Establishing Tolerances for the Tea Industry: A Collaborative Approach

Peter F. Goggi – President
CLA/Rise Regulatory Conference
April 2019
Tea Association of the USA, Inc.

- **Tea Association**
  - Formed in 1899 to protect the Tea Industry in the USA from harm
  - For over 120 years it has defended the industry

- **Tea Council**
  - Formed in 1950 to Generically Promote Tea
  - Since 1991 actively promoted Tea & Health

- **Specialty Tea Institute**
  - Established Tea Education Arm in 2002, which has become an Industry Standard
## Growth of the Tea Market in U.S. Dollars

### 1990 $Value by Type
- Traditional: $0.87 Billion
- RTD: 0.20 "
- Food Service: 0.50 "
- Special: 0.27 "
- Total: **$1.84 Billion**

### 2018 $Value by Type
- Traditional: $2.33 Billion
- RTD: 6.20 "
- Food Service: 1.55 "
- Special: 2.58 "
- Total: **$12.66 Billion**

- Tea continues to grow in both dollars and volume, led by RTD and Specialty.
- Key trends are:
  - Health & Wellness
  - "Naturalness"
  - Product Engagement
  - Sustainability across the Supply Chain
- Green Tea regained some import share losses
Green Tea Imports: ‘000 lbs

- The graph shows the trend of green tea imports from 1910 to 2015.
- There was a significant decline in imports until around 1950.
- From 1950 to 2008, imports remained relatively stable with minor fluctuations.
- After 2008, there is a notable increase in green tea imports.
Pesticide Issue - Background

- **2008 - Few MRL tolerances established for tea**
  - Only 3 in the USA
    - Over 99% of the tea consumed in the USA is imported
    - Repeal of the Tea Importation Act of 1897, March 1996
    - Tea was imported under the authority of the U.S. Tea Examiner
    - Organoleptic Evaluation only
    - No MRL’s required

- **2008 - Multiple containers of tea detained**
  - Levels of lead and chemical residue
  - 30 Containers in which USTA was asked to intervene
  - Number escalated to 40
  - Importation of tea came to virtual standstill

- **Detection**
  - 3 chemicals were detected:
    - λ-cyhalothrin
    - Bifenthrin
    - Fenvalerate

- The Association commissioned a scientific study demonstrating that the 3 pesticides posed zero risk to human health

- **Immediate Penalties Imposed**
  - FDA rejected the 30 containers of tea that had been inspected
    - FDA rejected based it being a matter of law not public safety
  - FDA released the 10 containers that had not yet been inspected

- **Agreement Reached with the FDA**
  - FDA officials agreed to use enforcement discretion provided we put forth good faith efforts to fix the problems
  - Our legal bill for 2008 exceeded $80,000

- **Worked with FDA/EPA and created relationship with IR-4**
  - Successful registration of multiple Pesticides
Weed-killing chemical found in pasta, cereal and cookies sold in Canada: study

The Food Safety Action Plan (FSAP) aims to modernize and enhance Canada's food safety system. As a part of the FSAP enhanced surveillance initiative, targeted surveys are used to test various foods for specific hazards.

The main objectives of the pesticides in coffee, fruit juice and tea targeted survey were to:

- generate baseline surveillance data on the levels of pesticide residues in coffee, fruit juice and tea available on the Canadian retail market;
- enable comparison of pesticide residue levels in coffee, fruit juice and tea and in juices and coffee available in the United States and other countries.

Pesticides: Registration, Enforcement, Compliance, and Criminal Investigations

Sample Schedule 3: PESTICIDE SAMPLES

Inspections, Compliance, Enforcement, and Criminal Investigations

DO NOT ENSURE PESTICIDE SAMPLES

Introduction
The objective of this pesticide monitoring program is to gather information on levels and occurrence of pesticides used in Canada and to report on the effectiveness of the regulations that control the use of pesticides. This information is used to support risk assessments and to develop strategies for the prevention and management of pesticide residues. This information is also used to support regulatory actions, such as the registration of new pesticides or the re-registration of existing pesticides.

Sample Schedule 3: PESTICIDE SAMPLES

Inspections

- Inspections Operations Manual
- Schedule 3: Pesticide Samples

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Media & Consumers

Food Babe
Yesterday at 1:40pm ·

Do you drink these? : "Just" Black Tea honestly contains more than just tea. With natural flavors, companies can mass produce products for less money, and give their products a special "kick" that homemade food and drinks don't have. That extra kick can have addictive qualities, driving us to consume more of their products. A

Tea Association of the U.S.A. Inc.
Filtered Water in the US is still toxic! You can't remove the gas, fluorine, by filtration. It combines with H2O (water) and makes fluoiritides that have such a high boiling / evaporation point that just boiling the water further concentrates the fluorides! Hydrofluorosilicic acid is formed when the fluorine gas is utilized for industrial processes. It is more poisonous than lead! Th the municipalities buy that waste and put it in the water in the US. Then you brush your teeth with it, eat food contaminated with it (tap water, in the u.s.), bathe in it, buy foods that are soaking in it (pickles, sodas, etc... use teas in a convenient size! Some people even drink it! Even the Food Bane people act like they don't know! For instance, the above ad for hippy freedom, and not real Freedom! So Coca Cola Bottling Company triple filters the water! It is to make sure there are no rat droppings or mouse carcasses! No amount of filtering gets rid of the (what I like to call) fluoro-toxin! The ad didn't point out the real poison, the fluorine!
Media & Consumers

Tony Mendola
Filtered Water in the US is still toxic! You can't remove the gas, fluorine, by filtration. It combines with H2O (water) and makes fluoarides that have such a high evaporation point they further compromise hydration.

The "Food Babe" Blogger Is Full of Shit

Violet d'Entremont
04/08/15 02:45 PM Filed 1st: FOOD BABE

"TOXIN:
HAVING THE EFFECT OF A POISON"

Tea Association of the U.S.A. Inc.
- Actions -

Networking

- FDA
  - Continually Update
  - Maintain Enforcement Discretion
- IR-4
  - Include Tea in new registrations
  - Maintain contacts
- EPA
  - Minor Use
  - Pilot Program
  - Advice and engagement
- PPP Industry
  - CropLife
  - Direct Engagement
- Global Influencers/Stakeholders
- Act as Registrant
## Progress

### Chemicals Authorized for Use – Prior to 2008

<table>
<thead>
<tr>
<th>Chemical</th>
<th>PPM</th>
<th>Most Recent Federal Register Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glyphosate</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tea: Dried</td>
<td>1</td>
<td>10/1/1980</td>
</tr>
<tr>
<td>Tea: Instant</td>
<td>7.0</td>
<td>10/1/1980</td>
</tr>
<tr>
<td>Propargite</td>
<td>10</td>
<td>8/1/2007</td>
</tr>
<tr>
<td>Pyriproxyfen</td>
<td>.02</td>
<td>8/22/2007</td>
</tr>
</tbody>
</table>
# Progress

## Chemicals Currently Authorized for Use on Tea in the USA

<table>
<thead>
<tr>
<th>Chemical</th>
<th>PPM</th>
<th>Federal Register Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abamectin</td>
<td>1.0</td>
<td>2/27/19</td>
</tr>
<tr>
<td>Acequinocyl</td>
<td>40</td>
<td>1/18/2017</td>
</tr>
<tr>
<td>Acetamiprid</td>
<td>50</td>
<td>2/10/2010</td>
</tr>
<tr>
<td>Azoxyystrobin</td>
<td>20</td>
<td>5/1/2015</td>
</tr>
<tr>
<td>Bifenthrin</td>
<td>30</td>
<td>9/14/2012</td>
</tr>
<tr>
<td>Buprofezin</td>
<td>20</td>
<td>10/17/2012</td>
</tr>
<tr>
<td>Carfentrazzone-ethyl</td>
<td>.1</td>
<td>3/31/2004</td>
</tr>
<tr>
<td>Chlorantraniliprole</td>
<td>50</td>
<td>7/27/2011</td>
</tr>
<tr>
<td>Chlorfenapyr</td>
<td>70</td>
<td>1/26/2018</td>
</tr>
<tr>
<td>Clothianidin</td>
<td>70</td>
<td>3/29/2013</td>
</tr>
<tr>
<td>Cyantraniliprole</td>
<td>30</td>
<td>3/22/2017</td>
</tr>
<tr>
<td>Cyclaniliprole</td>
<td>50</td>
<td>8/3/2017</td>
</tr>
<tr>
<td>Dicofol: Tea Dried</td>
<td>50</td>
<td>3/25/2013</td>
</tr>
<tr>
<td>Dicofol: Tea Instant</td>
<td>30</td>
<td>3/25/2013</td>
</tr>
<tr>
<td>Dinofuran</td>
<td>50</td>
<td>9/12/2012</td>
</tr>
<tr>
<td>Ethiprole</td>
<td>30</td>
<td>4/6/2011</td>
</tr>
<tr>
<td>Etofenprox</td>
<td>5</td>
<td>11/27/2013</td>
</tr>
<tr>
<td>Etoxazole</td>
<td>15</td>
<td>4/13/2011</td>
</tr>
<tr>
<td>Fenazaquin</td>
<td>9</td>
<td>5/25/2017</td>
</tr>
<tr>
<td>Fenpropathrin</td>
<td>2</td>
<td>11/28/2012</td>
</tr>
<tr>
<td>Fenproximate/Fenpyroximate</td>
<td>20</td>
<td>12/12/2012</td>
</tr>
<tr>
<td>Flonicamid</td>
<td>40</td>
<td>5/11/2017</td>
</tr>
<tr>
<td>Fluazinam</td>
<td>6.0</td>
<td>5/11/2017</td>
</tr>
<tr>
<td>Flubendiamide</td>
<td>50</td>
<td>7/5/2017</td>
</tr>
<tr>
<td>Glyphosate: Tea Dried</td>
<td>1</td>
<td>10/1/1980</td>
</tr>
<tr>
<td>Glyphosate: Tea Instant</td>
<td>7.0</td>
<td>10/1/1980</td>
</tr>
<tr>
<td>Methoxyfenozide (Dried &amp; Instant)</td>
<td>20</td>
<td>3/12/19</td>
</tr>
<tr>
<td>Propargite</td>
<td>10</td>
<td>8/1/2007</td>
</tr>
<tr>
<td>Propiconazole</td>
<td>4</td>
<td>12/4/2015</td>
</tr>
<tr>
<td>Pyrifluquinazon</td>
<td>20</td>
<td>11/26/2018</td>
</tr>
<tr>
<td>Pyriproxyfen</td>
<td>15</td>
<td>2/22/2016</td>
</tr>
<tr>
<td>Spinetoram</td>
<td>70</td>
<td>8/8/2018</td>
</tr>
<tr>
<td>Spinosad</td>
<td>.02</td>
<td>12/5/2007</td>
</tr>
<tr>
<td>Spiromesifen</td>
<td>40</td>
<td>1/16/2013</td>
</tr>
<tr>
<td>Thiamethoxam</td>
<td>20</td>
<td>3/27/2013</td>
</tr>
<tr>
<td>Tolfenpyrad</td>
<td>30</td>
<td>1/9/2014</td>
</tr>
</tbody>
</table>
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**Chemicals With No Possibility of Approval in U.S.**

<table>
<thead>
<tr>
<th>Prohibited Chemicals</th>
<th>STATUS</th>
</tr>
</thead>
<tbody>
<tr>
<td>DDT</td>
<td>Banned</td>
</tr>
<tr>
<td>Lindane</td>
<td>Banned</td>
</tr>
<tr>
<td>Endosulfan</td>
<td>Expired – will not be renewed</td>
</tr>
<tr>
<td>Ethion</td>
<td>Not Registered for ANY use in USA</td>
</tr>
<tr>
<td>Tetradifon</td>
<td>Not Registered for ANY use in USA</td>
</tr>
<tr>
<td>Triazophos</td>
<td>Not Registered for ANY use in USA</td>
</tr>
</tbody>
</table>

### Pending Chemical Registrations in the USA

<table>
<thead>
<tr>
<th>Chemical</th>
<th>Expected Tolerance Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avermectin*</td>
<td>2020</td>
</tr>
<tr>
<td>L-Cyhalothrin^</td>
<td>2020</td>
</tr>
<tr>
<td>Cyflumetofen*</td>
<td>2018</td>
</tr>
<tr>
<td>Cypermethrin^</td>
<td>2020</td>
</tr>
<tr>
<td>Fenbuconazole</td>
<td>2019</td>
</tr>
<tr>
<td>Imidacloprid*</td>
<td>2018</td>
</tr>
<tr>
<td>Permethrin^</td>
<td>2020</td>
</tr>
<tr>
<td>Spinosad**</td>
<td>2019</td>
</tr>
</tbody>
</table>

* Submitted

^ Not in PRIA Action

** Submitted by Dow new tolerance

** NOTE THESE CHEMICALS SHOULD NOT BE USED ON ANY TEA PRODUCT BOUND FOR USA **
Progress

# MRL's

![Graph showing the number of MRL's from 2008 to 2019. The number of MRL's increases over the years.]
USTA Communications

Requested of Origin Producers:

1. To review the list of authorized chemicals allowed in the U.S. and have their growers comply with our import regulations as established by FDA. (Attachment 1)

2. To send us a list of those chemical tolerances authorized for use on tea in their country so that we have an up-to-date database.

3. If any work is being done to develop and/or register new chemicals for use on tea in their origin, that they
   a. Let us know.
   b. Inform the chemical manufacturer that they should submit to EPA a request for an import tolerance to be established on that chemical in the U.S.A.

4. Support our efforts in increasing the number of MRL’s in the United States and harmonizing them between the US and producer countries as well.

Engagement with PPP Industry:

To that end, we are looking to engage directly with Chemical Manufactures in order to address the following:

1. Register old molecules (that may be off patent) that are used on tea for import tolerances;
2. Provide the USTA with data package to allow us to register these older molecules;
3. Engage more effectively across international divisions, so that when international registration occurs, a corresponding tolerance application is completed in the U.S.
4. Determine how tea can become a higher profile within their scope of activity.
- Going Forward -

- Increase Number of MRL’s for Tea
  - Continue to feed funnel of chemicals for Approval
  - Maintain contact with FDA/EPA for opportunities
    - Pilot Program
    - Minor Use
  - Continue engagement through CropLife
  - Continue to assess, update and act on Pesticide Priority List
  - Continue FAO-IGG Engagement

- Tea Association as Registrant
  - Use Learnings from Propiconazole submission and apply
  - Determine if additional funding necessary
  - Form cooperatives between Origin and USTA for submissions
    - E.g Japan, Vietnam, China

- Raise Awareness to Stakeholders
  - Continue Networking
    - FDA/EPA
    - GMA
    - FAO
    - IR-4
    - Origin Countries
      - TRI’s
      - Tea Boards
      - Growers
    - Chemical Manufacturers
      - CropLife
Tea – Bottom Line

• Tea is Safe

• Any Rejections have been legislative
  • None since 2008

• Research shows that Human Health is ultimately *enhanced* by Tea and that no risk to Human Health has EVER been demonstrated at current residual levels

• The Tea Industry is:
  – Aware of our responsibilities
  – Working in Partnership
    • Internally
    • Domestically
    • Internationally
    • Collaboratively with U. S. Government Agencies

**JUNE IS NATIONAL ICED TEA MONTH!!!**
• Questions?