

Mycotoxin Occurrence in 2022 US Corn Silage



JUNE 2023

MYCOTOXIN *monthly*



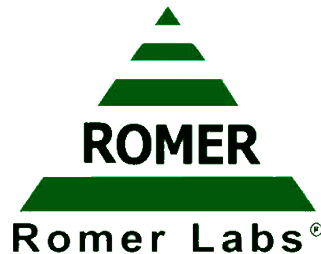
DSM

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US Mycotoxin Survey



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	1.3
	Aflatoxin B2	1.2
	Aflatoxin G1	1.1
	Aflatoxin G2	1.6
A-Trichothecenes (A-Trich)	T-2 Toxin	100.0
	HT-2 Toxin	100.0
	Neosolaniol	100.0
	Diacetoxyscirpenol (DAS)	100.0
B-Trichothecenes (B-Trich)	Deoxynivalenol (DON/Vomitoxin)	100.0
	Acetyl-deoxynivalenol (AcDON)	100.0
	Nivalenol (NIV)	100.0
	Fusarenon X (FusX)	100.0
Fumonisin (FUM)	Fumonisin B1	100.0
	Fumonisin B2	100.0
	Fumonisin B3	100.0
Zearalenone (ZEN)	Zearalenone (ZEN)	51.7
Ochratoxin A (OTA)	Ochratoxin A (OTA)	1.1

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

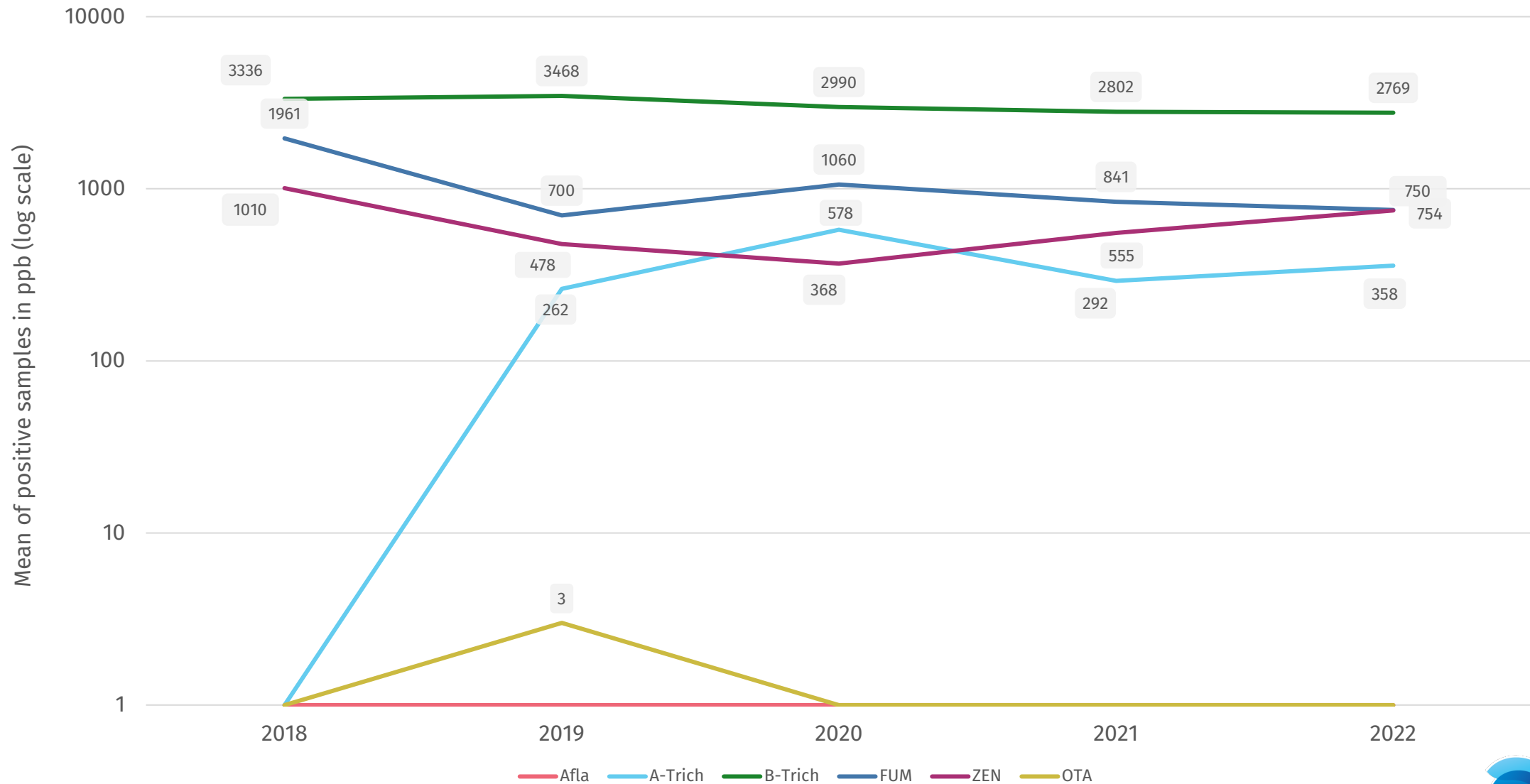


2022 US Corn Silage (dry matter basis)

Occurrence Trend in 2022 US Corn Silage



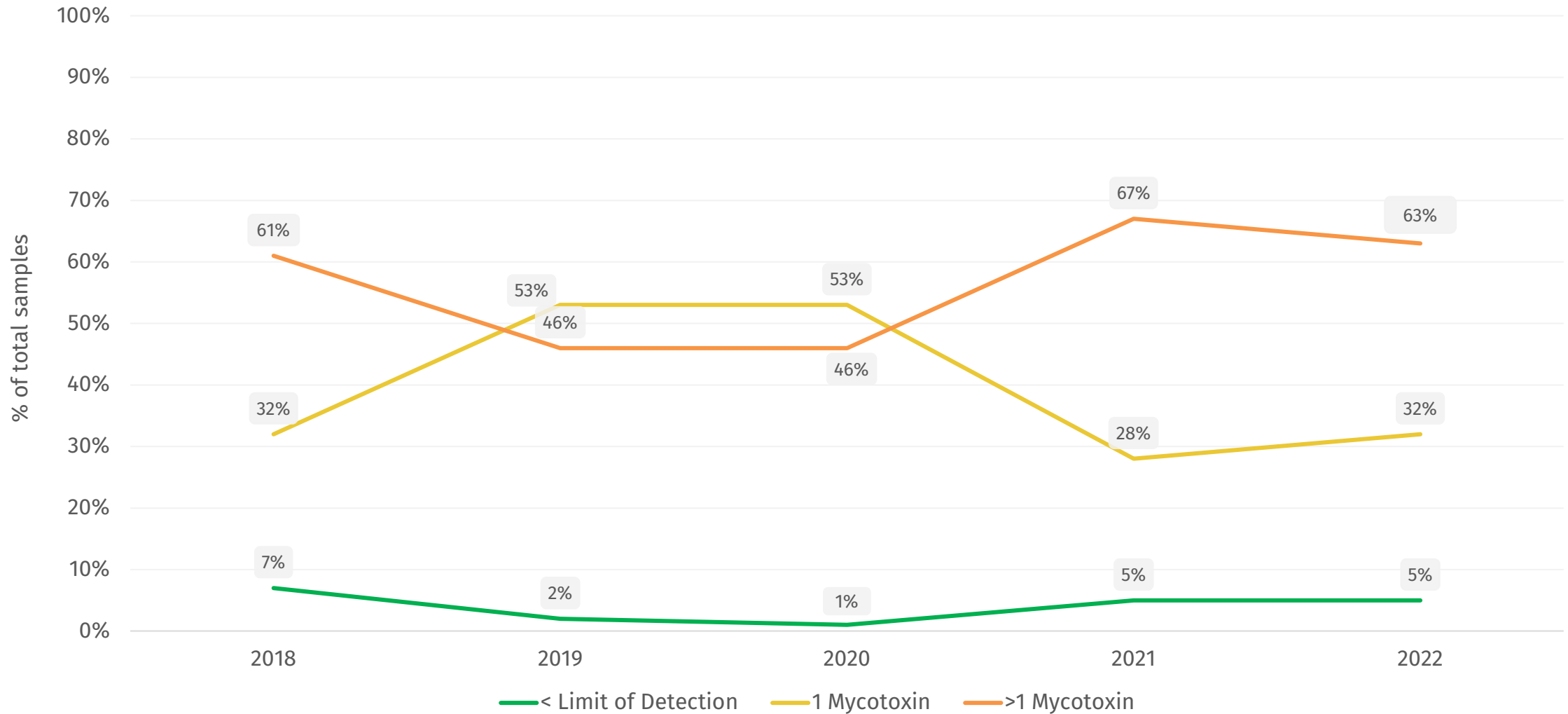
Mean of Positives Trend in 2022 US Corn Silage



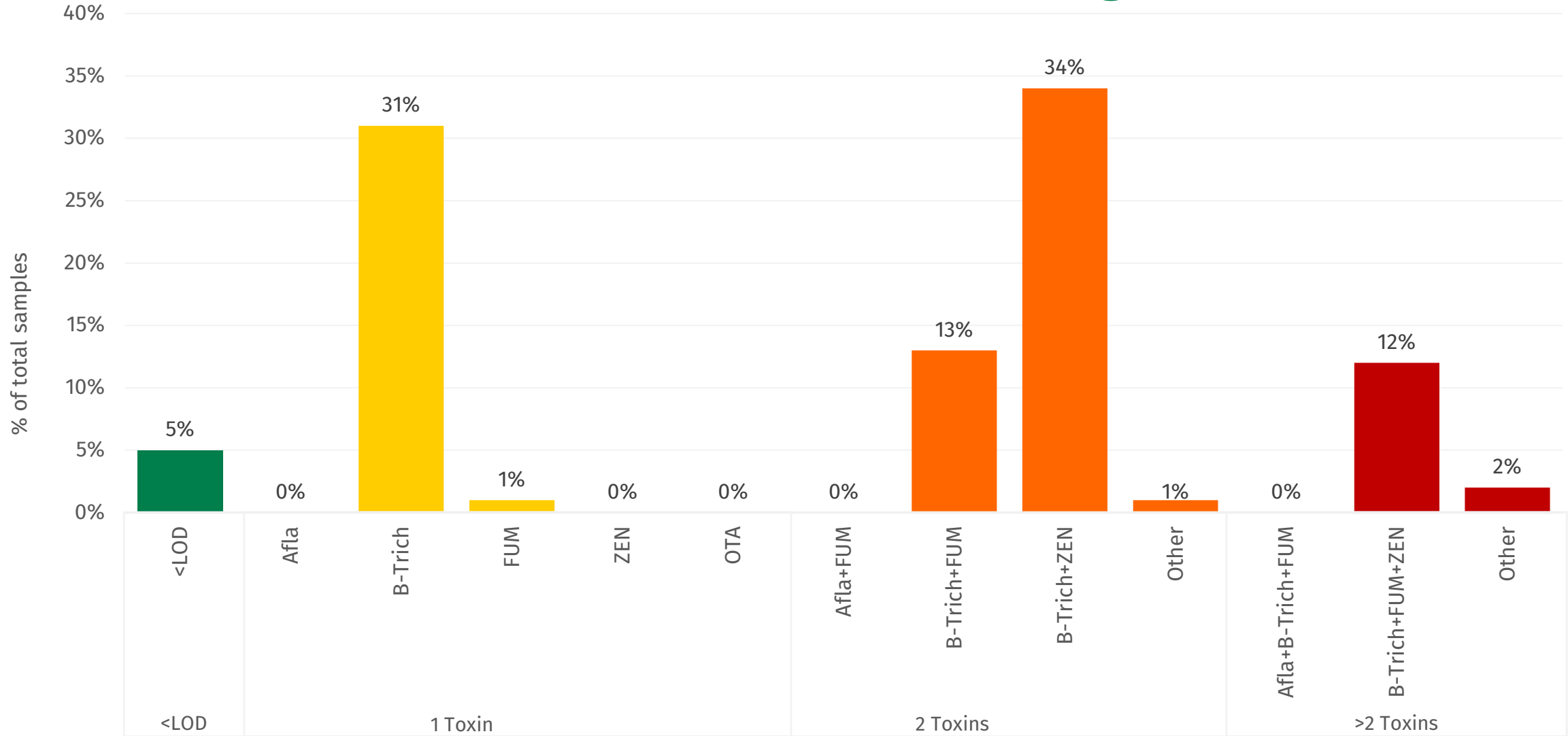
Based on the samples analyzed.



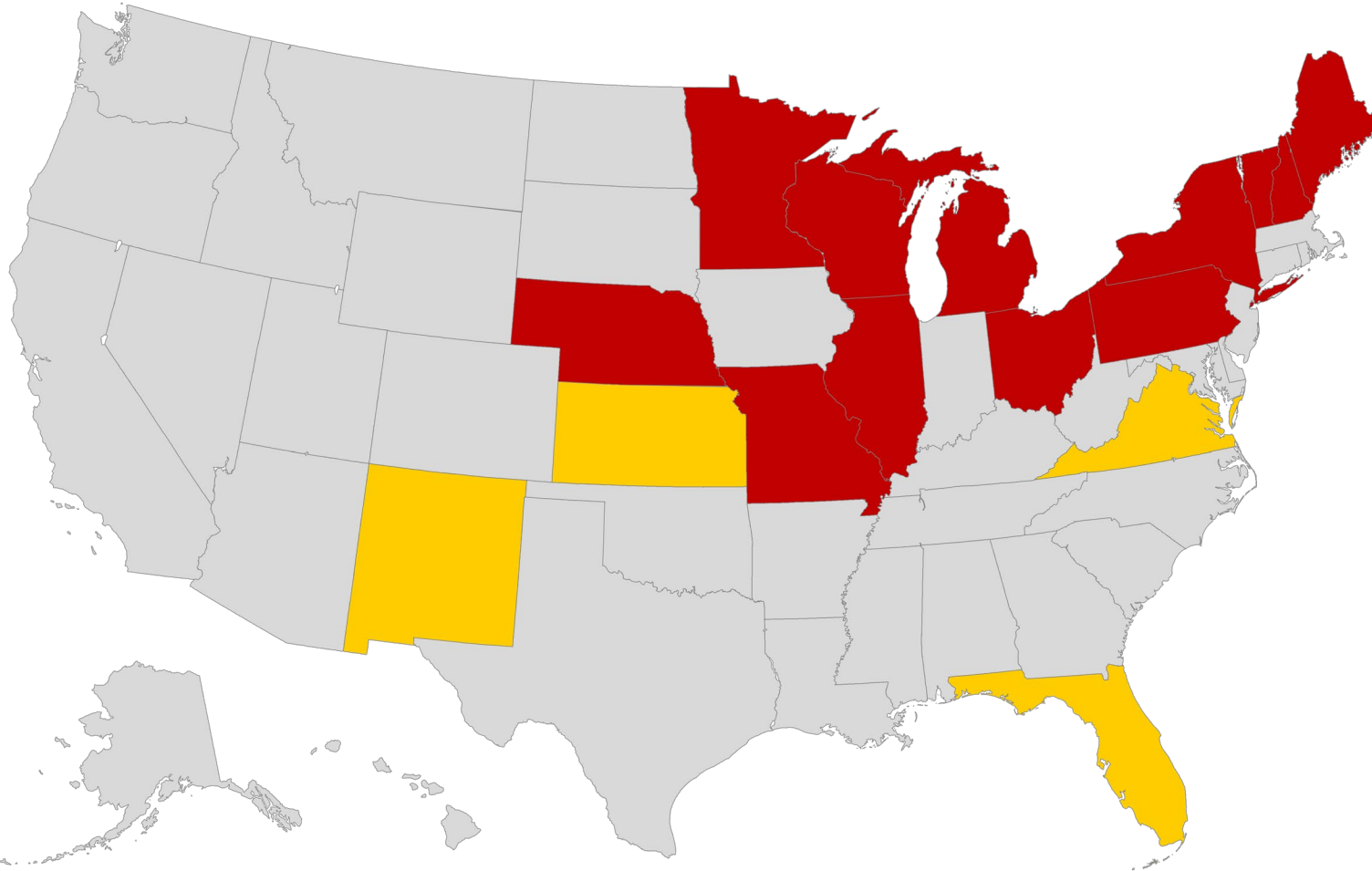
Co-occurrence Trend in 2022 US Corn Silage



Co-occurrence Profile in 2022 US Corn Silage



2022 Corn Silage Risk by State – B-Trich

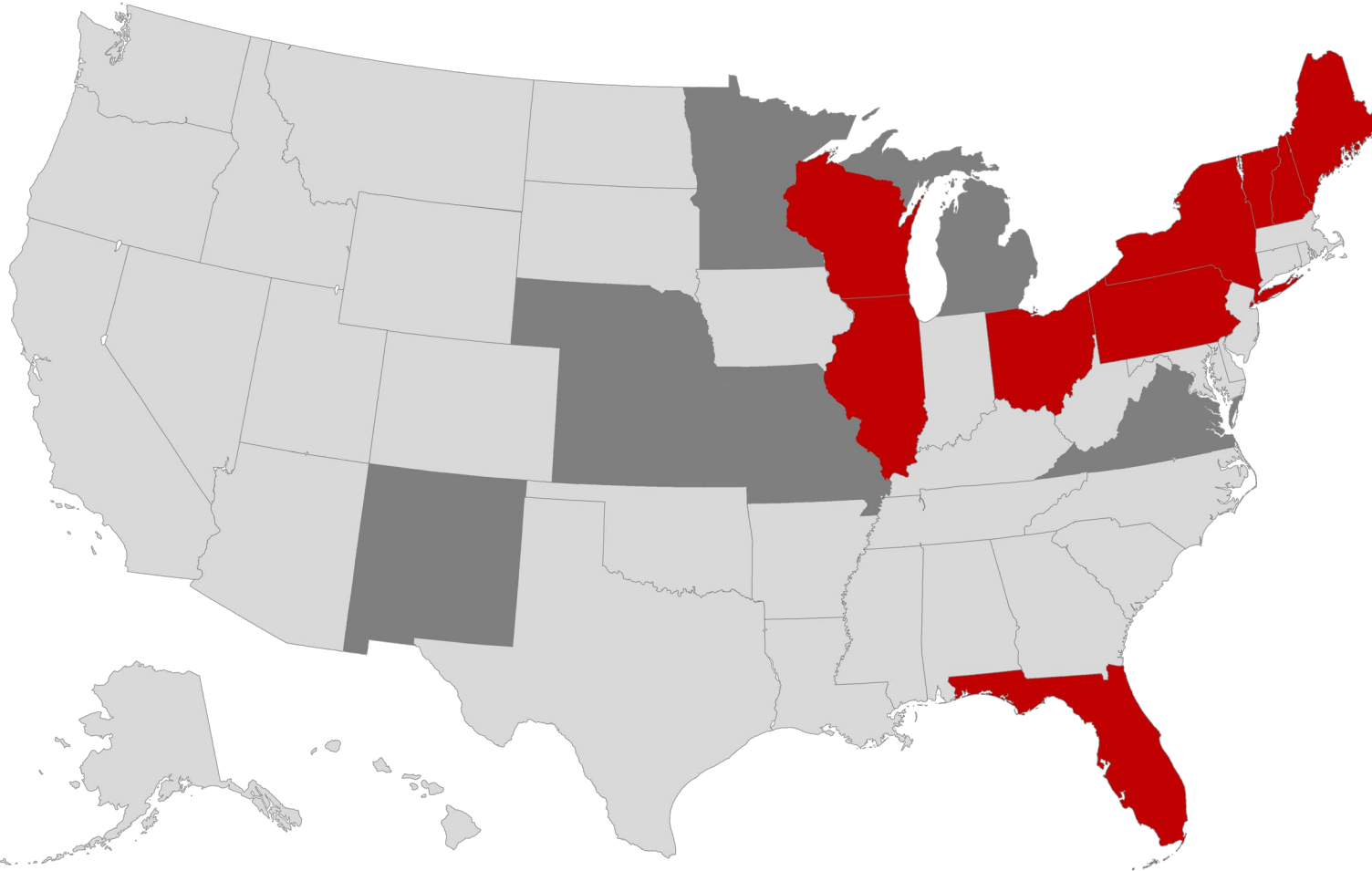


State	Number of Samples	% Positive Samples	Avg of Positive Samples
PA	4	100	5591
MI	1	100	4874
NH	2	100	3761
OH	13	100	3376
MO	1	100	2901
VT	6	83	2892
NY	25	96	2784
WI	4	100	2775
ME	6	100	2625
MN	1	100	2484
IL	5	80	2194
NE	2	100	1243
KS	4	75	899
NM	1	100	841
FL	5	60	713
VA	2	100	673

- State with average > 1000 ppb
- State with average < 1000 ppb
- State with samples < LOD (100 ppb)
- No sample submitted



2022 Corn Silage Risk by State – ZEN



State	Number of Samples	% Positive Samples	Avg of Positive Samples
IL	5	60	3762
PA	4	100	1359
FL	5	40	592
NH	2	50	501
OH	13	31	415
VT	6	83	403
NY	25	72	391
WI	4	50	314
ME	6	17	270
KS	4	0	0
MI	1	0	0
MN	1	0	0
MO	1	0	0
NE	2	0	0
NM	1	0	0
VA	2	0	0

- State with average > 100 ppb
- State with average < 100 ppb
- State with samples < LOD (51.7 ppb)
- No sample submitted

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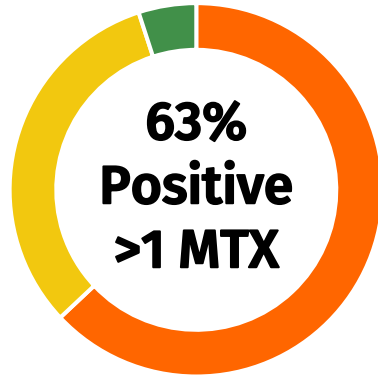
Mycotoxin Survey Summary – 2022 US Corn Silage



82 corn silage samples submitted from 16 states



vs. 95% in 2021



vs. 67% in 2021

vs. 2021

B-Trich

- 93% positive / ↑ from 88%
- 2769 ppb / ↓ from 2802 ppb

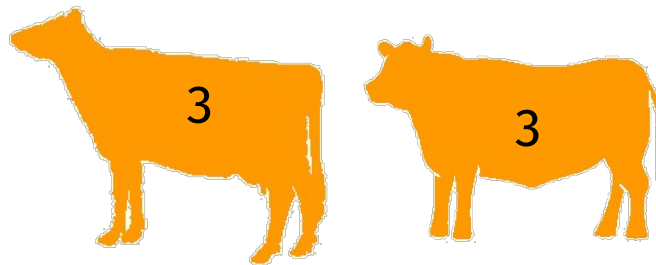
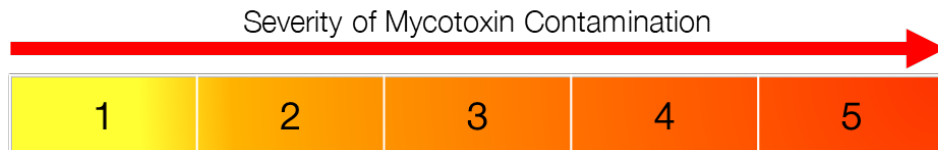
FUM

- 29% positive / ↑ from 20%
- 754 ppb / ↓ from 841 ppb

ZEN

- 49% positive / ↓ from 67%
- 750 ppb / ↑ from 555 ppb

Forecasted potential risk for livestock production*:



*Based on the samples analyzed.

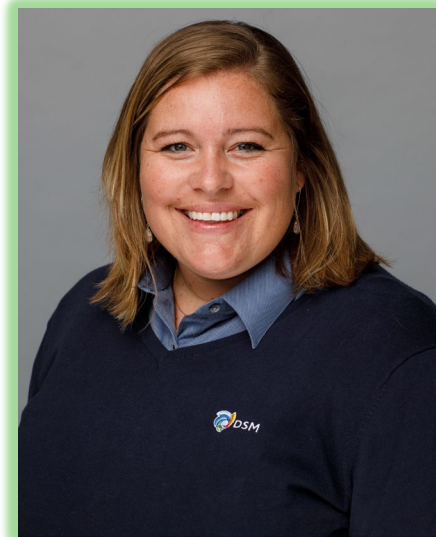


Questions?



Thank you!

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