



AAFCO
Association of American Feed Control Officials



Mycotoxin Contaminants Scheme

Soybean Meal

Test Material Code # 202264

Method Summary Report

(Precision Report Follows)

Labs Reporting: 68

Methods Reported: 92

Issue Date : 11/30/2022

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 (R-bar)	Thompson Horwitz %RSD
600.01	Total Aflatoxin, Neogen Veratox Aflatoxin (ppb)	14	12	6.600	1.116	6.613	2.314	0.8349	34.99%	1.462	22.00%
600.20	Total Aflatoxin, LC (ppb)	7	7	4.852	0.4529	4.769	1.683	0.7953	35.30%	0.6471	22.00%
600.14	Total Aflatoxin, Vicam Aflatest (ppb)	6	6	4.392	2.107	4.392	1.554	0.7928	35.38%	1.203	22.00%
600.24	Total Aflatoxin, LC-MS/MS (ppb)	7	6	5.552	1.293	5.552	1.952	0.9959	35.15%	0.5867	22.00%
600.98	Total Aflatoxin, Other Rapid Test Kit (ppb)	5	5	5.160	2.347	5.160	1.817	0.8128	35.22%	0.4040	22.00%
600.08	Total Aflatoxin, Romer AgraQuant Total Afl 4-40ppb (ppb)	3	3	11.35	10.92	11.35	3.914	2.260	34.48%	0.2997	22.00%
600.12	Total Aflatoxin, r-Biopharm Ridascreen FAST Afl (ppb)	2	2	8.615	0.7842						
600.13	Total Aflatoxin, r-Biopharm Ridascreen FAST Afl SC (ppb)	2	2	5.198	1.623						
600.22	Total Aflatoxin, Vicam Aflatest, LC-FI (ppb)	2	2	3.011	4.058						
600.23	Total Aflatoxin, LC-MS (ppb)	2	2	3.435	1.704						
600.16	Total Aflatoxin, RANDOX Biochip Array (ppb)	1	1	4.550							
601.23	Aflatoxin B1, LC-MS/MS (ppb)	19	17	6.599	5.117	5.199	1.831	0.5550	35.21%	1.162	22.00%
601.20	Aflatoxin B1, LC (ppb)	6	6	4.558	0.4735	4.532	1.602	0.8174	35.35%	0.6117	22.00%
601.16	Aflatoxin B1, RANDOX Biochip Array (ppb)	3	3	4.578	0.2604	4.578	1.618	0.9339	35.34%	0.9380	22.00%
601.24	Aflatoxin B1, Vicam Aflatest, LC-FI (ppb)	3	3	4.153	1.735	4.153	1.471	0.8496	35.43%	0.4933	22.00%
601.91	Aflatoxin B1, Romer AgraQuant Afl B1 (ppb)	1	1	7.735							
601.92	Aflatoxin B1, r-Biopharm Ridascreen Afl B1I (ppb)	1	1	6.145							
601.98	Aflatoxin B1, Other Rapid Test Kit (ppb)	1	1	6.840							
602.20	Aflatoxin B2, LC (ppb)	6	5	0.3270	0.0821	0.3270	0.1241	0.0694	37.96%	0.0340	22.00%
602.23	Aflatoxin B2, LC-MS/MS (ppb)	17	3	0.3072	0.0864	0.3072	0.1168	0.0843	38.02%	0.0010	22.00%
602.24	Aflatoxin B2, Vicam Aflatest, LC-FI (ppb)	3	2	0.2950	0.1626	0.2950	0.1123			0.0200	22.00%
603.16	Aflatoxin G1, RANDOX Biochip Array (ppb)	1	1	0.6240							
603.23	Aflatoxin G1, LC-MS/MS (ppb)	17	1								
603.20	Aflatoxin G1, LC (ppb)	1		0.2500							
603.24	Aflatoxin G1, Vicam Aflatest, LC-FI (ppb)	2		0.2300							
604.20	Aflatoxin G2, LC (ppb)	2	1	0.0650							
604.24	Aflatoxin G2, Vicam Aflatest, LC-FI (ppb)	3	1								
604.98	Aflatoxin G2, Other Rapid Test Kit (ppb)	1	1	11.50							
604.21	Aflatoxin G2, LC-PCD FI (ppb)	1		0.0100							

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 (R-bar)	Thompson Horwitz %RSD
604.23	Aflatoxin G2, LC-MS/MS (ppb)	15									
610.23	Deoxynivalenol, LC-MS/MS (ppb)	20	20	953.9	264.6	961.0	293.8	82.11	30.57%	56.06	16.09%
610.01	Deoxynivalenol, Neogen Veratox for DON (ppb)	15	15	1,334	190.0	1,329	402.6	129.9	30.30%	157.7	15.33%
610.98	Deoxynivalenol, Other Rapid Test Kit (ppb)	5	5	961.8	625.6	961.8	294.0	131.5	30.57%	65.04	16.09%
610.05	Deoxynivalenol, Romer AgraQuant DON (ppb)	3	3	9,189	13,000	9,189	2,642	1,868	28.76%	365.8	11.46%
610.07	Deoxynivalenol, r-Biopharm Ridascreen FAST DON (ppb)	3	3	1,290	249.3	1,290	391.3	225.9	30.33%	206.4	15.39%
610.16	Deoxynivalenol, RANDOX Biochip Array (ppb)	3	3	1,246	290.1	1,246	378.3	218.4	30.35%	139.9	15.48%
610.20	Deoxynivalenol, LC (ppb)	4	3	1,229	473.0	1,229	373.1	215.4	30.37%	106.4	15.51%
610.08	Deoxynivalenol, r-Biopharm Ridascreen FAST DON SC (ppb)	2	2	1,463	809.6						
610.09	Deoxynivalenol, Vicam DON-V (ppb)	1	1	1,736							
610.22	Deoxynivalenol, LC-MS (ppb)	1	1	899.3							
610.25	Deoxynivalenol, GC-MS (ppb)	1	1	1,924							
610.99	Deoxynivalenol, Miscellaneous (ppb)	1	1	961.3							
620.01	Total Fumonisin, Neogen Veratox Fumonisin (ppb)	10	9	1,081	252.1	1,081	329.5	137.3	30.47%	192.1	15.81%
620.23	Total Fumonisin, LC-MS/MS (ppb)	8	8	1,303	520.9	1,209	367.3	162.3	30.38%	73.49	15.55%
620.02	Total Fumonisin, Neogen Veratox Fumonisin 5/10 (ppb)	3	3	1,262	251.2	1,262	382.8	221.0	30.34%	136.7	15.45%
620.07	Total Fumonisin, Romer AgraQuant Total Fumonisin (ppb)	3	3	4,190	5,319	4,190	1,231	870.3	29.37%	620.0	12.89%
620.09	Total Fumonisin, r-Biopharm Ridascreen FAST FUM (ppb)	3	3	1,181	349.4	1,181	359.1	207.3	30.40%	41.00	15.60%
620.11	Total Fumonisin, Vicam Fumonitest (ppb)	3	3	1,061	356.6	1,061	323.3	186.7	30.49%	224.0	15.86%
620.16	Total Fumonisin, RANDOX Biochip Array (ppb)	3	3	1,191	62.46	1,191	362.1	209.0	30.39%	72.22	15.58%
620.98	Total Fumonisin, Other Rapid Test Kit (ppb)	3	3	2,517	104.1	2,517	749.5	432.7	29.78%	300.0	13.92%
620.12	Total Fumonisin, Vicam Fumonitest 200 (ppb)	1	1	905.0							
620.20	Total Fumonisin, LC (ppb)	1	1	516.0							
621.23	Fumonsin B1, LC-MS/MS (ppb)	18	18	675.5	269.0	682.8	210.7	62.07	30.85%	81.02	16.94%
621.20	Fumonsin B1, LC (ppb)	2	2	704.5	446.2						
621.21	Fumonsin B1, LC-FI OPA der. (ppb)	2	2	645.4	134.9						
621.98	Fumonsin B1, Other Rapid Test Kit (ppb)	1	1	2,850							
622.23	Fumonisin B2, LC-MS/MS (ppb)	16	15	260.1	73.97	260.8	82.59	26.66	31.67%	31.33	19.58%
622.21	Fumonisin B2, LC-FI OPA der. (ppb)	2	2	220.4	28.78						
622.20	Fumonisin B2, LC (ppb)	1	1	127.0							
623.23	Fumonisin B3, LC-MS/MS (ppb)	11	9	94.44	68.33	78.01	25.53	10.64	32.72%	15.59	22.00%
630.23	Ochratoxin A, LC-MS/MS (ppb)	18	16	14.47	5.747	14.00	4.800	1.500	34.28%	1.784	22.00%
630.20	Ochratoxin A, LC (ppb)	6	6	37.72	56.02	19.56	6.644	3.391	33.97%	17.84	22.00%
630.16	Ochratoxin A, RANDOX Biochip Array (ppb)	4	4	12.48	3.720	12.48	4.291	2.146	34.39%	2.350	22.00%
630.01	Ochratoxin A, Neogen Veratox Ochratoxin (ppb)	4	3	22.80	24.60	22.80	7.714	5.454	33.83%	2.887	22.00%
630.03	Ochratoxin A, Romer AgraQuant Ochratoxin (ppb)	3	3	17.83	9.953	17.83	6.074	3.507	34.06%	1.320	22.00%
630.05	Ochratoxin A, r-Biopharm Ridascreen FAST Och A (ppb)	2	2	9.596	6.829						
630.06	Ochratoxin A, Vicam OchraTest (ppb)	2	2	12.78	1.732						
630.04	Ochratoxin A, r-Biopharm Ridascreen Ochratoxin A (ppb)	1	1	6.710							
630.98	Ochratoxin A, Other Rapid Test Kit (ppb)	1	1	3.900							

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 (R-bar)	Thompson Horwitz %RSD
640.23	T-2 Toxin, LC-MS/MS (ppb)	15	14	99.04	23.17	96.37	31.35	10.47	32.54%	8.383	22.00%
640.98	T-2 Toxin, Other Rapid Test Kit (ppb)	3	3	188.2	29.77	188.2	60.12	34.71	31.95%	9.700	20.57%
640.03	T-2 Toxin, Romer AgraQuant T-2 (ppb)	2	2	520.3	463.6						
640.05	T-2 Toxin, r-Biopharm Ridascreen FAST T-2 (ppb)	1	1	121.5							
640.16	T-2 Toxin, RANDOX Biochip Array (ppb)	1	1	107.5							
640.25	T-2 Toxin, GC-MS (ppb)	1	1	200.0							
641.23	HT-2 Toxin, LC-MS/MS (ppb)	10	9	51.01	26.80	44.80	14.88	6.200	33.22%	5.542	22.00%
642.98	T-2 Toxin + HT-2 Toxin, Other Rapid Test Kit (ppb)	5	5	164.3	63.84	164.3	52.70	23.57	32.07%	16.06	20.99%
642.21	T-2 Toxin + HT-2 Toxin, Neogen Veratox T-2 + HT-2 (ppb)	5	4	173.5	41.03	173.5	55.55	27.78	32.02%	6.285	20.82%
642.04	T-2 Toxin + HT-2 Toxin, LC-MS (ppb)	1	1	161.0							
642.16	T-2 Toxin + HT-2 Toxin, RANDOX Biochip Array (ppb)	1	1	148.6							
642.99	T-2 Toxin + HT-2 Toxin, Miscellaneous Technique (ppb)	1	1	128.0							
650.24	Zearalenone, LC-MS/MS (ppb)	14	13	204.2	85.91	186.3	59.53	20.64	31.96%	10.89	20.60%
650.01	Zearalenone, Neogen Veratox Zearalenone (ppb)	8	8	203.3	52.59	203.3	64.82	28.65	31.88%	12.82	20.33%
650.20	Zearalenone, LC (ppb)	6	6	209.3	37.77	209.3	66.67	34.02	31.86%	11.87	20.24%
650.98	Zearalenone, Other Rapid Test Kit (ppb)	4	4	239.4	147.5	239.4	75.98	37.99	31.74%	33.10	19.84%
650.04	Zearalenone, Romer AgraQuant ZON (ppb)	3	3	557.4	306.7	557.4	172.9	99.85	31.02%	19.59	17.47%
650.07	Zearalenone, r-Biopharm Ridascreen FAST ZON SC (ppb)	3	3	331.7	141.6	331.7	104.4	60.26	31.46%	31.98	18.89%
650.16	Zearalenone, RANDOX Biochip Array (ppb)	3	3	157.1	30.73	157.1	50.44	29.12	32.11%	33.08	21.13%
650.06	Zearalenone, r-Biopharm Ridascreen FAST ZON (ppb)	2	2	271.0	31.87						
650.99	Zearalenone, Miscellaneous (ppb)	2	2	75.50	8.485						
650.21	Zearalenone, LC-FI, ISO (ppb)	1	1	179.2							
650.23	Zearalenone, LC-MS (ppb)	1	1	207.5							

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.



AAFCO
Association of American Feed Control Officials



Mycotoxin Contaminants Scheme

Soybean Meal

Test Material Code # 202264

Method Precision Report

Methods Reported: 24

Labs Reporting: 68

Issue Date : 11/30/2022

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)	14	11	6.600	1.116	0.8369	1.088	1.372	12.83%	16.67%	21.04%	1.262
600.14	Total Aflatoxin, Vicam Aflatest (ppb)	6	5	4.392	2.107	1.728	0.4782	1.793	45.23%	12.52%	46.93%	3.749
600.20	Total Aflatoxin, LC (ppb)	7	6	4.852	0.4529		0.5673			12.09%		
600.24	Total Aflatoxin, LC-MS/MS (ppb)	7	6	5.552	1.293	1.237	0.5332	1.347	22.28%	9.61%	24.26%	2.526
600.98	Total Aflatoxin, Other Rapid Test Kit (ppb)	5	5	5.160	2.347	2.336	0.3238	2.359	45.28%	6.28%	45.71%	7.284
601.20	Aflatoxin B1, LC (ppb)	6	6	4.558	0.4735	0.3041	0.5132	0.5965	6.67%	11.26%	13.09%	1.162
601.23	Aflatoxin B1, LC-MS/MS (ppb)	19	16	6.599	5.117	3.453	0.7370	3.531	60.93%	13.00%	62.30%	4.791
602.20	Aflatoxin B2, LC (ppb)	6	5	0.3270	0.0821	0.0792	0.0302	0.0848	24.23%	9.23%	25.93%	2.810
610.01	Deoxynivalenol, Neogen Veratox for DON (ppb)	15	14	1,334	190.0	165.0	113.8	200.4	12.54%	8.64%	15.23%	1.762
610.23	Deoxynivalenol, LC-MS/MS (ppb)	20	18	953.9	264.6	163.4	38.29	167.9	17.14%	4.01%	17.60%	4.384
610.98	Deoxynivalenol, Other Rapid Test Kit (ppb)	5	5	961.8	625.6	624.3	57.73	627.0	64.91%	6.00%	65.19%	10.86
620.01	Total Fumonisin, Neogen Veratox Fumonisin (ppb)	10	8	1,081	252.1	244.9	116.7	271.2	22.15%	10.56%	24.54%	2.324
620.23	Total Fumonisin, LC-MS/MS (ppb)	8	7	1,303	520.9	232.0	67.80	241.7	20.43%	5.97%	21.28%	3.565
621.23	Fumonsin B1, LC-MS/MS (ppb)	18	18	675.5	269.0	263.2	78.20	274.6	38.97%	11.58%	40.65%	3.512
622.23	Fumonisin B2, LC-MS/MS (ppb)	16	14	260.1	73.97	74.86	23.65	78.51	28.71%	9.07%	30.11%	3.320
623.23	Fumonisin B3, LC-MS/MS (ppb)	11	8	94.44	68.33	24.42	10.13	26.43	33.41%	13.85%	36.17%	2.611
630.20	Ochratoxin A, LC (ppb)	6	5	37.72	56.02	8.191	0.4791	8.205	54.44%	3.18%	54.53%	17.13
630.23	Ochratoxin A, LC-MS/MS (ppb)	18	14	14.47	5.747	3.969	1.108	4.120	30.48%	8.51%	31.64%	3.720
640.23	T-2 Toxin, LC-MS/MS (ppb)	15	13	99.04	23.17	23.27	3.426	23.52	23.86%	3.51%	24.12%	6.867
641.23	HT-2 Toxin, LC-MS/MS (ppb)	10	8	51.01	26.80	8.488	3.494	9.179	19.96%	8.22%	21.59%	2.627
642.98	T-2 Toxin + HT-2 Toxin, Other Rapid Test Kit (ppb)	5	5	164.3	63.84	62.97	14.88	64.71	38.32%	9.05%	39.38%	4.349
650.01	Zearalenone, Neogen Veratox Zearalenone (ppb)	8	8	203.3	52.59	52.09	10.29	53.09	25.62%	5.06%	26.12%	5.160
650.20	Zearalenone, LC (ppb)	6	6	209.3	37.77	37.16	9.588	38.38	17.76%	4.58%	18.34%	4.002
650.24	Zearalenone, LC-MS/MS (ppb)	14	11	204.2	85.91	64.28	5.692	64.53	33.28%	2.95%	33.41%	11.34

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