

Mycotoxin Occurrence in 2022 US Corn Silage



DECEMBER 2022

MYCOTOXIN *monthly*



DSM

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Mycotoxins & Analysis



LC-MS/MS



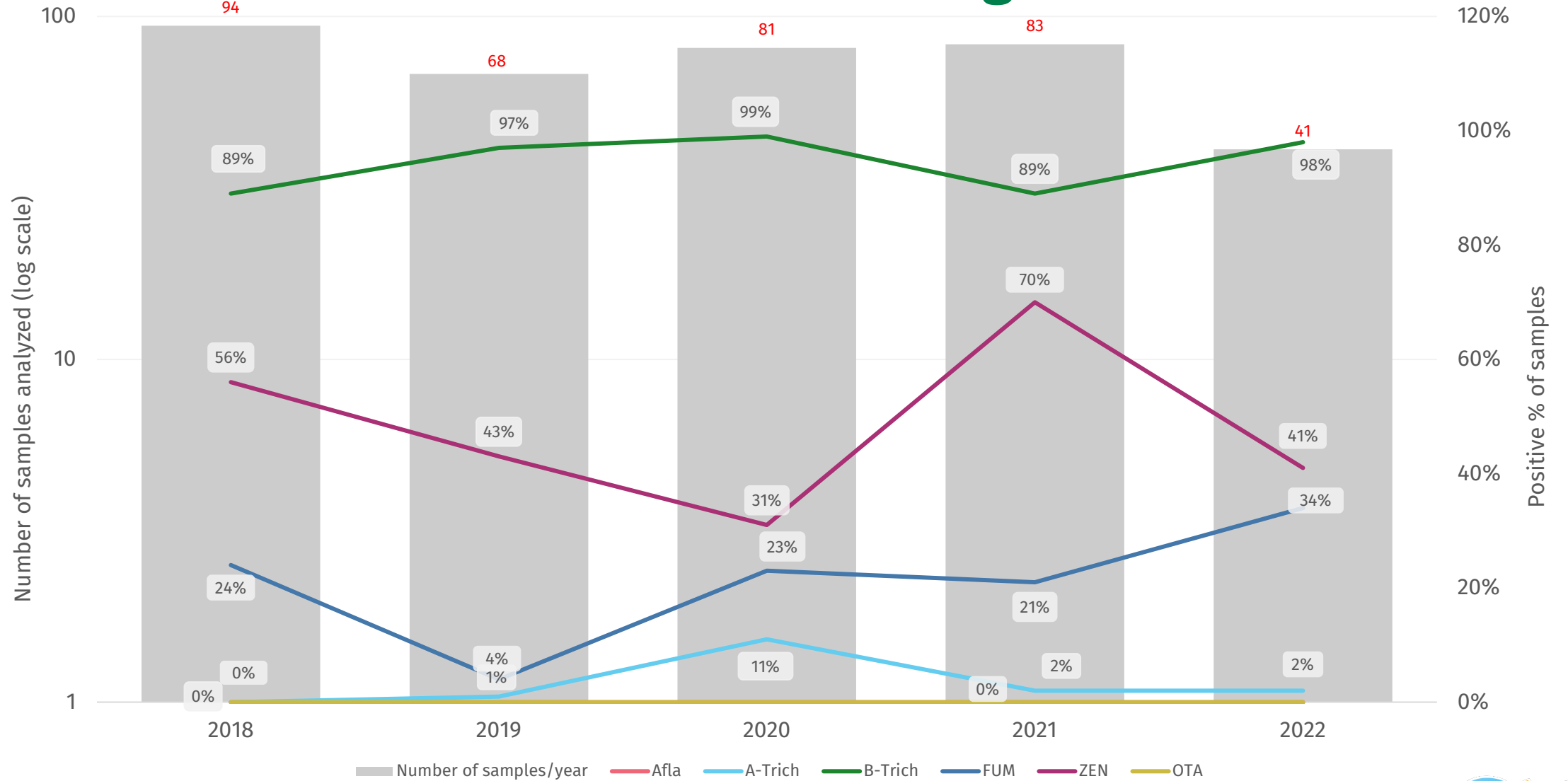
The survey results represent samples sent in for surveillance testing only and does not include any sample submitted following clinical signs.

Mycotoxin Group*	Mycotoxins	Limit of Detection (ppb)
Aflatoxins (Afla)	Aflatoxin B1	1.3
	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

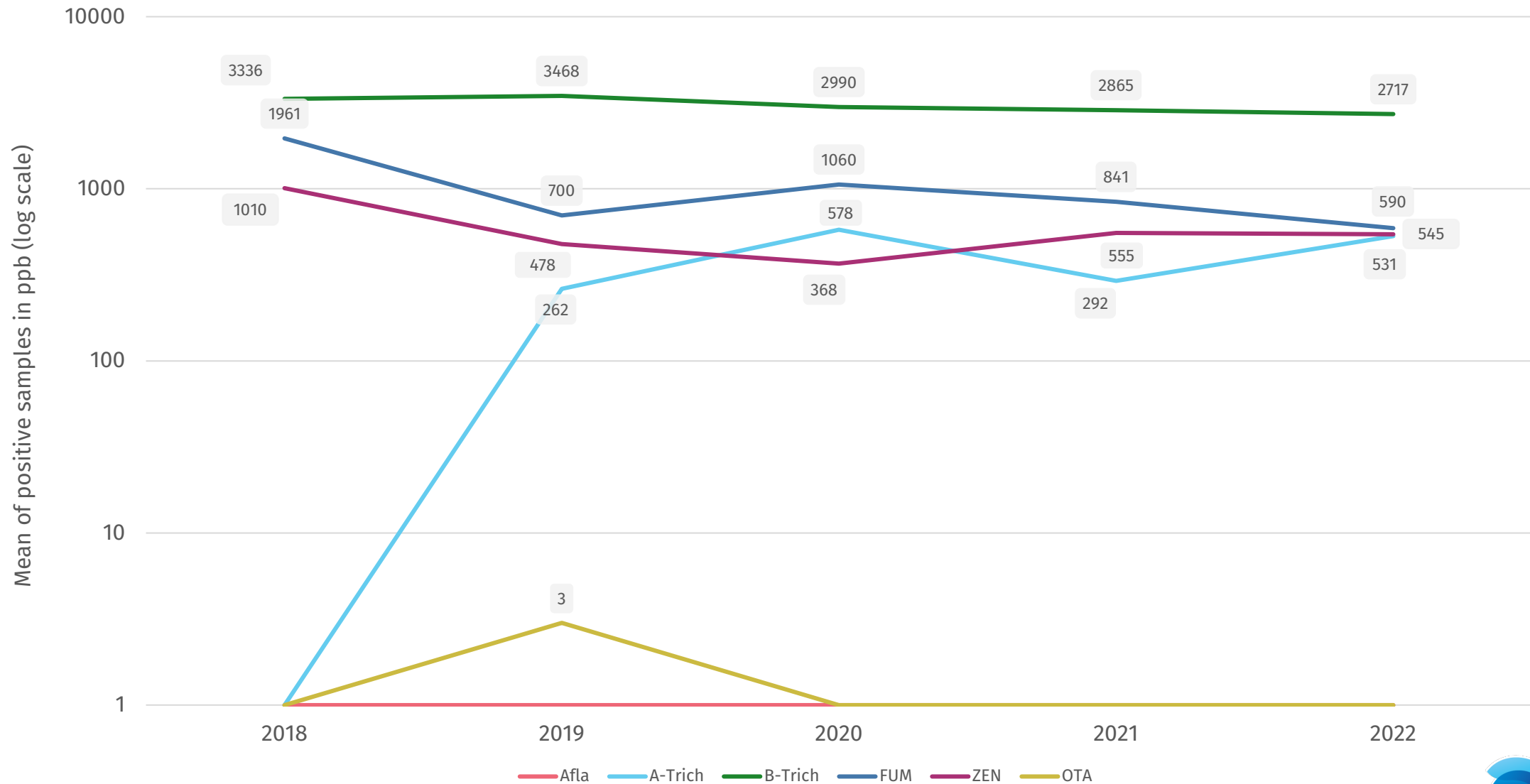
*Results are reported as the summation of mycotoxin levels detected per Mycotoxin Group. (For example, B-Trich represents total contamination detected for DON + AcDON + NIV + FusX)

2022 US Corn Silage (dry matter basis)

Occurrence Trend in 2022 US Corn Silage



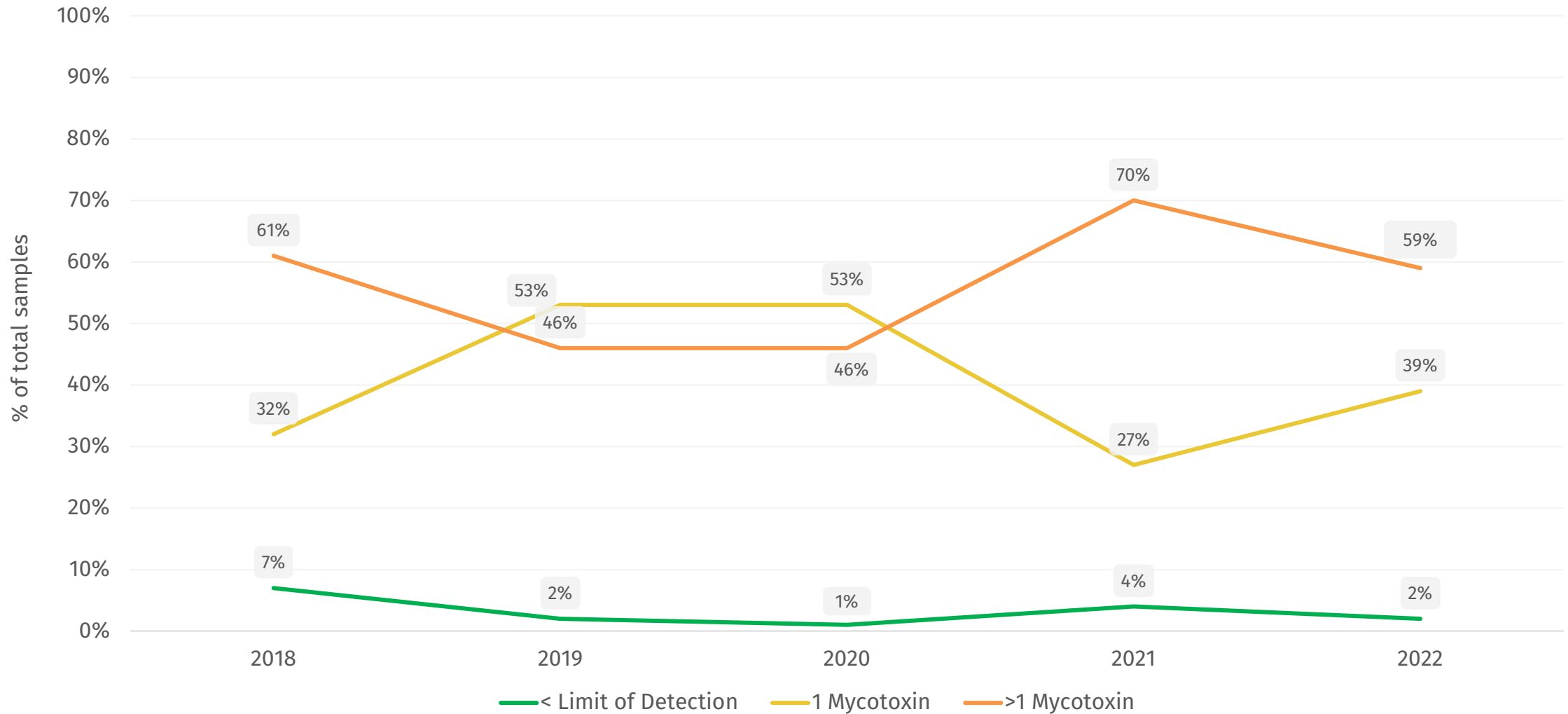
Mean of Positives Trend in 2022 US Corn Silage



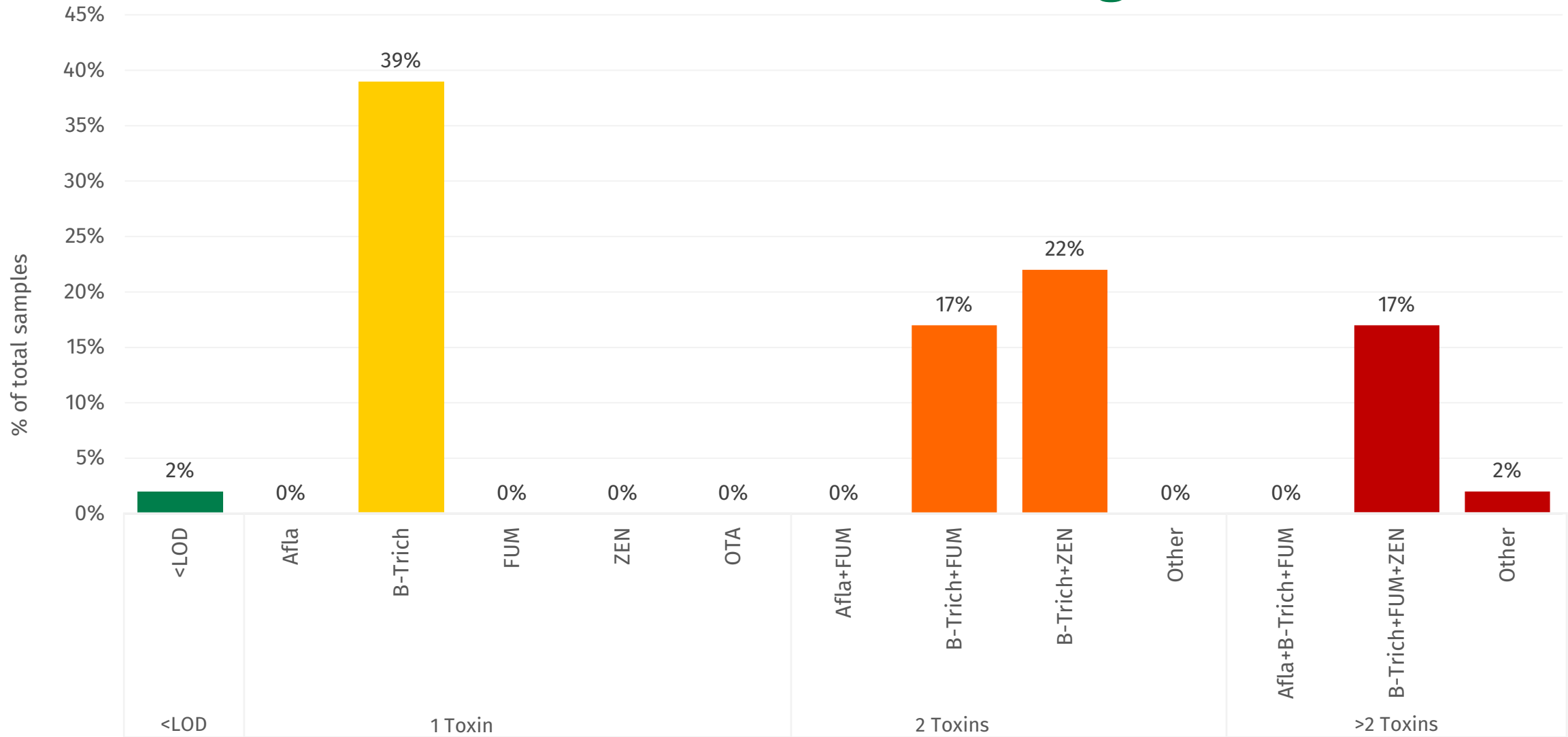
Based on the samples analyzed.



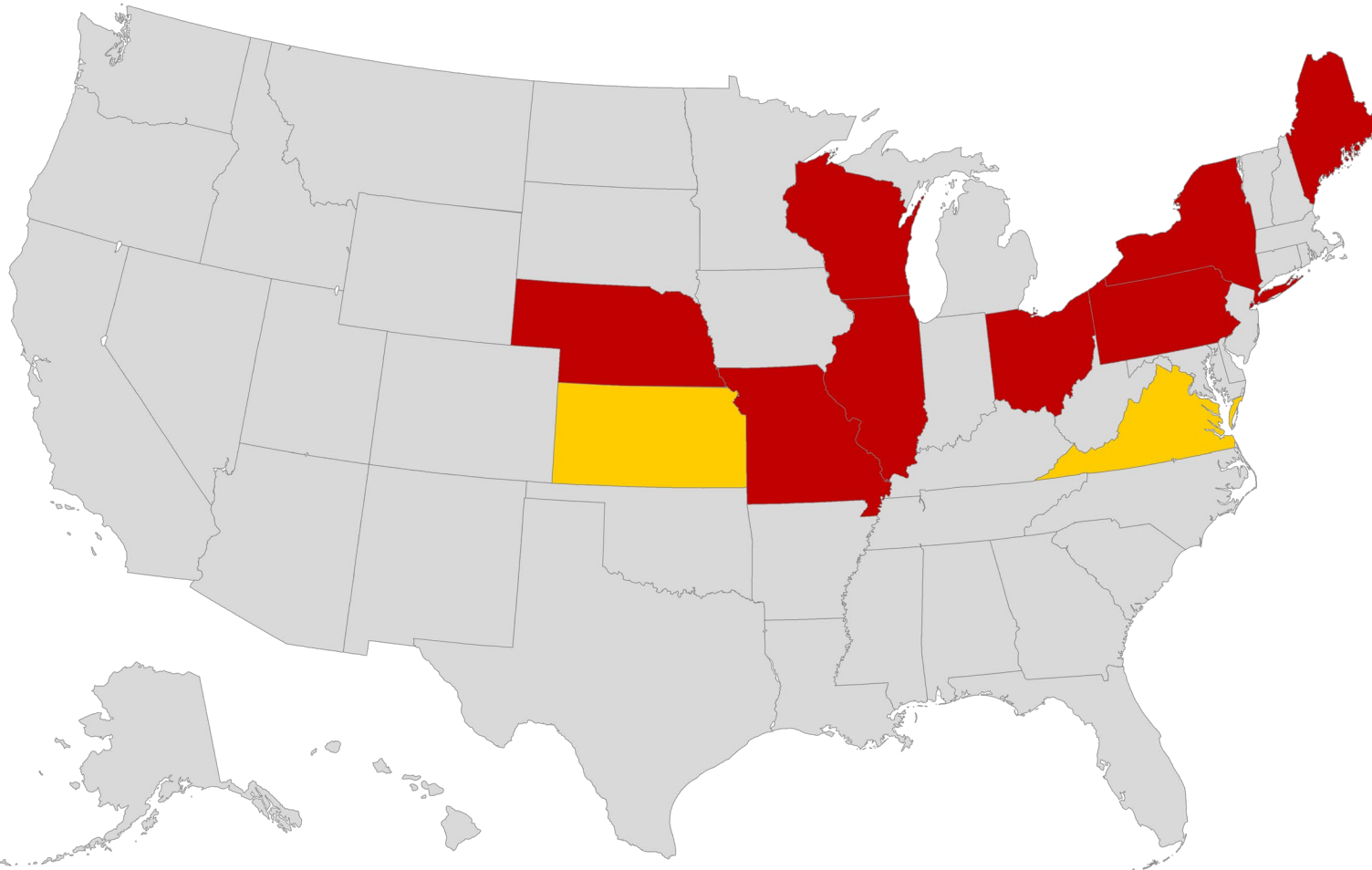
Co-occurrence Trend in 2022 US Corn Silage



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
WI	2	100	3608
OH	10	100	3025
MO	1	100	2901
NY	14	93	2617
IL	2	100	1810
ME	2	100	1294
NE	2	100	1243
KS	2	100	939
VA	2	100	673

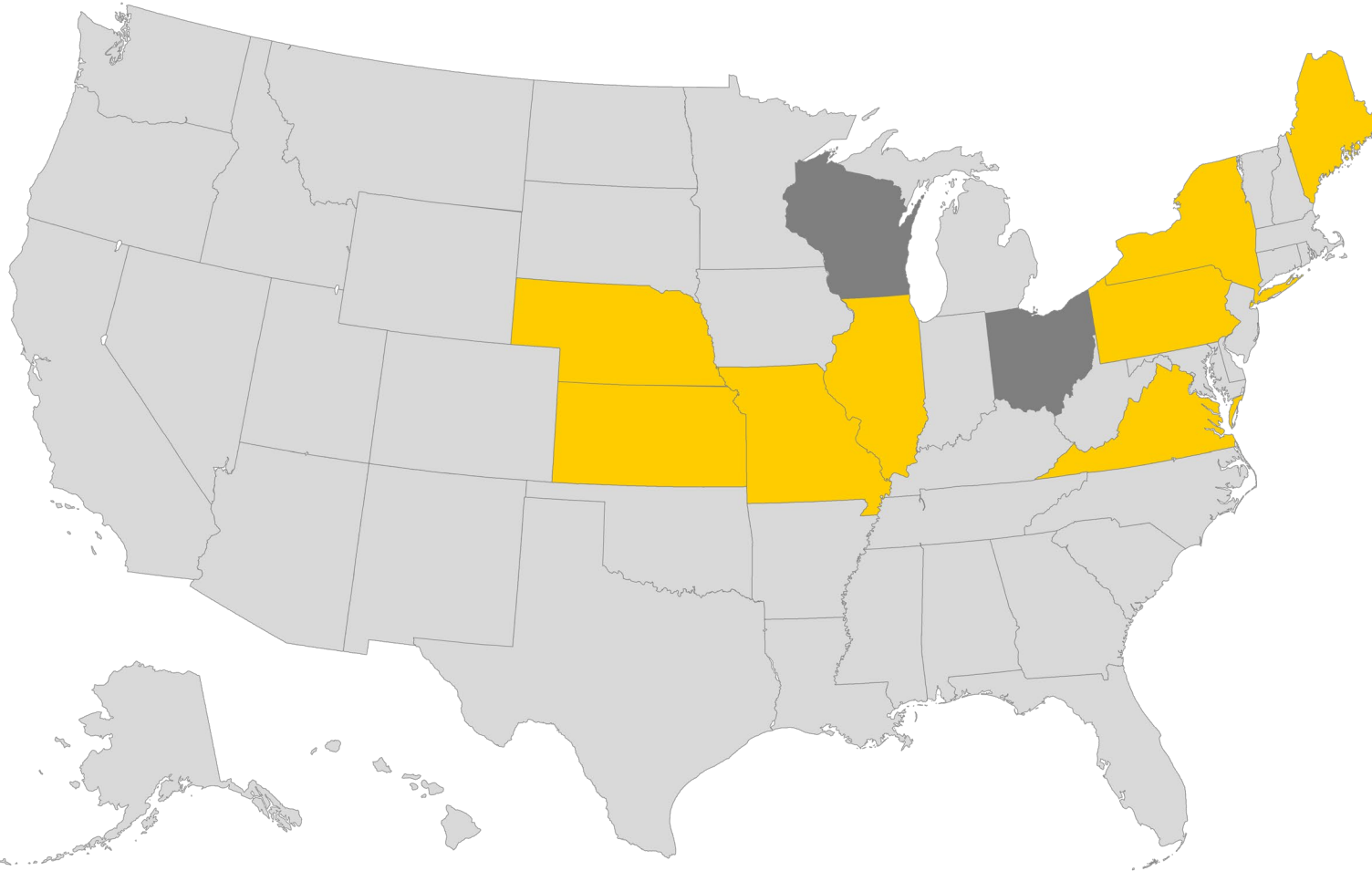
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- State with average > 1000 ppb
- State with average < 1000 ppb
- State with samples < LOD (100 ppb)
- No sample submitted

Based on the samples analyzed in this region.



2022 Corn Silage Risk by State – FUM



State	Number of Samples	% Positive Samples	Avg of Positive Samples
KS	2	50	1504
PA	4	50	821
ME	2	50	635
NY	14	36	547
VA	2	100	477
IL	2	50	342
MO	1	100	256
NE	2	50	199
OH	10	0	0
WI	2	0	0

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- State with average > 2000 ppb
- State with average < 2000 ppb
- State with samples < LOD (100 ppb)
- No sample submitted

Based on the samples analyzed in this region.



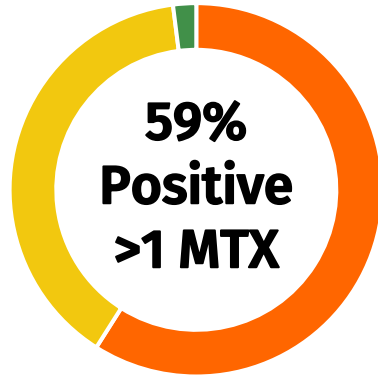
Mycotoxin Survey Summary – 2022 US Corn Silage



41 corn silage samples submitted from 10 states



vs. 96% in 2021



vs. 70% in 2021

vs. 2021



- 98% positive / ↑ from 89%
- 2717 ppb / ↓ from 2865 ppb

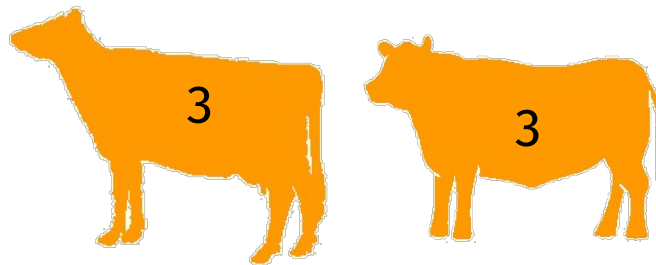
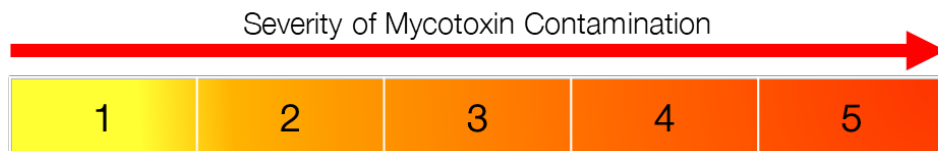


- 34% positive / ↑ from 21%
- 590 ppb / ↓ from 841 ppb



- 41% positive / ↓ from 70%
- 545 ppb / ↓ from 555 ppb

Forecasted potential risk for livestock production*:



*Based on the samples analyzed.

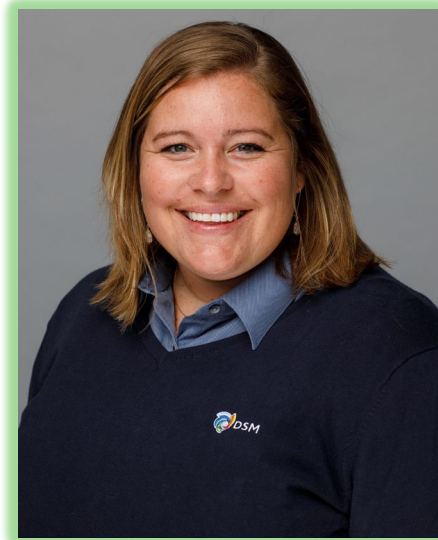


Questions?

Thank you!



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