Supplementary material

Figure S1. Overall incidence of feed and feed materials from 2018 to 2022.
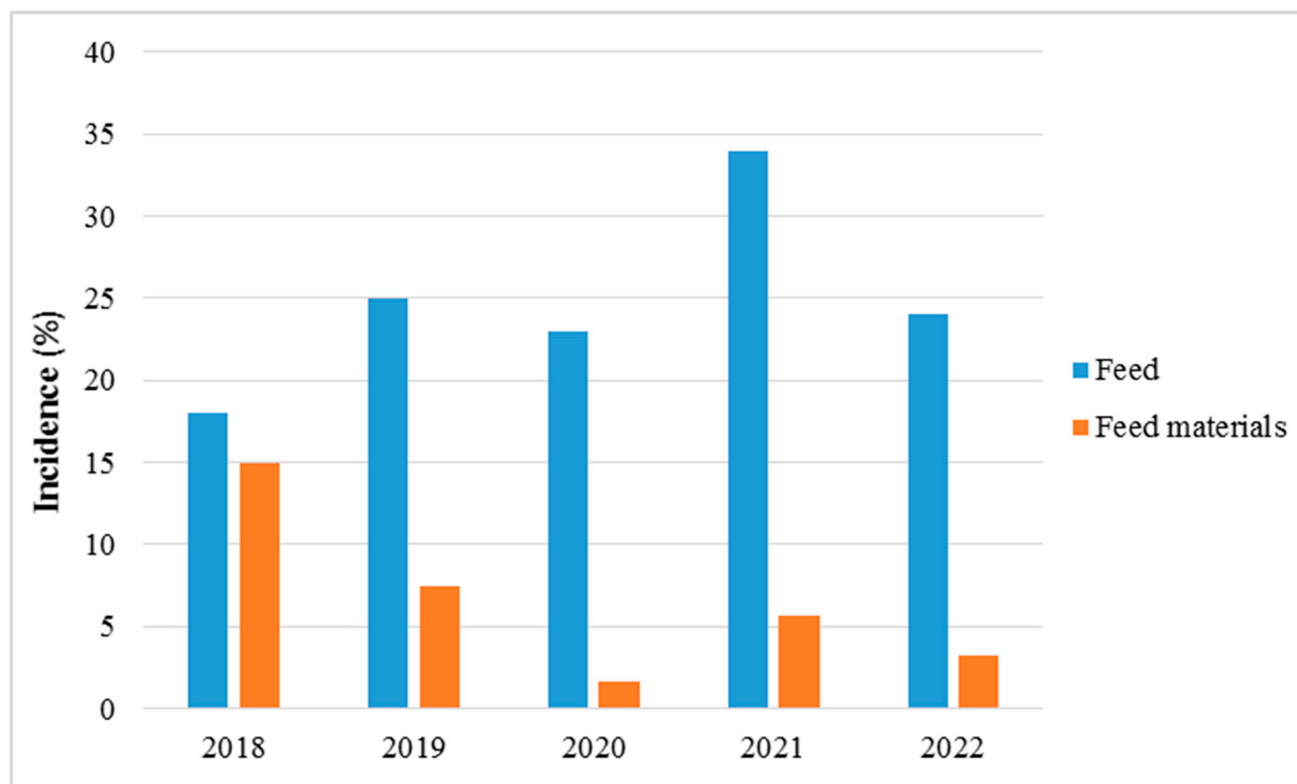

Table S1. LC gradient and FLD parameters

Time	MeOH (%)	ACN (%)	AcOH (%)	Flow (mL/min)
0.00	30	0	70	
3.50	30	0	70	0.6
3.60	1	29	70	
5.00	1	29	70	
6.00	1	29	70	
9.60	1	29	70	1.0
11.00	1	29	70	
11.10	30	0	70	
13.60	30	0	70	0.6
15.50	30	0	70	
Fluorescence detector parameters				
	λ_{ecc} (nm)	λ_{em} (nm)	Gain	Sensitivity
AFB$_1$	364	434	x16	High
ZEN	270	470	x4	High
OTA	334	460	x16	Medium

Table S2. Linearity of Aflatoxin B_1, Zearalenone and Ochratoxin A determined with back-calculated concentration (BCC)

Aflatoxin B1			
µg/mL	Area	BCC (µg/mL)	Δ%
0	0		
0.001	967770	0.0010	**0.8**
0.0026	2385680	0.0026	**-1.5**
0.0051	4742022	0.0051	**0.7**
0.0102	9458215	0.0103	**1.0**
0.0204	18640660	0.0203	**-0.3**
Slope	913911860		
Intercept	46268		

Zearalenone			
µg/mL	Area	BCC (µg/mL)	Δ%
0	0		
0.0284	805717	0.0278	**-2.2**
0.1136	3164323	0.1152	**1.4**
0.2841	7752185	0.2853	**0.4**
0.5682	15397862	0.5688	**0.1**
1.1363	30681720	1.1355	**-0.1**
Slope	26969894		
Intercept	56625		

Ochratoxin A			
µg/mL	Area	BCC (µg/mL)	Δ%
0.0000	0		
0.0129	777581	0.0127	**-1.9**
0.0322	1920707	0.0323	**0.2**
0.0643	3810293	0.0647	**0.6**
0.1286	7606621	0.1298	**1.0**
0.2573	14983463	0.2564	**-0.3**
0.5145	30027207	0.5146	**0.0**
Slope	58275874		
Intercept	39842		

Table S3. LODs and LOQs for Aflatoxin B_1, Zearalenone and Ochratoxin A

Analyte	Theoretical LOD (mg/Kg)	Theoretical LOQ (mg/Kg)	Practical LOQ in feed (mg/Kg)	Practical LOQ in feed materials (mg/Kg)
Aflatoxin B_1	0.0005	0.0015	0.0020	0.0080
Zearalenone	0.017	0.051	0.050	0.200
Ochratoxin A	0.010	0.031	0.025	0.100
Ochratoxin A (dog feed)	0.0014	0.0043	0.0040	-

Table S4. Proficiency tests

Proficiency test	Matrix	Analyte	Assigned value (mg/kg)	Submitted value (mg/kg)	z-score
Progetto Trieste – F1962 (October 2019)	Feed	AFB_1	0.01207	0.01605	1.18
FAPAS 04430 (December 2021)	Feed	AFB_1	0.0191	0.0223	0.8
		ZEN	0.0126	0.0110	-0.6
		OTA	0.0745	0.0820	0.5
FAPAS 04447 (July 2022)	Feed	AFB_1	0.0109	0.0068	-1.7
		ZEN	0.116	0.081	-1.4
		OTA	0.0100	0.0102	0.1