Proficiency Testing Program

METHOD Summary Statistics

202662 (Dry Cat Feed)

Issue Date: 5/31/2026

Code	Analyte/Method	[1] Trueness (Lab Value)					[2] Robust %RSD	[3] Thompson Horwitz %RSD	[4] Precision (range)	
		Robust Mean	n used	Robust Uncert.	ffp StDev	ffp %RSD			Robust Mean	n used
600.20	Total Aflatoxin/LC (ppb)	**14.33**	**9**	**0.9508**	**4.91**	**34.3**	**15.9**	**22**	**0.7867**	**7**
600.01	Total Aflatoxin/Neogen Veratox Aflatoxin (ppb)	**12.35**	**8**	**0.8946**	**4.248**	**34.4**	**16.4**	**22**	**2.641**	**8**
600.24	Total Aflatoxin/LC-MS/MS (ppb)	**13.78**	**7**	**2.479**	**4.726**	**34.3**	**38.1**	**22**	**1.886**	**6**
600.14	Total Aflatoxin/Vicam Aflatest (ppb)	**12.33**	**6**	**0.9067**	**4.242**	**34.4**	**14.4**	**22**	**1**	**6**
600.12	Total Aflatoxin/r-Biopharm Ridascreen FAST Afl (ppb)	23.16	2						0.8465	2
600.98	Total Aflatoxin/Other Rapid Test Kit (ppb)	15.32	2						2.15	2
600.22	Total Aflatoxin/Vicam Aflatest, LC-Fl (ppb)	15.1	2						0.895	2
600.13	Total Aflatoxin/r-Biopharm Ridascreen FAST Afl SC (ppb)	14.5	2						3.975	2
600.99	Total Aflatoxin/Miscellaneous (ppb)	15.66	2						3.3105	2
600.04	Total Aflatoxin/Charm ROSA Fast 5 Aflatoxin Quant (ppb)	16	1						2	1
600.15	Total Aflatoxin/Vicam Afla-V (ppb)	17.1	1						1.4	1
600.21	Total Aflatoxin/LC-PCD Fl (ppb)	16.5	1						1	1
600.02	Total Aflatoxin/Neogen Veratox Aflatoxin HS (ppb)	19	1							

		[1] Trueness (Lab Value)					[2] Robust %RSD	[3] Thompson Horwitz %RSD	[4] Precision (range)	
Code	Analyte/Method	Robust Mean	n used	Robust Uncert.	ffp StDev	ffp %RSD			Robust Mean	n used
600.23	Total Aflatoxin/LC-MS (ppb)	2.5	1						1	1
600.08	Total Aflatoxin/Romer AgraQuant Total Afl 4-40ppb (ppb)	17.27	1							
601.23	Aflatoxin B1/LC-MS/MS (ppb)	**12.53**	**17**	**1.462**	**4.307**	**34.4**	**38.5**	**22**	**1.315**	**14**
601.20	Aflatoxin B1/LC (ppb)	**13.29**	**7**	**1.112**	**4.562**	**34.3**	**17.7**	**22**	**0.7041**	**6**
601.24	Aflatoxin B1/Vicam Aflatest, LC-Fl (ppb)	12.95	2						0.645	2
601.21	Aflatoxin B1/LC-PCD Fl (ppb)	15.34	2						2.365	2
601.99	Aflatoxin B1/Miscellaneous (ppb)	20.92	1						3.5083	1
602.23	Aflatoxin B2/LC-MS/MS (ppb)	**1.006**	**6**	**0.1497**	**0.3704**	**36.8**	**29.2**	**22**	0.0592	4
602.20	Aflatoxin B2/LC (ppb)	0.82	3	0.0634	0.3036	37	**10.7**	**22**		
602.21	Aflatoxin B2/LC-PCD Fl (ppb)	0.965	2						0.28	2
602.24	Aflatoxin B2/Vicam Aflatest, LC-Fl (ppb)	1.022	2						0.045	2
603.99	Aflatoxin G1/Miscellaneous (ppb)	2.191	1						0.2147	1
610.23	Deoxynivalenol/LC-MS/MS (ppb)	**848.1**	**21**	**85.68**	**260.1**	**30.7**	**37**	**16.3**	**47.75**	**20**
610.01	Deoxynivalenol/Neogen Veratox for DON (ppb)	**1219**	**8**	**49.16**	**370.3**	**30.4**	**9.13**	**15.4**	**118**	**6**
610.20	Deoxynivalenol/LC (ppb)	832.7	5	269.9	255.5	30.7	**58**	**16.3**	50.34	3
610.07	Deoxynivalenol/r-Biopharm Ridascreen FAST DON (ppb)	2041	3	1283	611.3	30	**87.1**	**14.3**	163.7	3
610.99	Deoxynivalenol/Miscellaneous (ppb)	711.9	3	127.9	219.4	30.8	**24.9**	**16.7**	33.77	3
610.04	Deoxynivalenol/Charm ROSA Fast 5 DON Quant (ppb)	680	1						160	1
610.05	Deoxynivalenol/Romer AgraQuant DON (ppb)	1100	1							

		[1] Trueness (Lab Value)					[2] Robust %RSD	[3] Thompson Horwitz %RSD	[4] Precision (range)	
Code	Analyte/Method	Robust Mean	n used	Robust Uncert.	ffp StDev	ffp %RSD			Robust Mean	n used
610.08	Deoxynivalenol/r-Biopharm Ridascreen FAST DON SC (pp	1050	1						300	1
610.22	Deoxynivalenol/LC-MS (ppb)	822.5	1						73	1
610.25	Deoxynivalenol/GC-MS (ppb)	1517	1						59.386	1
610.98	Deoxynivalenol/Other Rapid Test Kit (ppb)	561.5	1						13	1
610.09	Deoxynivalenol/Vicam DON-V (ppb)	950	1						100	1
610.02	Deoxynivalenol/Neogen Veratox for DON HS (ppb)	1.4	1							
620.23	Total Fumonisin/LC-MS/MS (ppb)	**757.4**	**7**	**63.4**	**233**	**30.8**	**17.7**	**16.6**	**68.42**	**6**
620.01	Total Fumonisin/Neogen Veratox Fumonisin (ppb)	725.9	5	270.3	223.6	30.8	**66.6**	**16.7**	60.33	3
620.09	Total Fumonisin/r-Biopharm Ridascreen FAST FUM (ppb)	737.3	3	49.71	227	30.8	**9.34**	**16.6**	144.7	3
620.11	Total Fumonisin/Vicam Fumonitest (ppb)	587.5	2						30	1
620.99	Total Fumonisin/Miscellaneous (ppb)	419.3	2						58.9585	2
620.98	Total Fumonisin/Other Rapid Test Kit (ppb)	967.5	2						265	2
620.12	Total Fumonisin/Vicam Fumonitest 200 (ppb)	390	1							
620.04	Total Fumonisin/Charm ROSA Fast 5 FUMQ (ppb)	725	1						110	1
620.03	Total Fumonisin/Neogen Veratox Fumonisin HS (ppb)	0.5675	1						0.165	1
620.07	Total Fumonisin/Romer AgraQuant Total Fumonisin (ppb)	460	1							
621.23	Fumonsin B1/LC-MS/MS (ppb)	**434.5**	**17**	**29.82**	**135.7**	**31.2**	**22.6**	**18**	**42.5**	**16**
621.21	Fumonsin B1/LC-Fl OPA der. (ppb)	378	2						12	1
621.20	Fumonsin B1/LC (ppb)	563.9	2						6.0174	1

		[1] Trueness (Lab Value)					[2] Robust %RSD	[3] Thompson Horwitz %RSD	[4] Precision (range)	
Code	Analyte/Method	Robust Mean	n used	Robust Uncert.	ffp StDev	ffp %RSD			Robust Mean	n used
622.23	Fumonisin B2/LC-MS/MS (ppb)	**125.5**	**14**	**19.8**	**40.53**	**32.3**	**47.2**	**21.7**	**19.36**	**9**
622.21	Fumonisin B2/LC-Fl OPA der. (ppb)	163.5	2							
622.20	Fumonisin B2/LC (ppb)	155.9	1							
623.23	Fumonisin B3/LC-MS/MS (ppb)	**60.44**	**6**	**14.03**	**19.92**	**32.9**	**45.5**	**22**	6.007	4
630.23	Ochratoxin A/LC-MS/MS (ppb)	**20.41**	**18**	**2.523**	**6.927**	**33.9**	**41.9**	**22**	**3.41**	**17**
630.20	Ochratoxin A/LC (ppb)	**22.03**	**7**	**2.666**	**7.461**	**33.9**	**25.6**	**22**	0.227	5
630.06	Ochratoxin A/Vicam OchraTest (ppb)	17.02	3	2.975	5.805	34.1	**24.2**	**22**	1.687	3
630.01	Ochratoxin A/Neogen Veratox Ochratoxin (ppb)	11.39	3	9.537	3.928	34.5	**116**	**22**	1.62	3
630.04	Ochratoxin A/r-Biopharm Ridascreen Ochratoxin A (ppb)	17.98	2						4.88	2
630.99	Ochratoxin A/Miscellaneous (ppb)	14.44	2						1.246	2
630.05	Ochratoxin A/r-Biopharm Ridascreen FAST Och A (ppb)	19.41	2						1.0025	2
630.21	Ochratoxin A/LC-PCD Fl (ppb)	17.35	1						0.1	1
640.23	T-2 Toxin/LC-MS/MS (ppb)	**82.74**	**16**	**11.73**	**27.03**	**32.7**	**45.4**	**22**	**13.56**	**15**
640.99	T-2 Toxin/Miscellaneous (ppb)	81.77	2						3.184	2
640.03	T-2 Toxin/Romer AgraQuant T-2 (ppb)	131.5	2						48.4	1
640.21	T-2 Toxin/LC-PCD Fl (ppb)	90.7	1						6.76	1
640.20	T-2 Toxin/LC (ppb)	95.08	1							
640.05	T-2 Toxin/r-Biopharm Ridascreen FAST T-2 (ppb)	128.6	1						7.78	1
641.23	HT-2 Toxin/LC-MS/MS (ppb)	12.81	5	4.448	4.401	34.4	**62.1**	**22**	2.215	4

		[1] Trueness (Lab Value)					[2] Robust %RSD	[3] Thompson Horwitz %RSD	[4] Precision (range)	
Code	Analyte/Method	Robust Mean	n used	Robust Uncert.	ffp StDev	ffp %RSD			Robust Mean	n used
642.21	T-2 Toxin + HT-2 Toxin/Neogen Veratox T-2 + HT-2 (ppb)	109.3	4	11.45	35.43	32.4	**16.8**	**22**	22.82	4
642.04	T-2 Toxin + HT-2 Toxin/LC-MS (ppb)	94.98	3	36.63	30.92	32.5	**53.4**	**22**	26.57	3
642.98	T-2 Toxin + HT-2 Toxin/Other Rapid Test Kit (ppb)	78.7	1						4.8	1
642.99	T-2 Toxin + HT-2 Toxin/Miscellaneous Technique (ppb)	87.31	1						18.3	1
650.24	Zearalenone/LC-MS/MS (ppb)	**126.3**	**12**	**10.96**	**40.79**	**32.3**	**24.1**	**21.7**	**16.23**	**12**
650.20	Zearalenone/LC (ppb)	**112.4**	**6**	**7.153**	**36.43**	**32.4**	**12.5**	**22**	8.655	4
650.01	Zearalenone/Neogen Veratox Zearalenone (ppb)	64.86	4	13.5	21.33	32.9	**33.3**	**22**	4.784	4
650.99	Zearalenone/Miscellaneous (ppb)	105.8	4	19.19	34.34	32.5	**29**	**22**	3.756	3
650.07	Zearalenone/r-Biopharm Ridascreen FAST ZON SC (ppb)	93.21	2						24.535	2
650.02	Zearalenone/Charm ROSA Zearalenone Quant - MeOH (p	115	1						10	1
650.23	Zearalenone/LC-MS (ppb)	134	1						18	1
650.04	Zearalenone/Romer AgraQuant ZON (ppb)	155	1							
650.05	Zearalenone/r-Biopharm Ridascreen Zearalenon (ppb)	119.5	1						1	1
650.06	Zearalenone/r-Biopharm Ridascreen FAST ZON (ppb)	113	1						12.496	1
650.21	Zearalenone/LC-Fl, ISO (ppb)	121	1						3.96	1

1. Trueness Parameters: Statistical parameters defining the distribution of lab values which are used to evaluate how close a Lab Value is to the mean. Parameters are shown for number of observations used (n used). Method All Lab report identifies data not used. Robust statistics was employed to determine mean if number of observations used (n used) >=6 (blue background). Classical statistics was employed if number of observations used (n used) < 6 (no color background). The fit for purpose standard deviation (ffp StDev) was used in calculating Z values and is a Revised Horwitz standard deviation based on analysis of historical data in this PT program. ffp %RSD is the fit for purpose standard deviation with respect to the mean (ffp StDev/Mean x 100). Uncertainty (Uncert.) is a measure of where the true population mean lies.

2. Robust %RSD: The observed relative standard deviation of Lab Values (StDev/Mean x 100) where StDev and Mean were determined by Robust statistics (n used >=6) or classical statistics (n used = 3, 4, or 5).

3. Thompson-Horwitz %RSD: Expected relative standard deviation based on analysis of data by Thompson and Horwitz (Thompson, DOI: 10.1039/b000282h).

4. Precision Parameters: Lab's precision is estimated by the difference in 2 results reported by a lab (range). Mean of ranges are shown for number of observations used (n used). Method All Tests report identifies data not used. Robust statistics was employed to determine mean if number of observations used (n used) >=6 (green background). Classical statistics was employed if number of observations used (n used) < 6 (no color background).

Appendix

Content Description of METHOD Summary Statistics Report

The Method Summary Statistics Report provides trueness and precision parameters from determination of analytes by specific methods. Determination of summary statistics followed protocols in ISO 13528:2015(E) using Algorithm A robust analysis (Statistical methods for use in proficiency testing by interlaboratory comparison). Robust statistics was used to determine statistical parameters for sets with 6 or more observations. Classical statistics was used for sets with 3, 4, or 5 observations. Robust statistics has an advantage of removing undesired influence of outlying data on the mean and standard deviation without removing data from the statistical analysis.

For trueness, the mean is presented for the number of observations (n used). The uncertainty (Uncert.) is a measure of where the "real" value for the concentration lies around the mean with a 68% certainty (Mean ± Uncert.). As the number of observations (n used) increases, uncertainty decreases. The fit-for-purpose standard deviation (ffp StDev) was used to calculate Z values and is a Revised Horwitz standard deviation based on historical data for mycotoxins in this PT program (0.21 x C^-0.0271 x Mean where C is massless concentration). The relative Revised Horwitz standard deviation with respect to the mean is also shown (ffp %RSD = Revised Horwitz standard deviation / Mean x 100). The Robust relative standard deviation (Robust %RSD) is a percentage of the observed standard deviation based on robust or classical statistics divided by the mean. The Thompson-Horwitz %RSD is a standard benchmark on variability developed by Thompson and Horwitz (Thompson, DOI: 10.1039/b000282h).

Precision in the data populations is estimated by the range of duplicate results reported. The robust or classical mean is presented along with the number of observations. Any duplicate results that are exactly the same are removed in the determination of the mean to remove undo influence of entries that may be from labs reporting one result twice.