



AAFCO
Association of American Feed Control Officials



Mycotoxin Contaminants Scheme

Corn

Test Material Code # 202461

Method Summary Report

(Precision Report Follows)

Labs Reporting: 62

Methods Reported: 95

Issue Date : 02/29/2024

Method Code	Analyte and Method	Total # Labs Submitting	# Labs in Robust Calcs	Raw Mean	Raw SD	Assigned Value Robust Mean	Revised Horwitz SD (offp)	Uncertainty (U) Robust	% RSD - Robust	Average Range (Rob R-bar)	Thompson Horwitz %RSD
600.01	Total Aflatoxin, Neogen Veratox Aflatoxin (ppb)	9	9	18.95	3.135	18.95	6.443	2.685	34.00%	2.405	22.00%
600.20	Total Aflatoxin, LC (ppb)	10	9	16.47	2.747	16.47	5.621	2.342	34.13%	0.7029	22.00%
600.24	Total Aflatoxin, LC-MS/MS (ppb)	7	6	19.59	6.455	19.10	6.494	3.314	33.99%	3.354	22.00%
600.98	Total Aflatoxin, Other Rapid Test Kit (ppb)	5	5	16.76	6.649	16.76	5.717	2.557	34.11%	2.824	22.00%
600.12	Total Aflatoxin, r-Biopharm Ridascreen FAST Afl (ppb)	3	3	27.61	16.29	27.61	9.292	5.365	33.66%	3.085	22.00%
600.13	Total Aflatoxin, r-Biopharm Ridascreen FAST Afl SC (ppb)	3	3	19.73	2.530	19.73	6.702	3.869	33.96%	2.410	22.00%
600.14	Total Aflatoxin, Vicam Aflatest (ppb)	4	3	16.37	0.1102	16.37	5.589	3.227	34.14%	0.6467	22.00%
600.21	Total Aflatoxin, LC-PCD FI (ppb)	2	2	16.98	1.704						
600.02	Total Aflatoxin, Neogen Veratox Aflatoxin HS (ppb)	1	1	15.40							
600.08	Total Aflatoxin, Romer AgraQuant Total Afl 4-40ppb (ppb)	1	1	17.57							
600.22	Total Aflatoxin, Vicam Aflatest, LC-FI (ppb)	1	1	18.81							
600.23	Total Aflatoxin, LC-MS (ppb)	1	1	9.050							
600.99	Total Aflatoxin, Miscellaneous (ppb)	1	1	24.50							
601.23	Aflatoxin B1, LC-MS/MS (ppb)	20	19	15.69	6.195	15.61	5.335	1.530	34.18%	1.984	22.00%
601.20	Aflatoxin B1, LC (ppb)	8	7	15.00	2.373	14.91	5.102	2.411	34.22%	0.5386	22.00%
601.24	Aflatoxin B1, Vicam Aflatest, LC-FI (ppb)	3	3	13.34	4.709	13.34	4.578	2.643	34.33%	0.2267	22.00%
601.16	Aflatoxin B1, RANDOX Biochip Array (ppb)	2	2	16.08	4.144						
601.21	Aflatoxin B1, LC-PCD FI (ppb)	2	2	15.70	1.898						
601.91	Aflatoxin B1, Romer AgraQuant Afl B1 (ppb)	1	1	17.44							
601.98	Aflatoxin B1, Other Rapid Test Kit (ppb)	1	1	23.20							
601.22	Aflatoxin B1, LC-MS (ppb)	1		1.000							
602.23	Aflatoxin B2, LC-MS/MS (ppb)	17	10	1.191	0.3120	1.182	0.4332	0.1712	36.66%	0.0836	22.00%
602.20	Aflatoxin B2, LC (ppb)	8	7	1.213	0.2311	1.213	0.4443	0.2099	36.63%	0.1000	22.00%
602.24	Aflatoxin B2, Vicam Aflatest, LC-FI (ppb)	3	3	1.258	0.5312	1.258	0.4605	0.3256	36.60%	0.0967	22.00%
602.21	Aflatoxin B2, LC-PCD FI (ppb)	2	2	1.175	0.0141						
602.22	Aflatoxin B2, LC-MS (ppb)	1		1.000							
603.23	Aflatoxin G1, LC-MS/MS (ppb)	17	2	0.2303	0.2401	0.2303	0.0882	0.0780			22.00%
603.16	Aflatoxin G1, RANDOX Biochip Array (ppb)	1	1	1.605							
603.20	Aflatoxin G1, LC (ppb)	5	1								

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603.24	Aflatoxin G1, Vicam Aflatest, LC-FI (ppb)	3	1								
603.22	Aflatoxin G1, LC-MS (ppb)	1		1.000							
604.20	Aflatoxin G2, LC (ppb)	5	1								
604.24	Aflatoxin G2, Vicam Aflatest, LC-FI (ppb)	3	1								
604.22	Aflatoxin G2, LC-MS (ppb)	1		1.000							
604.23	Aflatoxin G2, LC-MS/MS (ppb)	15									
610.23	Deoxynivalenol, LC-MS/MS (ppb)	21	21	2,214	674.7	2,274	679.2	185.3	29.86%	95.63	14.14%
610.01	Deoxynivalenol, Neogen Veratox for DON (ppb)	10	10	2,966	557.1	3,056	905.4	357.9	29.63%	260.4	13.52%
610.20	Deoxynivalenol, LC (ppb)	6	6	2,444	418.8	2,444	728.4	371.7	29.81%	137.8	13.98%
610.07	Deoxynivalenol, r-Biopharm Ridascreen FAST DON (ppb)	4	4	2,842	422.4	2,842	843.8	421.9	29.68%	241.3	13.67%
610.98	Deoxynivalenol, Other Rapid Test Kit (ppb)	4	4	2,357	721.7	2,357	703.3	351.7	29.83%	574.8	14.06%
610.99	Deoxynivalenol, Miscellaneous (ppb)	3	3	2,235	403.3	2,235	667.7	472.2	29.88%	223.1	14.17%
610.08	Deoxynivalenol, r-Biopharm Ridascreen FAST DON SC (ppb)	2	2	2,055	2,129						
610.16	Deoxynivalenol, RANDOX Biochip Array (ppb)	2	2	1,135	276.1						
610.02	Deoxynivalenol, Neogen Veratox for DON HS (ppb)	1	1	673.9							
610.05	Deoxynivalenol, Romer AgraQuant DON (ppb)	1	1	2,928							
620.01	Total Fumonisin, Neogen Veratox Fumonisin (ppb)	8	8	1,453	225.4	1,453	439.2	194.1	30.23%	211.6	15.12%
620.23	Total Fumonisin, LC-MS/MS (ppb)	7	7	1,549	407.0	1,532	462.5	218.5	30.19%	76.99	15.00%
620.98	Total Fumonisin, Other Rapid Test Kit (ppb)	6	6	1,589	302.6	1,613	486.2	248.1	30.14%	424.5	14.89%
620.09	Total Fumonisin, r-Biopharm Ridascreen FAST FUM (ppb)	4	3	1,770	343.6	1,770	532.2	376.3	30.07%	120.0	14.68%
620.07	Total Fumonisin, Romer AgraQuant Total Fumonisin (ppb)	2	2	1,818	590.7						
620.11	Total Fumonisin, Vicam Fumonitest (ppb)	2	2	1,259	12.73						
620.16	Total Fumonisin, RANDOX Biochip Array (ppb)	2	2	1,196	263.3						
620.02	Total Fumonisin, Neogen Veratox Fumonisin 5/10 (ppb)	1	1	1,800							
620.03	Total Fumonisin, Neogen Veratox Fumonisin HS (ppb)	1	1	433.1							
620.12	Total Fumonisin, Vicam Fumonitest 200 (ppb)	1	1	2,650							
620.20	Total Fumonisin, LC (ppb)	1	1	1,346							
620.99	Total Fumonisin, Miscellaneous (ppb)	1	1	1,339							
621.23	Fumonsin B1, LC-MS/MS (ppb)	19	19	1,326	395.6	1,357	411.0	117.9	30.28%	55.68	15.28%
621.21	Fumonsin B1, LC-FI OPA der. (ppb)	2	2	1,004	4.950						
621.20	Fumonsin B1, LC (ppb)	1	1	1,060							
622.23	Fumonisin B2, LC-MS/MS (ppb)	18	16	365.6	112.4	379.6	119.0	37.19	31.35%	16.50	18.51%
622.21	Fumonisin B2, LC-FI OPA der. (ppb)	2	2	255.5	7.778						
622.20	Fumonisin B2, LC (ppb)	1	1	289.0							
623.23	Fumonisin B3, LC-MS/MS (ppb)	11	9	122.2	52.94	124.8	40.32	16.80	32.31%	7.050	21.88%
630.23	Ochratoxin A, LC-MS/MS (ppb)	19	16	16.99	6.339	16.46	5.619	1.756	34.13%	1.918	22.00%
630.20	Ochratoxin A, LC (ppb)	7	7	12.54	4.095	12.54	4.312	2.037	34.38%	1.125	22.00%
630.01	Ochratoxin A, Neogen Veratox Ochratoxin (ppb)	4	4	19.00	9.933	19.00	6.459	3.229	34.00%	0.4900	22.00%
630.05	Ochratoxin A, r-Biopharm Ridascreen FAST Och A (ppb)	4	4	19.53	13.45	19.53	6.634	3.317	33.97%	2.431	22.00%
630.06	Ochratoxin A, Vicam OchraTest (ppb)	3	2	15.79	3.129	15.79	5.395				22.00%

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630.16	Ochratoxin A, RANDOX Biochip Array (ppb)	2	2	10.48	0.2475						
630.03	Ochratoxin A, Romer AgraQuant Ochratoxin (ppb)	1	1	11.37							
630.98	Ochratoxin A, Other Rapid Test Kit (ppb)	1	1	5.995							
630.99	Ochratoxin A, Miscellaneous (ppb)	1	1	15.50							
640.23	T-2 Toxin, LC-MS/MS (ppb)	17	15	115.7	36.36	120.2	38.88	12.55	32.34%	6.976	22.00%
640.03	T-2 Toxin, Romer AgraQuant T-2 (ppb)	2	2	138.1	38.42						
640.05	T-2 Toxin, r-Biopharm Ridascreen FAST T-2 (ppb)	2	2	92.25	22.57						
640.98	T-2 Toxin, Other Rapid Test Kit (ppb)	1	1	106.5							
641.23	HT-2 Toxin, LC-MS/MS (ppb)	13	12	174.2	44.51	171.1	54.81	19.78	32.03%	16.89	20.87%
642.21	T-2 Toxin + HT-2 Toxin, Neogen Veratox T-2 + HT-2 (ppb)	6	6	389.2	126.7	379.9	119.1	60.78	31.35%	22.42	18.50%
642.04	T-2 Toxin + HT-2 Toxin, LC-MS (ppb)	2	2	293.2	42.08						
642.16	T-2 Toxin + HT-2 Toxin, RANDOX Biochip Array (ppb)	2	2	165.1	25.60						
642.99	T-2 Toxin + HT-2 Toxin, Miscellaneous Technique (ppb)	2	2	288.8	88.14						
642.98	T-2 Toxin + HT-2 Toxin, Other Rapid Test Kit (ppb)	1	1	397.0							
650.24	Zearalenone, LC-MS/MS (ppb)	18	17	364.7	130.7	374.6	117.5	35.61	31.36%	44.32	18.54%
650.01	Zearalenone, Neogen Veratox Zearalenone (ppb)	8	8	401.6	199.6	366.8	115.1	50.87	31.38%	39.93	18.60%
650.20	Zearalenone, LC (ppb)	6	6	625.4	504.1	449.5	140.3	71.59	31.21%	26.43	18.04%
650.98	Zearalenone, Other Rapid Test Kit (ppb)	5	5	575.7	354.0	575.7	178.4	79.80	31.00%	69.68	17.38%
650.07	Zearalenone, r-Biopharm Ridascreen FAST ZON SC (ppb)	3	3	354.3	210.2	354.3	111.3	64.24	31.41%	9.987	18.70%
650.06	Zearalenone, r-Biopharm Ridascreen FAST ZON (ppb)	2	2	292.3	79.86						
650.16	Zearalenone, RANDOX Biochip Array (ppb)	2	2	350.1	27.05						
650.99	Zearalenone, Miscellaneous (ppb)	2	2	291.8	80.26						
650.04	Zearalenone, Romer AgraQuant ZON (ppb)	1	1	444.6							
650.05	Zearalenone, r-Biopharm Ridascreen Zearalenon (ppb)	1	1	348.5							
650.21	Zearalenone, LC-FI, ISO (ppb)	1	1	416.6							
650.23	Zearalenone, LC-MS (ppb)	1	1	395.5							

Notes: Robust statistics not used if < 6 labs reporting. In this case Means and SD's may be reported based on Raw Data with obvious blunders removed. Robust Assigned Values indicated in bold font. Horwitz and Revised Horwitz SD's assigned regardless of participant number.



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Mycotoxin Contaminants Scheme

Corn

Test Material Code # 202461

Method Precision Report

Methods Reported: 26

Labs Reporting: 62

Issue Date : 02/29/2024

Method Code	Analyte and Method	Total # Labs Submitting	# Labs used in Precision Calcs	Precision Mean	Precision SD	Between Labs sL	Within Labs sr	Reproducibility sR	Between Labs %RSD	Within Labs %rsd	Reproducibility %RSD	sR/sr
600.01	Total Aflatoxin, Neogen Veratox Aflatoxin (ppb)	9	8	18.95	3.135	2.995	1.639	3.414	15.56%	8.51%	17.73%	2.083
600.20	Total Aflatoxin, LC (ppb)	10	9	16.47	2.747	2.725	0.4978	2.770	16.54%	3.02%	16.82%	5.564
600.24	Total Aflatoxin, LC-MS/MS (ppb)	7	6	19.59	6.455	6.138	2.826	6.758	31.34%	14.43%	34.50%	2.391
600.98	Total Aflatoxin, Other Rapid Test Kit (ppb)	5	5	16.76	6.649	6.391	2.593	6.897	38.14%	15.48%	41.16%	2.659
601.20	Aflatoxin B1, LC (ppb)	8	7	15.00	2.373	2.352	0.4430	2.393	15.69%	2.95%	15.96%	5.403
601.23	Aflatoxin B1, LC-MS/MS (ppb)	20	18	15.69	6.195	4.709	1.572	4.964	31.88%	10.64%	33.61%	3.158
602.20	Aflatoxin B2, LC (ppb)	8	7	1.213	0.2311	0.2278	0.0550	0.2343	18.78%	4.54%	19.32%	4.258
602.23	Aflatoxin B2, LC-MS/MS (ppb)	17	9	1.191	0.3120	0.2392	0.0375	0.2421	21.30%	3.34%	21.56%	6.449
610.01	Deoxynivalenol, Neogen Veratox for DON (ppb)	10	9	2,966	557.1	237.3	228.4	329.4	7.61%	7.32%	10.56%	1.442
610.20	Deoxynivalenol, LC (ppb)	6	6	2,444	418.8	411.4	110.9	426.1	16.83%	4.54%	17.43%	3.841
610.23	Deoxynivalenol, LC-MS/MS (ppb)	21	19	2,214	674.7	507.5	71.93	512.6	21.84%	3.10%	22.06%	7.126
620.01	Total Fumonisin, Neogen Veratox Fumonisin (ppb)	8	8	1,453	225.4	199.4	148.4	248.6	13.72%	10.22%	17.11%	1.675
620.23	Total Fumonisin, LC-MS/MS (ppb)	7	6	1,549	407.0	443.1	42.44	445.1	28.35%	2.72%	28.48%	10.49
620.98	Total Fumonisin, Other Rapid Test Kit (ppb)	6	6	1,589	302.6	140.6	378.9	404.2	8.85%	23.85%	25.44%	1.067
621.23	Fumonsin B1, LC-MS/MS (ppb)	19	17	1,326	395.6	262.9	50.62	267.8	19.01%	3.66%	19.36%	5.289
622.23	Fumonisin B2, LC-MS/MS (ppb)	18	14	365.6	112.4	70.94	11.37	71.85	18.39%	2.95%	18.63%	6.321
623.23	Fumonisin B3, LC-MS/MS (ppb)	11	8	122.2	52.94	48.54	4.018	48.70	42.91%	3.55%	43.06%	12.12
630.20	Ochratoxin A, LC (ppb)	7	6	12.54	4.095	4.145	0.3631	4.161	34.67%	3.04%	34.81%	11.46
630.23	Ochratoxin A, LC-MS/MS (ppb)	19	16	16.99	6.339	6.190	1.931	6.484	36.42%	11.36%	38.16%	3.358
640.23	T-2 Toxin, LC-MS/MS (ppb)	17	13	115.7	36.36	18.83	5.447	19.61	15.66%	4.53%	16.31%	3.599
641.23	HT-2 Toxin, LC-MS/MS (ppb)	13	12	174.2	44.51	43.01	16.18	45.95	24.69%	9.29%	26.38%	2.841
642.21	T-2 Toxin + HT-2 Toxin, Neogen Veratox T-2 + HT-2 (ppb)	6	5	389.2	126.7	65.45	13.94	66.92	19.05%	4.06%	19.48%	4.802
650.01	Zearalenone, Neogen Veratox Zearalenone (ppb)	8	7	401.6	199.6	88.32	42.15	97.86	26.14%	12.47%	28.96%	2.322
650.20	Zearalenone, LC (ppb)	6	5	625.4	504.1	50.00	23.65	55.32	11.89%	5.62%	13.15%	2.339
650.24	Zearalenone, LC-MS/MS (ppb)	18	15	364.7	130.7	85.08	38.11	93.23	21.34%	9.56%	23.38%	2.446
650.98	Zearalenone, Other Rapid Test Kit (ppb)	5	5	575.7	354.0	350.8	67.21	357.2	60.94%	11.68%	62.05%	5.314

Notes: Precision Calculations provided for methods with 5 or more labs contributing to calculations.