



## Mycotoxin Occurrence in 2021 US Corn December 2021 Update

December 7, 2021

# Mycotoxins & Analysis



LC-MS/MS



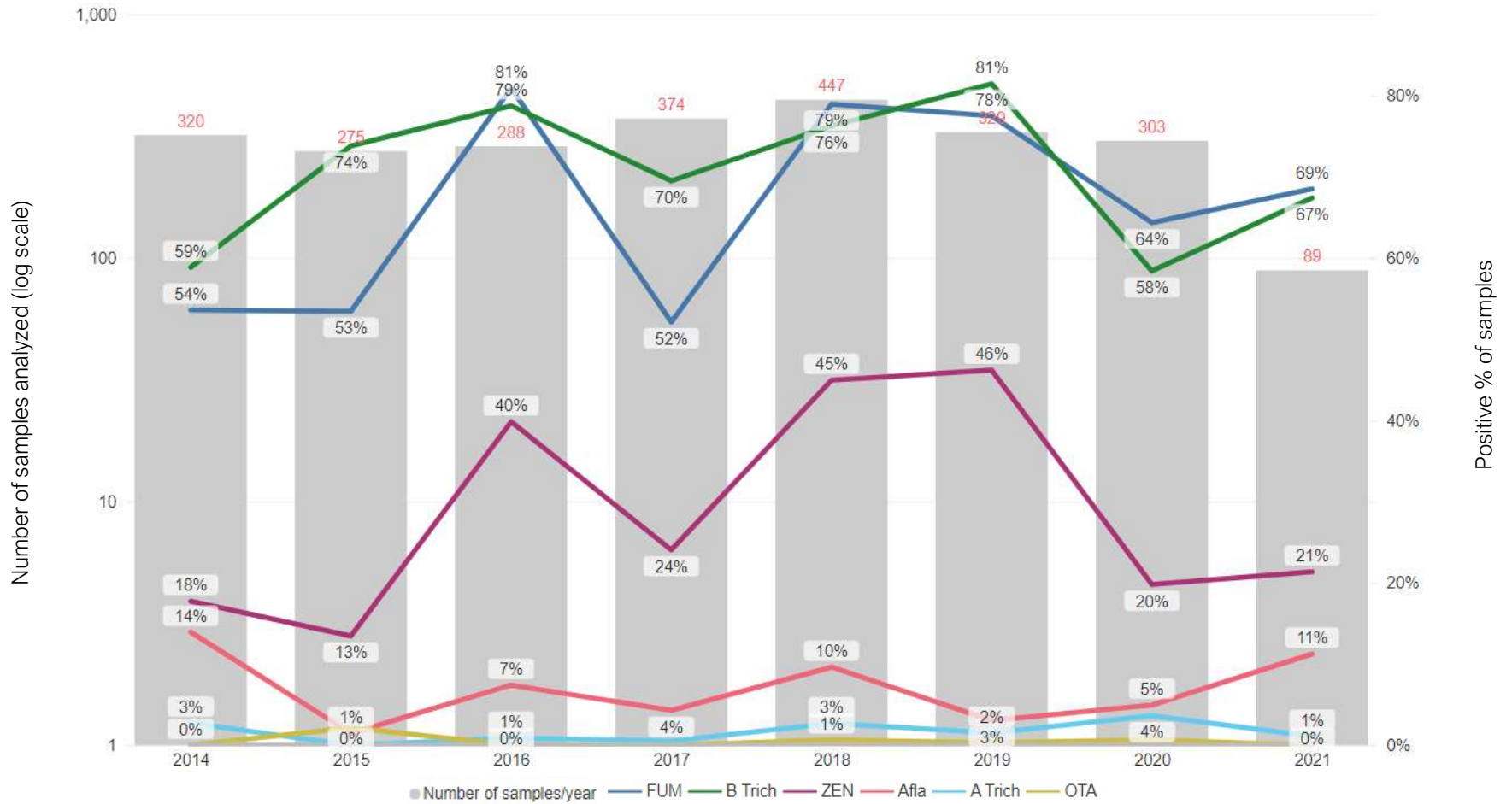
The survey results represent samples sent in for surveillance testing only and does not include any sample submitted following clinical signs.

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	100.0
	HT-2	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

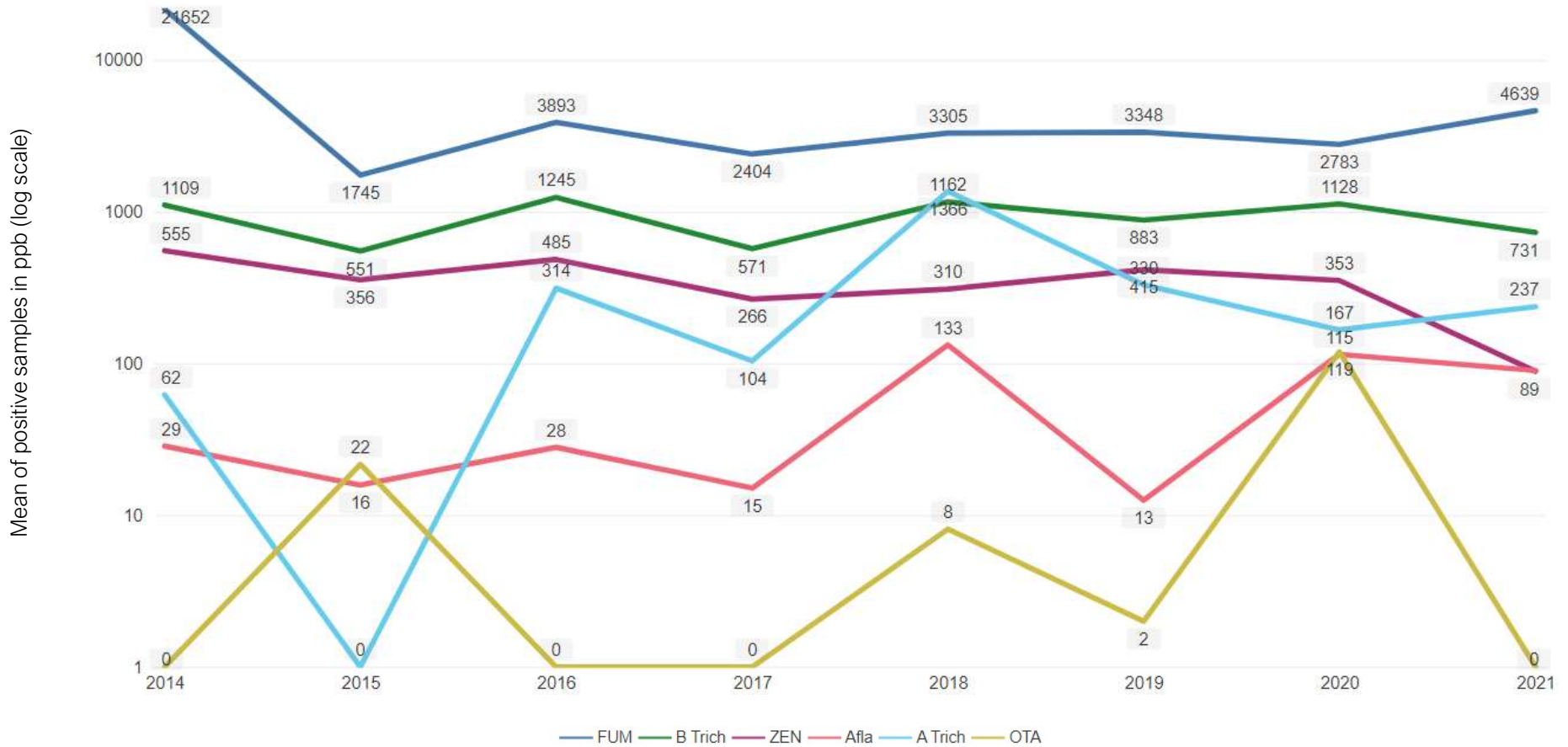


# 2021 US Corn (as-fed basis)

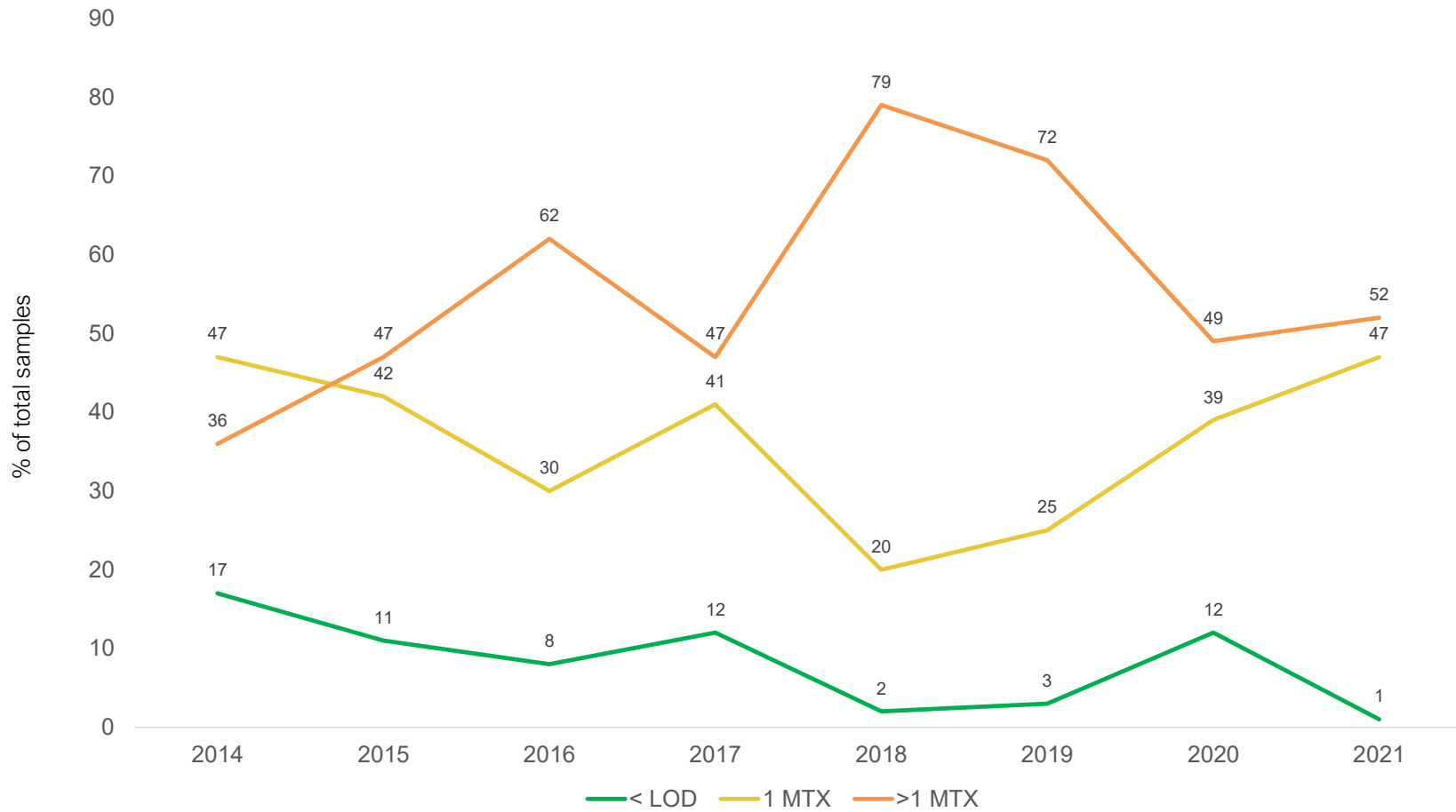
# MTX Occurrence Trend in 2021 US Corn



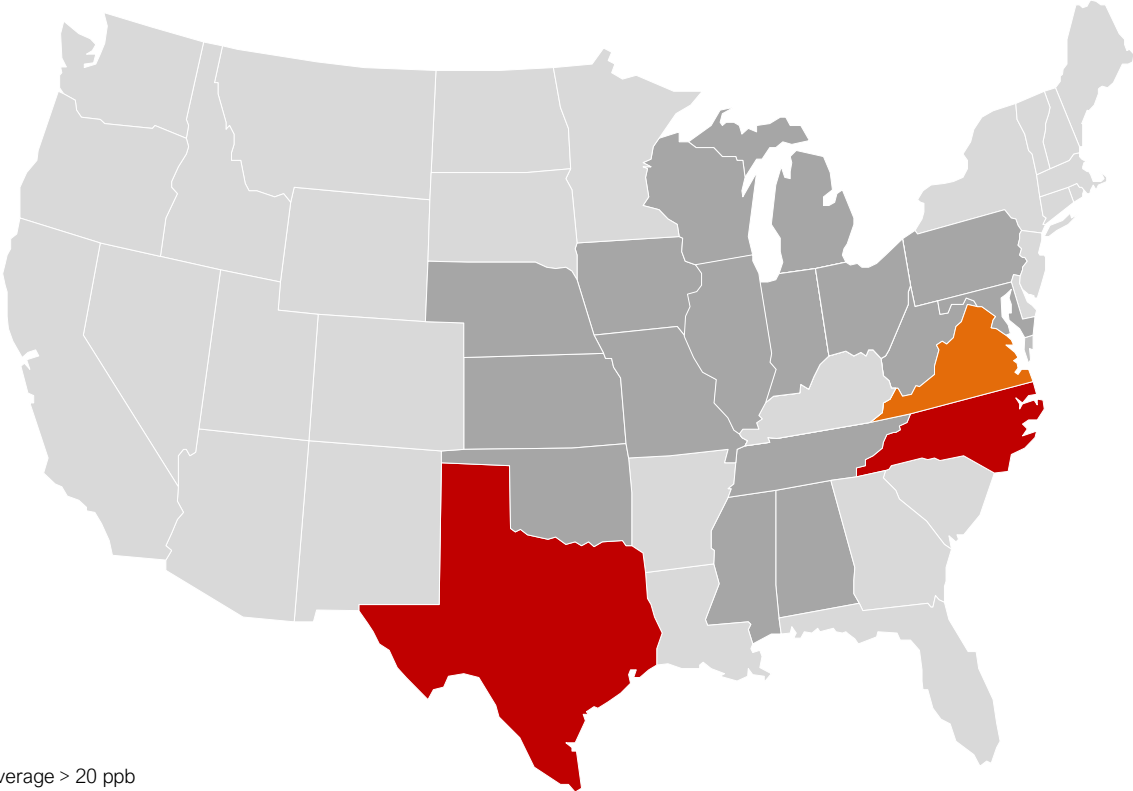
# Mean of Positives Trend in 2021 US Corn



# Mycotoxin Co-occurrence Trend in 2021 US Corn



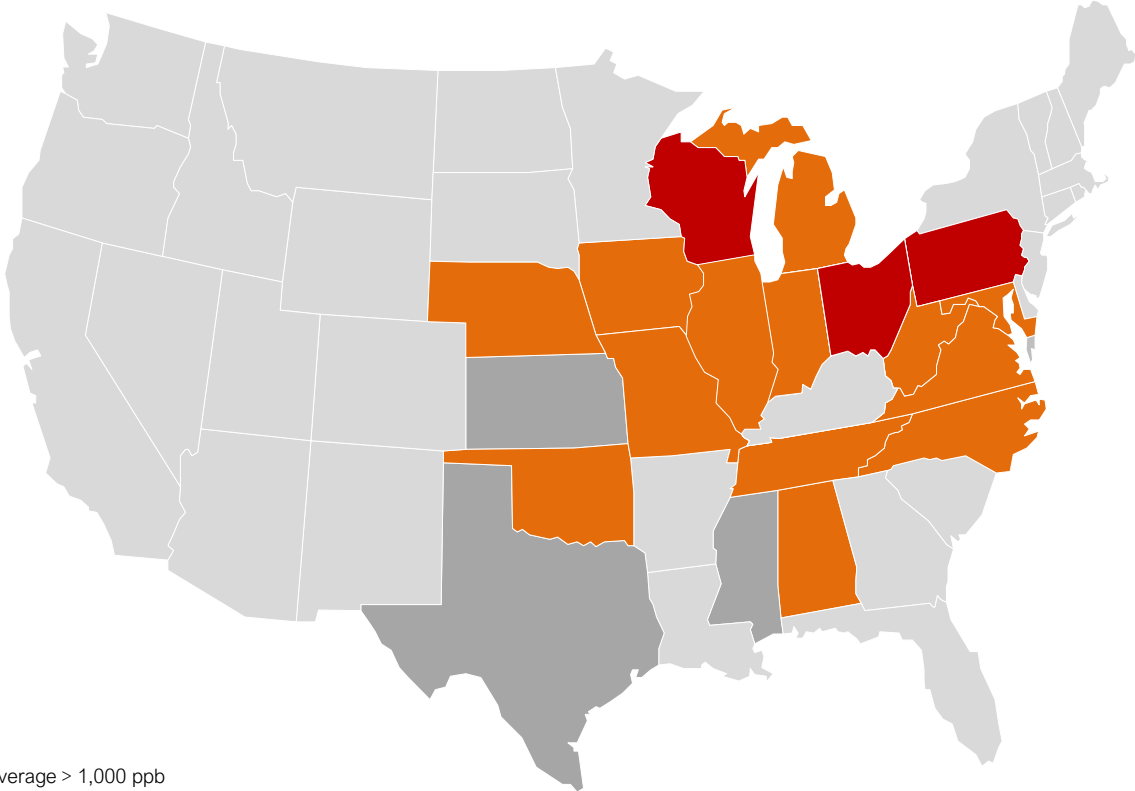
# 2021 Corn Risk by State - Afla



- 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
NC	17	47	110
TX	4	25	21
VA	1	100	1
AL	4	0	0
IA	8	0	0
IL	8	0	0
IN	6	0	0
KS	2	0	0
MD	1	0	0
MI	3	0	0
MO	11	0	0
MS	1	0	0
NE	4	0	0
OH	1	0	0
OK	3	0	0
PA	2	0	0
TN	3	0	0
WI	9	0	0
WV	1	0	0

# 2021 Corn Risk by State - B Trich

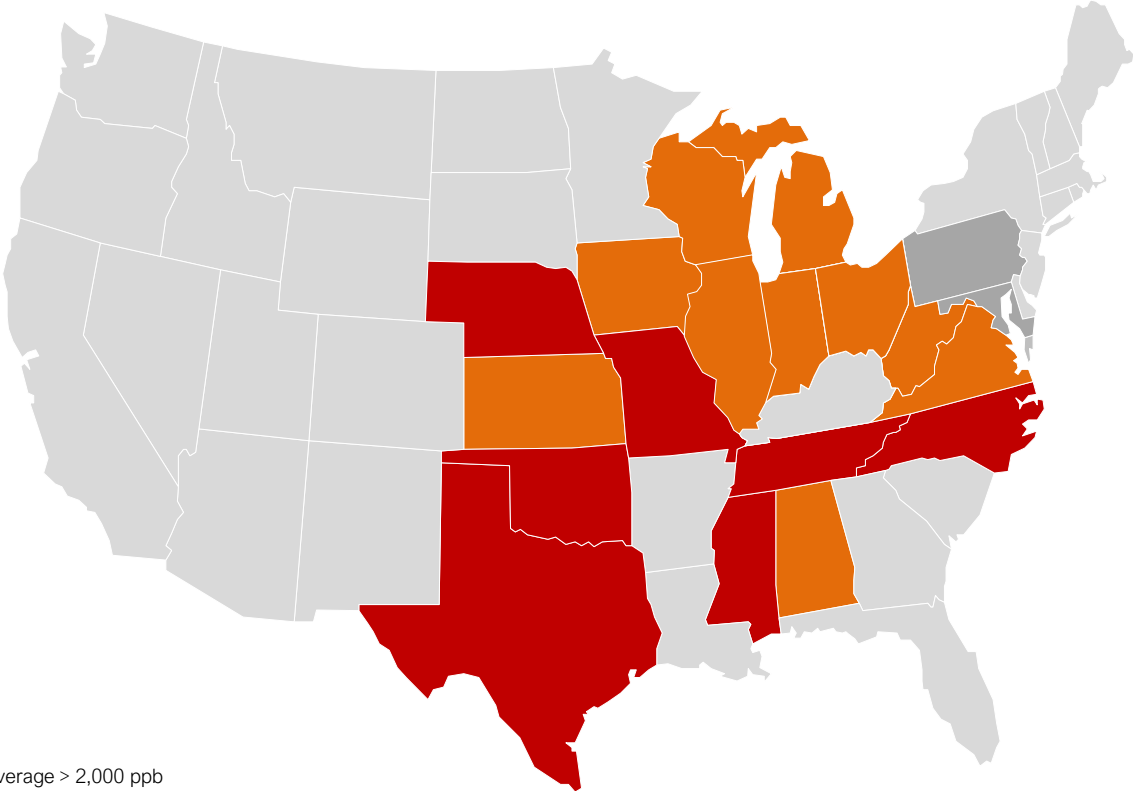


- State with average > 1,000 ppb
- State with average < 1,000 ppb
- State with samples < LOD (100 ppb)
- No sample submitted

State	Number of Samples	% Positive Samples	Avg of Positive Samples
PA	2	100	2824
OH	1	100	2340
WI	9	100	1085
MI	3	100	873
MD	1	100	727
IN	6	100	698
IL	8	88	673
NC	17	29	672
NE	4	100	584
IA	8	100	544
TN	3	100	531
VA	1	100	307
MO	11	36	234
AL	4	100	175
WV	1	100	167
OK	3	33	117
KS	2	0	0
MS	1	0	0
TX	4	0	0



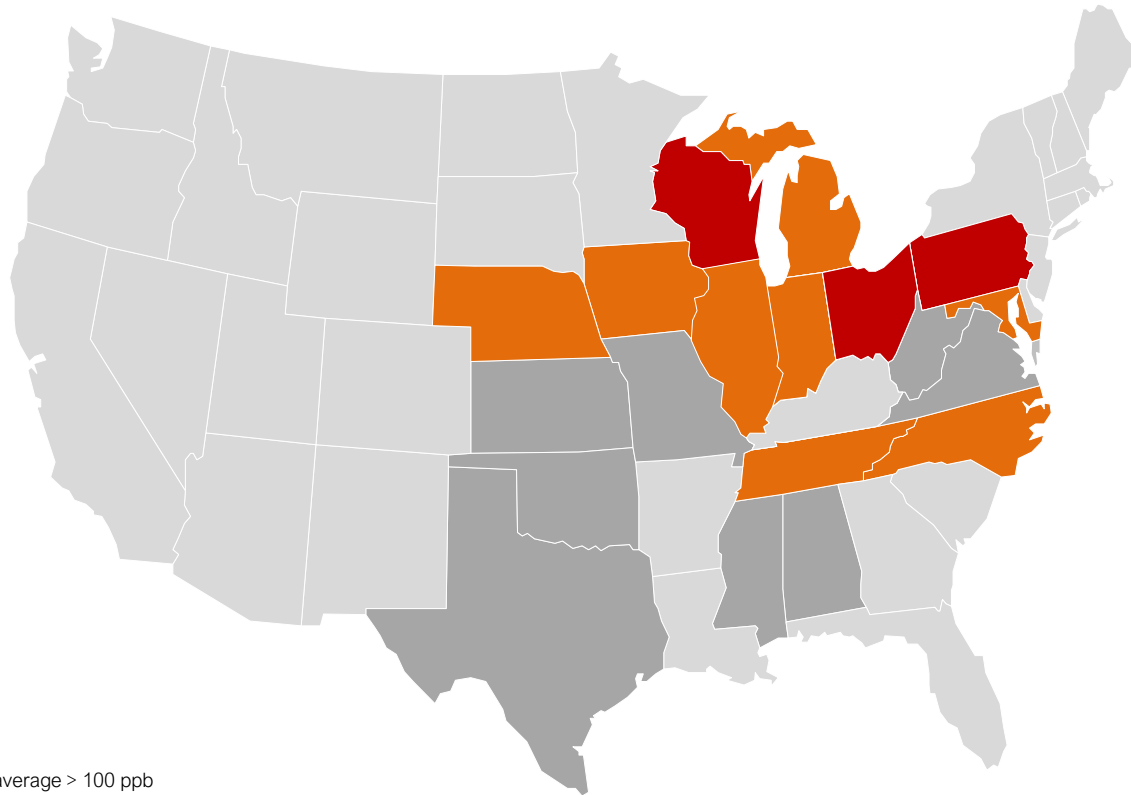
# 2021 Corn Risk by State - FUM



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

State	Number of Samples	% Positive Samples	Avg of Positive Samples
MS	1	100	9900
NC	17	100	8747
MO	11	91	6990
OK	3	100	4200
TN	3	100	3533
TX	4	100	3000
NE	4	50	2300
KS	2	100	1600
AL	4	75	933
IN	6	50	933
IA	8	38	700
VA	1	100	700
WV	1	100	700
WI	9	33	400
MI	3	67	300
IL	8	25	250
OH	1	100	100
MD	1	0	0
PA	2	0	0

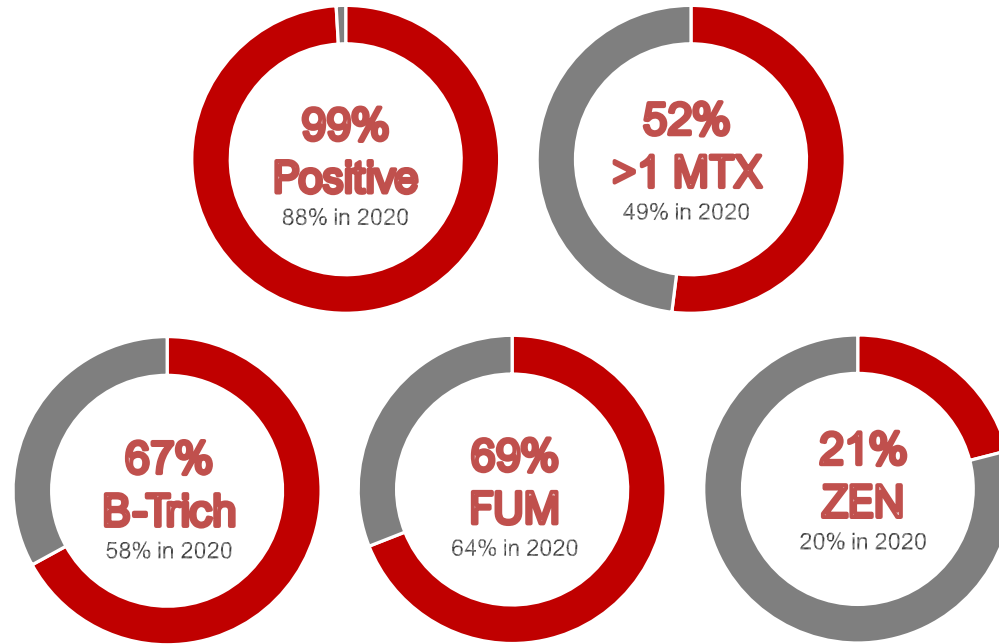
# 2021 Corn Risk by State - ZEN



- 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
OH	1	100	180
PA	2	50	123
WI	9	11	113
IL	8	25	94
NC	17	18	91
MD	1	100	88
IA	8	38	86
IN	6	33	85
NE	4	25	64
TN	3	67	61
MI	3	67	57
AL	4	0	0
KS	2	0	0
MO	11	0	0
MS	1	0	0
OK	3	0	0
TX	4	0	0
VA	1	0	0
WV	1	0	0

# Mycotoxin Survey Summary - 2021 US Corn



Forecasted risk for livestock production:



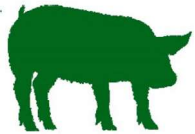
# Questions?



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