change | Reference | Country | Subject | Product Category | Type |
|---|---|---|---|---|---|---|---|---|
| 1. | border rejection | 22/12/2011 | 22/12/2011 | 2011.CSL | ES | glyphosate (0.28 mg/kg - ppm) in lentils from the United States | fruits and vegetables | food |
| 2. | information for follow-up | 08/04/2011 | 15/09/2011 | 2011.0467 | DE | glyphosate (2.4 mg/kg - ppm) in green lentils from the United States, via Turkey | fruits and vegetables | food |
| 3. | border rejection | 07/01/2010 | 26/01/2012 | 2010.ABC | FI | endosulfan (0.34 mg/kg - ppm) in apples from the United States | fruits and vegetables | food |
| 4. | border rejection | 11/12/2009 | 09/01/2012 | 2009.CCO | FI | azinphos-methyl (0.16 mg/kg - ppm) and diazinon (0.025 mg/kg - ppm) in apples from the United States | fruits and vegetables | food |
| 5. | border rejection | 11/12/2009 | 09/01/2012 | 2009.CCN | FI | azinphos-methyl (0.22 mg/kg - ppm) and diazinon (0.024 mg/kg - ppm) in apples from the United States | fruits and vegetables | food |
| 6. | border rejection | 11/12/2009 | 09/01/2012 | 2009.CCM | FI | azinphos-methyl (0.14 mg/kg - ppm) and diazinon (0.03 mg/kg - ppm) in apples from the United States | fruits and vegetables | food |
| 7. | border rejection | 11/12/2009 | 09/01/2012 | 2009.CCI | FI | azinphos-methyl (0.11 mg/kg - ppm) in apples from the United States | fruits and vegetables | food |
| 8. | border rejection | 09/12/2009 | 09/01/2012 | 2009.CCF | FI | azinphos-methyl (0.17 mg/kg - ppm) in apples from the United States | fruits and vegetables | food |
| 9. | border rejection | 09/12/2009 | 09/01/2012 | 2009.CCE | FI | azinphos-methyl (0.18 mg/kg - ppm) and carbaryl (0.13 mg/kg - ppm) in apples from the United States | fruits and vegetables | food |
| 10. | border rejection | 24/11/2009 | 24/11/2009 | 2009.BZV | FI | azinphos-methyl (0.14 mg/kg - ppm) and diazinon (0.1 mg/kg - ppm) in apples from the United States | fruits and vegetables | food |
| 11. | information | 20/01/2009 | 10/01/2011 | 2009.0058 | IE | methomyl (0.09 - 0.06 mg/kg - ppm) in Crimson seedless bagged table grapes from the United States | fruits and vegetables | food |
| 12. | information | 24/11/2008 | 10/01/2011 | 2008.1491 | GB | methomyl (0.1 mg/kg - ppm) in grapes from the United States | fruits and vegetables | food |
| 13. | information | 02/07/2008 | 05/08/2010 | 2008.0796 | BE | carbaryl (0.16; 0.1 mg/kg - ppm) in fresh oranges from the United States | fruits and vegetables | food |
| 14. | information | 21/01/2008 | 06/02/2012 | 2008.0064 | GB | carbaryl (0.2 mg/kg - ppm) in peaches from the United States | fruits and vegetables | food |
| 15. | information | 14/03/2007 | 19/10/2007 | 2007.AQV | CY | chlorpropham (0.038 mg/kg - ppm) in baby food from the United States | dietetic foods, food supplements, fortified foods | food |
| 16. | information | 27/01/2006 | | 2006.AGU | FR | chlorpyriphos (0.1 mg/kg - ppm) in almonds powder from the United States via Spain | nuts, nut products and seeds | food |
| 17. | alert | 08/12/1999 | | 1999.92 | DE | raticide in almonds | nuts, nut products and seeds | Food |
| 18. | alert | 23/02/1984 | | 1984.07 | DE | ethylene dibromide in Cereals treated | cereals and bakery products | Food |

Source: RASFF Portal. https://webgate.ec.europa.eu/rasff-window/portal/

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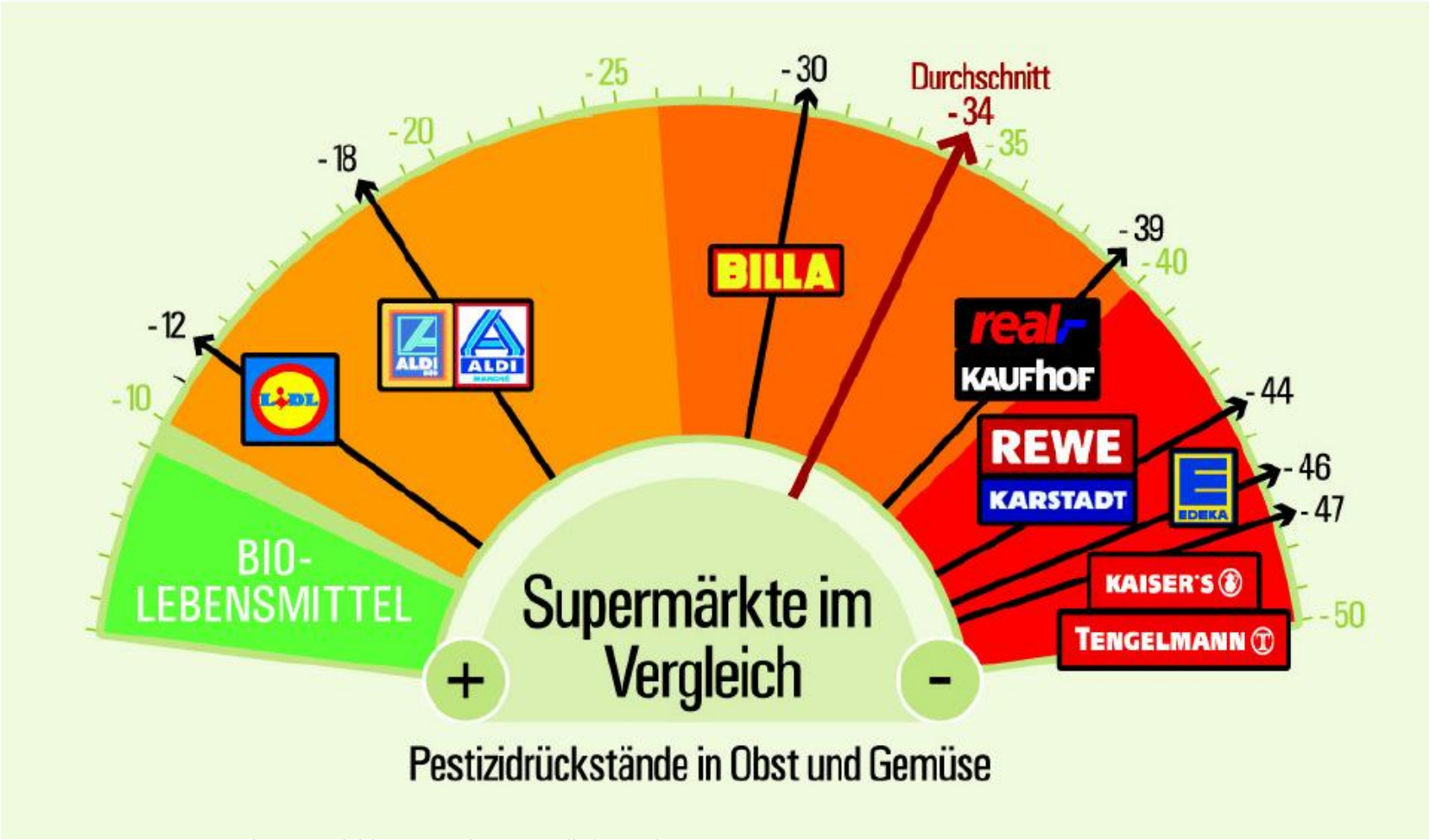
- What is the reason for different MRLs around the globe?
- Monitoring of pesticide residues in the EU
  - MRL exceedances and multi-residue findings
- Perceived and real risks of pesticide residues
- NGO campaigns in the EU and supermarket reactions

# NGO pressure on the food value chain




Source: Greenpeace – Essen ohne Pestizide 2007 Hintergrundinformationen.
http://www.greenpeace.de/fileadmin/gpd/user_upload/themen/umweltgifte/Hintergrund_Sumatra_2007.pdf

# Supermarket reaction in Germany
# Tighter specifications

- max. 3–5 a.i./sample
- max. 70% of the MRL (individual a.i.)
- max. 80% of the MRL (cumulative)
- max. 80% ARfD-utilization (cumulative)

- max. 33.3% of the MRL (individual a.i.)
- max. 100% ARfD-utilization (cumulative)

- max. 5 a.i./sample
- max. 80% of the MRL (cumulative)
- max. 80% ARfD-utilization (individual a.i.)

- max. 70% of the MRL (individual a.i.)
- max. 50% of the MRL (individual a.i., own brand)

- max. 70% of the MRL (individual a.i.)
- max. 70% ARfD-utilization (individual a.i.)
- Blacklist

- max. 3–5 a.i./sample
- max. 70% of the MRL (cumulative)
- max. 70% ARfD-utilization (cumulative)

***Secondary standards focus on residues and are well established!***

ARfD = acute reference dose
MRL = maximum residue level
Source: UNIVEG 2009, ECPA 2009

# Supermarket reaction in Germany
# Increased testing (QS scheme)

| Product | Risk group | Wholesale: one sample per ...t QS tradedproduce; but at least one sample | Multi methods | Dithiocarbamates | inorganic total bromide | Nitrate | Chlormequat / Mepiquat | Dithianon | Dodine | Ethephon | Phenoxyalkyl carbonic acid | Phenylhureae |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **1. FRUITS FRESH OR FROZEN; NUTS** | | | | | | | | | | | | |
| **i) Citrus fruit** | | | | | | | | | | | | |
| Grapefruit (Shaddocks, pomelos, sweeties, tangelo, mineola, ugli and other hybrids, bergamot, bitter orange, chinotto and other hybrids) | 5 | 500 | x | | | | | | | | O(2,4-D) | |
| *Grapefruit (Shaddocks, pomelos, sweeties, tangelo, mineola, ugli and other hybrids, bergamot, bitter orange, chinotto and other hybrids); (Asia+Southern Africa)* | 7 | 180 | x | | | | | | | | O(2,4-D) | |
| Oranges | 4 | 625 | x | | | | | | | | O(2,4-D) | |
| Lemons | 4 | 625 | x | | | | | | | | O(2,4-D) | |
| Limes | 7 | 180 | x | | | | | | | | O(2,4-D) | |
| Mandarins (Clementine, tangerine and other hybrids) | 5 | 500 | x | | | | | | | | O(2,4-D) | |
| Others | 7 | 180 | x | | | | | | | | O(2,4-D) | |
| **(ii) Tree nuts (shelled or unshelled)** | | | | | | | | | | | | |
| Almonds | 1 | 2500 | x | | | | | | | | | |
| Brazil nut | 1 | 2500 | x | | | | | | | | | |
| Cashew nut | 1 | 2500 | x | | | | | | | | | |
| Chestnut | 3 | 833 | x | | x | | | | | | | |
| Coconut | 1 | 2500 | x | | | | | | | | | |
| Hazelnut | 1 | 2500 | x | | | | | | | | | |
| Macadamia nut | 1 | 2500 | x | | | | | | | | | |
| Pecans | 1 | 2500 | x | | | | | | | | | |
| Pine nuts | 1 | 2500 | x | | | | | | | | | |
| Pistacio | 1 | 2500 | x | | | | | | | | | |
| Walnut | 4 | 625 | x | | | | | | | | | |
| Peanut | 1 | 2500 | x | | | | | | | | | |
| Others | 4 | 625 | x | | | | | | | | | |

Source: QS. Quality scheme for food. http://www.q-s.de/dc_residue_monitoring_lab.html

# „Quality assurance schemes“

## Apple

| Wirkstoff /Substance | Gehalt /Residue [mg/kg] | HG /MRL [mg/kg] | AS HG /EH MRL [%] | VM /C [g] | VF | Aufnahme /Intake [mg/kg KG/BW | S ARfD ARfD [%] | Anzahl WS /No. of SB |
|---|---|---|---|---|---|---|---|---|
| Boscalid | 0,07 | 2 | 3,50 | 234,80 | 7 | 0 | - | 1 |
| Pirimicarb | 0,04 | - | - | 234,80 | 7 | | 4,10 | 0 |
| Pirimicarb (Summe) | 0,04 | 2 | 2,00 | 234,80 | 7 | | - | 1 |
| Pyraclostrobin | 0,02 | 0,3 | 6,67 | 234,80 | | 0,03 | 6,80 | 1 |
| | **Summe/Sum** | | **12,17** | | | **Summe/Sum** | **10,90** | **3** |
| | **Spez./Spec.** | **max.** | **80,00 %** | | | **Spez./Spec.** | **max. 80,00 %** | **max. 4** |

Das Erzeugnis entspricht den Anforderungen der ALDI-Spezifikation .
The present product complies with the ALDI specification .

| | | |
|---|---|---|
| Nr. 2.1 | Einhaltung des in der EU gültigen Höch<br>Compliance with the EU-MRLs: | Ja<br>Yes |
| Nr. 2.2 | Einhaltung der maximalen Anza<br>Compliance with the maxum es: | Ja<br>Yes |
| Nr. 2.3 | Einhaltung der akuten R den Einzelwirkstoff:<br>Compliance with the RfD) for the single substance: | Ja<br>Yes |
| Nr. 2.4 | Auslastung des<br>Utilization of t | |
| Nr. 2.4 | Einhaltun stung von 70% für den Einzelwirkstoff:<br>Compli utilization of 70% of the EU-MRLs (single substance): | Ja<br>Yes |
| Nr. 2.4 | Ei Auslastung des gesetzl. Höchstgehalts der<br>80% (Summe):<br>e maximum utilization of 80% of the EU-MRLs (sum): | Ja<br>Yes |
| Nr. 2. | maximalen Auslastung der ARfD-Werte von 80% (Summe):<br>with the maximum utilization of 80% of the ARfD-Level (sum): | Ja<br>Yes |

# United Kingdom
# TESCO‘s PPPL and its global impact

TESCO NATURES CHOICE
PLANT PROTECTION PRODUCT LIST

FINAL PPPL

Year 5 Final PPPL Approved 31st July 2009

Reference NC090714B
Previous PPPL Reference NC080717A
Audax

SECTION 1

| | |
|---|---|
| Primary supplier/s: | Griffin & Brand, Primafruit Ltd, A. Gomez, Grapes Direct Ltd, Richard Hochfeld Ltd, Keelings Multiples ROI, Subsole, Gesex, Rio Blanco |
| Product Group/Crop: | Table Grapes |
| Method of production: | Grapes grown in soil in vineyards |
| Country: | Chile |
| Third party verifier: | AUDAX |

| | |
|---|---|
| Date of issue: | 31/07/2009 |
| Final date for delivery to grower: | 21/08/2009 |
| Date of expiry: | 30/07/2010 |
| Authorising signature: | Matt Surgeon Griffin and Brand |

| Trade names (examples of) | Active Ingredient | Proposed Use | Manufacturers HI | Agreed HI | Comments | EU/ CODEX MRL mg/Kg | Condition of use | Crop |
|---|---|---|---|---|---|---|---|---|
| Cantus | Boscalid | Botrytis | 5 | 7 | Reg no: 2462 | 5 | | Table Grapes |
| Bellis | Boscalid + Pyraclostrobin | Botrytis, Oido, Mildew, Sour rot | 7 | 21 | REGISTERED SAG CHILE Nº 2543 SUIZA | 5 Boscalid 1 Pyraclostrobin | | Table Grapes |

- Nature‘s Choice: Plant Protection Product Lists (PPPL)
- Listing is specific for active ingredient, crop and region
- Audax is the company managing Tesco‘s pesticide policy

# Conclusions

- After implementation of regulation 396/2005/EC MRLs are harmonized across the EU
- Harmonized EU MRLs ease export to the EU
- For setting MRLs harmonized MRL classes are used in the EU and NAFTA

- Overall, MRL exceedances are decreasing
- Default MRLs are the main reason for MRL exceedances

- Growers need not only match legal standards (MRLs) but also „secondary standards“ set by supermarkets


BASF
The Chemical Company

# Links

**EU Pesticide Residue MRLs**
http://ec.europa.eu/sanco_pesticides/public/index.cfm

**EFSA The 2009 European Union Report on Pesticide Residue in Food**
http://www.efsa.europa.eu/en/efsajournal/pub/2430.htm

**Regulation 1107/2009/EC**
http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2009:309:0001:0050:EN:PDF

**Regulation 396/2005/EC**
http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CONSLEG:2005R0396:20080410:EN:PDF

**SANCO 7525/VI/95 – rev. 9, March 2011**
Guidance Document – Guidelines on comparability, extrapolation, group tolerances and data requirements for setting MRLs
http://ec.europa.eu/food/plant/protection/resources/app-d.pdf

**EU, Special Eurobarometer 11/2010**
http://ec.europa.eu/public_opinion/archives/ebs/ebs_354_sum_en.pdf

**The Rapid Alert System for Food and Feed (RASFF) – Annual Report 2010**
http://ec.europa.eu/food/food/rapidalert/docs/rasff_annual_report_2010_en.pdf

**RASFF Portal**
https://webgate.ec.europa.eu/rasff-window/portal/

**QS. Quality scheme for food.**
http://www.q-s.de/home_gb.html