Mycotoxin Occurrence in 2022
Canadian Corn Silage

FEBRUARY 2023
MYCOTOXIN monthly

NUTRITION • HEALTH • SUSTAINABLE LIVING
## Mycotoxins & Analysis

<table>
<thead>
<tr>
<th>Mycotoxin Group</th>
<th>Mycotoxins</th>
<th>Limit of Detection (ppb)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aflatoxins (Afla)</td>
<td>Aflatoxin B1</td>
<td>1.0</td>
</tr>
<tr>
<td></td>
<td>Aflatoxin B2</td>
<td>1.0</td>
</tr>
<tr>
<td></td>
<td>Aflatoxin G1</td>
<td>1.0</td>
</tr>
<tr>
<td></td>
<td>Aflatoxin G2</td>
<td>1.0</td>
</tr>
<tr>
<td>A-Trichothecenes (A-Trich)</td>
<td>T-2 Toxin</td>
<td>60.0</td>
</tr>
<tr>
<td></td>
<td>HT-2 Toxin</td>
<td>60.0</td>
</tr>
<tr>
<td></td>
<td>Diacetoxyiscirpenol (DAS)</td>
<td>60.0</td>
</tr>
<tr>
<td>B-Trichothecenes (B-Trich)</td>
<td>Deoxynivalenol (DON/Vomitoxin)</td>
<td>60.0</td>
</tr>
<tr>
<td></td>
<td>3-Acetyldeoxynivalenol (3-AcDON)</td>
<td>60.0</td>
</tr>
<tr>
<td></td>
<td>15-Acetyldeoxynivalenol (15-AcDON)</td>
<td>60.0</td>
</tr>
<tr>
<td>Fumonisins (FUM)</td>
<td>Fumonisin B1</td>
<td>100.0</td>
</tr>
<tr>
<td></td>
<td>Fumonisin B2</td>
<td>100.0</td>
</tr>
<tr>
<td>Zearalenone (ZEN)</td>
<td>Zearalenone (ZEN)</td>
<td>30.0</td>
</tr>
<tr>
<td>Ochratoxin A (OTA)</td>
<td>Ochratoxin A (OTA)</td>
<td>3.0</td>
</tr>
<tr>
<td>Sterigmatocystin (STC)</td>
<td>Sterigmatocystin (STC)</td>
<td>30.0</td>
</tr>
<tr>
<td>Mycophenolic Acid (MPA)</td>
<td>Mycophenolic Acid (MPA)</td>
<td>30.0</td>
</tr>
</tbody>
</table>

*Results are reported as the summation of mycotoxin levels detected per Mycotoxin Group. (For example, B-Trich represents total contamination detected for DON + 3-AcDON + 15-AcDON)*

The survey results represent samples sent in for surveillance testing only and does not include any sample submitted following clinical signs.
2022 Canadian Corn Silage (dry matter basis)
Occurrence Trend in 2022 Canadian Corn Silage

Based on the samples analyzed.
Mean of Positives Trend in 2022 Canadian Corn Silage

Based on the samples analyzed.
Co-occurrence Trend in 2022 Canadian Corn Silage

Based on the samples analyzed. Values may not total 100% due to rounding.
2022 Corn Silage Risk by Province – B-Trich

Based on the samples analyzed in this region.

<table>
<thead>
<tr>
<th>State</th>
<th>Number of Samples</th>
<th>% Positive Samples</th>
<th>Avg of Positive Samples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ontario</td>
<td>12</td>
<td>92</td>
<td>1653</td>
</tr>
<tr>
<td>Quebec</td>
<td>22</td>
<td>95</td>
<td>1396</td>
</tr>
</tbody>
</table>

- Province with average > 1000 ppb
- Province with average < 1000 ppb
- Province with samples < LOD (100 ppb)
- No sample submitted
Mycotoxin Survey Summary – 2022 Canadian Corn Silage

34 corn silage samples submitted from 2 provinces

- **94% Positive**
  - vs. 94% in 2021

- **50% Positive >1 MTX**
  - vs. 76% in 2021

**B-Trich**
- 94% positive / ↔ from 94%
- 1484 ppb / ↑ from 1215 ppb

**FUM**
- 26% positive / ↓ from 45%
- 233 ppb / ↓ from 257 ppb

**ZEN**
- 38% positive / ↓ from 61%
- 113 ppb / ↓ from 262 ppb

**Forecasted potential risk for livestock production**: 3

*Based on the samples analyzed.
Questions?

Thank you!

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