REGULATION OF PESTICIDES IN MEXICO
National Programme For Monitoring of Pesticides Residues in Fresh Vegetables

August 24th, 2016
Mission

To regulate, manage and promote activities on health, food safety and quality, reducing the risks inherent in agriculture, livestock, aquaculture and fisheries, for the benefit of producers, consumers and industry.
Regulatory framework for pesticides

*Decree by which are amended, added and abrogated diverse provisions of the Bylaw for Registrations, Authorizations for Import and Export and Certification for Exportation of Pesticides, Fertilizers and Toxic and or Hazardous Materials (onwards, RPLAFEST).
Regulatory framework for pesticides

*NORMA Oficial Mexicana NOM-232-SSA1-2009, Pesticides: establishing the requirements of packaging and product labeling for technical grade and agricultural, forestry, livestock, gardening, urban, industrial and domestic use (Federal Official Gazette, April 13th, 2010)

General Law for Ecological Equilibrium and Environmental Protection (Ministry of Environment and Natural Resources)

General Law for Health (Federal Commission for Protection Against Sanitary Risks)

Federal Law of Plant Health (Ministry of Agriculture, Livestock, Rural Development, Fisheries and Food)
PESTICIDE: “Phytosanitary input to prevent, repel, combat and destroy biological organisms harmful to plants, their products or by-products” (Federal Law of Plant Health).

SANITARY REGISTRATION: A health/sanitary authorization issued by COFEPRIS in coordination with SEMARNAT and SAGARPA, which guarantees the efficacy and safety of the registered product. Mandatory for sale and use in Mexico (RPLAFEST).
Regulatory framework for pesticides

**Objective:**
To ensure that products available to users, don’t represent unacceptable risks to the general population.

**Surveillance:**
- ✓ Products available for users, according to the regulation and authorized uses.
- ✓ Use in accordance with authorization.
- ✓ Effective for the purposes they were designed

**Maximum Residue Level (MRL):**
The maximum acceptable concentration of pesticide residues, metabolites, or both, under the rules applicable to food for human or animal consumption (RPLAFEST)
Project for establishing MRL in Mexico

**Target:**
To establish the technical Guidelines and procedures for authorization of MRL for pesticides (chemical) of agricultural use for registration.

**Contents:**
1. Technical Guidelines to establish a MRL.
2. Technical Guidelines to review a MRL.
3. Procedure for authorization of a new MRL.
4. Authorized MLR.
5. MRL’ Review.

To guarantee quality, effectiveness and to prevent public health risks; facilitating trade

Ongoing project
**Monitoring of Pesticides Residues In Fresh Vegetables**

**Federal Law for Plant Protection**

| Article 42 bis. The Secretary will establish and develop the National Programme for Monitoring of pesticides residues on vegetables, to determine that phytosanitary inputs are used according to the biological efficacy trials. |
| Article 47-A. The Secretary will determine the guidances in terms of contamination risk reduction systems, the measures to be applied in the primary production of vegetables. |
| Artículo 60. Under suspicion of contamination during primary production, based on current legislation, it shall be entitled to perform the sampling of fresh produce. |
| *Bylaw, Article 121. The Secretary will establish the requirements and specifications that the National Monitoring Programme for Pesticides on Vegetable, must comply with. |

*Published on July 15th, 2016 in the Mexican Official Gazette*
It aims to monitor and detect the presence of contaminants and toxic residues during primary production of food of plant origin in the country. In addition to implement prevention and mitigation actions, needed necessary to correct and/or avoid the presence of contaminants.
National Programme for Monitoring Pesticides Residues on Fresh Vegetables

Sampling of high risk produce based on:

- Historical records related to the presence of one or more contaminants in produce
- Volume of production and commercialization of produce
- Evidence of use deviation of agrochemicals
- Appearance of unexpected biological and climatic events
# National Programme for Monitoring of Pesticides Residues on Fresh Vegetables

<table>
<thead>
<tr>
<th>Crop</th>
<th>Production (ton)</th>
<th>Value (thousands of pesos)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tomato (red)</td>
<td>2,875,164.08</td>
<td>15,735,506.33</td>
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<tr>
<td>Pepper (green)</td>
<td>2,732,635.07</td>
<td>17,896,024.06</td>
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<tr>
<td>Potato</td>
<td>1,678,833.03</td>
<td>11,983,637.53</td>
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<tr>
<td>Onion</td>
<td>1,368,183.69</td>
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<tr>
<td>Watermelon</td>
<td>946,458.12</td>
<td>2,602,951.37</td>
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<tr>
<td>Corn cob</td>
<td>811,048.56</td>
<td>1,763,054.30</td>
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<tr>
<td>Cucumber</td>
<td>707,631.94</td>
<td>3,568,827.63</td>
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<tr>
<td>Tomato (green)</td>
<td>661,141.11</td>
<td>2,404,944.16</td>
</tr>
<tr>
<td>Melon</td>
<td>526,990.47</td>
<td>2,545,094.25</td>
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<tr>
<td>Broccoli</td>
<td>445,885.51</td>
<td>2,051,441.66</td>
</tr>
</tbody>
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Analytical process (HPLC and EM)

- Samples reception
- Grinding
- Wash material of grinding area
- Extraction (*QuEChERS*)
- Screening and quantification of positives
National Programme for Monitoring of Pesticides Residues on Fresh Vegetables, 2014

Aguascalientes, Baja California, Baja California Sur, Chiapas, Chihuahua, Coahuila, Colima, Ciudad de México, Durango, México, Hidalgo, Michoacán, Morelos, Nuevo León, Oaxaca, Puebla, Querétaro, San Luis Potosí, Sinaloa, Sonora, Tamaulipas, Zacatecas

Avocado, blueberry, basil, bananas, broccoli, squash, onion, scallion, chayote, chile, cilantro, green beans, asparagus, spinach, raspberry, strawberry, guava, lettuce, lemon, mango, melon, prickly pear, papaya, cucumber, pepper, tomato, tomatillo, pear and blackberry

To obtain general information about chemical contamination on 29 crops in the Mexican Field.
To have information (database and mapping) in order to make decision regarding mitigation or preventive measures.
To improve capacities in the matter of good use and handling of agrochemicals.

22 states where samples were collected, 29 crops of economical importance
Preliminary conclusions and suggestions to act

**Residues**
- Above MRL
- Within MRL
  - Non-authorized
    - NQ
- Non-authorized products for minor or specialty crops

**Presumed causes**
- Deviation of use
- Lack of knowledge about authorized pesticides
- Insufficient technical competency
- Non-authorized products for minor or specialty crops

**Measures to take**
- To strength growers’ training
- To improve technical capacities
- To strength the official surveillance
- To communicate more about pesticides’ risks
- To work closely with industry in the development of new molecules

Reference: CODEX
Sharing responsibilities is vital for better results and greater impact to achieve food safety

**Industry**
- To ensure well trained technical experts for pesticides recommendations
- Active participation in the Governmental initiatives for promoting good use and handling of pesticides on the fields
- To promote the development of molecules more friendly with the environment

**Growers**
- To buy only pesticides with a registration and authorization for use
- To do so within the good agricultural practices

**Third parties**
- More responsible follow up of it’s recommendations
- To strengthen technical capabilities
- To collaborate with the authorities on the identification of out or regulations’ activities

**Authorities**
- Gradually restrict the use of highly toxic pesticides
- To strengthen official surveillance programmees
- To update the Pesticides’ Catalogue
MÉXICO PRÓSPERO PARA TODOS

THANK YOU FOR YOUR KIND ATTENTION

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