## Contaminants and Naturally Occurring Toxics

### Background and Question(s) to be Answered

Dioxins and dioxin-like PCBs
- Full evaluation (toxicological assessment and exposure assessment) to update 2001 JECFA assessment and incorporate data on developmental effects from in utero exposures.

Arsenic (inorganic and organic)
- Inorganic: 2011 JECFA evaluation based on cancer effects. This evaluation would focus on non-cancer effects (neurodevelopmental, immunological and cardiovascular) and could inform future risk management needs. NOTE: needs to be put in context to cancer risk assessment.
- Organic: (exploratory)

Scopoletin
- Full evaluation (toxicological assessment and exposure assessment) in

### Data Availability (When, What)

Dioxins and dioxin-like PCBs
- EFSA assessment available September 2018
- Canada: occurrence data on foods of animal origin
- Brazil: occurrence data on milk, raw eggs, fish, and fat (poultry and mammals)

Arsenic (inorganic and organic)
- USA: occurrence data on rice cereals, and rice and non-rice products; 2016 risk assessment; 2016 draft action level for inorganic arsenic in rice cereal.
- USA: Studies
  - Pilot neurodevelopmental study of inorganic arsenic impacts on rat behavior (2019); follow-up study expected in 2020
  - Toxicokinetic studies on metabolism and disposition of inorganic and organic arsenic and metabolites in mice (various life stages) (2018-19)
  - Developmental toxicity test in *C. elegans* on inorganic arsenic (2018) and ongoing study on organic arsenic.
  - Non-governmental report, Effects of Inorganic Arsenic in Infant Rice Cereal on Children’s Neurodevelopment (2017)
- Brazil: occurrence data on total arsenic in rice, poultry, pork, fish, and cattle meat, inorganic arsenic occurrence data in rice
- Japan and China: occurrence data on rice and rice products
- AU/NZ: total diet study; inorganic arsenic occurrence data in rice
- India: occurrence data in rice
- Turkey: occurrence data in rice
- EU: inorganic arsenic occurrence data

Scopoletin
- CCNASWP still working on standard for noni juice and data availability

### Proposed By

Dioxins and dioxin-like PCBs: Canada

Arsenic (inorganic and organic): USA

Scopoletin: (CCNASWP)
# PRIORITY LIST OF CONTAMINANTS AND NATURALLY OCCURRING TOXICANTS FOR EVALUATION BY JECFA (Appendix X)

<table>
<thead>
<tr>
<th>Contaminant</th>
<th>Evaluation Details</th>
<th>Source</th>
<th>Notes</th>
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<tbody>
<tr>
<td>Ergot alkaloids&lt;sup&gt;1&lt;/sup&gt;</td>
<td>Full evaluation (toxicological assessment and exposure assessment)</td>
<td>EFSA (2012) report&lt;br&gt;EU: occurrence data; assessment on exposures to ergot alkaloids (EFSA report published in May 2017)&lt;br&gt;Canada: occurrence data (commodity specific and unprocessed cereal grains), and data on processing factors through production chain&lt;br&gt;NZ: occurrence data on cereals (1 year of data)&lt;br&gt;Japan: occurrence data in wheat, barley, and wheat products</td>
<td>EU; Canada</td>
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<tr>
<td>Trichothecenes (T2 and HT2)</td>
<td>Update of risk assessment, including exposure assessment (T2, HT2, DAS)</td>
<td>Brazil: occurrence data in cereals&lt;br&gt;Canada: occurrence data (commodity specific and unprocessed cereal grains)&lt;br&gt;EU: Report by EFSA on dietary exposure, including an HBGV; occurrence data.&lt;br&gt;Japan: occurrence data in raw cereals</td>
<td>JECFA83 (2016), recommendation supported by CCCF11 (2017).</td>
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