Mycotoxin Occurrence in 2022 US Corn Grain

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US Mycotoxin Survey

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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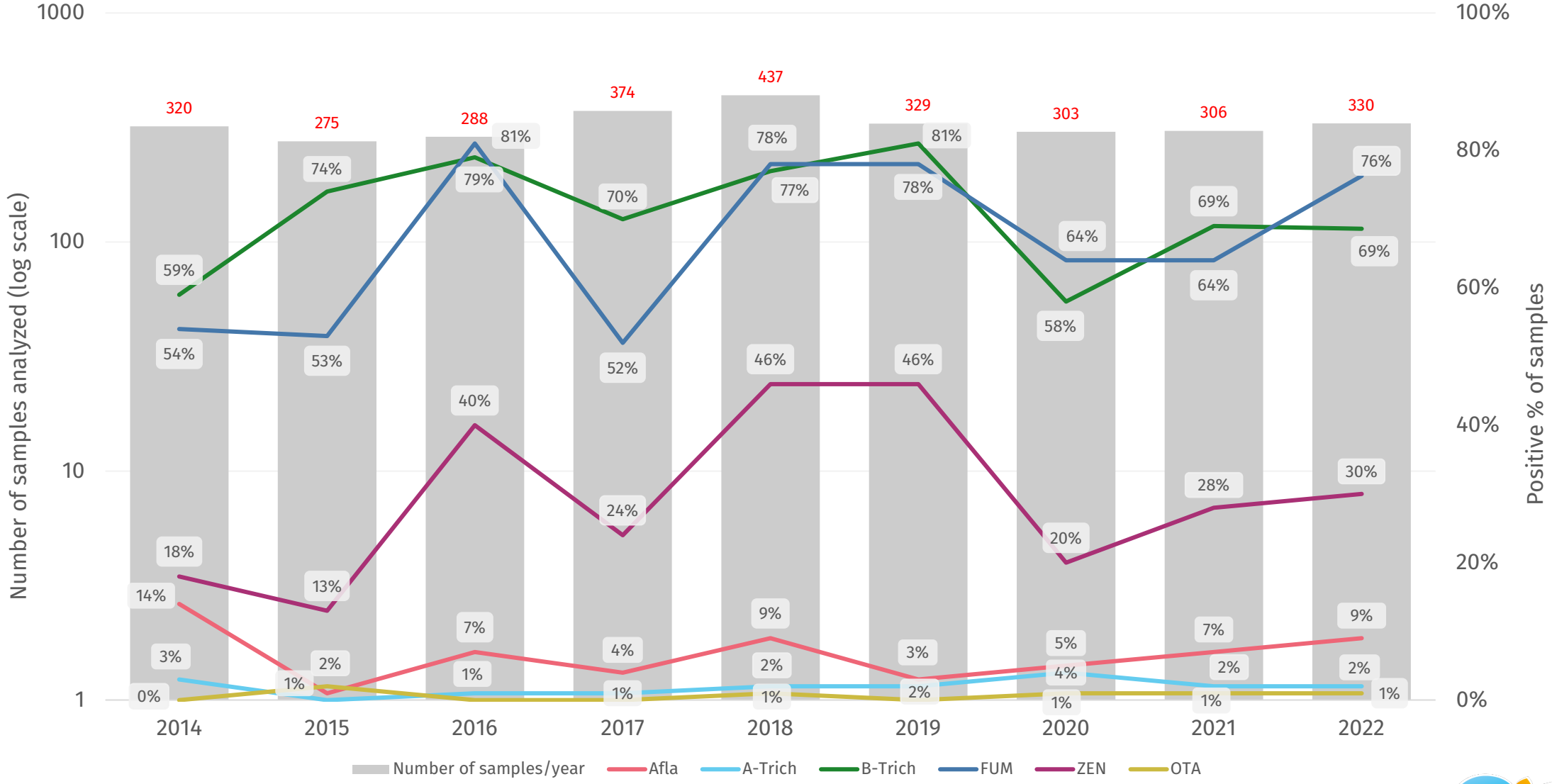
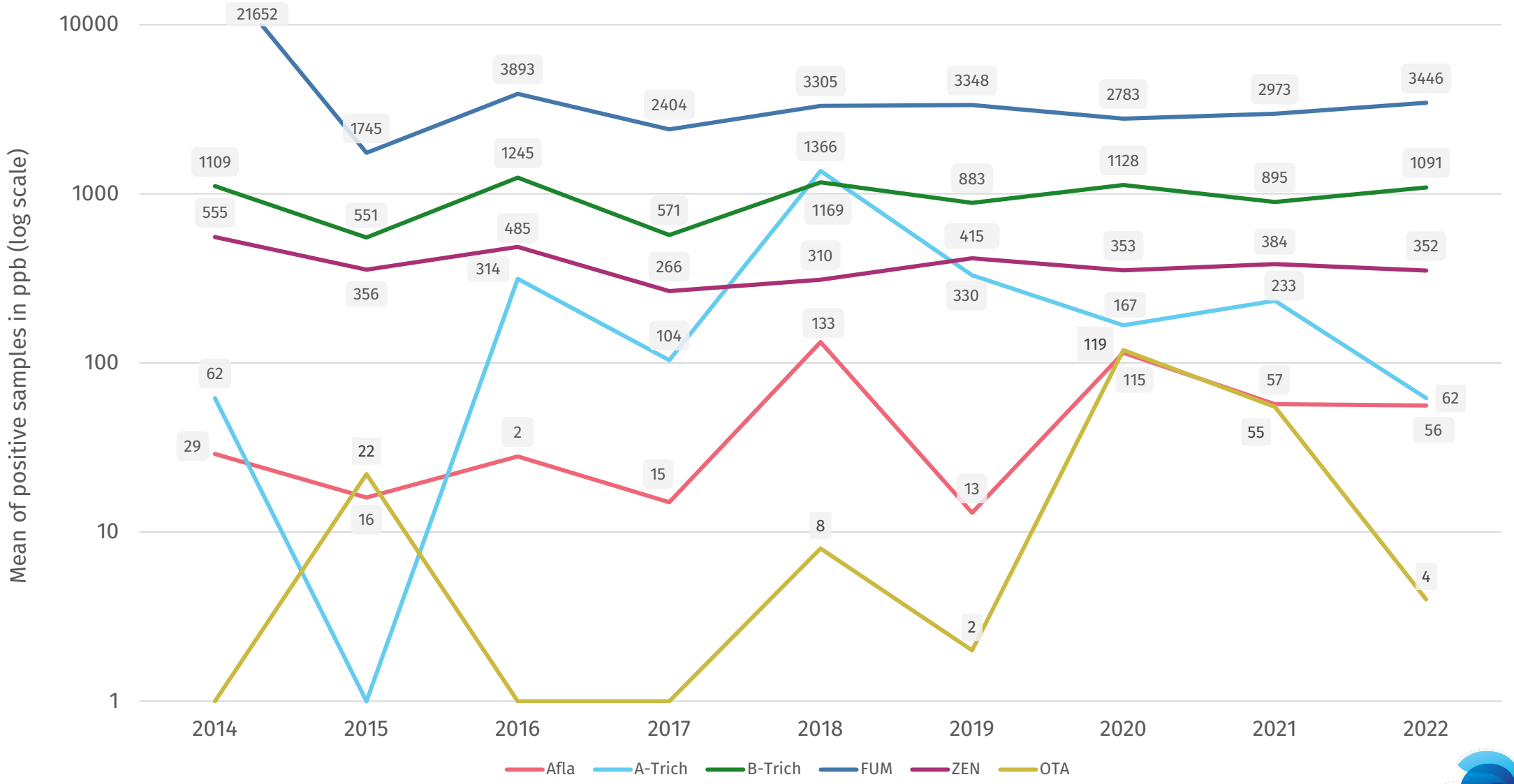
2022 US Corn (as-fed basis)

Occurrence Trend in 2022 US Corn



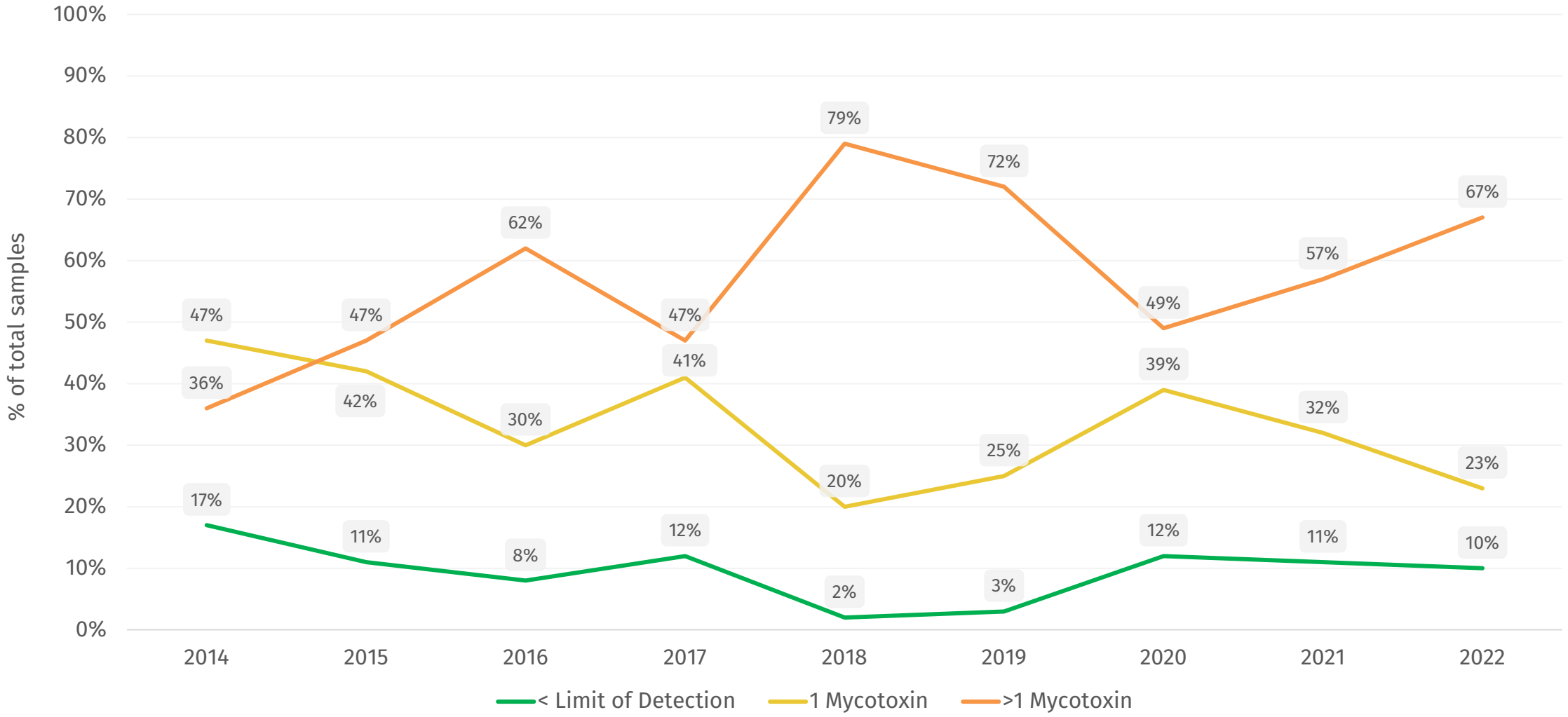
Based on the samples analyzed.

Mean of Positives Trend in 2022 US Corn



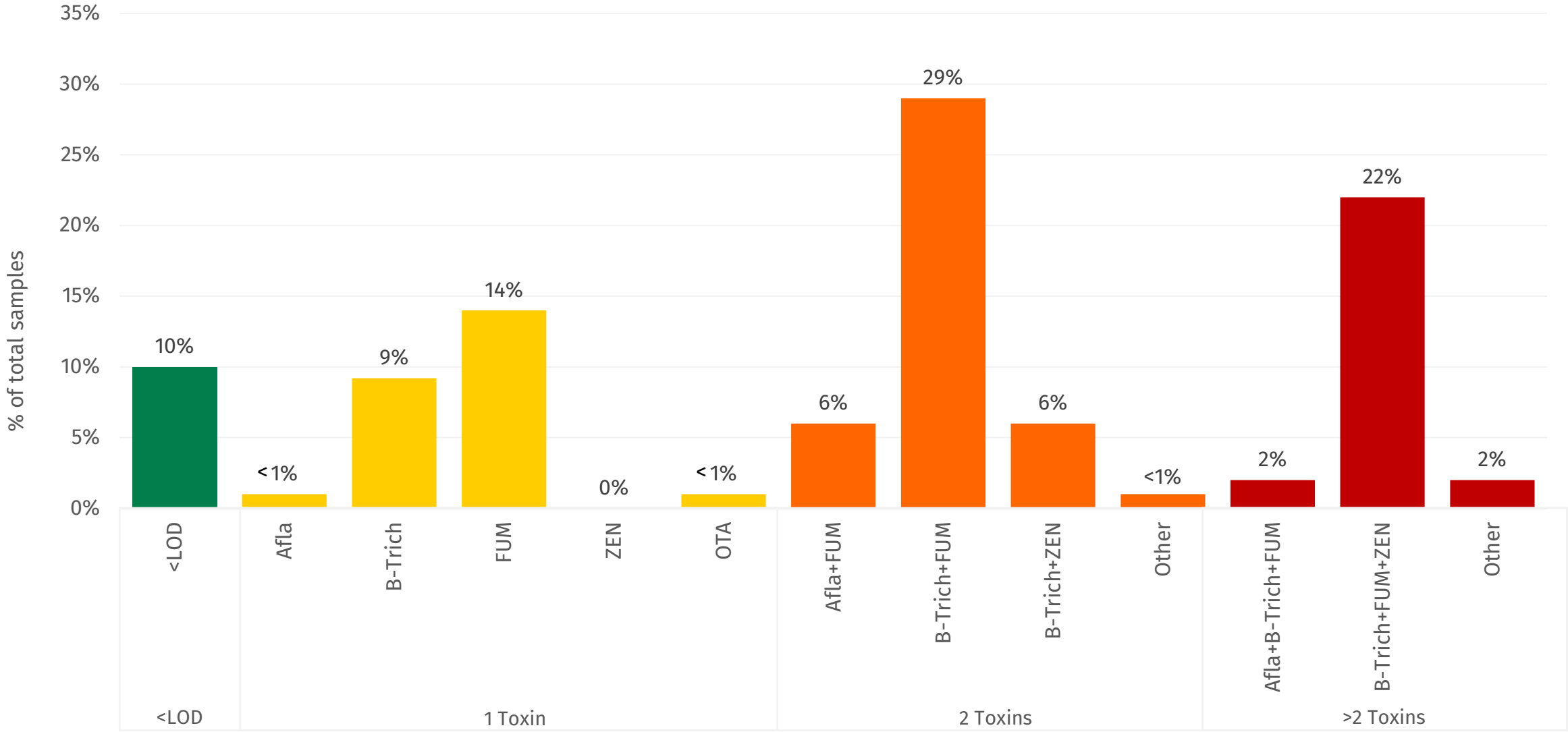
Based on the samples analyzed.

Co-occurrence Trend in 2022 US Corn



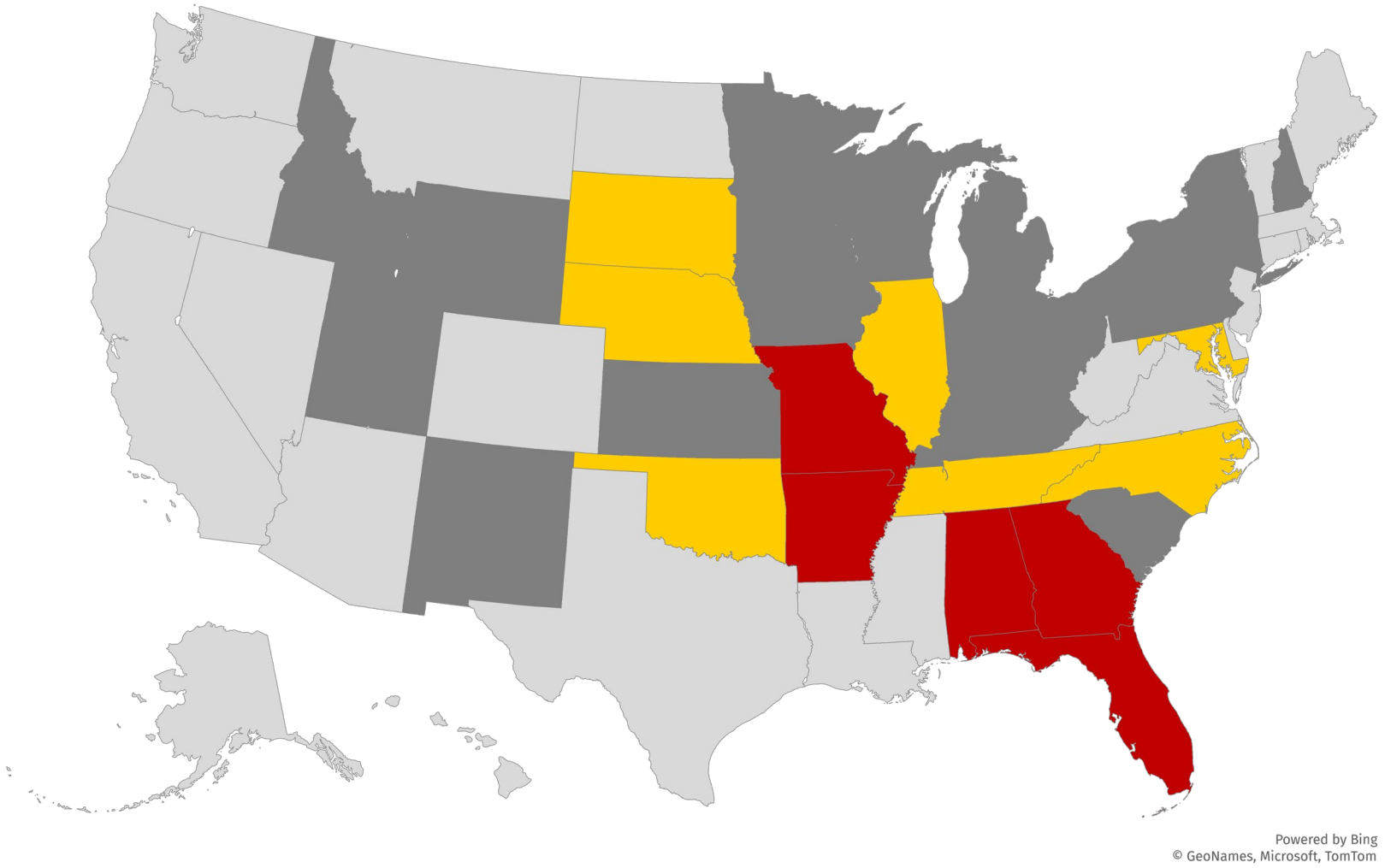
Based on the samples analyzed. Values may not total 100% due to rounding.

Co-occurrence Profile in 2022 US Corn



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

2022 Corn Risk by State – Afla

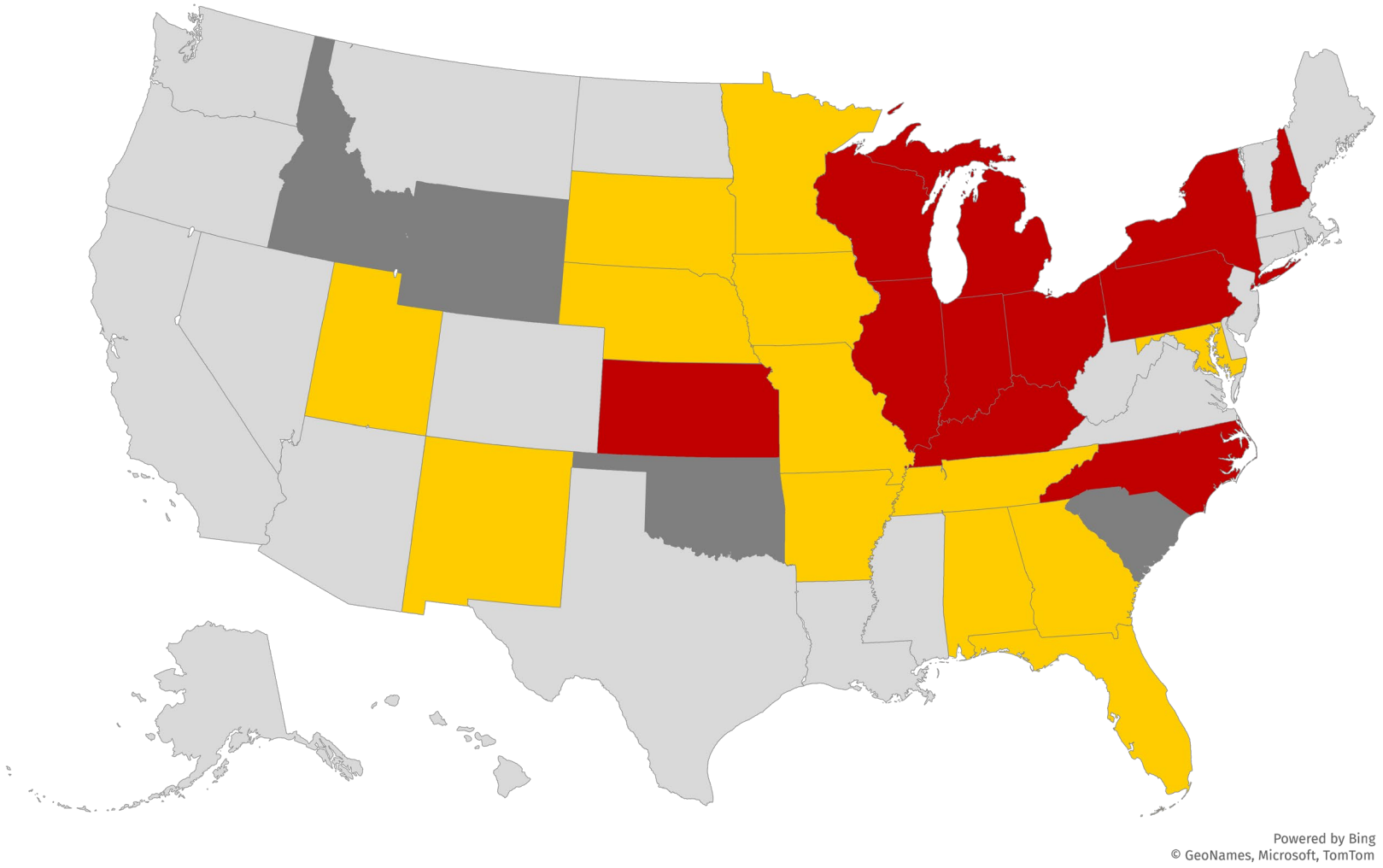


- State with average > 20 ppb
- State with average < 20 ppb
- State with samples < LOD (1 ppb)
- No sample submitted

State	Number of Samples	% Positive Samples	Avg of Positive Samples
AR	4	25	602
FL	13	8	327
AL	4	25	63
MO	18	11	58
GA	25	60	32
IL	32	6	17
TN	3	33	17
OK	1	100	9
NE	37	5	5
SD	18	6	5
NC	6	33	3
MD	1	100	2
IA	28	0	0
ID	1	0	0
IN	20	0	0
KS	5	0	0
KY	2	0	0
MI	9	0	0
MN	24	0	0
NH	1	0	0
NM	2	0	0
NY	3	0	0
OH	35	0	0
PA	3	0	0
SC	3	0	0
UT	1	0	0
WI	30	0	0
WY	1	0	0

Based on the samples analyzed in this region.

2022 Corn Risk by State – B-Trich

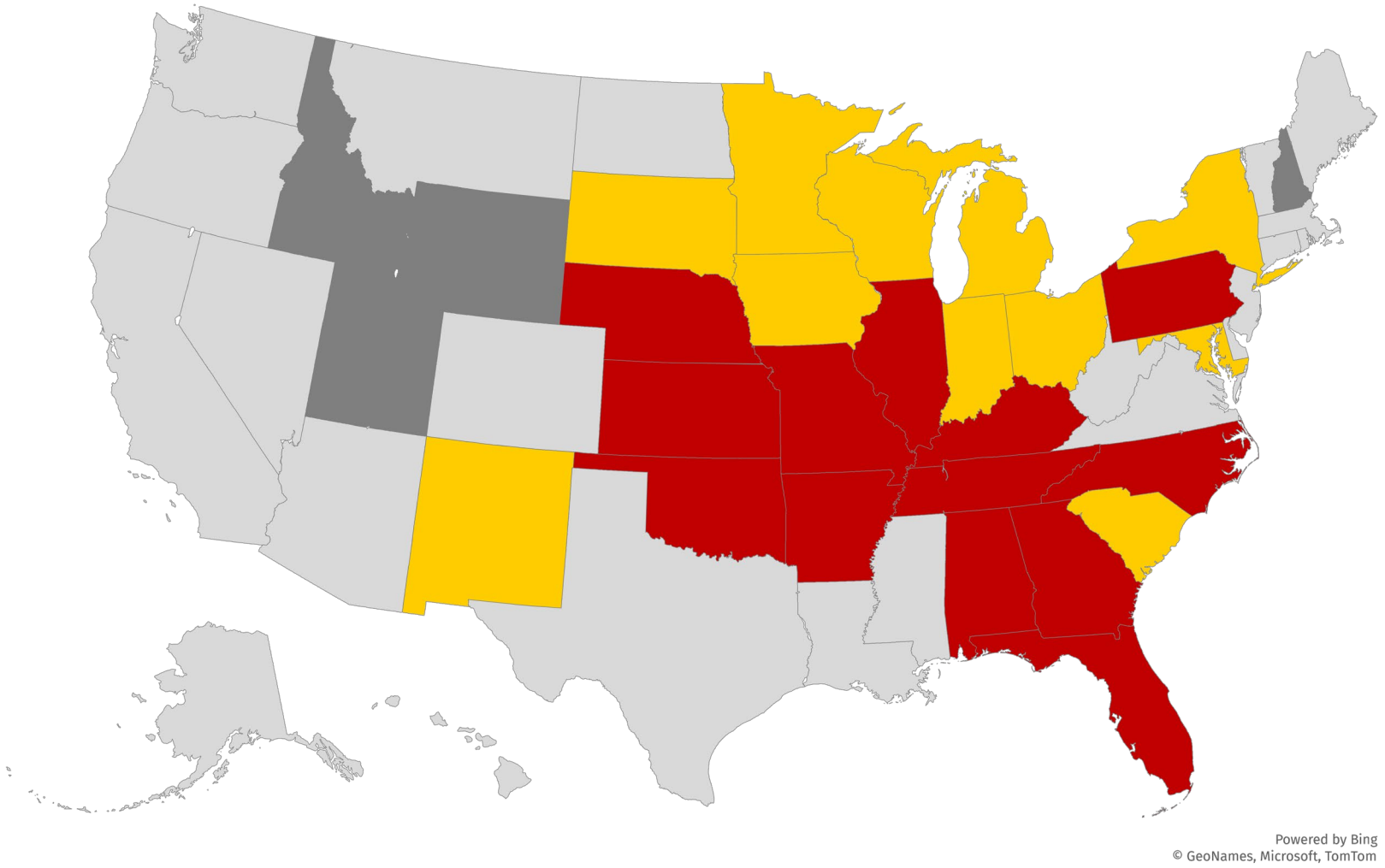


- State with average > 1000 ppb
- State with average < 1000 ppb
- State with samples < LOD (100 ppb)
- No sample submitted

State	Number of Samples	% Positive Samples	Avg of Positive Samples
IN	20	30	685
GA	25	20	600
IL	32	63	525
NH	1	100	514
NC	6	50	465
OH	35	63	377
MI	9	22	333
NY	3	100	275
AL	4	75	253
MO	18	6	214
PA	3	33	206
IA	28	7	179
FL	13	38	167
WI	30	63	158
KY	2	50	89
NE	37	11	79
KS	5	20	57
MD	1	100	53
AR	4	0	0
ID	1	0	0
MN	24	0	0
NM	2	0	0
OK	1	0	0
SC	3	0	0
SD	18	0	0
TN	3	0	0
UT	1	0	0
WY	1	0	0

Based on the samples analyzed in this region.

2022 Corn Risk by State – FUM

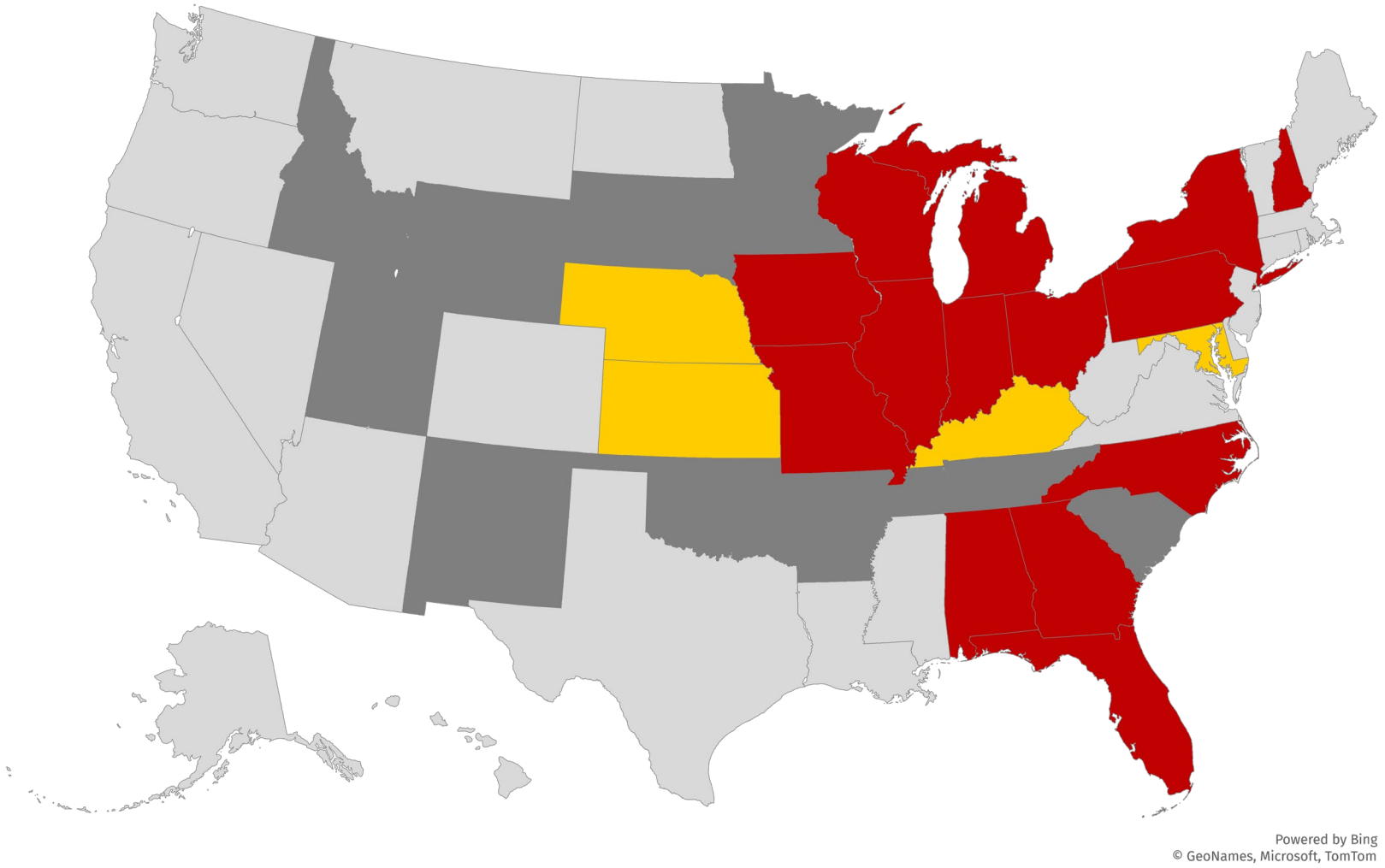


- State with average > 2000 ppb
- State with average < 2000 ppb
- State with samples < LOD (100 ppb)
- No sample submitted

State	Number of Samples	% Positive Samples	Avg of Positive Samples
KY	2	100	18300
TN	3	100	12033
MO	18	94	11547
AL	4	100	10675
NC	6	100	6500
IL	32	94	5957
OK	1	100	4700
GA	25	100	3948
PA	3	100	3700
AR	4	100	2750
KS	5	100	2560
NE	37	95	2454
FL	13	100	2031
NM	2	100	1650
IN	20	70	1450
SC	3	100	1367
IA	28	71	995
MD	1	100	800
MI	9	100	733
OH	35	60	730
NY	3	100	433
WI	30	50	413
MN	24	42	280
SD	18	22	225
ID	1	0	0
NH	1	0	0
UT	1	0	0
WY	1	0	0

Based on the samples analyzed in this region.

2022 Corn Risk by State – ZEN



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

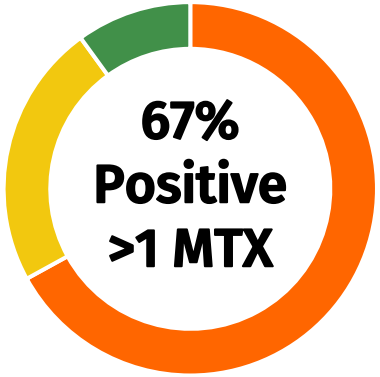
State	Number of Samples	% Positive Samples	Avg of Positive Samples
IN	20	30	685
GA	25	20	600
IL	32	63	525
NH	1	100	514
NC	6	50	465
OH	35	63	377
MI	9	22	333
NY	3	100	275
AL	4	75	253
MO	18	6	214
PA	3	33	206
IA	28	7	179
FL	13	38	167
WI	30	63	158
KY	2	50	89
NE	37	11	79
KS	5	20	57
MD	1	100	53
AR	4	0	0
ID	1	0	0
MN	24	0	0
NM	2	0	0
OK	1	0	0
SC	3	0	0
SD	18	0	0
TN	3	0	0
UT	1	0	0
WY	1	0	0

Based on the samples analyzed in this region.

Mycotoxin Survey Summary – 2022 US Corn

330 corn samples submitted from 28 states

vs. 89% in 2021

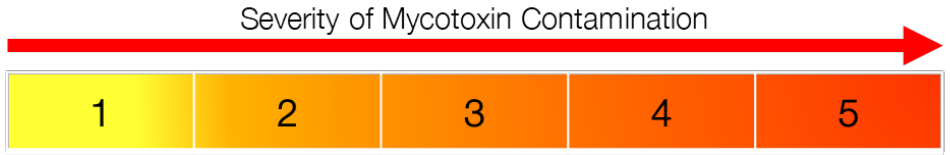


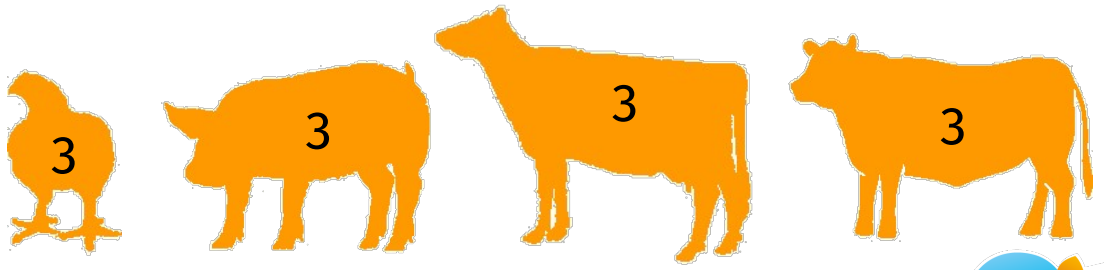
vs. 57% in 2021

vs. 2021

B-Trich	• 69% positive / ↔ from 69% • 1091 ppb / ↑ from 895 ppb
FUM	• 76% positive / ↑ from 64% • 3446 ppb / ↑ from 2973 ppb
ZEN	• 30% positive / ↑ from 28% • 352 ppb / ↓ from 384 ppb

Forecasted potential risk for livestock production*:





*Based on the samples analyzed.

Questions?

Thank you!

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