MRL Policy and Regulation in Brazil

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Agenda of the Lecture

1) Pesticide Regulation in Brazil

2) New Brazilian Rules for MRLs Extrapolation (Minor Uses)

3) National Residues and Contaminants Control Program – NRCP

4) Brazilian Technical Group on Pesticides Residues (TGPR)
There is a Brazil that most people know

Amazon forest  Soccer  Carnival  Coffee

It keeps being successful, but there is still more to know
The Brazil you must know

Technology, Innovation, Competitiveness

A strong academic base
10,000 doctors trained every year
> 16,000 scientific papers
A growing intensity of industry R&D
Biggest exporter of beef and poultry
SUGARCANE
Brazilian Coffee
One country, many flavors
FRUITS: Diversity and Good Quality
MAJOR AGRICULTURAL PRODUCTS IN BRAZIL
GROSS VALUE OF PRODUCTION

Total: US$ 170 billion
BRAZILIAN AGRIBUSINESS EXPORTS
MAIN PRODUCTS – 2010*

Total: US$ 73.9 billion

Elaboration: Ministry of Agriculture
* From November 2009 to October 2010
BRAZILIAN AGRIBUSINESS EXPORTS
MAIN DESTINATIONS – 2010*

Total: US$ 73.9 billion

* From November 2009 to October 2010

Elaboration: Ministry of Agriculture
<table>
<thead>
<tr>
<th>Main Products</th>
<th>Production</th>
<th>Exports</th>
<th>Number of Markets</th>
<th>Exports US$ Billion</th>
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<tr>
<td>Sugar</td>
<td>1&lt;sup&gt;st&lt;/sup&gt;</td>
<td>1&lt;sup&gt;st&lt;/sup&gt;</td>
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<td>8.378</td>
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<tr>
<td>Coffee</td>
<td>1&lt;sup&gt;st&lt;/sup&gt;</td>
<td>1&lt;sup&gt;st&lt;/sup&gt;</td>
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<td>3.762</td>
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<td>Orange Juice</td>
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<td>1&lt;sup&gt;st&lt;/sup&gt;</td>
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<td>2&lt;sup&gt;nd&lt;/sup&gt;</td>
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<tr>
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<td>Corn</td>
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<td>3&lt;sup&gt;rd&lt;/sup&gt;</td>
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<tr>
<td>Pork</td>
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<td>4&lt;sup&gt;th&lt;/sup&gt;</td>
<td>81</td>
<td>1.225</td>
</tr>
</tbody>
</table>

Sources: USDA and MAPA
Embrapa

Brazilian Agricultural Research Corporation
– Public company set up in 1973

• When Embrapa started:
  – cerrado (brazilian savannah) : unfit for farming.
  – Soils: too acidic and too poor in nutrients.
The Miracle of Cerrado

1) Industrial quantities of lime (pulverised limestone or chalk) onto the soil to reduce levels of acidity

2) Embrapa scientists: bred varieties of rhizobium, a bacterium that helps fix nitrogen in legumes

3) Crossbreeding an Africa grass “brachiaria”, we created a variety, “braquiarinha” in Brazil:
   – 20-25 tonnes of grass feed per hectare
The Miracle of Cerrado

4) Embrapa turned soyabean into a tropical crop: crossbreeding

5) Also created varieties of soya that are more tolerant than usual of acid soils
   - It speeded up the plants’ growing period, cutting between 8 and 12 weeks off the usual life cycle: two crops a year
The Miracle of Cerrado

6) New operational farm techniques: “no-till” agriculture

• soil is not ploughed nor the crop harvested at ground level. Rather, it is cut high on the stalk and the remains of the plant are left to rot into a mat of organic material.

• Next year’s crop is then planted directly into the mat, retaining more nutrients in the soil.

• 1990: 2.6% of Brazilian farmers used no-till farming for grains. Today: it is over 50%
1) Pesticide Regulation in Brazil
Federal Legislation - Pesticide

- Law 7.802/89
- Decree 4.074/02
- Normative Instructions
- Ministry of Agriculture
- Ministry of Environment (IBAMA)
- Ministry of Health (ANVISA)
- State’s Legislation
Law 7.802/89 → Decree 4074/02

Provides for research, experimentation, production, packaging and labeling, transportation, storage, marketing, commercial advertising, use, importation, exportation, final disposal of residues and packaging, registration, classification, control, inspection and oversight of pesticides.

➢ This law is in force at federal, state and Federal District levels.
Registration of Pesticides in Brazil

Three Federal Agencies Involved

Ministry of Agriculture (MAPA)

Ministry of Health (ANVISA)

Ministry of Environmental (IBAMA)
Registration of Pesticides in Brazil

- Ministry of Agriculture, Livestock and Food Supply (MAPA):
  - evaluating the agronomic effectiveness of pesticides, and
  - issuing the Certificate of Registration.

- Ministry of Health (ANVISA):
  - toxicological assessment and classification of pesticides
  - MRL establishment

- Ministry of Environment (IBAMA):
  - environmental assessment and classification of potential environmental hazards as regards pesticides.
Establishment of MRL in Brazil

- Normative **RDC 216/2006** - ANVISA:
  - 4 residues trails
  - 2 degradation curves
  - recommended dose tested on GLP

Residues Studies:
- by active ingredient
- by crop

Establishment:
- MRL
- Pre-harvest interval
2) New Brazilian Rules for MRLs
Extrapolation (Minor Uses)
Minor Uses in Brazil: Concept

- Crops with low phytossanitary support
  - Pesticides misuses
  - Recommendation of non authorized pesticides

- Cost of pesticides registration is not attractive for industries
Brazilian Rules for minor crops

• Nowadays: Registration depends exclusively on companies and from their perception of economic and commercial facts

• Goal: To create a fair system of registration and use of pesticides

• Learning from international experiences: Codex Alimentarius, EPA, USDA/IR4, EU

• Contribution of official research, universities, farmers associations
Target of Brazilian Rules for minor crops

Consumers: Assurance of safety and security food

Food industry: Safe food sources

Farmers: Efficient options for phytosanitary issues
The New Regulamentation: INC 01/2010

- MRLs extrapolation for minor crops
- Inclusion of crops on pesticides monographies to agriculture uses
The New Regulamentation: INC 01/2010

- **Representative crop**: needs to be on pesticide label
- **Dosis** (A.I./ha): lower or equal to representative crop
- **Pre-harvest interval**: higher or equal to representative crop

- *Phytotoxicity will cancel indications and new field data will be conducted*
Definitive MRLs are established after checking the monitoring programs results. The authority will verify the compatibility of the representative crop and the minor crop MRLs.
4) National Residues and Contaminants Control Program – NRCP
Current Status of the Implementation of the NRCP

- 2008: LAUNCHED NRCP
- SAMPLING PROCEDURES IN JULY OF 2010

PRODUCTS
YEAR CROP 2010/2011

Pineapple
Lettuce
Garlic
Peanut
Rice
Banana
Potato
Coffee
Brazil Nuts
Orange
Lemon
Apple
Papaya
Mango
Melon
Maize
Strawberry
Black Pepper
Green Pepper
Soybean
Tomato
Wheat
Grape

PESTICIDES RESIDUES AND CONTAMINANTS: AFLATOXINS, SALMONELLA
Implementation of NRCP 2011/2012

NEW PRODUCTS
YEAR CROP 2011/2012

- MANDARIN
- CORN
- BEAN
- PEAR
The Official Laboratory Network of the Ministry of Agriculture

- LANAGRO/MG
- ITEP
- PLANTEC
- BIOENSAIOS

- ISO 17025
- GLP
- Training Courses
- Validation plan
• Official samples

• Samples tracked until the Lab

• Analyses performed in accredited laboratories by MAPA and with ISO/IEC 17025

• An administrative process for investigation is open for all non compliance results
5) Brazilian Technical Group on Pesticides Residues (TGPR)

(Brazilian Codex Alimentarius Committee)
TGPR

- Representatives of government, industries, growers
- Coordination: Ministry of Agriculture
- Meetings: every 2 months
- Goals:
  - Codex Alimentarius issues
  - Minor crops
  - Import tolerance
TGPR: 2011

- Comittee Codex Alimentarius on Pesticides Residues (CCPR):
  - Revision of the Risk Analysis Principles
  - Minor use EWG
  - Residues estudies to support Codex MRLs: chlorfenapyr, chlorothalonil, cyproconazole, imazapic, imazapyr, fufenoxuron, thiamethoxan

- Joint Residue Pilot Project: Regional Pesticide Data Generation Project to Establish Codex MRLs
  - STDF/WTO funding
Thank you for your attention!

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Inspection Depart for Agriculture Inputs
Secretariat of Animal and Plant Health and Inspection
Ministry of Agriculture, Livestock and Food Supply