

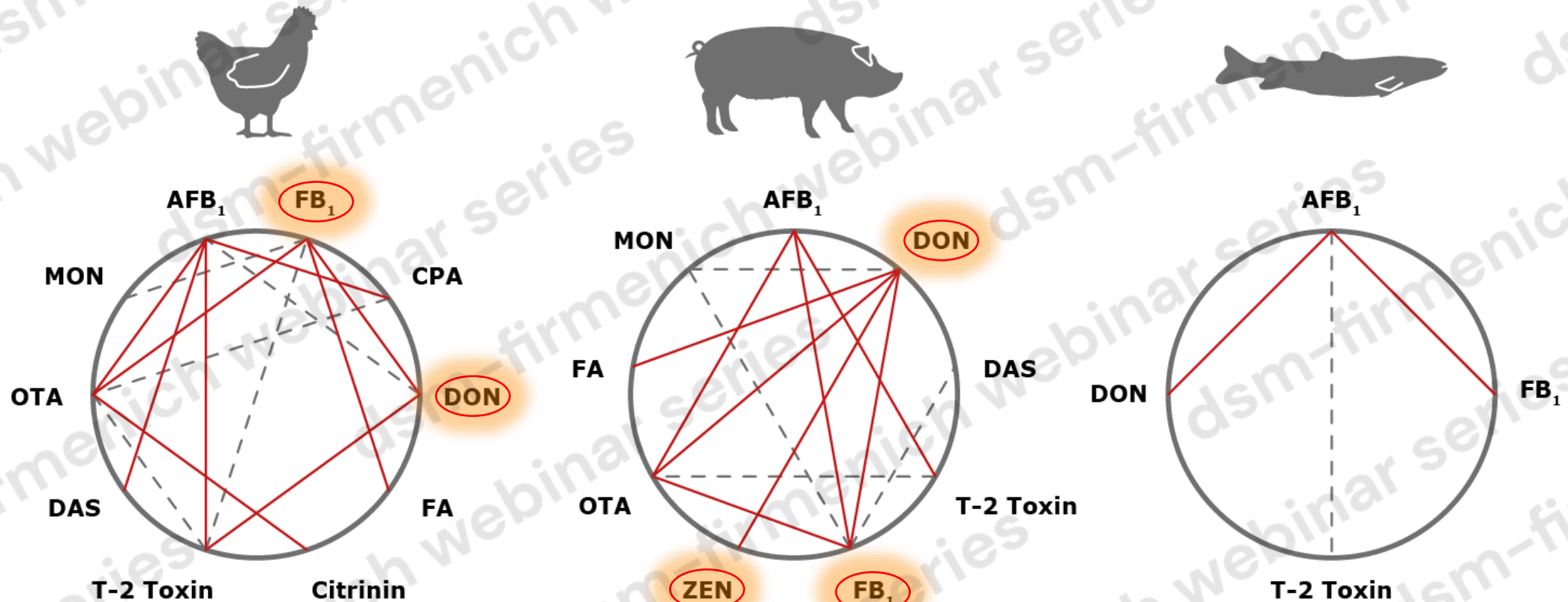
Maiz en 2.023 y Q1 2024: Micotoxinas clásicas

Augusto Heck

augusto.heck@dsm-firmenich.com

Co-Contamination → Synergism

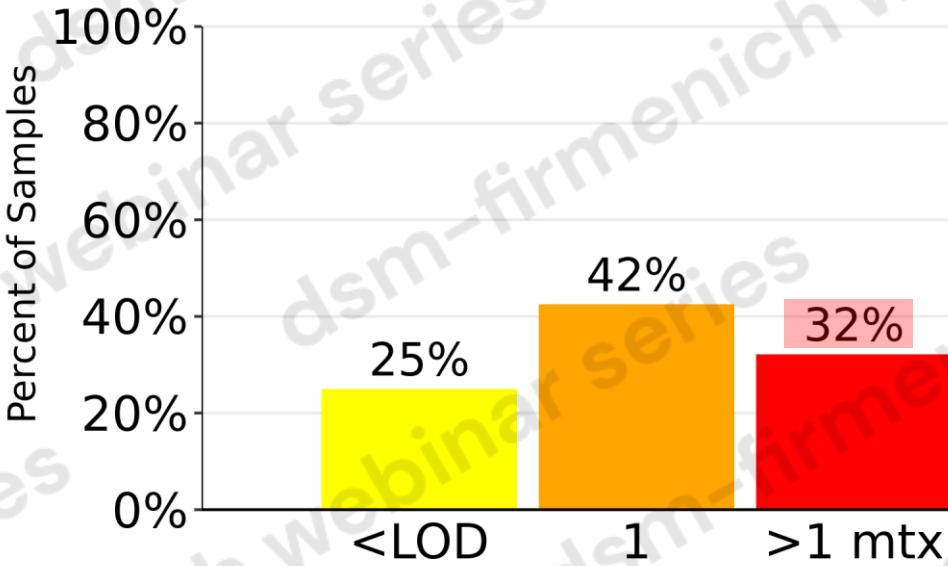
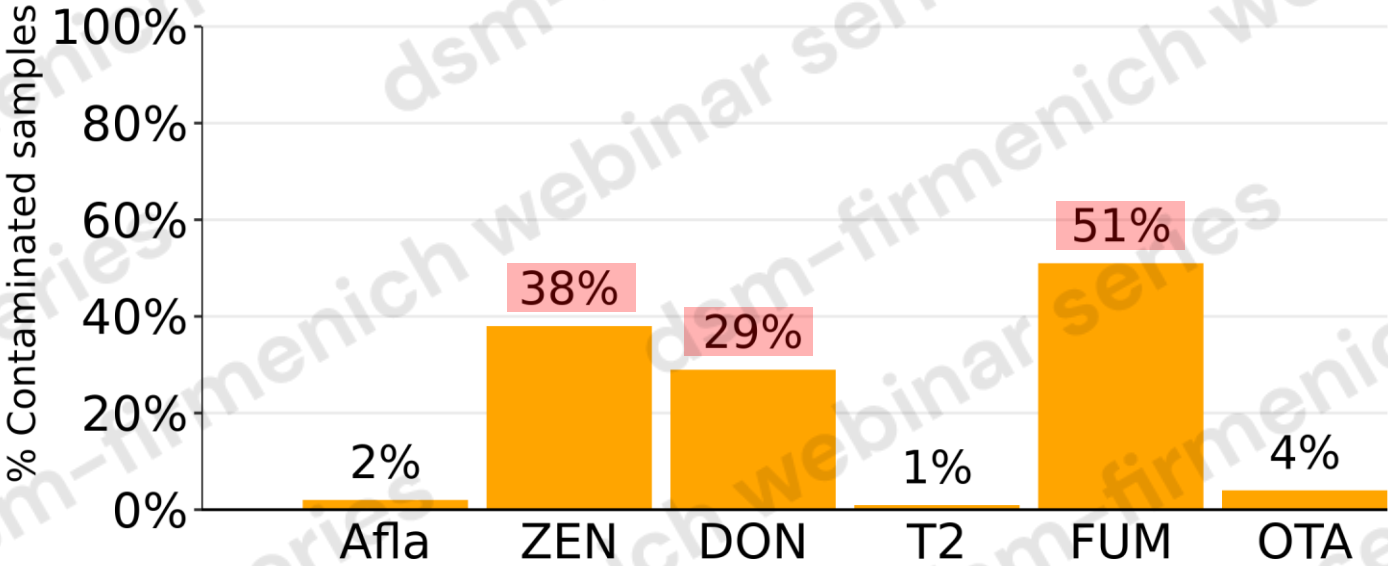
The severity of one mycotoxin can be increased by the presence of others:
Additive (---) and synergistic (—) effects can occur



Summary for Corn kernels in Brazil from Jan 2023 to Dec 2023



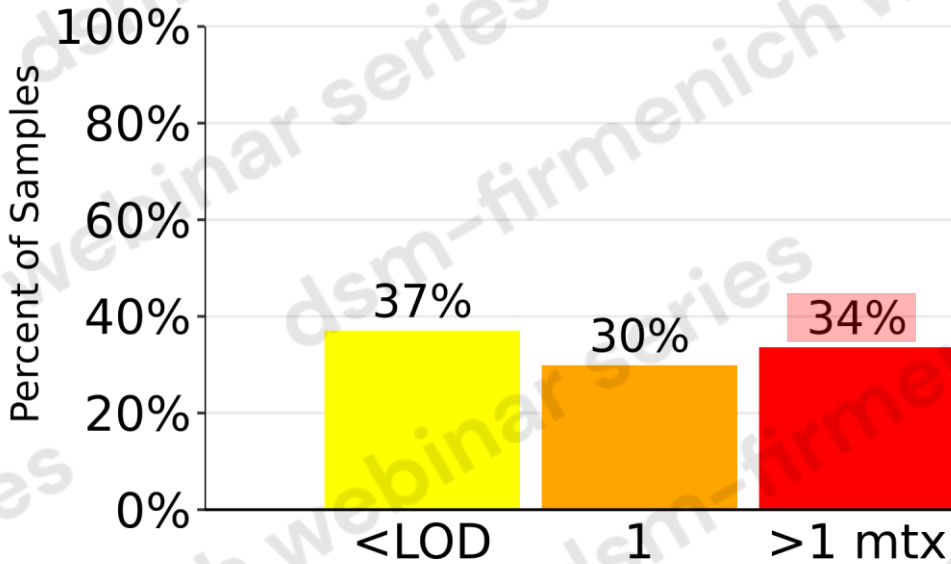
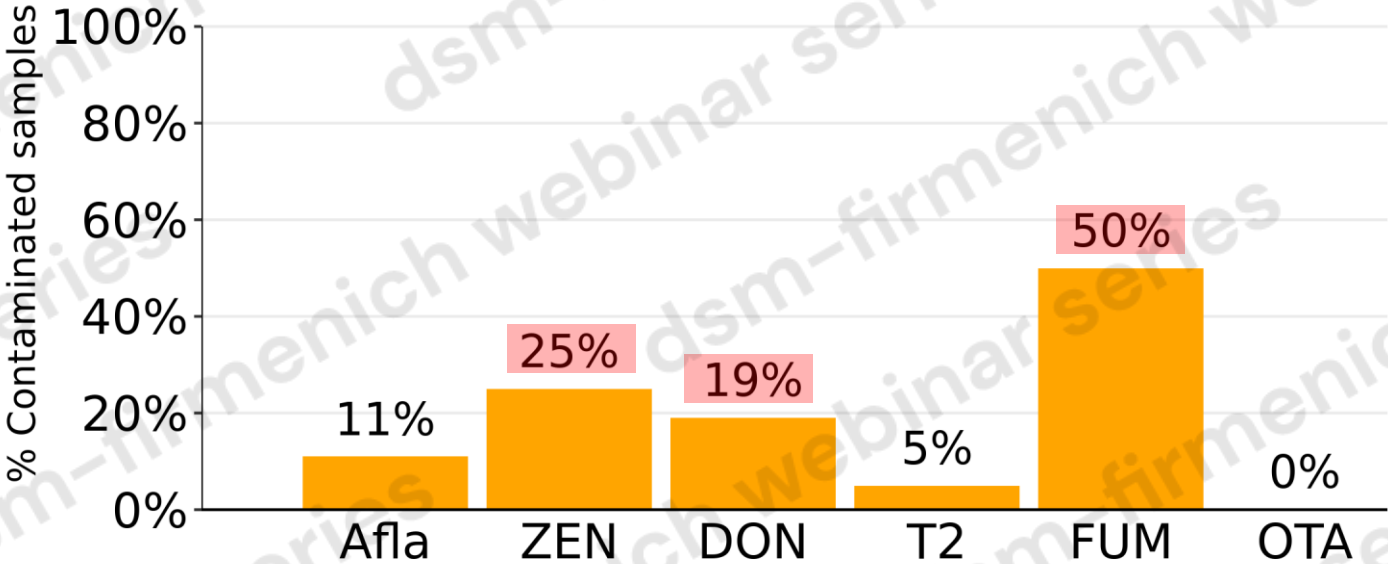
Parameter	Afla	ZEN	DON	T2	FUM	OTA
Number of samples	902	842	909	316	915	46
% Contaminated samples	2%	38%	29%	1%	51%	4%
% Above risk threshold	2%	23%	27%	0%	35%	2%
Average of positives (ppb)	19	118	489	46	1097	11
Median of positives (ppb)	8	65	400	46	750	11
Maximum (ppb)	119	2612	1930	60	5640	19



Summary for Corn kernels in Brazil from Jan 2024 to Jun 2024



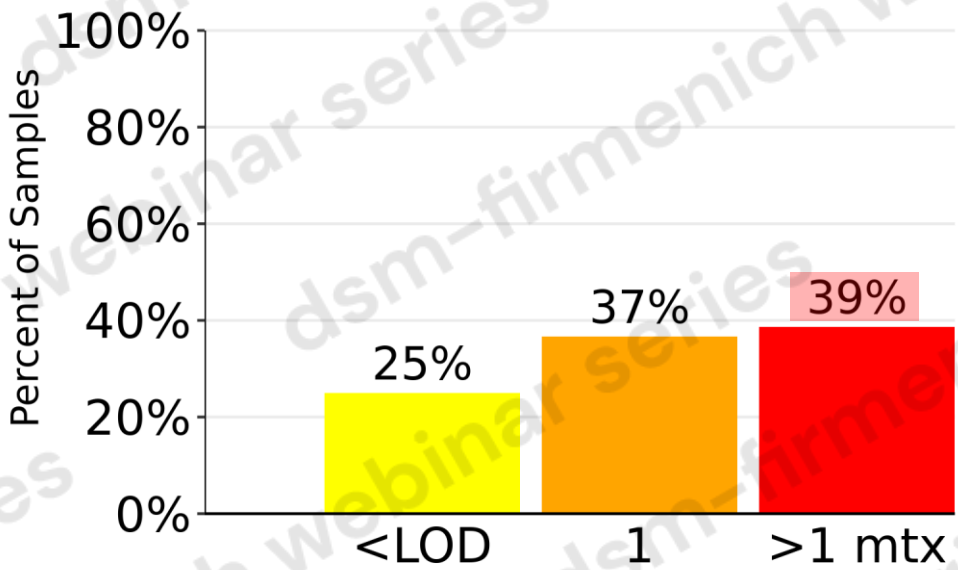
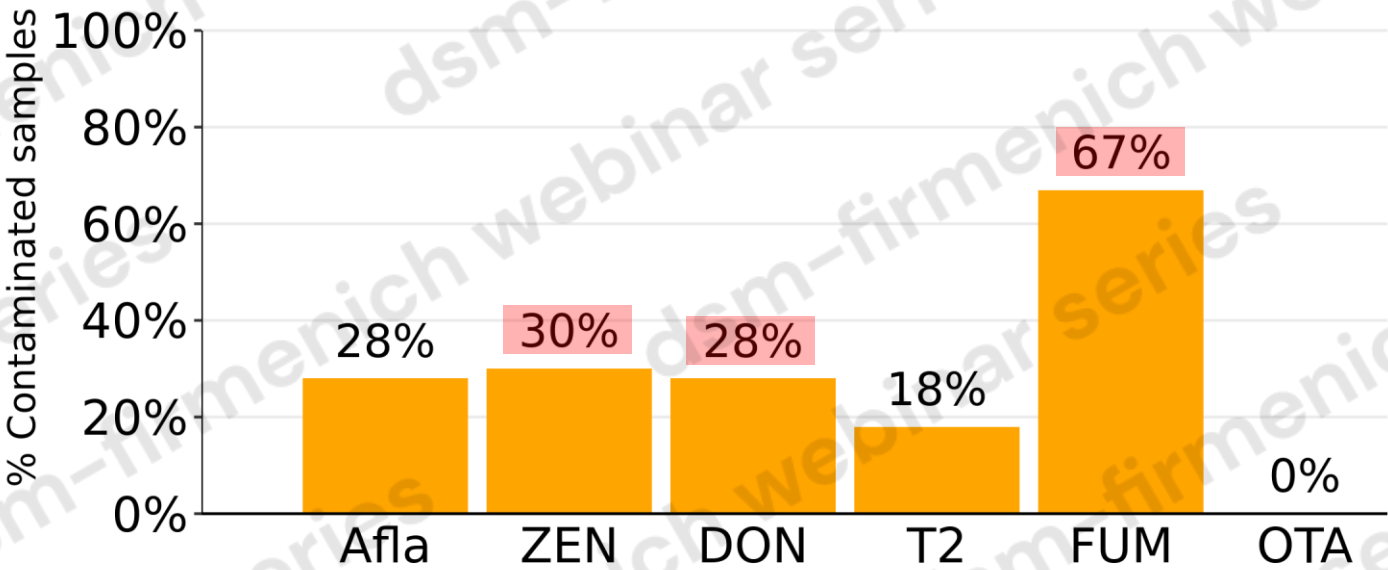
Parameter	Afla	ZEN	DON	T2	FUM	OTA
Number of samples	107	107	107	107	107	25
% Contaminated samples	11%	25%	19%	5%	50%	0%
% Above risk threshold	8%	12%	14%	3%	32%	0%
Average of positives (ppb)	26	112	369	60	975	
Median of positives (ppb)	5	47	319	54	740	
Maximum (ppb)	212	623	983	109	6959	0



Summary for Corn kernels in Argentina from Jan 2023 to Dec 2023



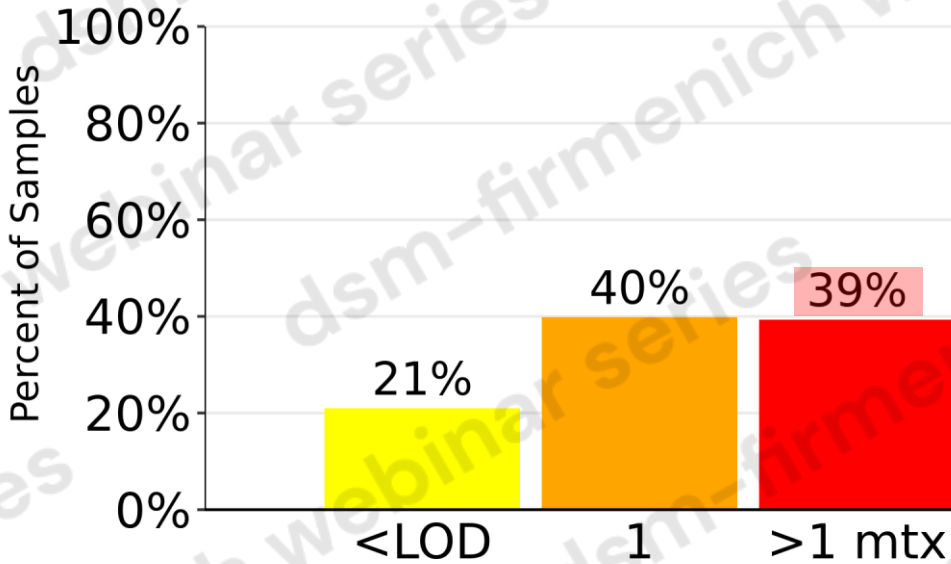
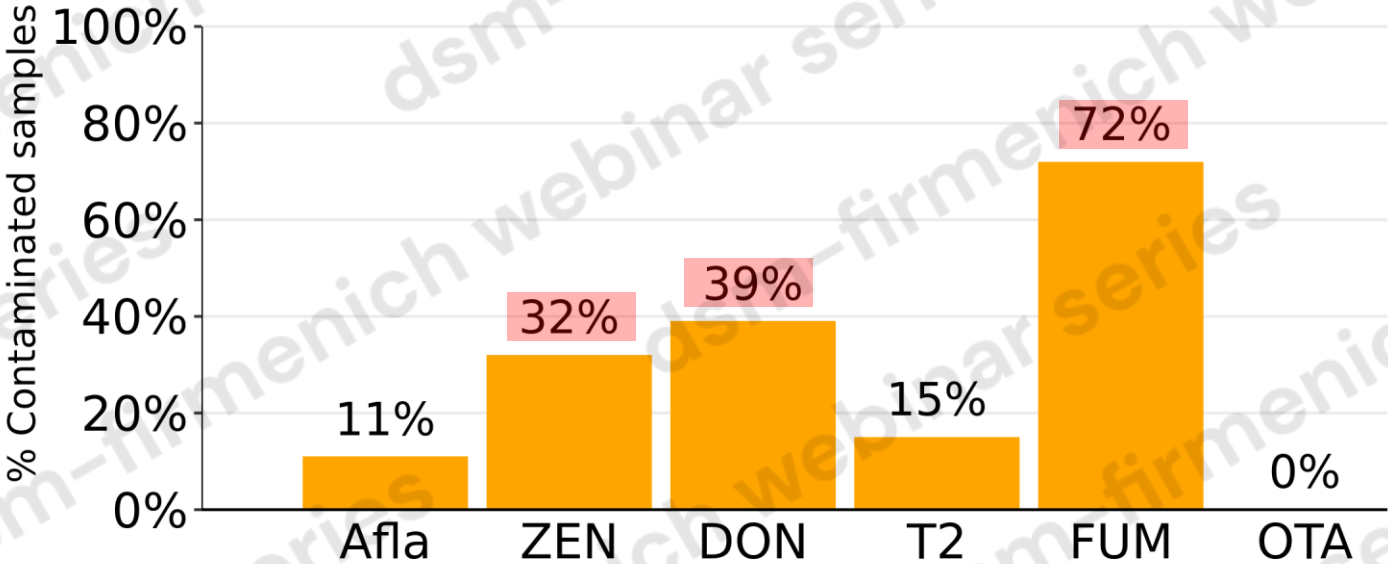
Parameter	Afla	ZEN	DON	T2	FUM	OTA
Number of samples	1630	1565	545	1024	1072	785
% Contaminated samples	28%	30%	28%	18%	67%	0%
% Above risk threshold	15%	9%	27%	6%	54%	0%
Average of positives (ppb)	5	56	974	44	2463	3
Median of positives (ppb)	2	35	655	36	1420	3
Maximum (ppb)	816	1000	5200	254	24730	3



Summary for Corn kernels in Argentina from Jan 2024 to Jun 2024



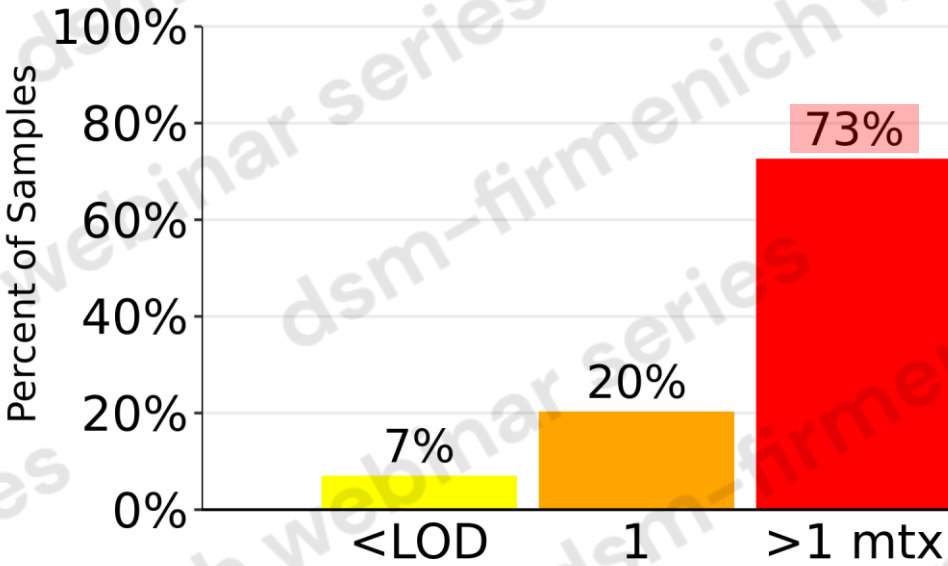
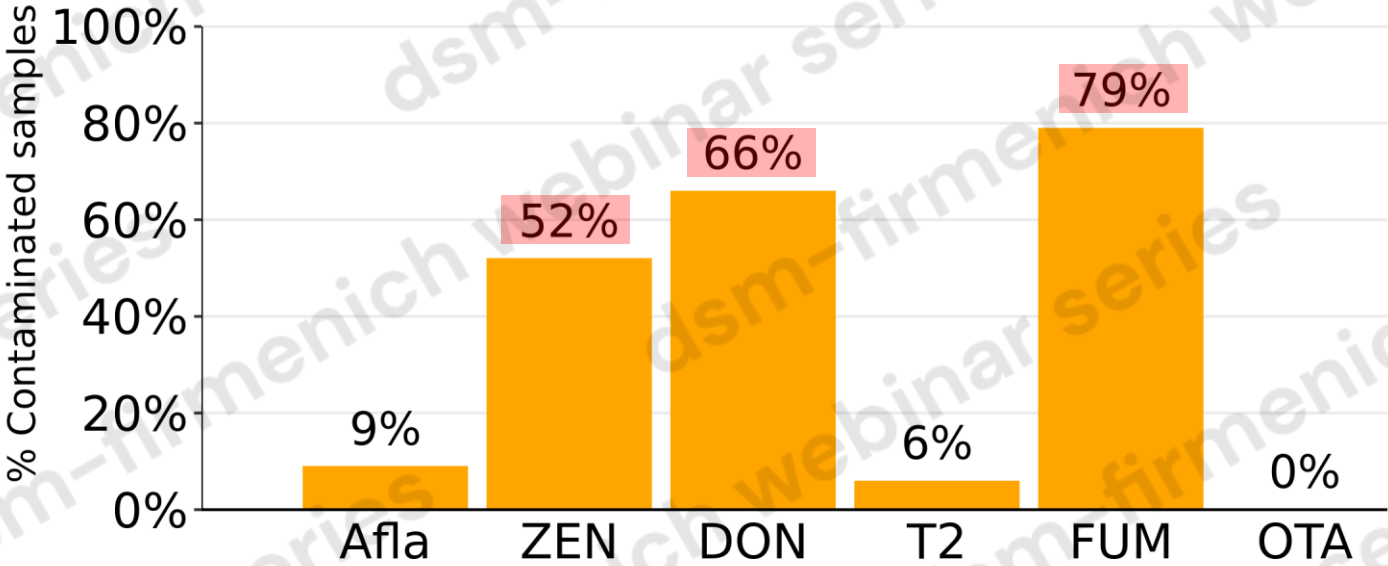
Parameter	Afla	ZEN	DON	T2	FUM	OTA
Number of samples	535	535	177	535	455	535
% Contaminated samples	11%	32%	39%	15%	72%	0%
% Above risk threshold	3%	10%	30%	5%	62%	0%
Average of positives (ppb)	2	74	639	43	2211	
Median of positives (ppb)	1	36	330	41	1505	
Maximum (ppb)	8	812	4190	90	17820	0



Summary for Corn kernels in USA from Jan 2023 to Dec 2023



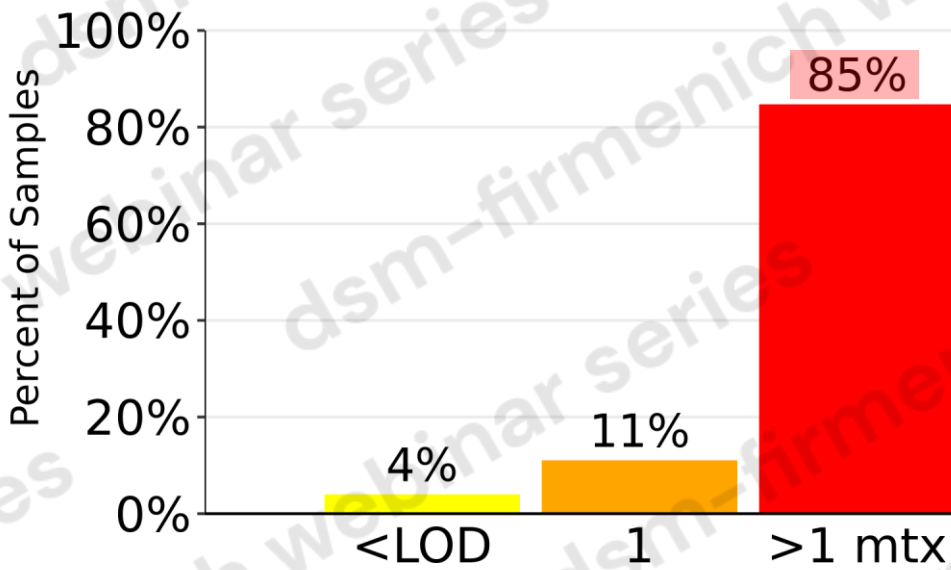
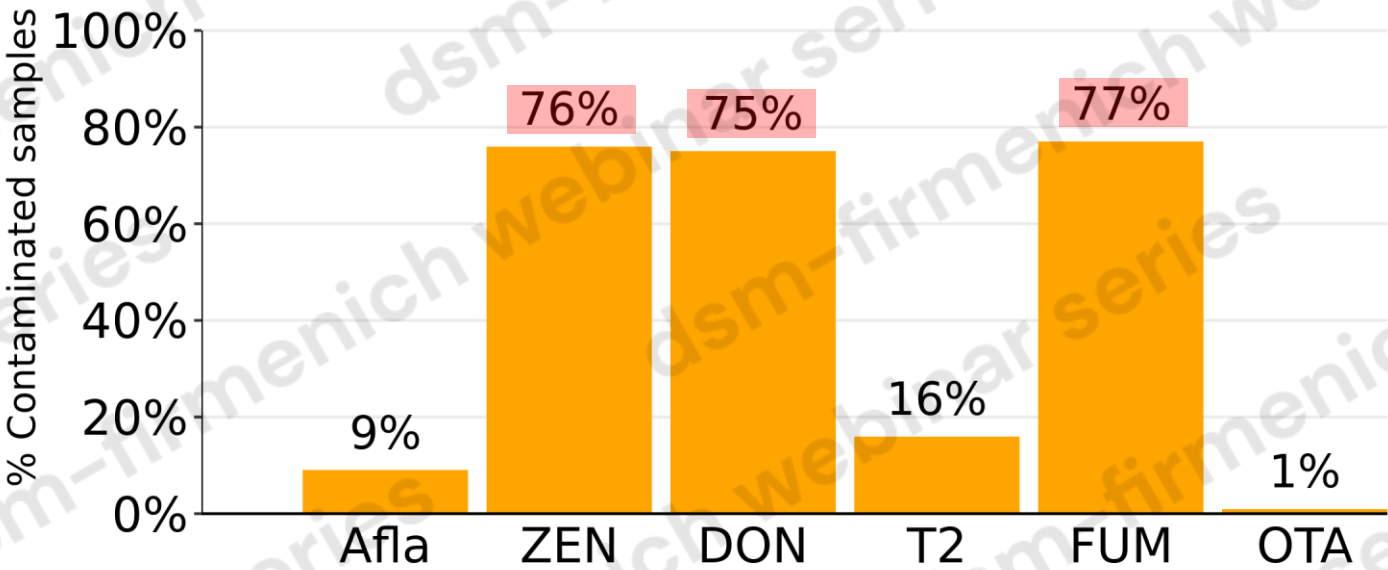
Parameter	Afla	ZEN	DON	T2	FUM	OTA
Number of samples	453	453	453	449	453	449
% Contaminated samples	9%	52%	66%	6%	79%	0%
% Above risk threshold	8%	30%	63%	1%	59%	0%
Average of positives (ppb)	40	221	1374	20	4259	3
Median of positives (ppb)	9	67	555	10	1419	3
Maximum (ppb)	327	4310	11300	82	83175	3



Summary for Corn kernels in USA from Jan 2024 to Jun 2024



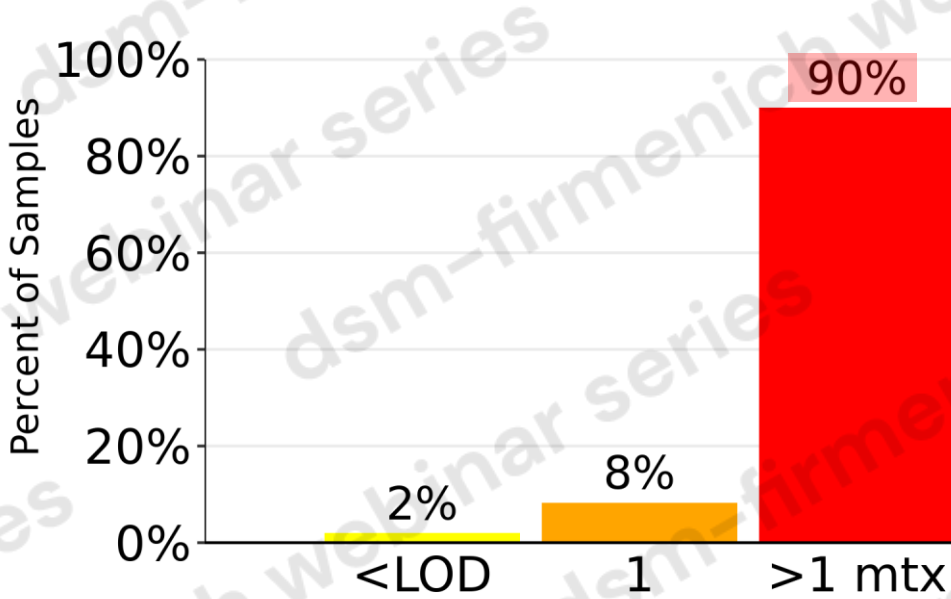
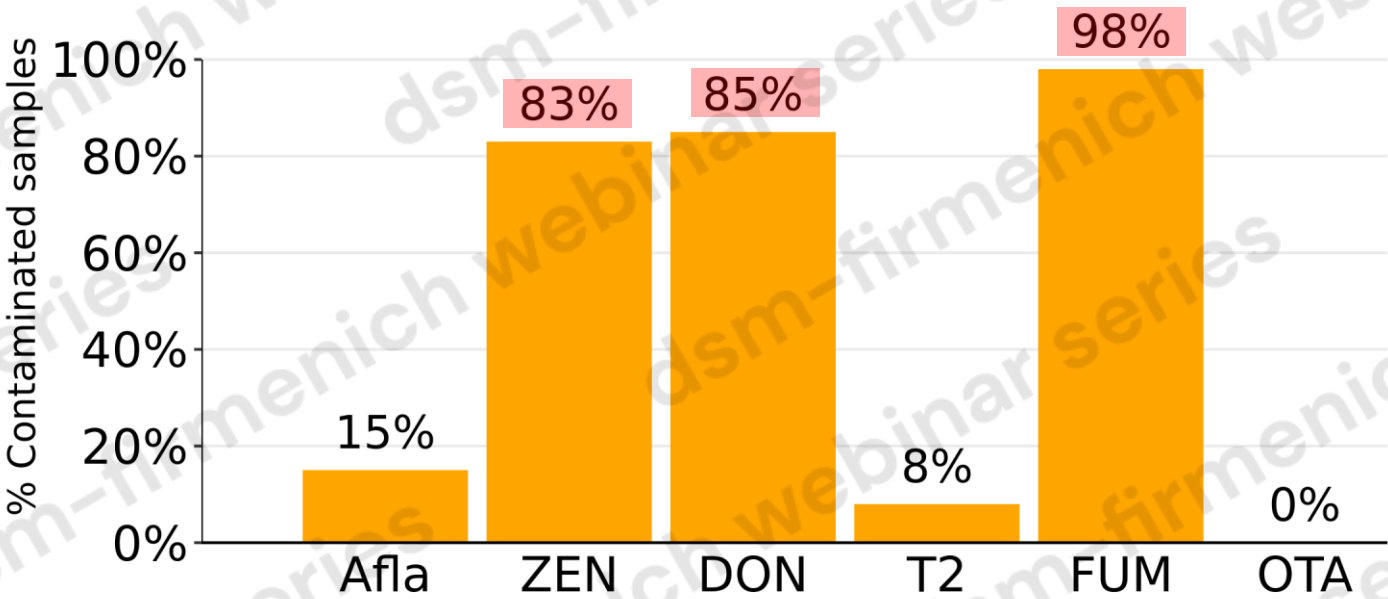
Parameter	Afla	ZEN	DON	T2	FUM	OTA
Number of samples	163	163	163	163	163	163
% Contaminated samples	9%	76%	75%	16%	77%	1%
% Above risk threshold	5%	26%	67%	1%	58%	0%
Average of positives (ppb)	23	136	1662	23	4699	6
Median of positives (ppb)	2	22	496	14	1614	6
Maximum (ppb)	111	2305	21146	97	96316	6



Summary for Corn kernels in Mexico from Jan 2024 to Jun 2024



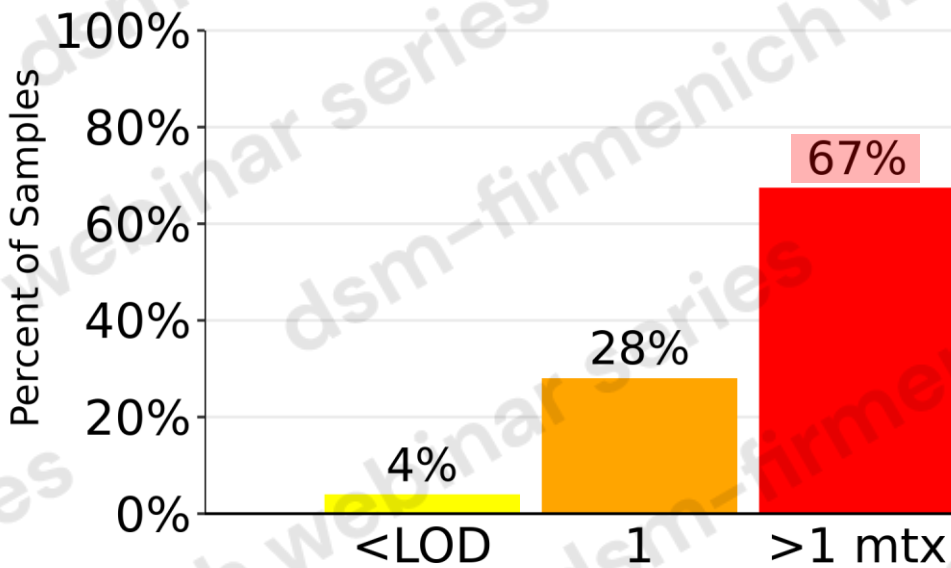
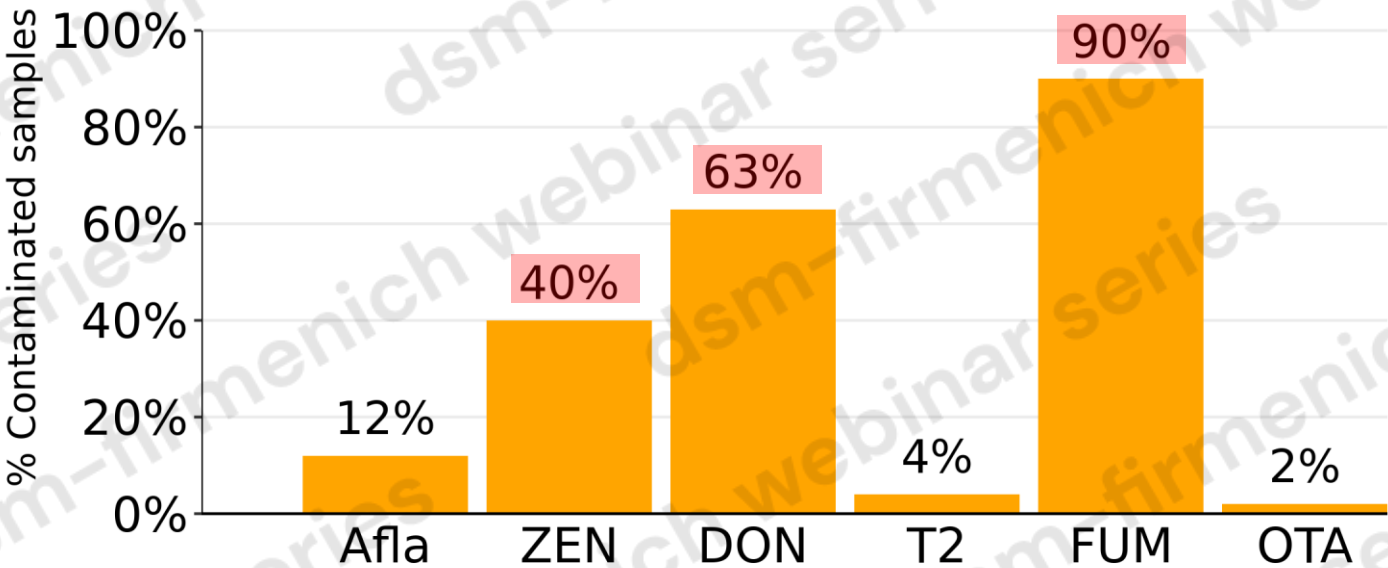
Parameter	Afla	ZEN	DON	T2	FUM	OTA
Number of samples	60	60	60	60	60	60
% Contaminated samples	15%	83%	85%	8%	98%	0%
% Above risk threshold	10%	18%	78%	0%	93%	0%
Average of positives (ppb)	10	30	515	27	3161	
Median of positives (ppb)	4	18	431	34	2518	
Maximum (ppb)	42	121	1436	42	12422	0



Summary for Corn kernels in Mexico from Jan 2023 to Dec 2023



Parameter	Afla	ZEN	DON	T2	FUM	OTA
Number of samples	90	89	89	89	89	89
% Contaminated samples	12%	40%	63%	4%	90%	2%
% Above risk threshold	8%	17%	55%	1%	80%	0%
Average of positives (ppb)	912	177	714	30	2573	3
Median of positives (ppb)	3	28	502	7	1610	3
Maximum (ppb)	9846	2557	4802	103	12411	3



¿Cuáles son las micotoxinas que se encuentran con mayor frecuencia en los cereales utilizados en la alimentación de aves y cerdos?

- a. AFLA, ZEN y DON
- b. AFLA, ZEN y FUM
- c. AFLA, DON y T2
- d. ZEN, DON y FUM**
- e. T2, FUM y OTA

El conjunto de datos más completo y de mayor duración sobre la aparición de micotoxinas:

la Encuesta Mundial de Micotoxinas de dsm-firmenich



We bring progress to life™