



AAFCO
Association of American Feed Control Officials



Mycotoxin Contaminants Scheme

Dog Feed

Test Material Code # 202263

Method Summary Report

(Precision Report Follows)

Labs Reporting: 68

Methods Reported: 101

Issue Date : 08/31/2022

| 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) | 13 | 12 | 5.275 | 1.146 | 5.275 | 1.857 | 0.6700 | 35.20% | 1.175 | 22.00% |
| 600.20 | Total Aflatoxin, LC (ppb) | 11 | 10 | 5.409 | 1.327 | 5.409 | 1.903 | 0.7521 | 35.18% | 0.3711 | 22.00% |
| 600.12 | Total Aflatoxin, r-Biopharm Ridascreen FAST Afl (ppb) | 4 | 4 | 5.794 | 2.596 | 5.794 | 2.034 | 1.017 | 35.11% | 1.800 | 22.00% |
| 600.24 | Total Aflatoxin, LC-MS/MS (ppb) | 6 | 4 | 8.330 | 3.330 | 8.330 | 2.896 | 1.810 | 34.77% | 0.1950 | 22.00% |
| 600.08 | Total Aflatoxin, Romer AgraQuant Total Afl 4-40ppb (ppb) | 4 | 3 | 6.888 | 0.8435 | 6.888 | 2.407 | 1.390 | 34.95% | 0.7033 | 22.00% |
| 600.14 | Total Aflatoxin, Vicam Aflatest (ppb) | 5 | 3 | 4.327 | 0.9304 | 4.327 | 1.531 | 0.8840 | 35.39% | 0.1467 | 22.00% |
| 600.98 | Total Aflatoxin, Other Rapid Test Kit (ppb) | 3 | 3 | 5.725 | 1.058 | 5.725 | 2.011 | 1.161 | 35.12% | 0.5300 | 22.00% |
| 600.13 | Total Aflatoxin, r-Biopharm Ridascreen FAST Afl SC (ppb) | 2 | 2 | 7.773 | 2.889 | | | | | | |
| 600.21 | Total Aflatoxin, LC-PCD FI (ppb) | 1 | 1 | 6.695 | | | | | | | |
| 600.22 | Total Aflatoxin, Vicam Aflatest, LC-FI (ppb) | 1 | 1 | 6.545 | | | | | | | |
| 600.23 | Total Aflatoxin, LC-MS (ppb) | 1 | 1 | 16.77 | | | | | | | |
| 600.99 | Total Aflatoxin, Miscellaneous (ppb) | 1 | 1 | 6.000 | | | | | | | |
| 601.23 | Aflatoxin B1, LC-MS/MS (ppb) | 19 | 17 | 7.468 | 3.218 | 7.266 | 2.536 | 0.7687 | 34.90% | 1.022 | 22.00% |
| 601.20 | Aflatoxin B1, LC (ppb) | 8 | 8 | 5.168 | 1.484 | 5.168 | 1.820 | 0.8044 | 35.22% | 0.4181 | 22.00% |
| 601.24 | Aflatoxin B1, Vicam Aflatest, LC-FI (ppb) | 3 | 3 | 4.609 | 1.677 | 4.609 | 1.628 | 1.151 | 35.33% | 0.5383 | 22.00% |
| 601.21 | Aflatoxin B1, LC-PCD FI (ppb) | 2 | 2 | 6.595 | 0.1414 | | | | | | |
| 601.98 | Aflatoxin B1, Other Rapid Test Kit (ppb) | 2 | 2 | 4.048 | 1.269 | | | | | | |
| 601.16 | Aflatoxin B1, RANDOX Biochip Array (ppb) | 1 | 1 | 4.530 | | | | | | | |
| 601.91 | Aflatoxin B1, Romer AgraQuant Afl B1 (ppb) | 1 | 1 | 12.53 | | | | | | | |
| 601.99 | Aflatoxin B1, Miscellaneous (ppb) | 1 | 1 | 5.000 | | | | | | | |
| 602.20 | Aflatoxin B2, LC (ppb) | 8 | 7 | 0.3607 | 0.1294 | 0.3607 | 0.1365 | 0.0645 | 37.85% | 0.0651 | 22.00% |
| 602.23 | Aflatoxin B2, LC-MS/MS (ppb) | 18 | 3 | 0.9698 | 0.8782 | 0.9698 | 0.3574 | 0.2579 | 36.85% | 0.0017 | 22.00% |
| 602.24 | Aflatoxin B2, Vicam Aflatest, LC-FI (ppb) | 3 | 2 | 0.3925 | 0.1732 | 0.3925 | 0.1482 | | | 0.0380 | 22.00% |
| 602.21 | Aflatoxin B2, LC-PCD FI (ppb) | 2 | 1 | 0.4400 | | | | | | | |
| 603.16 | Aflatoxin G1, RANDOX Biochip Array (ppb) | 1 | 1 | 0.8939 | | | | | | | |
| 603.21 | Aflatoxin G1, LC-PCD FI (ppb) | 1 | 1 | 0.0900 | | | | | | | |
| 603.23 | Aflatoxin G1, LC-MS/MS (ppb) | 16 | 1 | | | | | | | | |
| 603.99 | Aflatoxin G1, Miscellaneous (ppb) | 1 | 1 | 1.000 | | | | | | | |
| 603.20 | Aflatoxin G1, LC (ppb) | 2 | | 0.0000 | | | | | | | |

| 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 |
|-------------|---|-------------------------|------------------------|----------|--------|----------------------------|---------------------------|------------------------|----------------|-----------------------|-----------------------|
| 603.24 | Aflatoxin G1, Vicam Aflatest, LC-FI (ppb) | 2 | | 0.0000 | | | | | | | |
| 604.98 | Aflatoxin G2, Other Rapid Test Kit (ppb) | 1 | 1 | 11.40 | | | | | | | |
| 604.20 | Aflatoxin G2, LC (ppb) | 2 | | 0.0000 | | | | | | | |
| 604.21 | Aflatoxin G2, LC-PCD FI (ppb) | 1 | | 0.0100 | | | | | | | |
| 604.23 | Aflatoxin G2, LC-MS/MS (ppb) | 14 | | | | | | | | | |
| 604.24 | Aflatoxin G2, Vicam Aflatest, LC-FI (ppb) | 2 | | 0.0000 | | | | | | | |
| 610.23 | Deoxynivalenol, LC-MS/MS (ppb) | 22 | 22 | 1,647 | 847.6 | 1,525 | 460.4 | 122.7 | 30.19% | 119.0 | 15.01% |
| 610.01 | Deoxynivalenol, Neogen Veratox for DON (ppb) | 13 | 13 | 1,770 | 163.7 | 1,761 | 529.5 | 183.6 | 30.07% | 171.5 | 14.69% |
| 610.20 | Deoxynivalenol, LC (ppb) | 7 | 7 | 1,283 | 569.6 | 1,466 | 443.1 | 209.3 | 30.22% | 125.2 | 15.10% |
| 610.05 | Deoxynivalenol, Romer AgraQuant DON (ppb) | 4 | 4 | 1,737 | 191.0 | 1,737 | 522.6 | 261.3 | 30.08% | 46.00 | 14.72% |
| 610.98 | Deoxynivalenol, Other Rapid Test Kit (ppb) | 5 | 4 | 1,185 | 856.5 | 1,185 | 360.2 | 180.1 | 30.40% | 61.28 | 15.59% |
| 610.07 | Deoxynivalenol, r-Biopharm Ridascreen FAST DON (ppb) | 3 | 3 | 1,833 | 180.7 | 1,833 | 550.7 | 317.9 | 30.04% | 227.7 | 14.60% |
| 610.99 | Deoxynivalenol, Miscellaneous (ppb) | 2 | 2 | 1,296 | 232.3 | | | | | | |
| 610.06 | Deoxynivalenol, r-Biopharm Ridascreen DON (ppb) | 1 | 1 | 1,575 | | | | | | | |
| 610.08 | Deoxynivalenol, r-Biopharm Ridascreen FAST DON SC (ppb) | 1 | 1 | 1,780 | | | | | | | |
| 610.16 | Deoxynivalenol, RANDOX Biochip Array (ppb) | 1 | 1 | 1,361 | | | | | | | |
| 610.22 | Deoxynivalenol, LC-MS (ppb) | 1 | 1 | 1,094 | | | | | | | |
| 610.25 | Deoxynivalenol, GC-MS (ppb) | 1 | 1 | 2,380 | | | | | | | |
| 620.01 | Total Fumonisin, Neogen Veratox Fumonisin (ppb) | 9 | 9 | 1,218 | 499.7 | 1,244 | 377.6 | 157.3 | 30.36% | 178.9 | 15.48% |
| 620.23 | Total Fumonisin, LC-MS/MS (ppb) | 8 | 8 | 2,181 | 1,774 | 1,703 | 512.5 | 226.5 | 30.10% | 121.0 | 14.77% |
| 620.07 | Total Fumonisin, Romer AgraQuant Total Fumonisin (ppb) | 4 | 3 | 1,582 | 582.6 | 1,582 | 477.0 | 337.3 | 30.16% | 2.000 | 14.93% |
| 620.09 | Total Fumonisin, r-Biopharm Ridascreen FAST FUM (ppb) | 4 | 3 | 1,414 | 451.3 | 1,414 | 427.6 | 246.9 | 30.25% | 52.33 | 15.18% |
| 620.02 | Total Fumonisin, Neogen Veratox Fumonisin 5/10 (ppb) | 2 | 2 | 1,498 | 145.0 | | | | | | |
| 620.11 | Total Fumonisin, Vicam Fumonitest (ppb) | 2 | 2 | 1,450 | 353.6 | | | | | | |
| 620.16 | Total Fumonisin, RANDOX Biochip Array (ppb) | 2 | 2 | 1,515 | 473.2 | | | | | | |
| 620.20 | Total Fumonisin, LC (ppb) | 2 | 2 | 1,407 | 202.9 | | | | | | |
| 620.12 | Total Fumonisin, Vicam Fumonitest 200 (ppb) | 1 | 1 | 1,550 | | | | | | | |
| 620.98 | Total Fumonisin, Other Rapid Test Kit (ppb) | 1 | 1 | 2,200 | | | | | | | |
| 620.99 | Total Fumonisin, Miscellaneous (ppb) | 1 | 1 | 168.0 | | | | | | | |
| 621.23 | Fumonsin B1, LC-MS/MS (ppb) | 19 | 19 | 1,332 | 961.8 | 1,075 | 327.5 | 93.91 | 30.48% | 45.92 | 15.82% |
| 621.20 | Fumonsin B1, LC (ppb) | 2 | 2 | 1,125 | 908.9 | | | | | | |
| 621.21 | Fumonsin B1, LC-FI OPA der. (ppb) | 2 | 2 | 1,035 | 190.9 | | | | | | |
| 621.98 | Fumonsin B1, Other Rapid Test Kit (ppb) | 1 | 1 | 1,950 | | | | | | | |
| 622.23 | Fumonisin B2, LC-MS/MS (ppb) | 19 | 19 | 418.5 | 255.7 | 354.1 | 111.2 | 31.89 | 31.41% | 40.00 | 18.70% |
| 622.21 | Fumonisin B2, LC-FI OPA der. (ppb) | 2 | 2 | 345.8 | 64.70 | | | | | | |
| 622.20 | Fumonisin B2, LC (ppb) | 1 | 1 | 277.7 | | | | | | | |
| 623.23 | Fumonisin B3, LC-MS/MS (ppb) | 12 | 9 | 184.6 | 176.7 | 127.1 | 41.03 | 17.10 | 32.29% | 5.703 | 21.82% |
| 630.23 | Ochratoxin A, LC-MS/MS (ppb) | 19 | 19 | 18.76 | 6.815 | 18.11 | 6.165 | 1.768 | 34.04% | 2.666 | 22.00% |
| 630.20 | Ochratoxin A, LC (ppb) | 10 | 10 | 17.73 | 4.578 | 17.75 | 6.047 | 2.390 | 34.06% | 1.965 | 22.00% |
| 630.03 | Ochratoxin A, Romer AgraQuant Ochratoxin (ppb) | 3 | 3 | 23.10 | 16.70 | 23.10 | 7.813 | 4.511 | 33.82% | 1.532 | 22.00% |

| Method Code | Analyte and Method | Total # Labs Submitting | # Labs in Robust Calcs | Raw Mean | Raw SD | Assigned Value Robust Mean | Revised Horwitz SD (σffp) | Uncertainty (U) Robust | % RSD - Robust | Average Range (R-bar) | Thompson Horwitz %RSD |
|-------------|---|-------------------------|------------------------|----------|--------|----------------------------|---------------------------|------------------------|----------------|-----------------------|-----------------------|
| 630.05 | Ochratoxin A, r-Biopharm Ridascreen FAST Och A (ppb) | 3 | 3 | 17.18 | 6.282 | 17.18 | 5.856 | 3.381 | 34.09% | 1.255 | 22.00% |
| 630.01 | Ochratoxin A, Neogen Veratox Ochratoxin (ppb) | 2 | 2 | 29.68 | 35.25 | | | | | | |
| 630.06 | Ochratoxin A, Vicam OchraTest (ppb) | 2 | 2 | 21.28 | 7.379 | | | | | | |
| 630.04 | Ochratoxin A, r-Biopharm Ridascreen Ochratoxin A (ppb) | 1 | 1 | 15.39 | | | | | | | |
| 630.16 | Ochratoxin A, RANDOX Biochip Array (ppb) | 1 | 1 | 16.95 | | | | | | | |
| 630.21 | Ochratoxin A, LC-PCD FI (ppb) | 1 | 1 | 20.05 | | | | | | | |
| 630.98 | Ochratoxin A, Other Rapid Test Kit (ppb) | 1 | 1 | 12.00 | | | | | | | |
| 630.99 | Ochratoxin A, Miscellaneous (ppb) | 1 | 1 | 14.00 | | | | | | | |
| 640.23 | T-2 Toxin, LC-MS/MS (ppb) | 17 | 15 | 51.81 | 16.53 | 49.54 | 16.41 | 5.297 | 33.13% | 5.910 | 22.00% |
| 640.03 | T-2 Toxin, Romer AgraQuant T-2 (ppb) | 3 | 3 | 115.9 | 111.2 | 115.9 | 37.51 | 26.52 | 32.37% | 2.606 | 22.00% |
| 640.98 | T-2 Toxin, Other Rapid Test Kit (ppb) | 2 | 2 | 64.60 | 0.5657 | | | | | | |
| 640.05 | T-2 Toxin, r-Biopharm Ridascreen FAST T-2 (ppb) | 1 | 1 | 75.70 | | | | | | | |
| 640.21 | T-2 Toxin, LC-PCD FI (ppb) | 1 | 1 | 36.99 | | | | | | | |
| 640.25 | T-2 Toxin, GC-MS (ppb) | 1 | 1 | 20.00 | | | | | | | |
| 641.23 | HT-2 Toxin, LC-MS/MS (ppb) | 12 | 10 | 31.35 | 11.40 | 29.96 | 10.06 | 3.978 | 33.58% | 3.891 | 22.00% |
| 641.21 | HT-2 Toxin, LC post-col photochem der. FI (ppb) | 1 | 1 | 20.44 | | | | | | | |
| 642.21 | T-2 Toxin + HT-2 Toxin, Neogen Veratox T-2 + HT-2 (ppb) | 5 | 5 | 107.2 | 45.20 | 107.2 | 34.77 | 15.55 | 32.44% | 6.198 | 22.00% |
| 642.98 | T-2 Toxin + HT-2 Toxin, Other Rapid Test Kit (ppb) | 4 | 4 | 72.08 | 13.84 | 72.08 | 23.64 | 11.82 | 32.79% | 14.05 | 22.00% |
| 642.99 | T-2 Toxin + HT-2 Toxin, Miscellaneous Technique (ppb) | 2 | 2 | 56.34 | 6.131 | | | | | | |
| 642.04 | T-2 Toxin + HT-2 Toxin, LC-MS (ppb) | 1 | 1 | 72.00 | | | | | | | |
| 642.16 | T-2 Toxin + HT-2 Toxin, RANDOX Biochip Array (ppb) | 1 | 1 | 66.36 | | | | | | | |
| 650.24 | Zearalenone, LC-MS/MS (ppb) | 18 | 18 | 291.1 | 136.5 | 282.4 | 89.25 | 26.30 | 31.60% | 21.70 | 19.35% |
| 650.20 | Zearalenone, LC (ppb) | 10 | 10 | 280.5 | 42.48 | 277.8 | 87.82 | 34.72 | 31.62% | 13.06 | 19.40% |
| 650.01 | Zearalenone, Neogen Veratox Zearalenone (ppb) | 6 | 6 | 386.3 | 350.4 | 257.5 | 81.58 | 41.63 | 31.68% | 29.57 | 19.62% |
| 650.04 | Zearalenone, Romer AgraQuant ZON (ppb) | 4 | 4 | 442.3 | 83.99 | 442.3 | 138.1 | 69.04 | 31.22% | 9.680 | 18.09% |
| 650.06 | Zearalenone, r-Biopharm Ridascreen FAST ZON (ppb) | 3 | 3 | 210.4 | 28.76 | 210.4 | 67.03 | 38.70 | 31.85% | 36.54 | 20.23% |
| 650.98 | Zearalenone, Other Rapid Test Kit (ppb) | 3 | 3 | 363.3 | 44.67 | 363.3 | 114.0 | 80.64 | 31.39% | 20.60 | 18.63% |
| 650.99 | Zearalenone, Miscellaneous (ppb) | 3 | 3 | 250.3 | 165.8 | 250.3 | 79.37 | 45.82 | 31.70% | 26.67 | 19.70% |
| 650.07 | Zearalenone, r-Biopharm Ridascreen FAST ZON SC (ppb) | 2 | 2 | 230.4 | 45.57 | | | | | | |
| 650.16 | Zearalenone, RANDOX Biochip Array (ppb) | 1 | 1 | 253.7 | | | | | | | |
| 650.21 | Zearalenone, LC-FI, ISO (ppb) | 1 | 1 | 228.7 | | | | | | | |
| 650.23 | Zearalenone, LC-MS (ppb) | 1 | 1 | 330.5 | | | | | | | |

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

Dog Feed

Test Material Code # 202263

Method Precision Report

Methods Reported: 20

Labs Reporting: 68

Issue Date : 08/31/2022

| 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 %rds | Reproducibility %RSD | sR/sr |
|-------------|---|-------------------------|--------------------------------|----------------|--------------|-----------------|----------------|--------------------|-------------------|------------------|----------------------|-------|
| 600.01 | Total Aflatoxin, Neogen Veratox Aflatoxin (ppb) | 13 | 12 | 5.275 | 1.146 | 0.8359 | 1.109 | 1.389 | 15.85% | 21.02% | 26.33% | 1.252 |
| 600.20 | Total Aflatoxin, LC (ppb) | 11 | 10 | 5.409 | 1.327 | 1.306 | 0.3361 | 1.348 | 24.14% | 6.21% | 24.93% | 4.013 |
| 601.20 | Aflatoxin B1, LC (ppb) | 8 | 8 | 5.168 | 1.484 | 1.460 | 0.3738 | 1.507 | 28.26% | 7.23% | 29.17% | 4.033 |
| 601.23 | Aflatoxin B1, LC-MS/MS (ppb) | 19 | 15 | 7.468 | 3.218 | 2.462 | 0.6815 | 2.554 | 34.27% | 9.49% | 35.56% | 3.748 |
| 602.20 | Aflatoxin B2, LC (ppb) | 8 | 6 | 0.3607 | 0.1294 | 0.1219 | 0.0374 | 0.1275 | 36.13% | 11.08% | 37.79% | 3.411 |
| 610.01 | Deoxynivalenol, Neogen Veratox for DON (ppb) | 13 | 12 | 1,770 | 163.7 | 78.84 | 135.5 | 156.8 | 4.53% | 7.79% | 9.01% | 1.157 |
| 610.20 | Deoxynivalenol, LC (ppb) | 7 | 6 | 1,283 | 569.6 | | 158.1 | | | 10.57% | | |
| 610.23 | Deoxynivalenol, LC-MS/MS (ppb) | 22 | 20 | 1,647 | 847.6 | 431.8 | 78.76 | 438.9 | 29.27% | 5.34% | 29.75% | 5.572 |
| 620.01 | Total Fumonisin, Neogen Veratox Fumonisin (ppb) | 9 | 9 | 1,218 | 499.7 | 489.1 | 144.9 | 510.1 | 40.16% | 11.90% | 41.88% | 3.520 |
| 620.23 | Total Fumonisin, LC-MS/MS (ppb) | 8 | 7 | 2,181 | 1,774 | 422.2 | 106.4 | 435.4 | 26.90% | 6.78% | 27.74% | 4.092 |
| 621.23 | Fumonsin B1, LC-MS/MS (ppb) | 19 | 17 | 1,332 | 961.8 | 578.7 | 33.74 | 579.6 | 50.32% | 2.93% | 50.40% | 17.18 |
| 622.23 | Fumonisin B2, LC-MS/MS (ppb) | 19 | 18 | 418.5 | 255.7 | 142.2 | 23.08 | 144.0 | 38.50% | 6.25% | 39.01% | 6.239 |
| 623.23 | Fumonisin B3, LC-MS/MS (ppb) | 12 | 8 | 184.6 | 176.7 | 117.2 | 3.123 | 117.3 | 84.65% | 2.26% | 84.68% | 37.54 |
| 630.20 | Ochratoxin A, LC (ppb) | 10 | 10 | 17.73 | 4.578 | 4.378 | 1.892 | 4.769 | 24.69% | 10.67% | 26.90% | 2.521 |
| 630.23 | Ochratoxin A, LC-MS/MS (ppb) | 19 | 17 | 18.76 | 6.815 | 4.744 | 1.867 | 5.098 | 27.18% | 10.69% | 29.21% | 2.731 |
| 640.23 | T-2 Toxin, LC-MS/MS (ppb) | 17 | 13 | 51.81 | 16.53 | 11.28 | 4.099 | 12.00 | 23.41% | 8.51% | 24.91% | 2.927 |
| 641.23 | HT-2 Toxin, LC-MS/MS (ppb) | 12 | 9 | 31.35 | 11.40 | 6.624 | 3.170 | 7.343 | 23.32% | 11.16% | 25.85% | 2.316 |
| 642.21 | T-2 Toxin + HT-2 Toxin, Neogen Veratox T-2 + HT-2 (ppb) | 5 | 5 | 107.2 | 45.20 | 45.07 | 4.878 | 45.33 | 42.05% | 4.55% | 42.29% | 9.294 |
| 650.20 | Zearalenone, LC (ppb) | 10 | 10 | 280.5 | 42.48 | 41.65 | 11.85 | 43.30 | 14.85% | 4.22% | 15.44% | 3.655 |
| 650.24 | Zearalenone, LC-MS/MS (ppb) | 18 | 17 | 291.1 | 136.5 | 107.3 | 19.81 | 109.1 | 39.66% | 7.32% | 40.33% | 5.508 |

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