

# Mycotoxin Occurrence in 2021 Canadian Corn Silage



# Mycotoxins & Analysis



LC-MS/MS



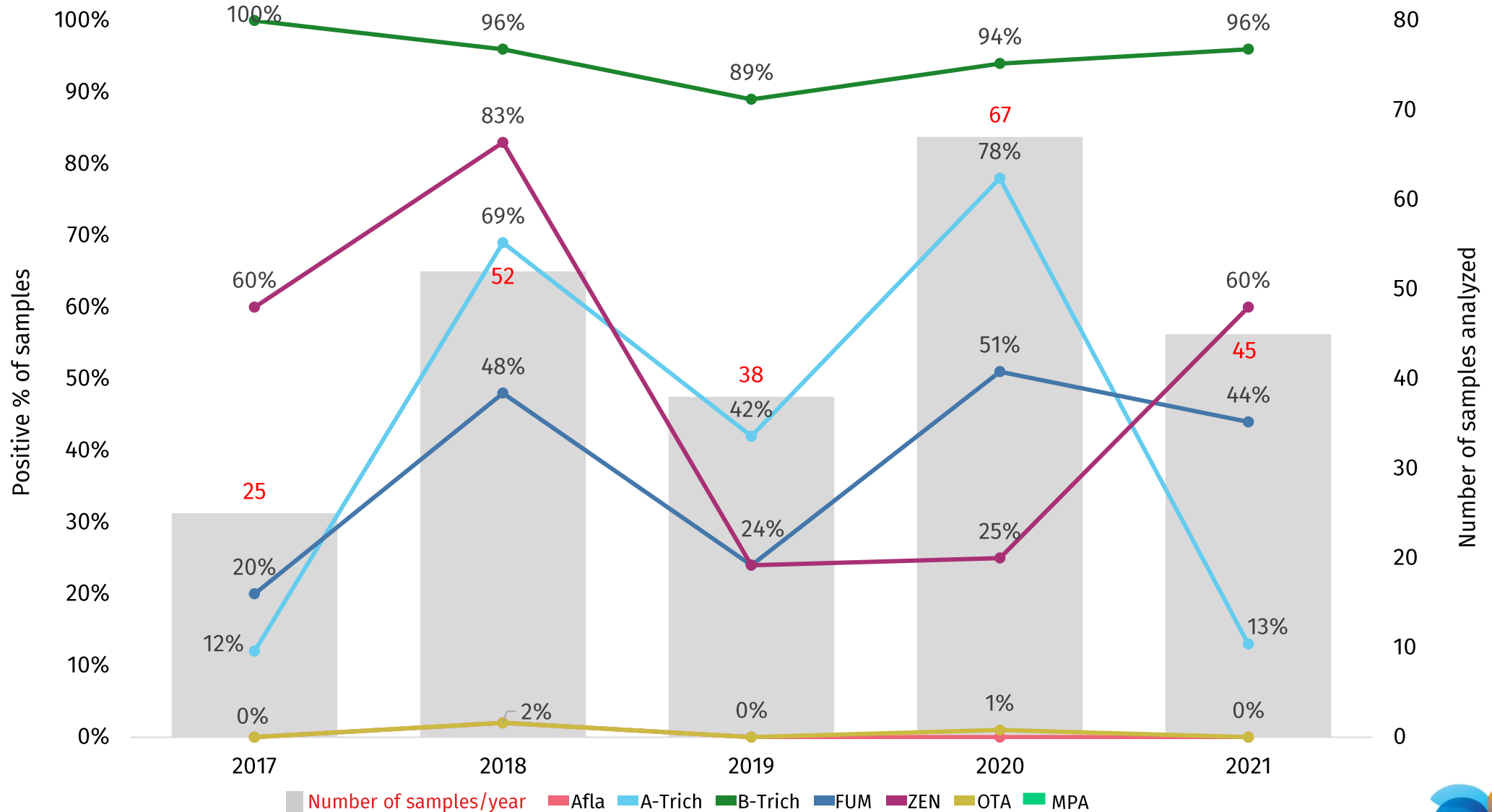
The survey results represent samples sent in for surveillance testing only and does not include any sample submitted following clinical signs.

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

\*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)

# 2021 Canadian Corn Silage (dry matter basis)

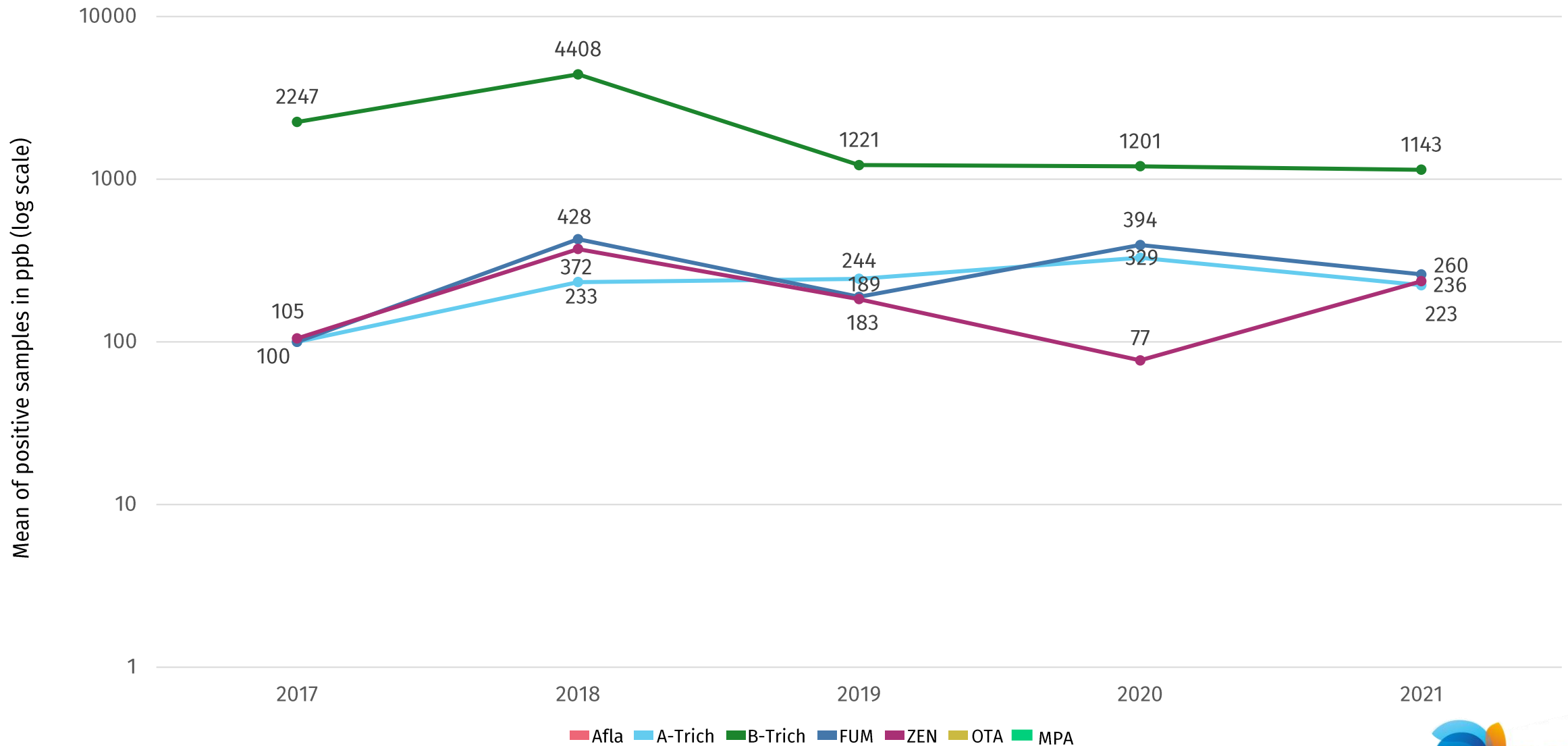
# Occurrence Trend in 2021 Canadian Corn Silage



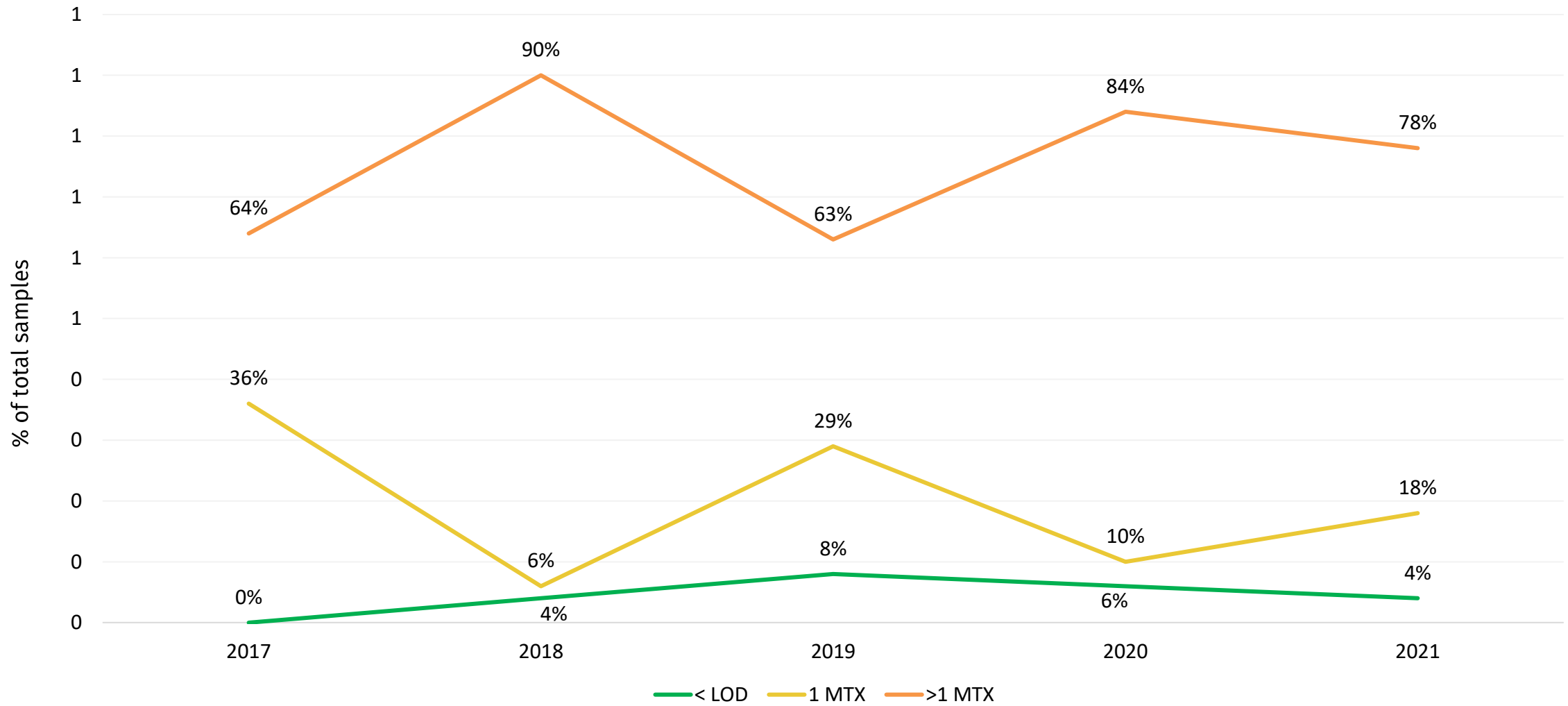
Based on the samples analyzed.



# Mean of Positives Trend in 2021 Canadian Corn Silage



# Co-occurrence Trend in 2021 Canadian Corn Silage



# 2021 Corn Silage Risk by Province – A-Trich



State	Number of Samples	% Positive Samples	Avg of Positive Samples
Quebec	36	17%	223
Ontario	8	0%	0
Alberta	1	0%	0

- State with average > 100 ppb
- State with average < 100 ppb
- State with samples < LOD (100 ppb)
- No sample submitted



# 2021 Corn Silage Risk by Province – B-Trich



State	Number of Samples	% Positive Samples	Avg of Positive Samples
Quebec	36	94%	1246
Ontario	8	100%	836
Alberta	1	100%	100

- State with average > 1,000 ppb
- State with average < 1,000 ppb
- State with samples < LOD (60 ppb)
- No sample submitted





# 2021 Corn Silage Risk by Province – FUM



State	Number of Samples	% Positive Samples	Avg of Positive Samples
Quebec	36	44%	269
Ontario	8	50%	225
Alberta	1	0%	0

- State with average > 2,000 ppb
- State with average < 2,000 ppb
- State with samples < LOD (100 ppb)
- No sample submitted



# 2021 Corn Silage Risk by Province – ZEN



State	Number of Samples	% Positive Samples	Avg of Positive Samples
Quebec	36	58%	260
Ontario	8	75%	152
Alberta	1	0%	0

- State with average > 100 ppb
- State with average < 100 ppb
- State with samples < LOD (30 ppb)
- No sample submitted



# Mycotoxin Survey Summary – 2021 Canadian Corn Silage



**96%** positive vs.  
94% in 2020



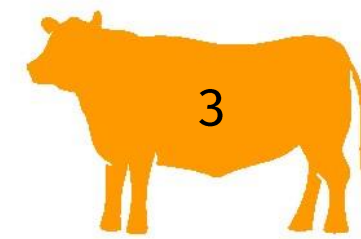
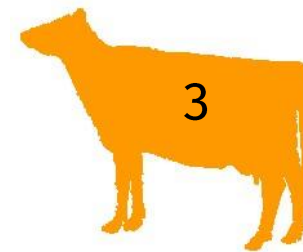
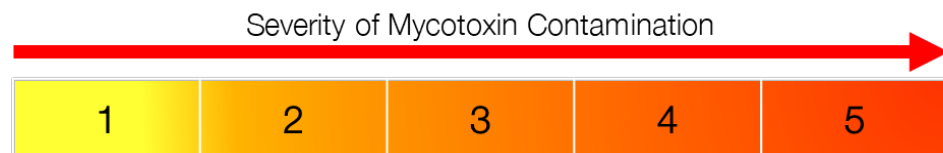
**78%** >1 MTX vs.  
84% in 2020

**B-Trich:** 96% vs. 94%

**FUM:** 44% vs. 51%

**ZEN:** 60% vs. 25%

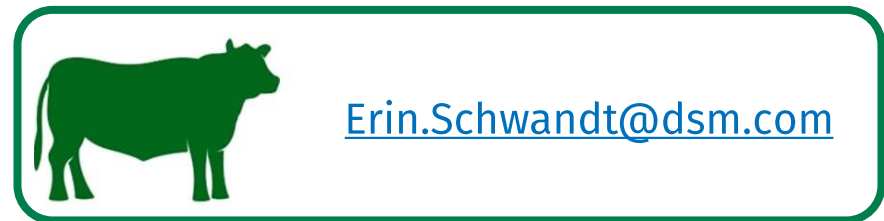
## Forecasted potential risk for livestock production\*:



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