Mycotoxin Occurrence in 2022 US Corn Ingredients

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Mycotoxins & Analysis

LC-MS/MS

ROMER
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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
Fumonisins (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)

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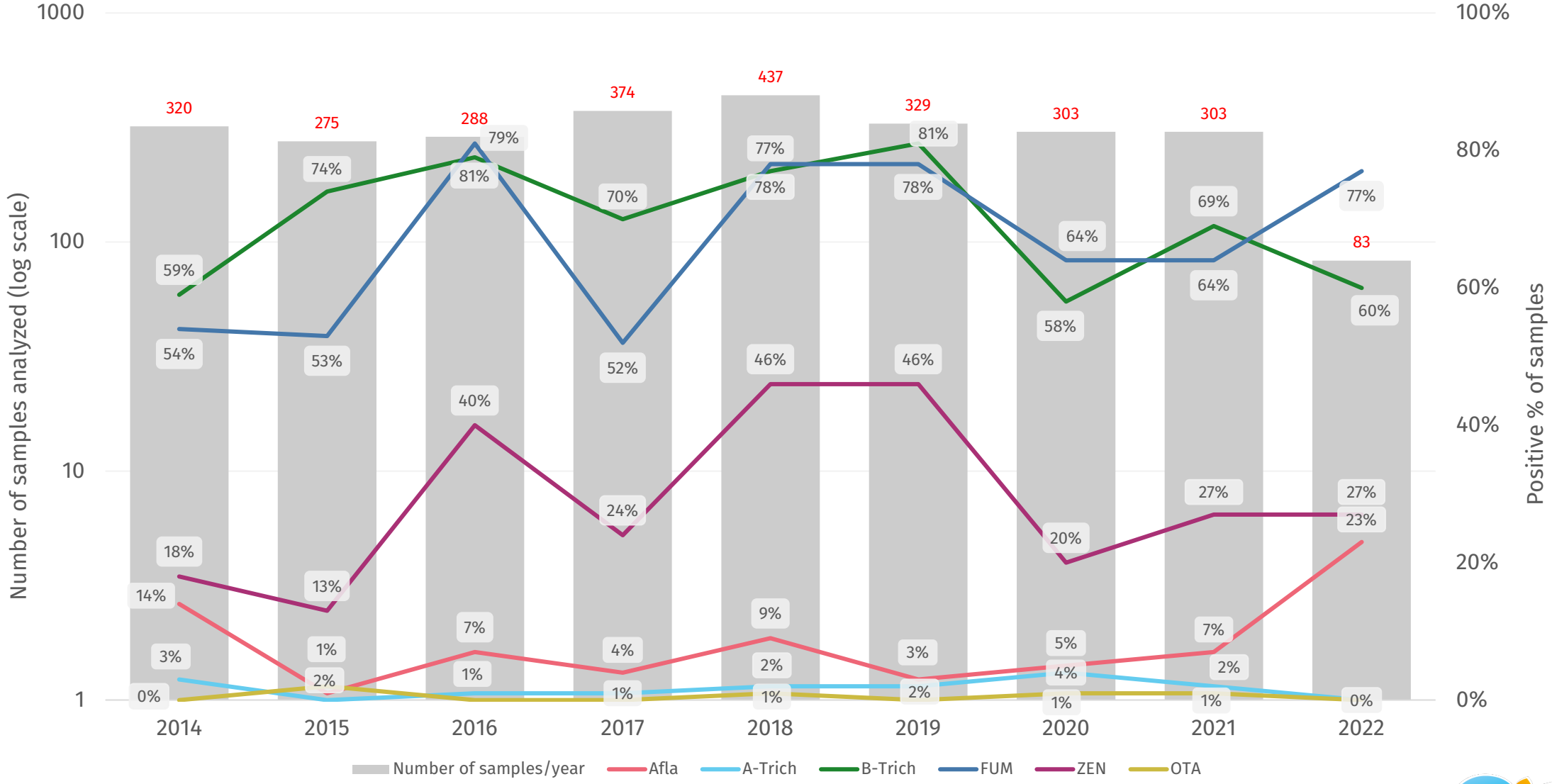
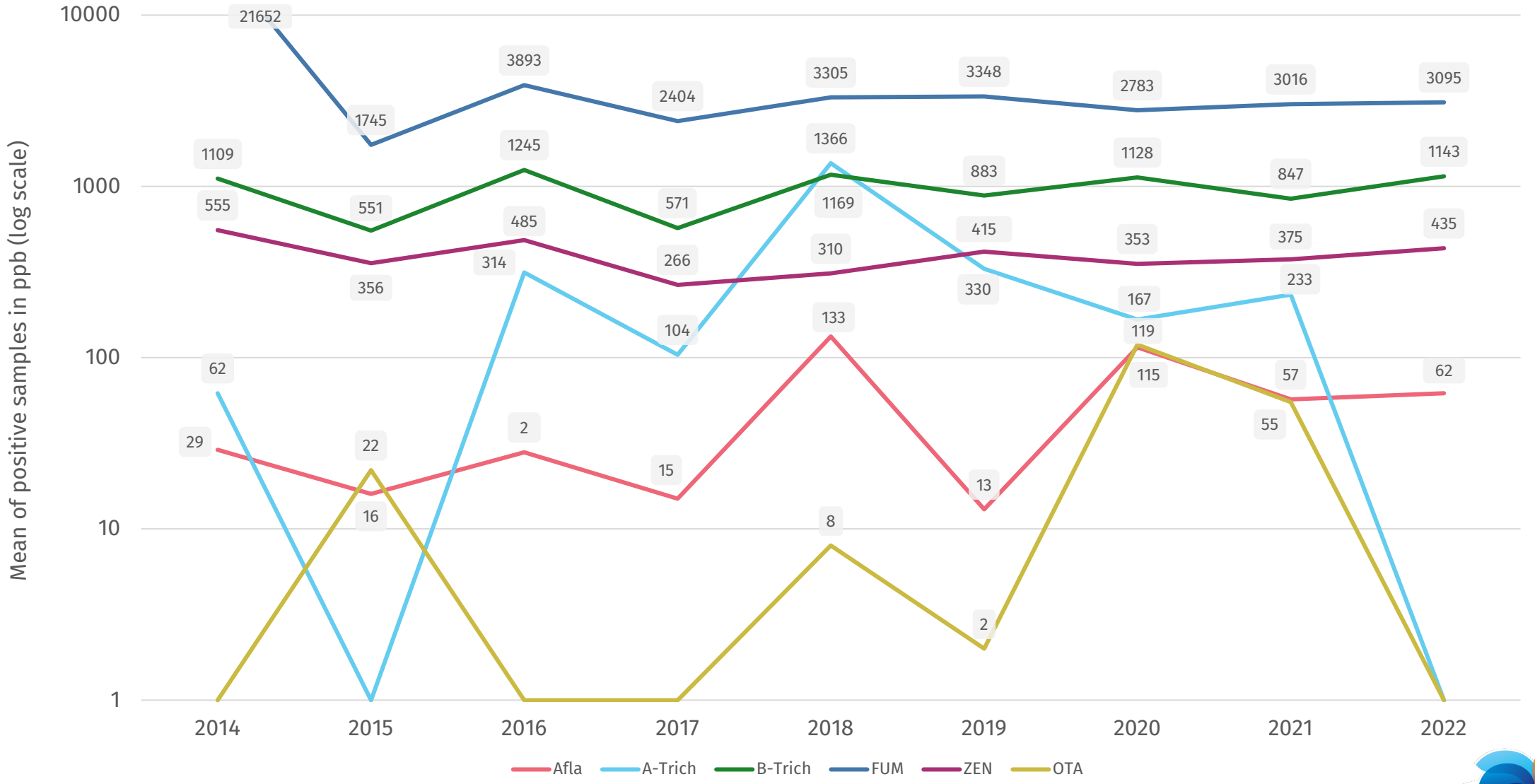
2022 US Corn (as-fed basis)

Occurrence Trend in 2022 US Corn



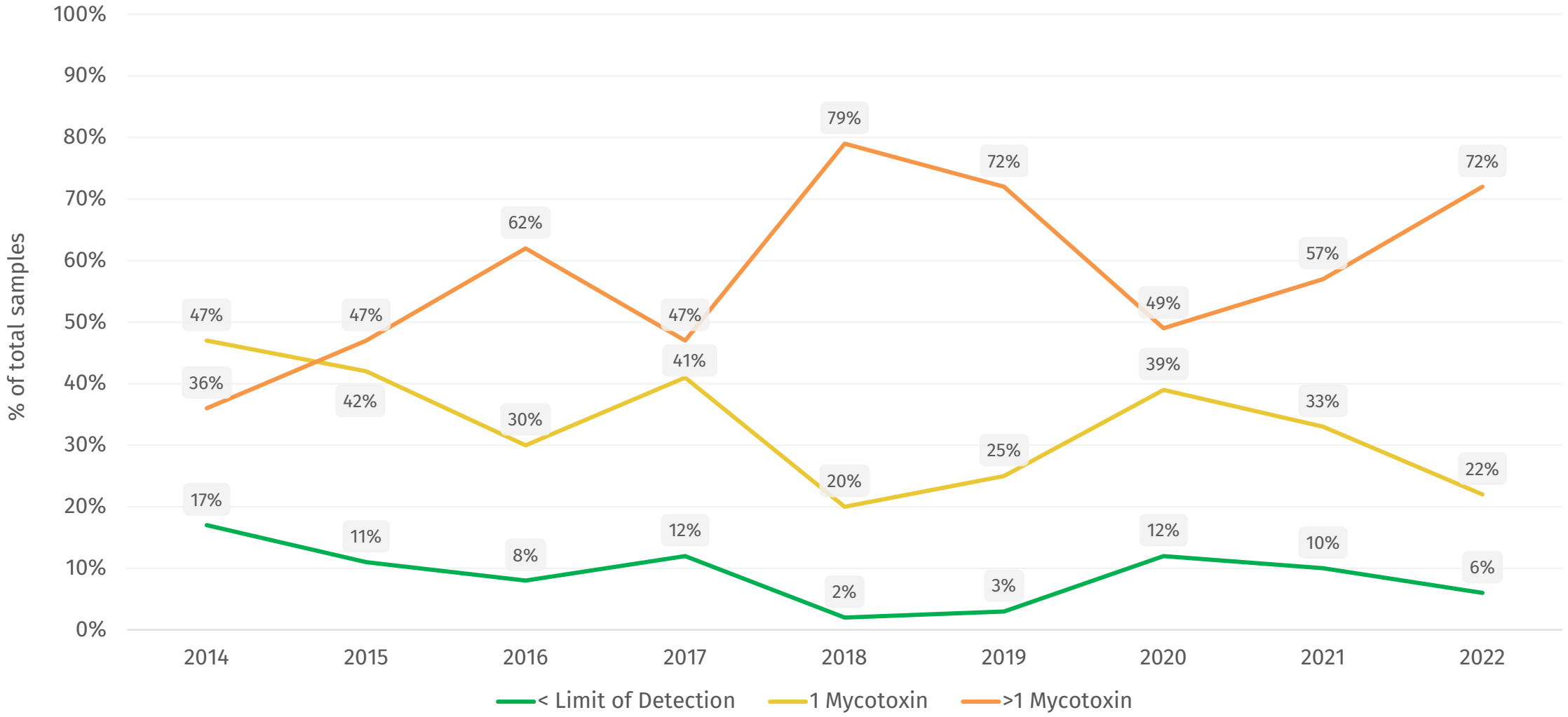
Based on the samples analyzed.

Mean of Positives Trend in 2022 US Corn



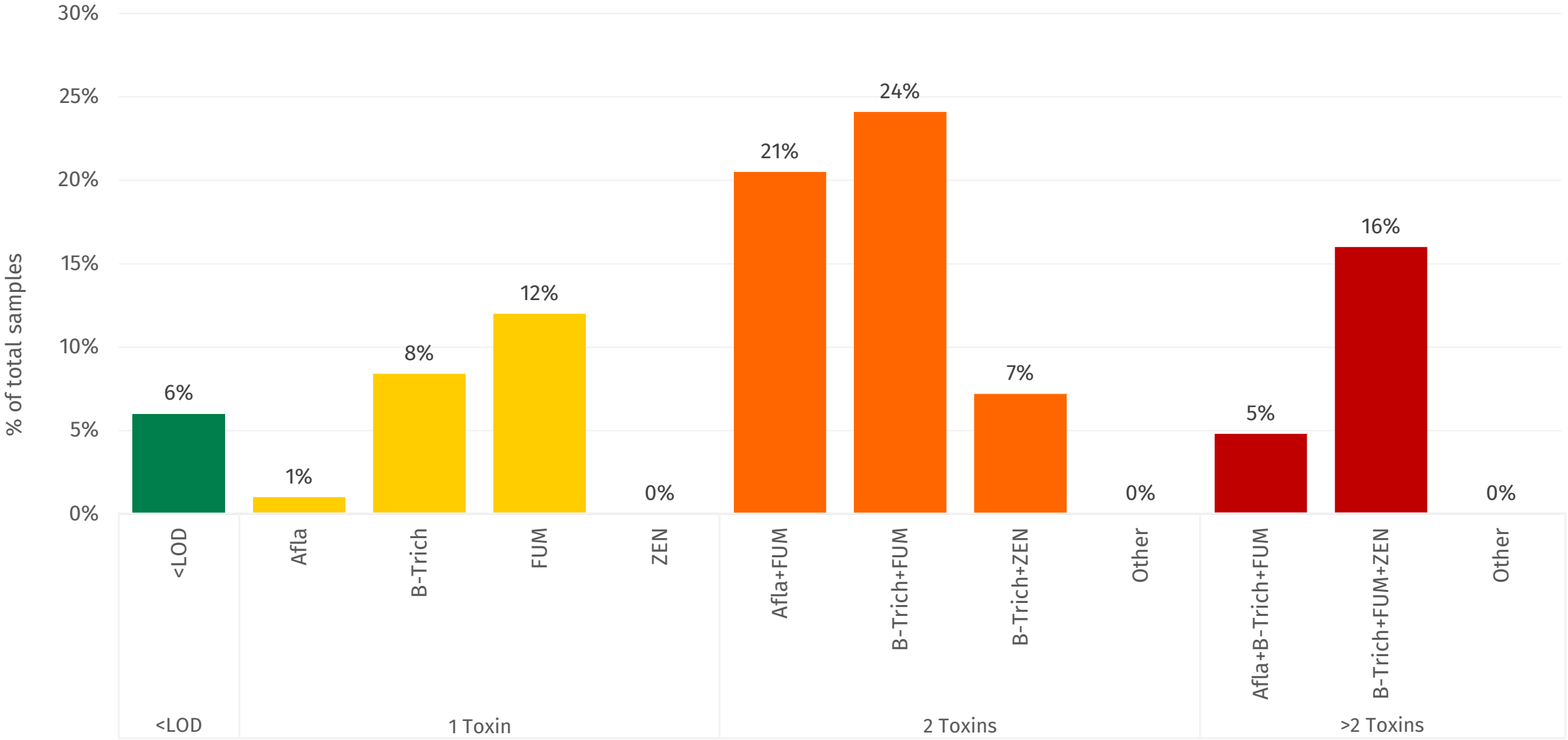
Based on the samples analyzed.

Co-occurrence Trend in 2022 US Corn



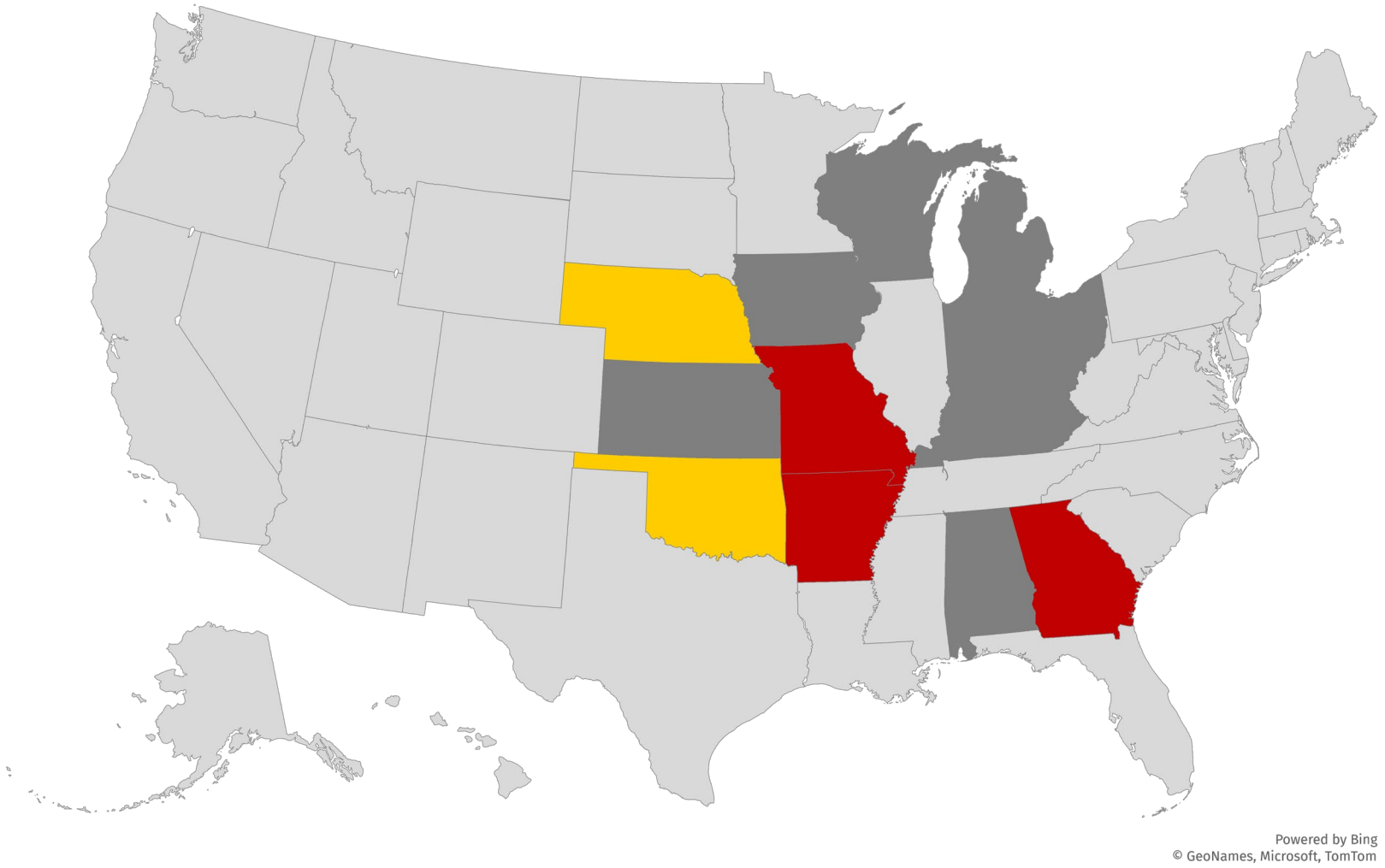
Based on the samples analyzed. Values may not total 100% due to rounding.

Co-occurrence Profile in 2022 US Corn



Based on the samples analyzed. Values may not total 100% due to rounding.
A-Trich and OTA are not presented due to insignificant positive samples.

2022 Corn Risk by State – Afla

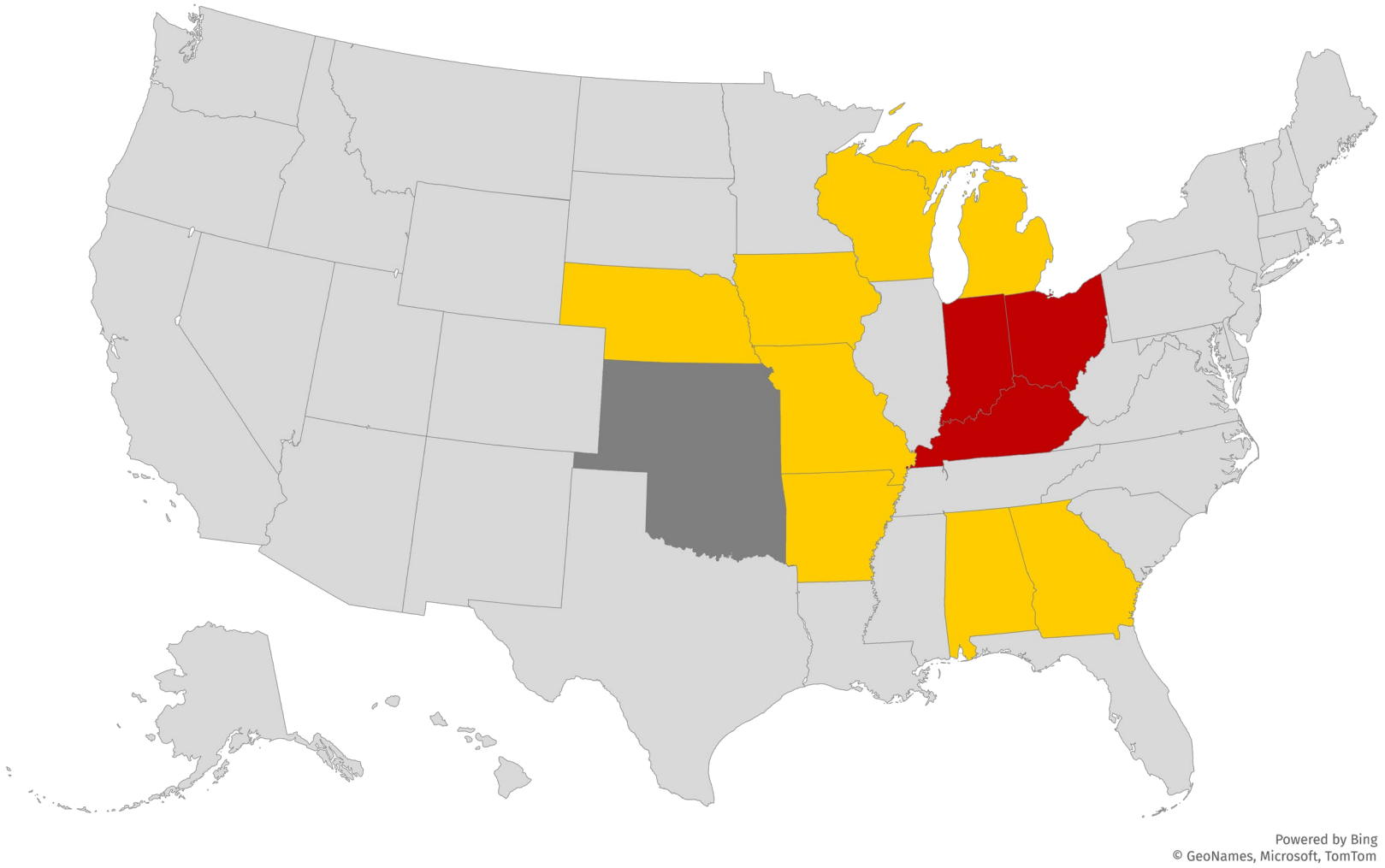


State	Number of Samples	% Positive Samples	Avg of Positive Samples
AR	3	33	602
MO	4	25	84
GA	15	100	32
OK	1	100	9
NE	13	8	7
AL	3	0	0
IA	3	0	0
IN	18	0	0
KS	1	0	0
KY	2	0	0
MI	3	0	0
OH	16	0	0
WI	1	0	0

- State with average > 20 ppb
- State with average < 20 ppb
- State with samples < LOD (1 ppb)
- No sample submitted

Based on the samples analyzed in this region.

2022 Corn Risk by State – B-Trich

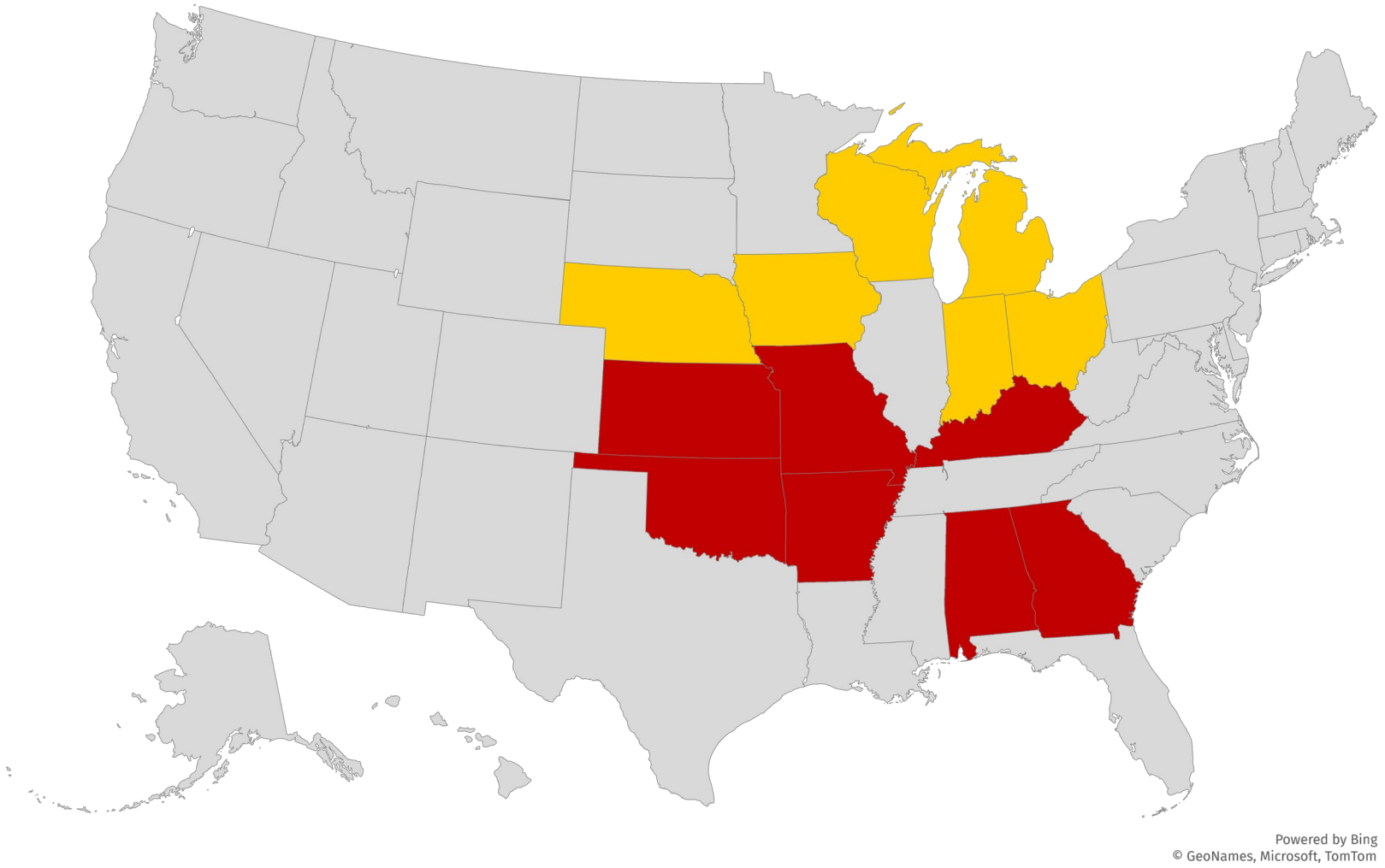


State	Number of Samples	% Positive Samples	Avg of Positive Samples
OH	16	100	1960
KY	2	100	1175
IN	18	89	1074
AL	3	100	803
WI	1	100	364
MO	4	50	362
MI	3	100	315
NE	13	31	310
AR	3	33	266
IA	3	33	193
GA	15	7	136
KS	1	0	0
OK	1	0	0

- 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 Risk by State – FUM

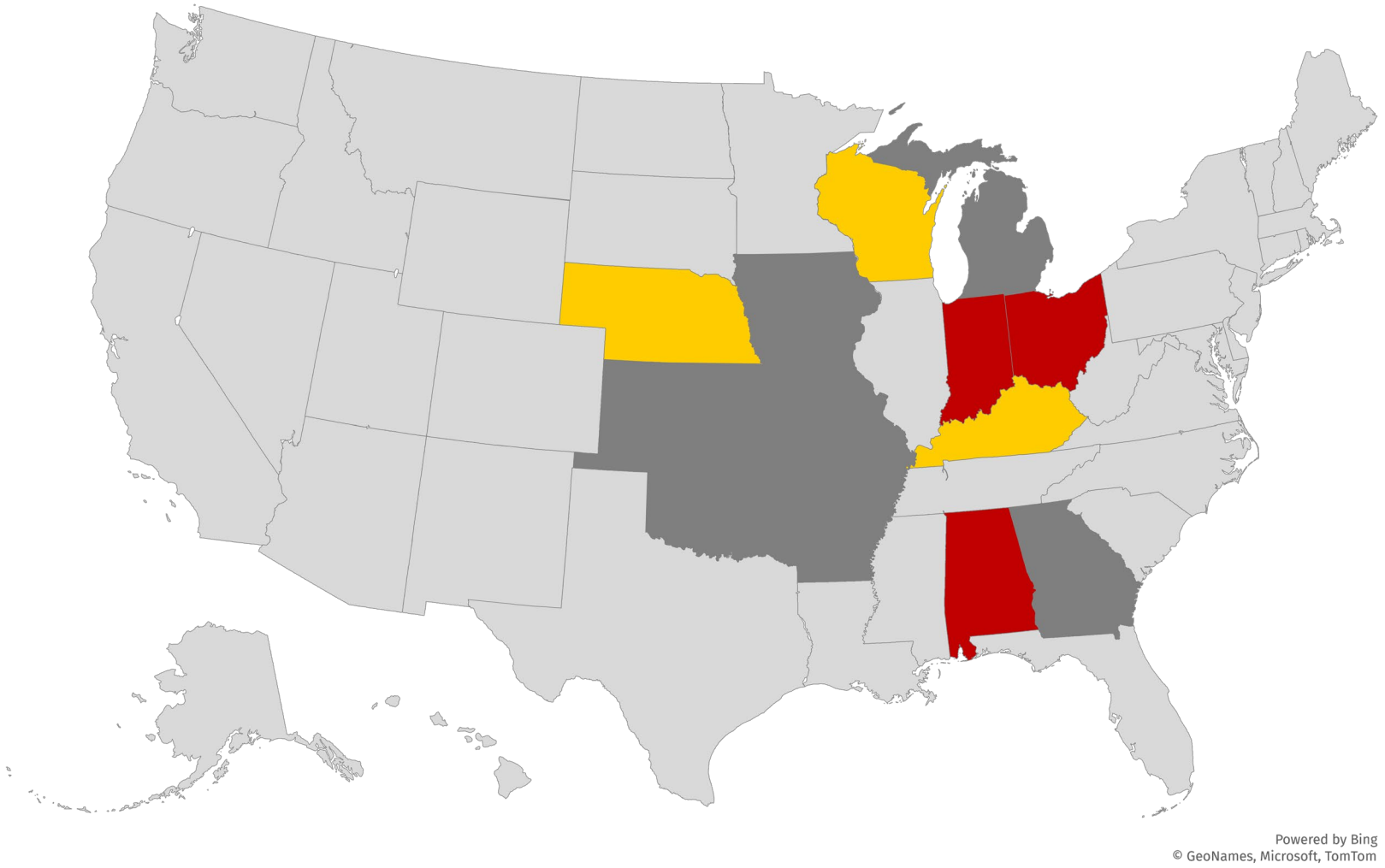


State	Number of Samples	% Positive Samples	Avg of Positive Samples
KY	2	100	18300
MO	4	75	6300
KS	1	100	4800
OK	1	100	4700
GA	15	100	4473
AL	3	100	3400
AR	3	100	2367
IN	18	67	1558
NE	13	85	1364
OH	16	50	1263
MI	3	100	1167
WI	1	100	900
IA	3	33	500

- 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.

2022 Corn Risk by State – ZEN



State	Number of Samples	% Positive Samples	Avg of Positive Samples
IN	18	28	581
OH	16	69	515
AL	3	100	253
KY	2	50	89
WI	1	100	85
NE	13	8	64
AR	3	0	0
GA	15	0	0
IA	3	0	0
KS	1	0	0
MI	3	0	0
MO	4	0	0
OK	1	0	0

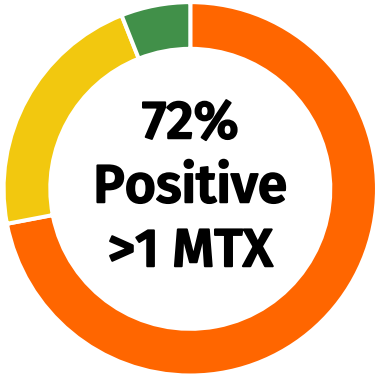
- State with average > 100 ppb
- State with average < 100 ppb
- State with samples < LOD (51.7 ppb)
- No sample submitted

Based on the samples analyzed in this region.

Mycotoxin Survey Summary – 2022 US Corn

83 corn samples submitted from 13 states

vs. 90% in 2021

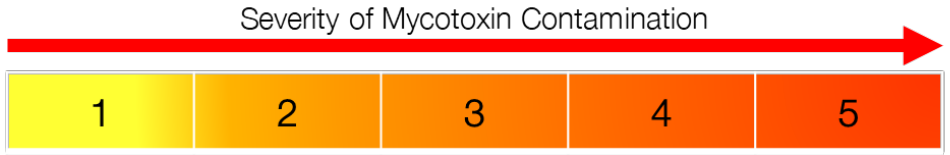


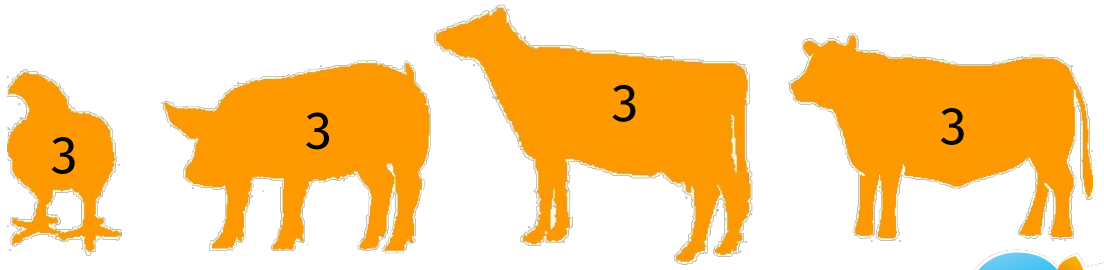
vs. 57% in 2021

vs. 2021

B-Trich	• 60% positive / ↓ from 69% • 1143 ppb / ↑ from 847 ppb
FUM	• 77% positive / ↑ from 64% • 3095 ppb / ↑ from 3016 ppb
ZEN	• 27% positive / no change • 435 ppb / ↑ from 375 ppb

Forecasted potential risk for livestock production*:





*Based on the samples analyzed.

Questions?

Thank you!

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