Mycotoxin Occurrence in 2021 US Corn Silage

NUTRITION · HEALTH · SUSTAINABLE LIVING

DSM
BRIGHT SCIENCE. BRIGHTER LIVING.

Mycotoxins & Analysis

LC-MS/MS

ROMER
Romer Labs®

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

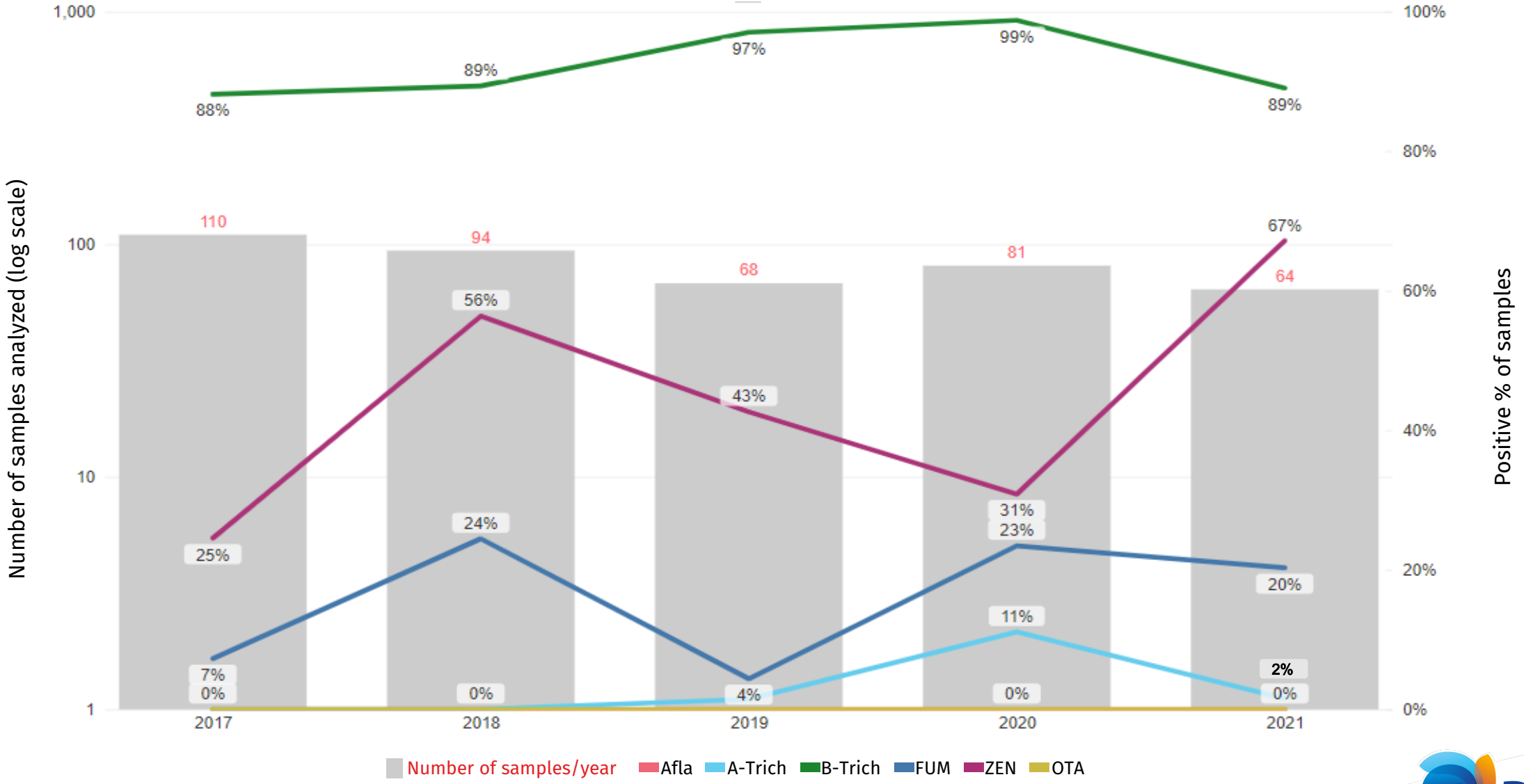
Mycotoxin Group	Mycotoxins	Limit of Detection (ppb)
Aflatoxins (Afla)	Aflatoxin B1	1.3
	Aflatoxin B2	1.2
	Aflatoxin G1	1.1
	Aflatoxin G2	1.6
A-Trichothecenes (A-Trich)	T-2 Toxin	100.0
	HT-2 Toxin	100.0
	Neosolaniol	100.0
	Diacetoxyscirpenol (DAS)	100.0
B-Trichothecenes (B-Trich)	Deoxynivalenol (DON/Vomitoxin)	100.0
	Acetyldeoxynivalenol (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)

DSM

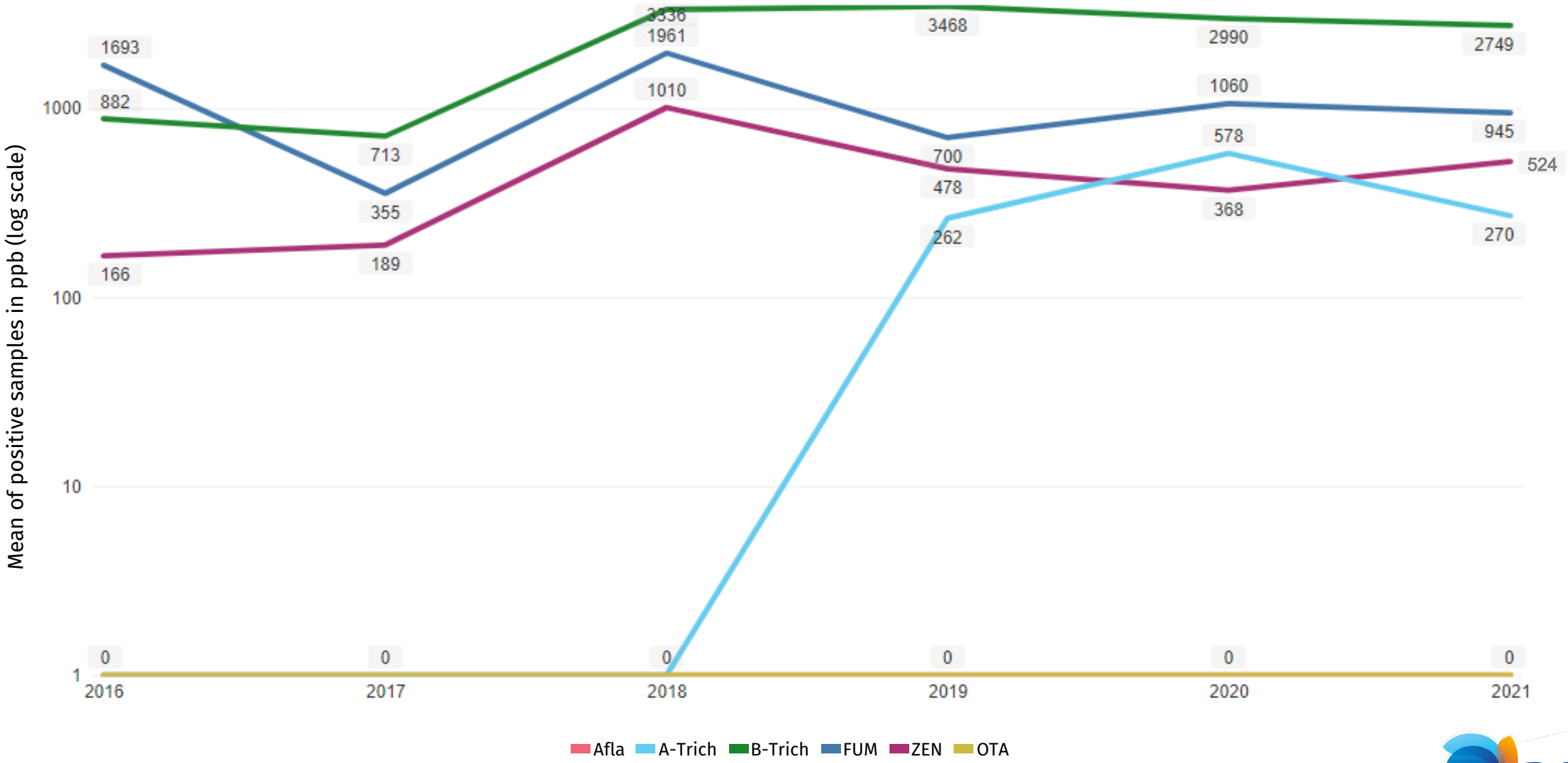
2021 US Corn Silage (dry matter basis)

Occurrence Trend in 2021 US Corn Silage



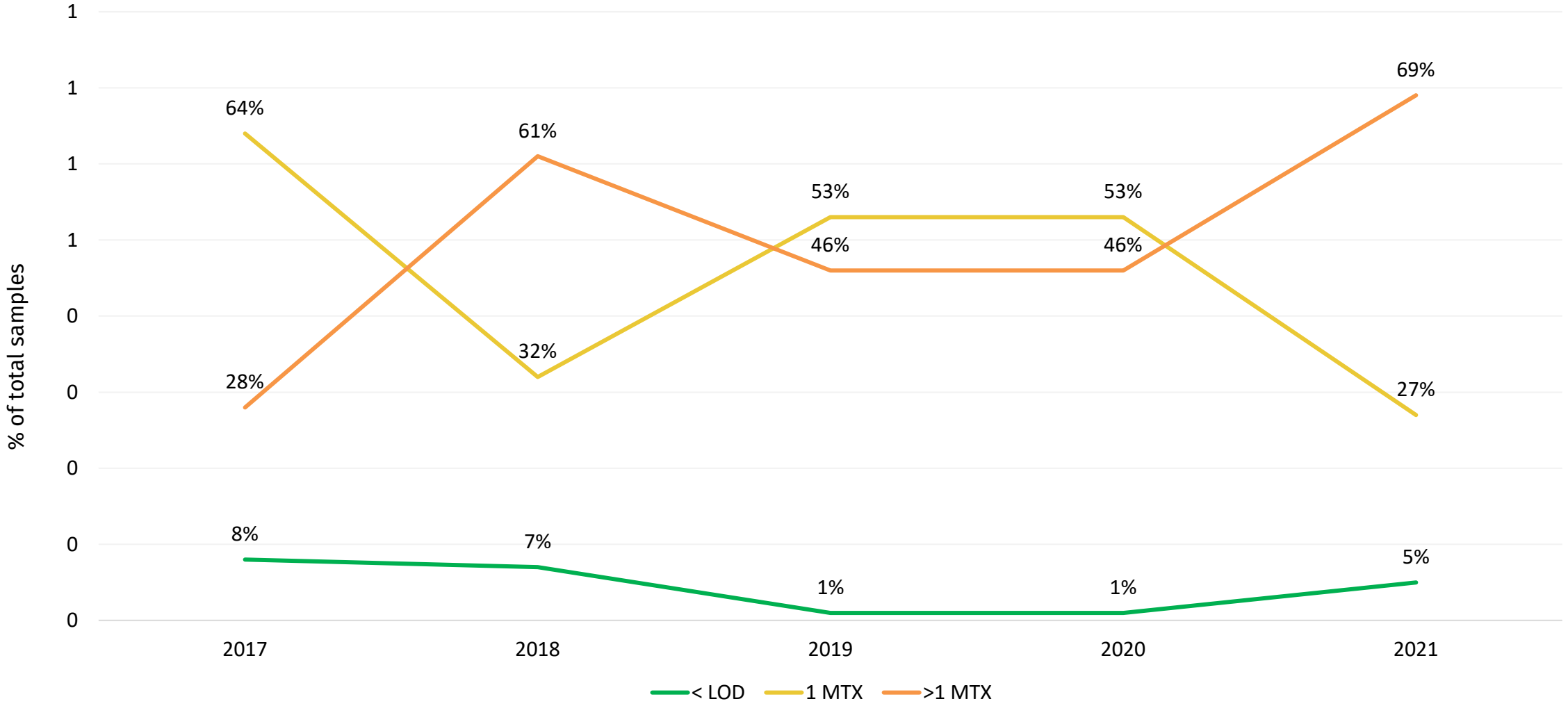
Based on the samples analyzed.

Mean of Positives Trend in 2021 US Corn Silage



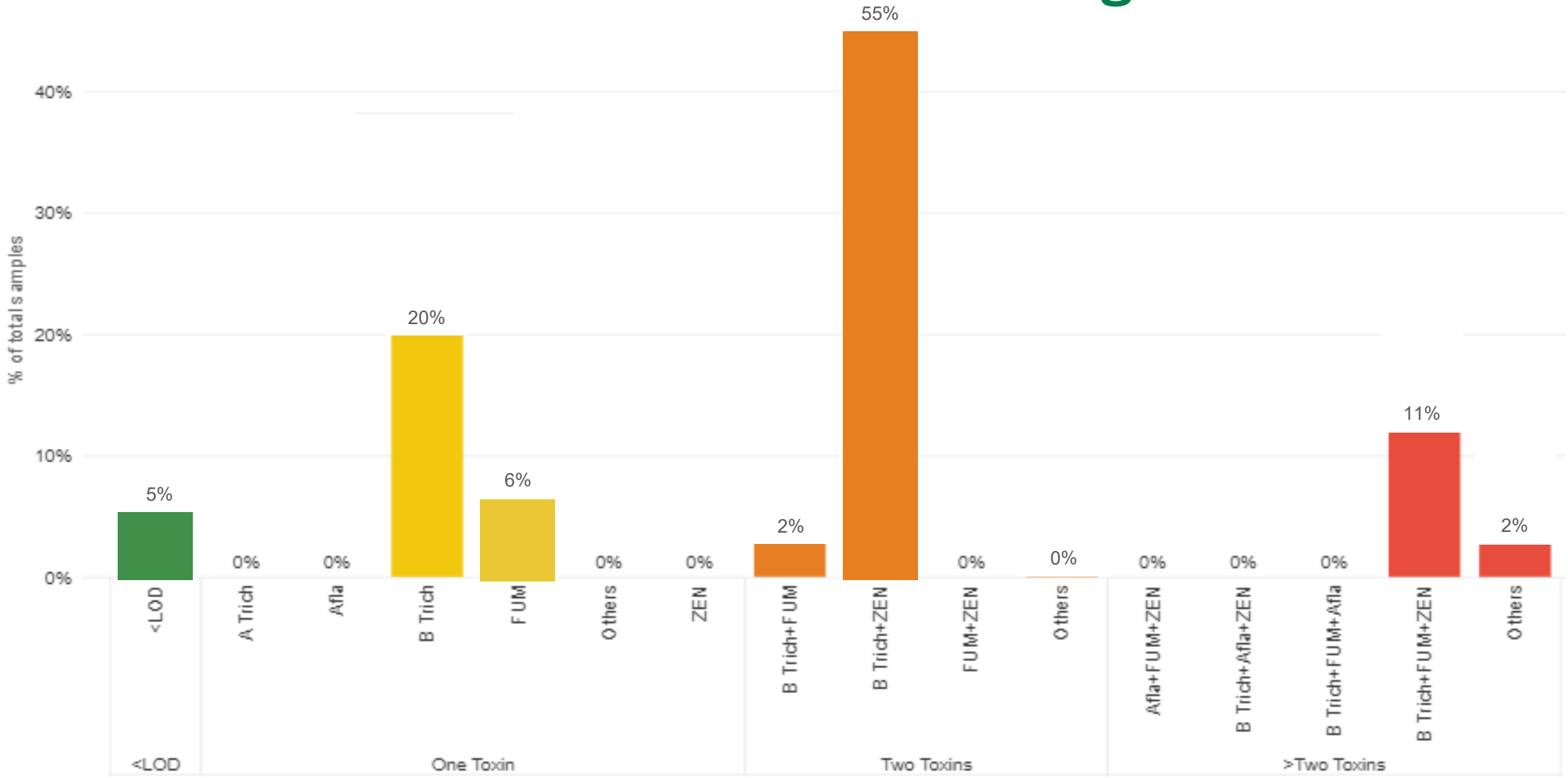
Based on the samples analyzed.

Co-occurrence Trend in 2021 US Corn Silage



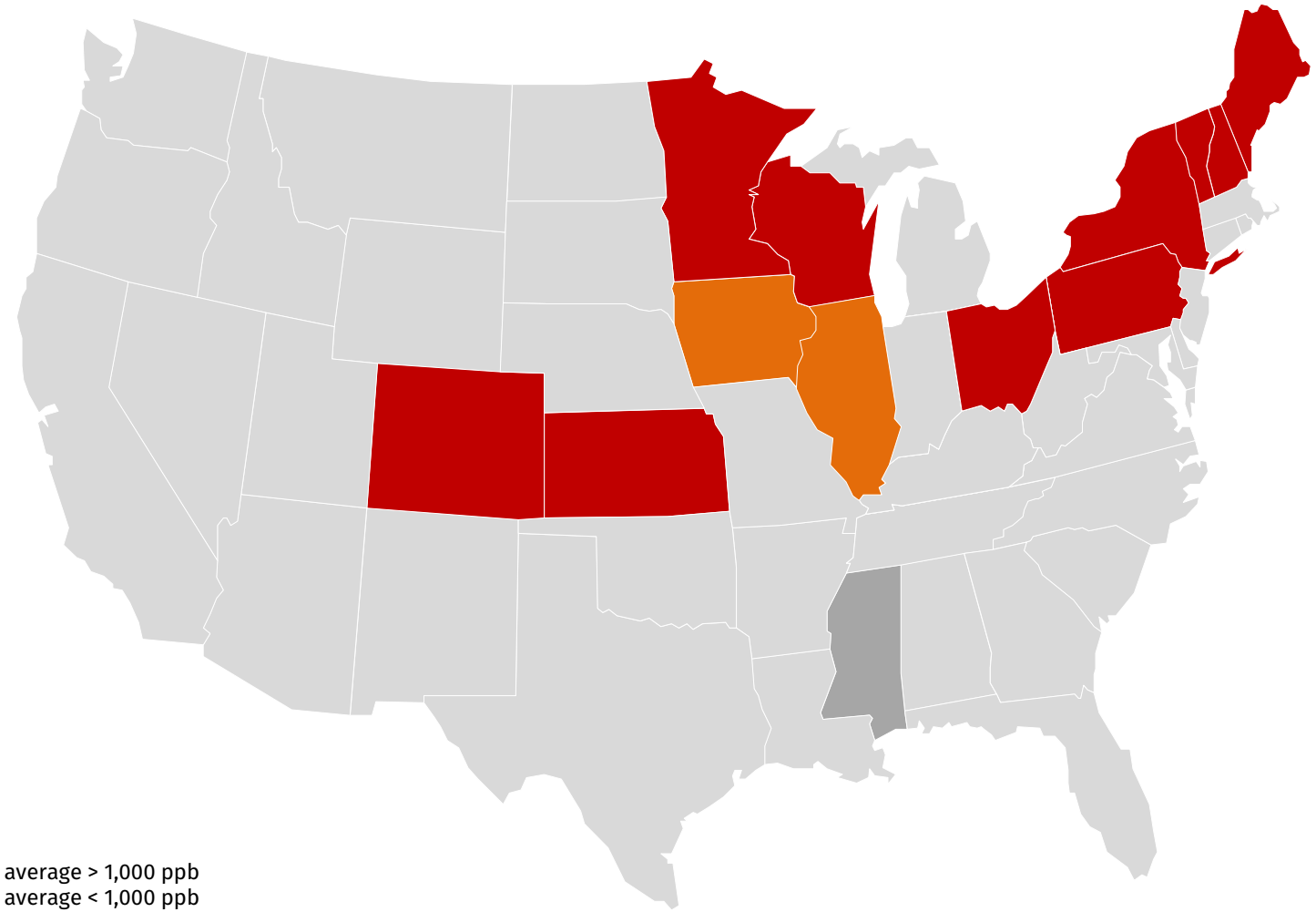
Based on the samples analyzed.

Co-occurrence Profile in 2021 US Corn Silage



Based on the samples analyzed.

2021 Corn Silage Risk by State – B-Trich

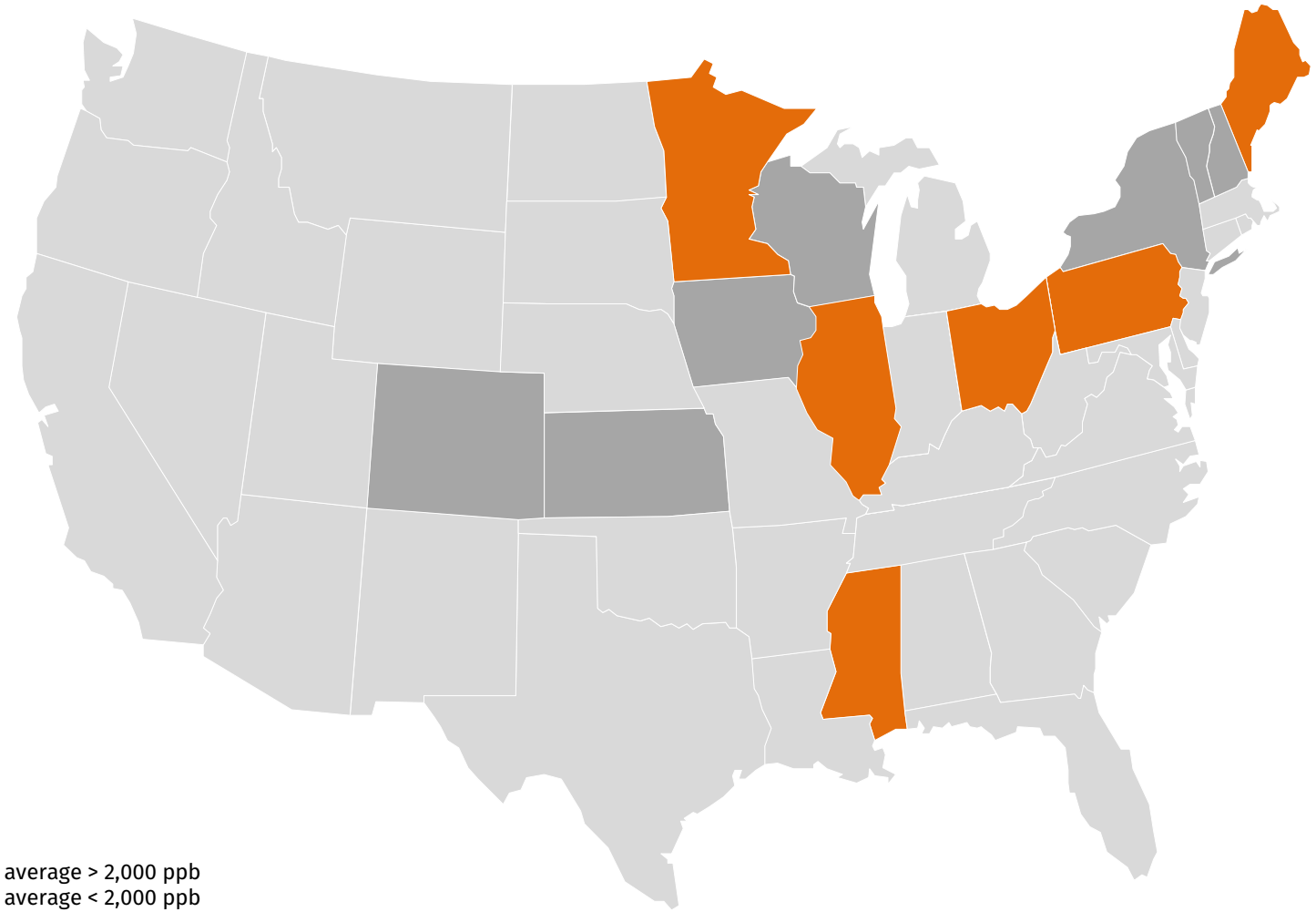


- State with average > 1,000 ppb
- State with average < 1,000 ppb
- State with samples < LOD (100 ppb)
- No sample submitted

State	Number of Samples	% Positive Samples	Avg of Positive Samples
PA	13	100%	4646
WI	5	100%	4403
ME	2	100%	2900
NH	2	100%	2354
NY	15	93%	1998
OH	12	83%	1960
VT	3	100%	1942
KS	1	100%	1885
MN	2	100%	1668
CO	2	100%	1206
IL	1	100%	928
IA	2	100%	900
MS	4	0%	0

Based on the samples analyzed in this region.

2021 Corn Silage Risk by State – FUM

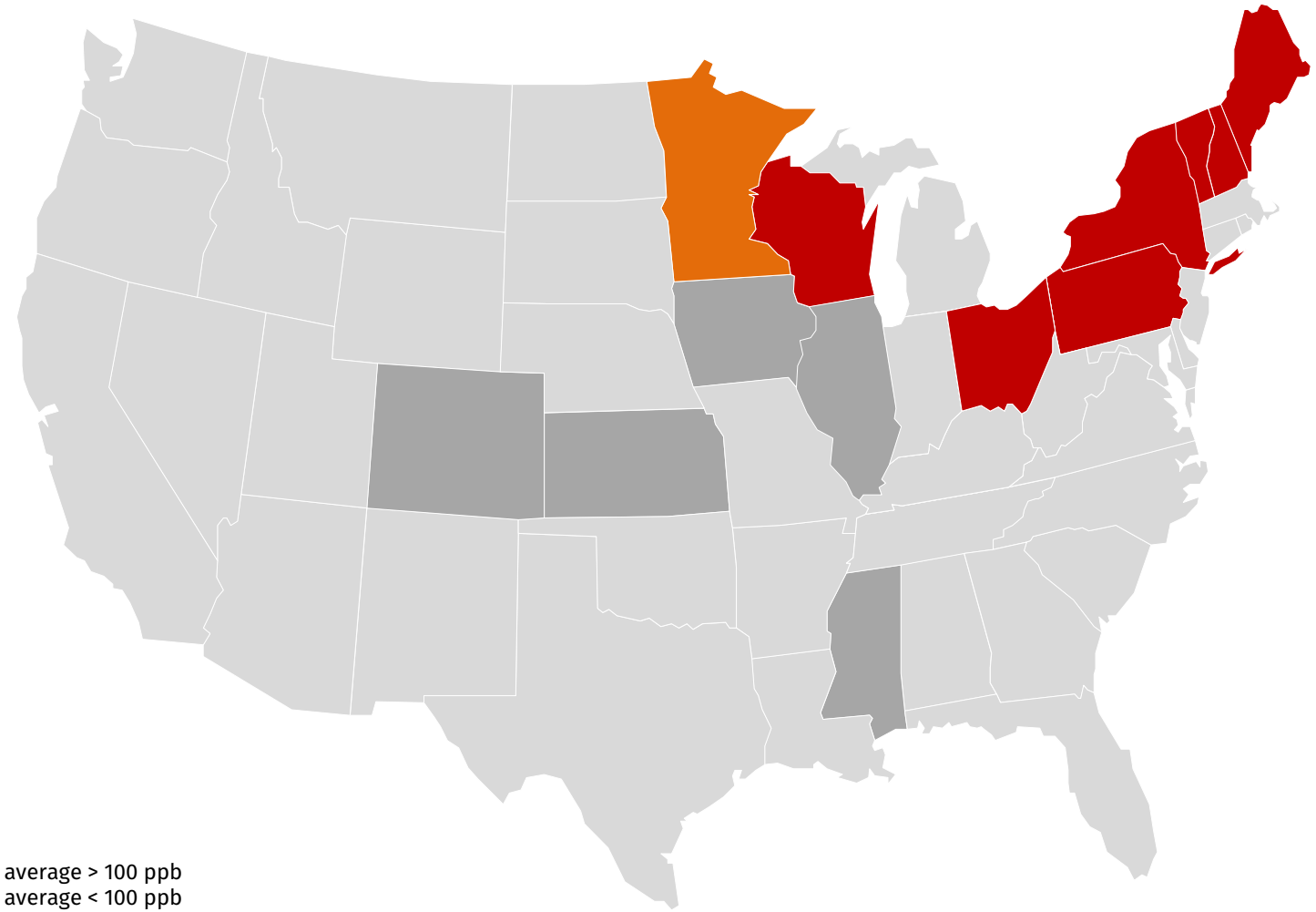


- State with average > 2,000 ppb
- State with average < 2,000 ppb
- State with samples < LOD (100 ppb)
- No sample submitted

State	Number of Samples	% Positive Samples	Avg of Positive Samples
MS	4	100%	1434
PA	13	38%	942
OH	12	8%	780
IL	1	100%	602
MN	2	50%	244
ME	2	50%	218
CO	2	0%	0
IA	2	0%	0
KS	1	0%	0
NH	2	0%	0
NY	15	0%	0
VT	3	0%	0
WI	5	0%	0

Based on the samples analyzed in this region.

2021 Corn Silage 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	12	75%	810
NY	15	80%	634
NH	2	100%	465
PA	13	85%	391
VT	3	100%	322
WI	5	60%	277
ME	2	100%	265
MN	2	50%	57
CO	2	0%	0
IA	2	0%	0
IL	1	0%	0
KS	1	0%	0
MS	4	0%	0

Based on the samples analyzed in this region.

Mycotoxin Survey Summary – 2021 US Corn Silage

95% positive vs. 99% in 2020

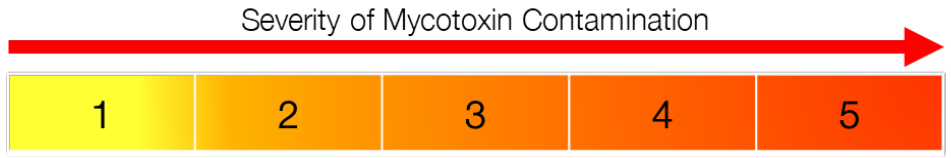
69% >1 MTX vs. 46% in 2020

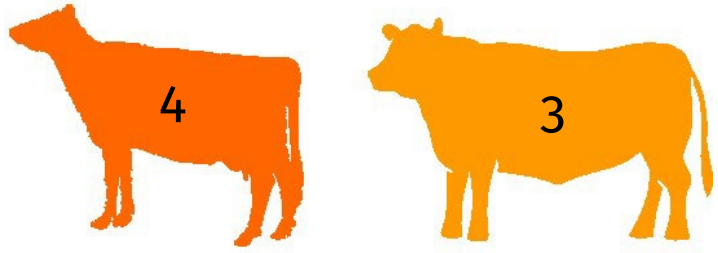
B-Trich: 89% vs. 99%

FUM: 20% vs. 23%

ZEN: 67% vs. 31%

Forecasted potential risk for livestock production*:





*Based on the samples analyzed.

Contact Us

Paige.Gott@dsm.com

Erin.Schwandt@dsm.com

BRIGHT SCIENCE. BRIGHTER LIVING.™