

# AAFCO Check Sample Program

All Methods Report

Sort by Method

Proficiency For Individual Methods

Sample # 201323

Swine Pre-starter, Medicated



# AAFCO

## CHECK SAMPLE PROGRAM

| Method Code | Total # Labs Submitting | # Labs Included in Calculations | Mean    | SD      | Assigned Value - Robust Mean | AAFCO CS ffp - Robust sd | Uncertainty (U) | % RSD | Between Labs sL | Within Labs sr | Reproducibility sR | Between Labs %RSD | Within Labs %rsd | Reproducibility %RSD | sR/sr  | Average Range (R-bar) | Horwitz %RSD |
|-------------|-------------------------|---------------------------------|---------|---------|------------------------------|--------------------------|-----------------|-------|-----------------|----------------|--------------------|-------------------|------------------|----------------------|--------|-----------------------|--------------|
| 000.99      | 2                       | 2                               | 0.11750 | 0.15203 |                              |                          |                 |       |                 |                |                    |                   |                  |                      |        |                       |              |
| 001.00      | 8                       | 6                               | 10.207  | 0.36002 | 10.234                       | 0.35075                  | 0.10125         | 3.43% | 0.35365         | 0.09534        | 0.36627            | 3.46%             | 0.93%            | 3.59%                | 3.8417 | 0.10150               | 2.82%        |
| 001.03      | 16                      | 15                              | 9.6901  | 0.52905 | 9.7760                       | 0.33534                  | 0.06122         | 3.43% | 0.30057         | 0.01252        | 0.30083            | 3.07%             | 0.13%            | 3.07%                | 24.022 | 0.01719               | 2.84%        |
| 001.05      | 1                       |                                 | 9.5900  |         |                              |                          |                 |       |                 |                |                    |                   |                  |                      |        |                       |              |
| 001.07      | 35                      | 33                              | 9.7752  | 0.41060 | 9.8144                       | 0.30832                  | 0.03795         | 3.14% | 0.38030         | 0.09829        | 0.39279            | 3.90%             | 1.01%            | 4.03%                | 3.9963 | 0.12883               | 2.84%        |
| 001.08      | 3                       | 3                               | 10.242  | 0.28746 | 10.242                       | 0.28746                  | 0.11736         | 2.81% | 0.21356         | 0.27212        | 0.34592            | 2.09%             | 2.66%            | 3.38%                | 1.2712 | 0.33000               | 2.82%        |
| 001.99      | 17                      | 15                              | 9.6525  | 0.74156 | 9.7957                       | 0.46355                  | 0.08463         | 4.73% | 0.43281         | 0.08079        | 0.44029            | 4.41%             | 0.82%            | 4.49%                | 5.4499 | 0.09172               | 2.84%        |
| 002.00      | 5                       | 5                               | 22.709  | 0.98380 | 22.709                       | 0.98380                  | 0.31110         | 4.33% | 0.75437         | 0.12212        | 0.76419            | 3.27%             | 0.53%            | 3.32%                | 6.2578 | 0.26200               | 2.50%        |
| 002.01      | 12                      | 12                              | 22.516  | 0.23201 | 22.519                       | 0.25695                  | 0.05245         | 1.14% | 0.22309         | 0.09010        | 0.24060            | 0.99%             | 0.40%            | 1.07%                | 2.6703 | 0.10667               | 2.50%        |
| 002.02      | 5                       | 5                               | 22.735  | 0.35238 | 22.735                       | 0.35238                  | 0.11143         | 1.55% | 0.34349         | 0.11124        | 0.36105            | 1.51%             | 0.49%            | 1.59%                | 3.2459 | 0.13016               | 2.50%        |
| 002.03      | 1                       |                                 | 21.120  |         |                              |                          |                 |       |                 |                |                    |                   |                  |                      |        |                       |              |
| 002.04      | 5                       | 5                               | 22.399  | 0.37421 | 22.399                       | 0.37421                  | 0.11833         | 1.67% | 0.37941         | 0.17208        | 0.41661            | 1.69%             | 0.77%            | 1.85%                | 2.4210 | 0.71800               | 2.51%        |
| 002.05      | 36                      | 35                              | 22.552  | 0.21691 | 22.567                       | 0.17057                  | 0.02039         | 0.76% | 0.18905         | 0.05416        | 0.19665            | 0.84%             | 0.24%            | 0.87%                | 3.6311 | 0.05848               | 2.50%        |
| 002.06      | 213                     | 133                             | 22.877  | 0.56708 | 22.943                       | 0.30211                  | 0.01852         | 1.32% | 0.34649         | 0.15156        | 0.37819            | 1.51%             | 0.66%            | 1.65%                | 2.4953 | 0.17582               | 2.50%        |
| 002.07      | 1                       |                                 | 22.840  |         |                              |                          |                 |       |                 |                |                    |                   |                  |                      |        |                       |              |
| 002.08      | 3                       | 3                               | 22.742  | 0.11879 | 22.742                       | 0.11879                  | 0.04850         | 0.52% | 0.11785         | 0.02119        | 0.11974            | 0.52%             | 0.09%            | 0.53%                | 5.6515 | 0.02130               | 2.50%        |
| 002.10      | 2                       | 2                               | 22.929  | 0.49604 |                              |                          |                 |       |                 |                |                    |                   |                  |                      |        |                       |              |
| 002.11      | 4                       | 4                               | 22.699  | 1.4615  | 22.699                       | 1.4615                   | 0.51671         | 6.44% | 1.4603          | 0.08471        | 1.4627             | 6.43%             | 0.37%            | 6.44%                | 17.268 | 0.09500               | 2.50%        |
| 002.99      | 5                       | 5                               | 22.760  | 0.31173 | 22.760                       | 0.31173                  | 0.09858         | 1.37% | 0.29502         | 0.14241        | 0.32759            | 1.30%             | 0.63%            | 1.44%                | 2.3004 | 0.13600               | 2.50%        |
| 003.00      | 17                      | 17                              | 6.0624  | 0.60063 | 5.8981                       | 0.25612                  | 0.04392         | 4.34% | 0.37804         | 0.18705        | 0.42179            | 6.39%             | 3.16%            | 7.13%                | 2.2549 | 0.21990               | 3.06%        |
| 003.01      | 2                       | 2                               | 5.7462  | 0.13969 |                              |                          |                 |       |                 |                |                    |                   |                  |                      |        |                       |              |
| 003.06      | 17                      | 16                              | 5.6001  | 0.39523 | 5.6868                       | 0.16060                  | 0.02839         | 2.82% | 0.20932         | 0.05929        | 0.21755            | 3.68%             | 1.04%            | 3.83%                | 3.6691 | 0.07694               | 3.08%        |
| 003.07      | 1                       |                                 | 5.9600  |         |                              |                          |                 |       |                 |                |                    |                   |                  |                      |        |                       |              |
| 003.09      | 23                      | 21                              | 5.7885  | 0.27126 | 5.7737                       | 0.14091                  | 0.02174         | 2.44% | 0.18902         | 0.05756        | 0.19759            | 3.29%             | 1.00%            | 3.44%                | 3.4326 | 0.06202               | 3.07%        |
| 003.10      | 31                      | 28                              | 5.7778  | 0.38819 | 5.6956                       | 0.20713                  | 0.02768         | 3.64% | 0.22119         | 0.10617        | 0.24535            | 3.88%             | 1.86%            | 4.31%                | 2.3110 | 0.11771               | 3.08%        |
| 003.11      | 2                       | 2                               | 5.6175  | 0.02475 |                              |                          |                 |       |                 |                |                    |                   |                  |                      |        |                       |              |
| 003.12      | 14                      | 14                              | 5.8238  | 0.14990 | 5.8238                       | 0.16998                  | 0.03212         | 2.92% | 0.13829         | 0.04930        | 0.14681            | 2.38%             | 0.85%            | 2.53%                | 2.9779 | 0.06353               | 3.07%        |

| Method Code | Total # Labs Submitting | # Labs Included in Calculations | Mean   | SD      | Assigned Value - Robust Mean | AAFCO CS ftp - Robust sd | Uncertainty (U) | % RSD  | Between Labs sL | Within Labs sr | Reproducibility sR | Between Labs %RSD | Within Labs %rsd | Reproducibility %RSD | sR/sr  | Average Range (R-bar) | Horwitz %RSD |
|-------------|-------------------------|---------------------------------|--------|---------|------------------------------|--------------------------|-----------------|--------|-----------------|----------------|--------------------|-------------------|------------------|----------------------|--------|-----------------------|--------------|
| 003.13      | 6                       | 6                               | 5.6991 | 0.14771 | 5.6991                       | 0.16750                  | 0.04835         | 2.94%  | 0.12831         | 0.10348        | 0.16484            | 2.25%             | 1.82%            | 2.89%                | 1.5929 | 0.12683               | 3.08%        |
| 003.14      | 30                      | 30                              | 5.5608 | 0.54531 | 5.6330                       | 0.25186                  | 0.03251         | 4.47%  | 0.35300         | 0.09366        | 0.36522            | 6.23%             | 1.65%            | 6.44%                | 3.8995 | 0.11672               | 3.08%        |
| 003.99      | 10                      | 7                               | 5.5164 | 0.89011 | 5.6064                       | 0.56217                  | 0.15025         | 10.03% | 0.88882         | 0.06777        | 0.89140            | 16.11%            | 1.23%            | 16.16%               | 13.153 | 0.07286               | 3.09%        |
| 004.00      | 20                      | 19                              | 2.0503 | 0.28622 | 2.0549                       | 0.30700                  | 0.04980         | 14.94% | 0.29052         | 0.06157        | 0.29697            | 14.20%            | 3.01%            | 14.52%               | 4.8237 | 0.08932               | 3.59%        |
| 004.01      | 1                       |                                 | 2.3750 |         |                              |                          |                 |        |                 |                |                    |                   |                  |                      |        |                       |              |
| 004.03      | 2                       | 2                               | 3.2050 | 1.3294  |                              |                          |                 |        |                 |                |                    |                   |                  |                      |        |                       |              |
| 004.06      | 38                      | 37                              | 2.2716 | 0.45203 | 2.2004                       | 0.29371                  | 0.03414         | 13.35% | 0.26066         | 0.06542        | 0.26875            | 11.92%            | 2.99%            | 12.29%               | 4.1078 | 0.07211               | 3.55%        |
| 004.07      | 54                      | 53                              | 2.0698 | 0.33325 | 2.0693                       | 0.29044                  | 0.02821         | 14.04% | 0.27878         | 0.11612        | 0.30199            | 13.46%            | 5.61%            | 14.58%               | 2.6007 | 0.11872               | 3.59%        |
| 004.11      | 3                       | 3                               | 2.1447 | 0.15116 | 2.1447                       | 0.15116                  | 0.06171         | 7.05%  | 0.14812         | 0.04265        | 0.15414            | 6.91%             | 1.99%            | 7.19%                | 3.6138 | 0.04467               | 3.57%        |
| 004.99      | 2                       | 2                               | 1.8125 | 0.40659 |                              |                          |                 |        |                 |                |                    |                   |                  |                      |        |                       |              |
| 005.00      | 168                     | 102                             | 7.1972 | 0.31703 | 7.2347                       | 0.15193                  | 0.01064         | 2.10%  | 0.14087         | 0.05541        | 0.15137            | 1.94%             | 0.76%            | 2.09%                | 2.7319 | 0.06704               | 2.97%        |
| 005.02      | 1                       |                                 | 7.6000 |         |                              |                          |                 |        |                 |                |                    |                   |                  |                      |        |                       |              |
| 005.03      | 1                       |                                 | 7.1000 |         |                              |                          |                 |        |                 |                |                    |                   |                  |                      |        |                       |              |
| 005.05      | 32                      | 30                              | 7.3983 | 0.26835 | 7.3917                       | 0.12496                  | 0.01613         | 1.69%  | 0.11400         | 0.03090        | 0.11811            | 1.54%             | 0.42%            | 1.60%                | 3.8229 | 0.02817               | 2.96%        |
| 005.11      | 3                       | 3                               | 8.1188 | 1.4412  | 8.1188                       | 1.4412                   | 0.58835         | 17.75% | 1.4390          | 0.11229        | 1.4433             | 17.72%            | 1.38%            | 17.78%               | 12.854 | 0.11433               | 2.92%        |
| 005.99      | 12                      | 11                              | 7.2986 | 0.22953 | 7.3399                       | 0.14819                  | 0.03159         | 2.02%  | 0.12121         | 0.05985        | 0.13518            | 1.65%             | 0.81%            | 1.84%                | 2.2587 | 0.07266               | 2.96%        |
| 006.00      | 3                       | 3                               | 9.2750 | 0.41686 | 9.2750                       | 0.41686                  | 0.17018         | 4.49%  | 0.35322         | 0.31308        | 0.47200            | 3.81%             | 3.38%            | 5.09%                | 1.5076 | 0.35667               | 2.86%        |
| 006.01      | 2                       | 2                               | 9.0775 | 0.38537 |                              |                          |                 |        |                 |                |                    |                   |                  |                      |        |                       |              |
| 006.03      | 1                       |                                 | 8.8050 |         |                              |                          |                 |        |                 |                |                    |                   |                  |                      |        |                       |              |
| 006.99      | 3                       | 3                               | 10.000 | 0.95786 | 10.000                       | 0.95786                  | 0.39105         | 9.58%  | 0.89768         | 0.47258        | 1.0145             | 8.98%             | 4.73%            | 10.14%               | 2.1467 | 0.53333               | 2.83%        |
| 008.02      | 11                      | 10                              | 3.3055 | 0.72754 | 3.1241                       | 0.26921                  | 0.06020         | 8.62%  | 0.20930         | 0.06218        | 0.21834            | 6.79%             | 2.02%            | 7.08%                | 3.5113 | 0.06700               | 3.37%        |
| 008.05      | 1                       |                                 | 3.3500 |         |                              |                          |                 |        |                 |                |                    |                   |                  |                      |        |                       |              |
| 008.08      | 29                      | 28                              | 3.2104 | 0.63683 | 3.1382                       | 0.53475                  | 0.07146         | 17.04% | 0.52156         | 0.11595        | 0.53429            | 16.61%            | 3.69%            | 17.01%               | 4.6081 | 0.12954               | 3.37%        |
| 008.99      | 3                       | 3                               | 3.3350 | 0.78672 | 3.3350                       | 0.78672                  | 0.32118         | 23.59% | 0.78599         | 0.04778        | 0.78744            | 23.57%            | 1.43%            | 23.61%               | 16.479 | 0.06333               | 3.34%        |
| 009.04      | 2                       | 2                               | 9.0450 | 0.85560 |                              |                          |                 |        |                 |                |                    |                   |                  |                      |        |                       |              |
| 009.07      | 9                       | 9                               | 8.3641 | 1.4462  | 8.0624                       | 0.83662                  | 0.19719         | 10.38% | 0.64757         | 0.07893        | 0.65236            | 8.07%             | 0.98%            | 8.13%                | 8.2656 | 0.16078               | 2.92%        |
| 009.09      | 24                      | 24                              | 7.2400 | 1.1445  | 7.1636                       | 1.0544                   | 0.15219         | 14.72% | 0.96648         | 0.22479        | 0.99228            | 13.59%            | 3.16%            | 13.95%               | 4.4142 | 0.24917               | 2.97%        |
| 009.99      | 3                       | 3                               | 7.0883 | 1.1156  | 7.0883                       | 1.1156                   | 0.45543         | 15.74% | 1.1123          | 0.12145        | 1.1189             | 15.69%            | 1.71%            | 15.78%               | 9.2127 | 0.14333               | 2.98%        |
| 010.03      | 6                       | 6                               | 8.6789 | 1.8344  | 8.6736                       | 2.0686                   | 0.59716         | 23.85% | 1.8301          | 0.17902        | 1.8388             | 21.09%            | 2.06%            | 21.19%               | 10.272 | 0.21330               | 2.89%        |
| 010.11      | 2                       | 2                               | 9.5188 | 0.21744 |                              |                          |                 |        |                 |                |                    |                   |                  |                      |        |                       |              |
| 010.99      | 10                      | 10                              | 9.9498 | 0.58827 | 9.9187                       | 0.56237                  | 0.12575         | 5.67%  | 0.57981         | 0.14063        | 0.59662            | 5.83%             | 1.41%            | 6.00%                | 4.2425 | 0.13956               | 2.83%        |
| 011.01      | 141                     | 67                              | 11.202 | 0.44399 | 11.210                       | 0.36082                  | 0.03117         | 3.22%  | 0.38041         | 0.11819        | 0.39835            | 3.40%             | 1.06%            | 3.56%                | 3.3703 | 0.12823               | 2.78%        |
| 011.02      | 4                       | 3                               | 11.063 | 0.43693 | 11.063                       | 0.43693                  | 0.17838         | 3.95%  | 0.43592         | 0.04203        | 0.43794            | 3.94%             | 0.38%            | 3.96%                | 10.419 | 0.05333               | 2.79%        |
| 011.99      | 5                       | 4                               | 10.644 | 0.81098 | 10.644                       | 0.81098                  | 0.28672         | 7.62%  | 0.80818         | 0.09520        | 0.81377            | 7.59%             | 0.89%            | 7.65%                | 8.5483 | 0.08750               | 2.80%        |
| 012.00      | 11                      | 11                              | 31.574 | 1.0325  | 31.571                       | 0.99156                  | 0.21140         | 3.14%  | 0.81227         | 0.43755        | 0.92262            | 2.56%             | 1.38%            | 2.90%                | 2.1086 | 0.43818               | 2.38%        |
| 012.01      | 4                       | 4                               | 29.020 | 1.7701  | 29.020                       | 1.7701                   | 0.62583         | 6.10%  | 1.6704          | 0.82840        | 1.8645             | 5.76%             | 2.85%            | 6.42%                | 2.2507 | 1.1250                | 2.41%        |
| 012.03      | 3                       | 3                               | 28.872 | 0.58065 | 28.872                       | 0.58065                  | 0.23705         | 2.01%  | 0.53989         | 0.30224        | 0.61874            | 1.87%             | 1.05%            | 2.14%                | 2.0472 | 0.37000               | 2.41%        |
| 012.04      | 5                       | 5                               | 29.543 | 2.2211  | 29.543                       | 2.2211                   | 0.70239         | 7.52%  | 2.1356          | 0.16359        | 2.1418             | 7.10%             | 0.54%            | 7.12%                | 13.093 | 0.49800               | 2.40%        |

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|-------------|-------------------------|---------------------------------|---------|---------|------------------------------|--------------------------|-----------------|--------|-----------------|----------------|--------------------|-------------------|------------------|----------------------|--------|-----------------------|--------------|
| 012.11      | 3                       | 3                               | 29.454  | 4.2365  | 29.454                       | 4.2365                   | 1.7295          | 14.38% | 4.1104          | 0.01005        | 4.1104             | 13.16%            | 0.03%            | 13.16%               | 409.00 | 0.07067               | 2.40%        |
| 013.00      | 19                      | 17                              | 6.3600  | 0.50917 | 6.3389                       | 0.52827                  | 0.09060         | 8.33%  | 0.42152         | 0.15221        | 0.44816            | 6.70%             | 2.42%            | 7.12%                | 2.9443 | 0.18471               | 3.03%        |
| 013.02      | 98                      | 33                              | 6.5991  | 0.41168 | 6.5791                       | 0.41274                  | 0.05080         | 6.27%  | 0.34574         | 0.13899        | 0.37263            | 5.27%             | 2.12%            | 5.68%                | 2.6810 | 0.16061               | 3.01%        |
| 013.08      | 1                       |                                 | 4.6175  |         |                              |                          |                 |        |                 |                |                    |                   |                  |                      |        |                       |              |
| 013.10      | 10                      | 10                              | 6.1750  | 0.23440 | 6.1750                       | 0.26581                  | 0.05944         | 4.30%  | 0.19746         | 0.17863        | 0.26627            | 3.20%             | 2.89%            | 4.31%                | 1.4906 | 0.20800               | 3.04%        |
| 013.12      | 1                       |                                 | 6.1015  |         |                              |                          |                 |        |                 |                |                    |                   |                  |                      |        |                       |              |
| 013.13      | 3                       | 3                               | 6.1533  | 0.39514 | 6.1533                       | 0.39514                  | 0.16131         | 6.42%  | 0.19799         | 0.00000        | 0.19799            | 3.33%             | 0.00%            | 3.33%                |        | 0.02000               | 3.04%        |
| 015.41      | 4                       | 4                               | 214.23  | 18.943  | 214.23                       | 18.943                   | 6.6974          | 8.84%  | 18.692          | 4.3470         | 19.191             | 8.73%             | 2.03%            | 8.96%                | 4.4147 | 5.0623                | 7.13%        |
| 015.42      | 1                       |                                 | 219.50  |         |                              |                          |                 |        |                 |                |                    |                   |                  |                      |        |                       |              |
| 015.43      | 3                       | 3                               | 208.60  | 55.473  | 208.60                       | 55.473                   | 22.647          | 26.59% | 55.258          | 6.9041         | 55.687             | 26.49%            | 3.31%            | 26.70%               | 8.0658 | 8.6667                | 7.16%        |
| 015.52      | 1                       |                                 | 236.99  |         |                              |                          |                 |        |                 |                |                    |                   |                  |                      |        |                       |              |
| 015.53      | 3                       | 3                               | 229.53  | 20.756  | 229.53                       | 20.756                   | 8.4735          | 9.04%  | 19.712          | 9.1920         | 21.750             | 8.59%             | 4.00%            | 9.48%                | 2.3662 | 12.800                | 7.06%        |
| 017.41      | 2                       | 2                               | 16.113  | 0.88742 |                              |                          |                 |        |                 |                |                    |                   |                  |                      |        |                       |              |
| 017.42      | 3                       | 3                               | 13.492  | 0.97926 | 13.492                       | 0.97926                  | 0.39978         | 7.26%  |                 | 1.5065         |                    |                   | 11.17%           |                      |        | 1.5633                | 10.81%       |
| 017.43      | 4                       | 4                               | 15.843  | 0.80979 | 15.843                       | 0.80979                  | 0.28630         | 5.11%  | 0.79977         | 0.17958        | 0.81968            | 5.05%             | 1.13%            | 5.17%                | 4.5644 | 0.18500               | 10.55%       |
| 017.52      | 1                       |                                 | 14.000  |         |                              |                          |                 |        |                 |                |                    |                   |                  |                      |        |                       |              |
| 017.53      | 1                       |                                 | 14.500  |         |                              |                          |                 |        |                 |                |                    |                   |                  |                      |        |                       |              |
| 019.00      | 18                      | 17                              | 1.1249  | 0.08450 | 1.1339                       | 0.07220                  | 0.01238         | 6.37%  | 0.08704         | 0.00867        | 0.08747            | 7.74%             | 0.77%            | 7.78%                | 10.092 | 0.01042               | 3.92%        |
| 019.03      | 2                       | 2                               | 1.1882  | 0.02648 |                              |                          |                 |        |                 |                |                    |                   |                  |                      |        |                       |              |
| 019.08      | 7                       | 7                               | 1.1517  | 0.07559 | 1.1672                       | 0.01387                  | 0.00371         | 1.19%  | 0.03808         | 0.00832        | 0.03898            | 3.23%             | 0.71%            | 3.31%                | 4.6828 | 0.01140               | 3.91%        |
| 019.31      | 31                      | 30                              | 1.1177  | 0.04231 | 1.1273                       | 0.02452                  | 0.00317         | 2.18%  | 0.03283         | 0.01542        | 0.03627            | 2.92%             | 1.37%            | 3.22%                | 2.3526 | 0.02135               | 3.93%        |
| 019.32      | 6                       | 6                               | 1.1382  | 0.02132 | 1.1382                       | 0.02418                  | 0.00698         | 2.12%  | 0.01137         | 0.02551        | 0.02793            | 1.00%             | 2.24%            | 2.45%                | 1.0948 | 0.02715               | 3.92%        |
| 019.33      | 1                       |                                 | 1.1755  |         |                              |                          |                 |        |                 |                |                    |                   |                  |                      |        |                       |              |
| 019.41      | 41                      | 40                              | 1.1466  | 0.06991 | 1.1418                       | 0.04738                  | 0.00530         | 4.15%  | 0.05055         | 0.02073        | 0.05464            | 4.44%             | 1.82%            | 4.80%                | 2.6361 | 0.02246               | 3.92%        |
| 019.42      | 16                      | 15                              | 1.1386  | 0.05202 | 1.1396                       | 0.05692                  | 0.01039         | 5.00%  | 0.05118         | 0.01317        | 0.05285            | 4.50%             | 1.16%            | 4.64%                | 4.0120 | 0.01527               | 3.92%        |
| 019.43      | 16                      | 15                              | 1.1493  | 0.07216 | 1.1503                       | 0.05636                  | 0.01029         | 4.90%  | 0.07138         | 0.01497        | 0.07293            | 6.21%             | 1.30%            | 6.35%                | 4.8712 | 0.01900               | 3.92%        |
| 019.44      | 3                       | 3                               | 1.1320  | 0.02858 | 1.1320                       | 0.02858                  | 0.01167         | 2.53%  | 0.02736         | 0.01172        | 0.02976            | 2.42%             | 1.04%            | 2.63%                | 2.5395 | 0.01600               | 3.93%        |
| 019.52      | 4                       | 4                               | 1.1379  | 0.07866 | 1.1379                       | 0.07866                  | 0.02781         | 6.91%  |                 | 0.03466        |                    |                   | 3.15%            |                      |        | 0.04813               | 3.92%        |
| 019.53      | 4                       | 4                               | 1.0963  | 0.04535 | 1.0963                       | 0.04535                  | 0.01603         | 4.14%  | 0.00866         | 0.06295        | 0.06354            | 0.79%             | 5.74%            | 5.80%                | 1.0094 | 0.06750               | 3.94%        |
| 019.99      | 3                       | 3                               | 1.1000  | 0.19698 | 1.1000                       | 0.19698                  | 0.08042         | 17.91% | 0.19438         | 0.04505        | 0.19954            | 17.67%            | 4.10%            | 18.14%               | 4.4294 | 0.05467               | 3.94%        |
| 021.31      | 3                       | 3                               | 1.4450  | 0.52908 | 1.4450                       | 0.52908                  | 0.21600         | 36.61% | 0.52822         | 0.04262        | 0.52994            | 36.56%            | 2.95%            | 36.67%               | 12.433 | 0.04333               | 15.13%       |
| 021.34      | 1                       |                                 | 0.96000 |         |                              |                          |                 |        |                 |                |                    |                   |                  |                      |        |                       |              |
| 021.41      | 5                       | 5                               | 0.93240 | 0.18526 | 0.93240                      | 0.18526                  | 0.05858         | 19.87% | 0.03945         | 0.01319        | 0.04160            | 3.89%             | 1.30%            | 4.10%                | 3.1537 | 0.02200               | 16.17%       |
| 021.42      | 3                       | 3                               | 0.90067 | 0.19874 | 0.90067                      | 0.19874                  | 0.08113         | 22.07% | 0.18683         | 0.09581        | 0.20997            | 20.74%            | 10.64%           | 23.31%               | 2.1915 | 0.09800               | 16.25%       |
| 021.43      | 4                       | 4                               | 1.0933  | 0.12418 | 1.0933                       | 0.12418                  | 0.04391         | 11.36% | 0.12110         | 0.03891        | 0.12719            | 11.08%            | 3.56%            | 11.63%               | 3.2687 | 0.04300               | 15.78%       |
| 021.52      | 2                       | 2                               | 0.88025 | 0.32562 |                              |                          |                 |        |                 |                |                    |                   |                  |                      |        |                       |              |
| 021.53      | 2                       | 2                               | 1.1500  | 0.07071 |                              |                          |                 |        |                 |                |                    |                   |                  |                      |        |                       |              |
| 022.31      | 18                      | 17                              | 269.72  | 10.717  | 270.76                       | 8.7301                   | 1.4972          | 3.22%  | 8.1069          | 3.5031         | 8.8314             | 2.99%             | 1.29%            | 3.25%                | 2.5210 | 3.7659                | 6.89%        |

| Method Code | Total # Labs Submitting | # Labs Included in Calculations | Mean    | SD      | Assigned Value - Robust Mean | AAFCO CS ftp - Robust sd | Uncertainty (U) | % RSD  | Between Labs sL | Within Labs sr | Reproducibility sR | Between Labs %RSD | Within Labs %rsd | Reproducibility %RSD | sR/sr  | Average Range (R-bar) | Horwitz %RSD |
|-------------|-------------------------|---------------------------------|---------|---------|------------------------------|--------------------------|-----------------|--------|-----------------|----------------|--------------------|-------------------|------------------|----------------------|--------|-----------------------|--------------|
| 022.32      | 5                       | 5                               | 243.25  | 119.33  | 243.25                       | 119.33                   | 37.737          | 49.06% | 34.839          | 6.1306         | 35.375             | 11.85%            | 2.09%            | 12.04%               | 5.7702 | 12.090                | 7.00%        |
| 022.41      | 32                      | 31                              | 276.22  | 24.698  | 276.48                       | 20.416                   | 2.5929          | 7.38%  | 18.654          | 5.5053         | 19.449             | 6.75%             | 1.99%            | 7.04%                | 3.5328 | 6.0341                | 6.86%        |
| 022.42      | 14                      | 13                              | 275.83  | 27.103  | 281.02                       | 12.085                   | 2.3700          | 4.30%  | 15.725          | 4.4720         | 16.348             | 5.58%             | 1.59%            | 5.80%                | 3.6557 | 4.7608                | 6.85%        |
| 022.43      | 14                      | 13                              | 272.49  | 19.902  | 274.97                       | 18.163                   | 3.5620          | 6.61%  | 19.522          | 5.4737         | 20.275             | 7.16%             | 2.01%            | 7.44%                | 3.7040 | 5.8969                | 6.87%        |
| 022.44      | 2                       | 2                               | 261.50  | 12.021  |                              |                          |                 |        |                 |                |                    |                   |                  |                      |        |                       |              |
| 022.52      | 2                       | 2                               | 242.58  | 3.4295  |                              |                          |                 |        |                 |                |                    |                   |                  |                      |        |                       |              |
| 022.53      | 4                       | 4                               | 277.25  | 9.2421  | 277.25                       | 9.2421                   | 3.2676          | 3.33%  | 3.6113          | 12.031         | 12.562             | 1.30%             | 4.34%            | 4.53%                | 1.0441 | 14.000                | 6.86%        |
| 022.99      | 1                       |                                 | 274.65  |         |                              |                          |                 |        |                 |                |                    |                   |                  |                      |        |                       |              |
| 023.01      | 1                       |                                 | 22.350  |         |                              |                          |                 |        |                 |                |                    |                   |                  |                      |        |                       |              |
| 025.31      | 13                      | 12                              | 708.91  | 132.12  | 738.52                       | 67.160                   | 13.709          | 9.09%  | 126.90          | 13.183         | 127.58             | 18.29%            | 1.90%            | 18.39%               | 9.6781 | 17.896                | 5.92%        |
| 025.32      | 4                       | 4                               | 635.80  | 228.75  | 635.80                       | 228.75                   | 80.876          | 35.98% | 228.55          | 13.588         | 228.95             | 35.95%            | 2.14%            | 36.01%               | 16.850 | 14.520                | 6.06%        |
| 025.41      | 34                      | 34                              | 719.80  | 54.698  | 722.47                       | 41.398                   | 5.0203          | 5.73%  | 41.575          | 14.662         | 44.085             | 5.78%             | 2.04%            | 6.13%                | 3.0067 | 15.808                | 5.94%        |
| 025.42      | 11                      | 10                              | 603.60  | 172.20  | 636.44                       | 102.61                   | 22.945          | 16.12% | 71.815          | 15.627         | 73.495             | 11.23%            | 2.44%            | 11.50%               | 4.7031 | 23.206                | 6.05%        |
| 025.43      | 12                      | 12                              | 639.93  | 165.51  | 670.41                       | 112.03                   | 22.868          | 16.71% | 164.86          | 20.769         | 166.16             | 25.76%            | 3.25%            | 25.97%               | 8.0005 | 21.392                | 6.01%        |
| 025.52      | 1                       |                                 | 646.98  |         |                              |                          |                 |        |                 |                |                    |                   |                  |                      |        |                       |              |
| 025.53      | 3                       | 3                               | 711.50  | 35.189  | 711.50                       | 35.189                   | 14.366          | 4.95%  | 14.589          | 45.286         | 47.578             | 2.05%             | 6.36%            | 6.69%                | 1.0506 | 55.667                | 5.95%        |
| 025.99      | 1                       |                                 | 737.64  |         |                              |                          |                 |        |                 |                |                    |                   |                  |                      |        |                       |              |
| 027.03      | 1                       |                                 | 0.18000 |         |                              |                          |                 |        |                 |                |                    |                   |                  |                      |        |                       |              |
| 027.31      | 15                      | 14                              | 0.18958 | 0.01016 | 0.19030                      | 0.00928                  | 0.00175         | 4.88%  | 0.00722         | 0.00334        | 0.00796            | 3.77%             | 1.74%            | 4.16%                | 2.3839 | 0.00379               | 5.13%        |
| 027.32      | 3                       | 3                               | 0.19667 | 0.00764 | 0.19667                      | 0.00764                  | 0.00312         | 3.88%  | 0.00645         | 0.00577        | 0.00866            | 3.28%             | 2.94%            | 4.40%                | 1.5000 | 0.00667               | 5.11%        |
| 027.33      | 1                       |                                 | 0.19500 |         |                              |                          |                 |        |                 |                |                    |                   |                  |                      |        |                       |              |
| 027.41      | 30                      | 30                              | 0.19579 | 0.01010 | 0.19610                      | 0.00899                  | 0.00116         | 4.58%  | 0.00787         | 0.00596        | 0.00987            | 4.01%             | 3.03%            | 5.03%                | 1.6571 | 0.00543               | 5.11%        |
| 027.42      | 12                      | 11                              | 0.18870 | 0.01113 | 0.18912                      | 0.00771                  | 0.00164         | 4.08%  | 0.01073         | 0.00423        | 0.01153            | 5.68%             | 2.24%            | 6.11%                | 2.7279 | 0.00421               | 5.14%        |
| 027.43      | 13                      | 13                              | 0.19027 | 0.01220 | 0.19027                      | 0.01384                  | 0.00271         | 7.27%  | 0.01182         | 0.00430        | 0.01257            | 6.21%             | 2.26%            | 6.61%                | 2.9234 | 0.00408               | 5.13%        |
| 027.44      | 1                       |                                 | 0.18050 |         |                              |                          |                 |        |                 |                |                    |                   |                  |                      |        |                       |              |
| 027.52      | 2                       | 2                               | 0.18380 | 0.00877 |                              |                          |                 |        |                 |                |                    |                   |                  |                      |        |                       |              |
| 027.53      | 3                       | 3                               | 0.18867 | 0.00153 | 0.18867                      | 0.00153                  | 0.00062         | 0.81%  |                 | 0.00346        |                    |                   | 1.84%            |                      |        | 0.00400               | 5.14%        |
| 028.31      | 14                      | 14                              | 227.42  | 56.523  | 243.00                       | 10.635                   | 2.0099          | 4.38%  | 11.937          | 6.3643         | 13.527             | 4.93%             | 2.63%            | 5.59%                | 2.1255 | 6.8811                | 7.00%        |
| 028.32      | 5                       | 5                               | 222.23  | 58.855  | 222.23                       | 58.855                   | 18.612          | 26.48% | 7.1678          | 1.3031         | 7.2853             | 2.98%             | 0.54%            | 3.03%                | 5.5908 | 4.6180                | 7.09%        |
| 028.41      | 31                      | 31                              | 240.77  | 15.323  | 241.40                       | 13.559                   | 1.7220          | 5.62%  | 11.724          | 5.8629         | 13.108             | 4.84%             | 2.42%            | 5.41%                | 2.2358 | 6.8310                | 7.01%        |
| 028.42      | 14                      | 14                              | 232.82  | 53.972  | 247.15                       | 14.912                   | 2.8181          | 6.03%  | 16.195          | 6.7476         | 17.545             | 6.57%             | 2.74%            | 7.12%                | 2.6001 | 6.9343                | 6.98%        |
| 028.43      | 13                      | 13                              | 244.33  | 20.204  | 246.28                       | 18.199                   | 3.5692          | 7.39%  | 14.613          | 4.7497         | 15.366             | 5.89%             | 1.91%            | 6.19%                | 3.2351 | 4.7815                | 6.98%        |
| 028.44      | 3                       | 3                               | 205.17  | 42.551  | 205.17                       | 42.551                   | 17.371          | 20.74% | 42.472          | 3.6742         | 42.630             | 20.70%            | 1.79%            | 20.78%               | 11.602 | 4.3333                | 7.18%        |
| 028.52      | 2                       | 2                               | 217.39  | 17.840  |                              |                          |                 |        |                 |                |                    |                   |                  |                      |        |                       |              |
| 028.53      | 4                       | 4                               | 239.50  | 2.6771  | 239.50                       | 2.6771                   | 0.94648         | 1.12%  |                 | 5.5902         |                    |                   | 2.33%            |                      |        | 6.5000                | 7.01%        |
| 028.99      | 1                       |                                 | 251.67  |         |                              |                          |                 |        |                 |                |                    |                   |                  |                      |        |                       |              |
| 031.00      | 2                       | 2                               | 0.73123 | 0.02655 |                              |                          |                 |        |                 |                |                    |                   |                  |                      |        |                       |              |
| 031.01      | 54                      | 53                              | 0.73987 | 0.04047 | 0.73466                      | 0.02462                  | 0.00239         | 3.35%  | 0.02364         | 0.01012        | 0.02571            | 3.23%             | 1.38%            | 3.51%                | 2.5415 | 0.01158               | 4.19%        |

| Method Code | Total # Labs Submitting | # Labs Included in Calculations | Mean    | SD      | Assigned Value - Robust Mean | AAFCO CS ftp - Robust sd | Uncertainty (U) | % RSD  | Between Labs sL | Within Labs sI | Reproducibility sR | Between Labs %RSD | Within Labs %rsd | Reproducibility %RSD | sR/sr  | Average Range (R-bar) | Horwitz %RSD |
|-------------|-------------------------|---------------------------------|---------|---------|------------------------------|--------------------------|-----------------|--------|-----------------|----------------|--------------------|-------------------|------------------|----------------------|--------|-----------------------|--------------|
| 031.02      | 3                       | 3                               | 0.73600 | 0.00361 | 0.73600                      | 0.00361                  | 0.00147         | 0.49%  | 0.00161         | 0.00456        | 0.00484            | 0.22%             | 0.62%            | 0.66%                | 1.0602 | 0.00500               | 4.19%        |
| 031.03      | 4                       | 4                               | 0.72936 | 0.02793 | 0.72936                      | 0.02793                  | 0.00988         | 3.83%  | 0.02547         | 0.01621        | 0.03019            | 3.49%             | 2.22%            | 4.14%                | 1.8627 | 0.01938               | 4.19%        |
| 031.06      | 1                       |                                 | 0.65500 |         |                              |                          |                 |        |                 |                |                    |                   |                  |                      |        |                       |              |
| 031.41      | 36                      | 36                              | 0.73980 | 0.03544 | 0.73778                      | 0.02623                  | 0.00309         | 3.55%  | 0.02225         | 0.01930        | 0.02946            | 3.03%             | 2.63%            | 4.01%                | 1.5263 | 0.02083               | 4.19%        |
| 031.42      | 17                      | 16                              | 0.70555 | 0.04832 | 0.71151                      | 0.03749                  | 0.00663         | 5.27%  | 0.04656         | 0.01830        | 0.05003            | 6.60%             | 2.59%            | 7.09%                | 2.7336 | 0.01927               | 4.21%        |
| 031.43      | 17                      | 17                              | 0.70353 | 0.04327 | 0.70470                      | 0.04383                  | 0.00752         | 6.22%  | 0.04383         | 0.01228        | 0.04552            | 6.23%             | 1.75%            | 6.47%                | 3.7054 | 0.01671               | 4.22%        |
| 031.44      | 3                       | 3                               | 0.73933 | 0.01748 | 0.73933                      | 0.01748                  | 0.00714         | 2.36%  | 0.01570         | 0.01088        | 0.01910            | 2.12%             | 1.47%            | 2.58%                | 1.7548 | 0.01473               | 4.19%        |
| 031.52      | 1                       |                                 | 0.59300 |         |                              |                          |                 |        |                 |                |                    |                   |                  |                      |        |                       |              |
| 031.53      | 4                       | 4                               | 0.70538 | 0.00994 | 0.70538                      | 0.00994                  | 0.00352         | 1.41%  |                 | 0.02929        |                    |                   | 4.15%            |                      |        | 0.03275               | 4.22%        |
| 031.99      | 2                       | 2                               | 0.73425 | 0.01308 |                              |                          |                 |        |                 |                |                    |                   |                  |                      |        |                       |              |
| 032.02      | 4                       | 4                               | 1.1351  | 0.03206 | 1.1351                       | 0.03206                  | 0.01133         | 2.82%  | 0.02157         | 0.00573        | 0.02232            | 1.92%             | 0.51%            | 1.99%                | 3.8945 | 0.01825               | 3.92%        |
| 032.31      | 15                      | 15                              | 1.0918  | 0.06209 | 1.1033                       | 0.04060                  | 0.00741         | 3.68%  | 0.05249         | 0.04691        | 0.07040            | 4.81%             | 4.30%            | 6.45%                | 1.5008 | 0.04639               | 3.94%        |
| 032.32      | 4                       | 4                               | 1.1025  | 0.08211 | 1.1025                       | 0.08211                  | 0.02903         | 7.45%  | 0.08157         | 0.01323        | 0.08264            | 7.40%             | 1.20%            | 7.50%                | 6.2469 | 0.01500               | 3.94%        |
| 032.41      | 28                      | 28                              | 1.1096  | 0.06700 | 1.1132                       | 0.06726                  | 0.00899         | 6.04%  | 0.06360         | 0.02602        | 0.06872            | 5.75%             | 2.35%            | 6.21%                | 2.6407 | 0.03328               | 3.94%        |
| 032.42      | 14                      | 13                              | 1.1205  | 0.04298 | 1.1213                       | 0.02599                  | 0.00510         | 2.32%  | 0.03562         | 0.00939        | 0.03684            | 3.20%             | 0.84%            | 3.31%                | 3.9228 | 0.01388               | 3.93%        |
| 032.43      | 13                      | 13                              | 1.1109  | 0.05595 | 1.1188                       | 0.04890                  | 0.00959         | 4.37%  | 0.05275         | 0.01805        | 0.05575            | 4.77%             | 1.63%            | 5.04%                | 3.0891 | 0.02277               | 3.93%        |
| 032.44      | 1                       |                                 | 1.0800  |         |                              |                          |                 |        |                 |                |                    |                   |                  |                      |        |                       |              |
| 032.52      | 2                       | 2                               | 1.0350  | 0.07782 |                              |                          |                 |        |                 |                |                    |                   |                  |                      |        |                       |              |
| 032.53      | 3                       | 3                               | 1.1488  | 0.02327 | 1.1488                       | 0.02327                  | 0.00950         | 2.03%  |                 | 0.04780        |                    |                   | 4.16%            |                      |        | 0.06100               | 3.92%        |
| 032.99      | 1                       |                                 | 0.99300 |         |                              |                          |                 |        |                 |                |                    |                   |                  |                      |        |                       |              |
| 033.00      | 31                      | 30                              | 1.1202  | 0.07330 | 1.1175                       | 0.06975                  | 0.00900         | 6.24%  | 0.07101         | 0.00853        | 0.07152            | 6.36%             | 0.76%            | 6.41%                | 8.3833 | 0.01074               | 3.93%        |
| 033.01      | 35                      | 34                              | 1.1757  | 0.13221 | 1.2005                       | 0.03088                  | 0.00375         | 2.57%  | 0.06091         | 0.00957        | 0.06166            | 5.05%             | 0.79%            | 5.12%                | 6.4431 | 0.01291               | 3.89%        |
| 033.03      | 5                       | 5                               | 1.1380  | 0.15885 | 1.1380                       | 0.15885                  | 0.05023         | 13.96% | 0.03506         | 0.02062        | 0.04067            | 2.90%             | 1.71%            | 3.37%                | 1.9729 | 0.04000               | 3.92%        |
| 033.05      | 4                       | 4                               | 1.0984  | 0.16014 | 1.0984                       | 0.16014                  | 0.05662         | 14.58% |                 | 0.01683        |                    |                   | 1.43%            |                      |        | 0.01725               | 3.94%        |
| 033.99      | 11                      | 11                              | 1.0550  | 0.13320 | 1.0550                       | 0.15105                  | 0.03220         | 14.32% | 0.13956         | 0.02127        | 0.14117            | 13.22%            | 2.01%            | 13.37%               | 6.6380 | 0.03096               | 3.97%        |
| 034.01      | 3                       | 3                               | 1.2550  | 0.67567 | 1.2550                       | 0.67567                  | 0.27584         | 53.84% | 0.67527         | 0.03291        | 0.67607            | 53.81%            | 2.62%            | 53.87%               | 20.540 | 0.04333               | 15.46%       |
| 034.04      | 5                       | 5                               | 1.3666  | 0.26406 | 1.3666                       | 0.26406                  | 0.08350         | 19.32% | 0.26323         | 0.02967        | 0.26489            | 19.26%            | 2.17%            | 19.38%               | 8.9265 | 0.03720               | 15.26%       |
| 034.42      | 2                       | 2                               | 1.1450  | 0.18385 |                              |                          |                 |        |                 |                |                    |                   |                  |                      |        |                       |              |
| 034.43      | 3                       | 3                               | 0.92683 | 0.80531 | 0.92683                      | 0.80531                  | 0.32877         | 86.89% | 0.80235         | 0.09757        | 0.80826            | 86.57%            | 10.53%           | 87.21%               | 8.2835 | 0.09833               | 16.18%       |
| 034.51      | 1                       |                                 | 0.40500 |         |                              |                          |                 |        |                 |                |                    |                   |                  |                      |        |                       |              |
| 034.52      | 4                       | 4                               | 1.7425  | 0.38632 | 1.7425                       | 0.38632                  | 0.13658         | 22.17% | 0.34560         | 0.24413        | 0.42313            | 19.83%            | 14.01%           | 24.28%               | 1.7332 | 0.24450               | 14.71%       |
| 034.53      | 4                       | 4                               | 1.6200  | 0.10847 | 1.6200                       | 0.10847                  | 0.03835         | 6.70%  | 0.09971         | 0.06042        | 0.11658            | 6.15%             | 3.73%            | 7.20%                | 1.9297 | 0.06500               | 14.88%       |
| 034.99      | 1                       |                                 | 1.1650  |         |                              |                          |                 |        |                 |                |                    |                   |                  |                      |        |                       |              |
| 035.01      | 2                       | 2                               | 0.37700 | 0.02546 |                              |                          |                 |        |                 |                |                    |                   |                  |                      |        |                       |              |
| 035.05      | 6                       | 6                               | 0.39113 | 0.01896 | 0.38967                      | 0.01868                  | 0.00539         | 4.79%  | 0.01867         | 0.00471        | 0.01925            | 4.77%             | 1.20%            | 4.92%                | 4.0897 | 0.00557               | 4.61%        |
| 035.31      | 16                      | 16                              | 0.38136 | 0.02614 | 0.38335                      | 0.02495                  | 0.00441         | 6.51%  | 0.01968         | 0.01079        | 0.02244            | 5.10%             | 2.80%            | 5.82%                | 2.0797 | 0.01236               | 4.62%        |
| 035.32      | 4                       | 4                               | 0.39125 | 0.02287 | 0.39125                      | 0.02287                  | 0.00808         | 5.84%  | 0.02245         | 0.00612        | 0.02327            | 5.74%             | 1.57%            | 5.95%                | 3.8006 | 0.00750               | 4.61%        |
| 035.41      | 35                      | 35                              | 0.38182 | 0.02329 | 0.38666                      | 0.01429                  | 0.00171         | 3.70%  | 0.01769         | 0.00861        | 0.01967            | 4.60%             | 2.24%            | 5.12%                | 2.2861 | 0.00901               | 4.61%        |

| Method Code | Total # Labs Submitting | # Labs Included in Calculations | Mean    | SD      | Assigned Value - Robust Mean | AAFCO CS ftp - Robust sd | Uncertainty (U) | % RSD  | Between Labs sL | Within Labs sT | Reproducibility sR | Between Labs %RSD | Within Labs %rsd | Reproducibility %RSD | sR/sr  | Average Range (R-bar) | Horwitz %RSD |
|-------------|-------------------------|---------------------------------|---------|---------|------------------------------|--------------------------|-----------------|--------|-----------------|----------------|--------------------|-------------------|------------------|----------------------|--------|-----------------------|--------------|
| 035.42      | 14                      | 13                              | 0.37397 | 0.02362 | 0.37549                      | 0.01534                  | 0.00301         | 4.08%  | 0.01628         | 0.00543        | 0.01716            | 4.28%             | 1.43%            | 4.51%                | 3.1614 | 0.00943               | 4.64%        |
| 035.43      | 13                      | 13                              | 0.37738 | 0.02724 | 0.38056                      | 0.01678                  | 0.00329         | 4.41%  | 0.01801         | 0.00874        | 0.02001            | 4.70%             | 2.28%            | 5.23%                | 2.2907 | 0.00831               | 4.63%        |
| 035.52      | 2                       | 2                               | 0.37085 | 0.00587 |                              |                          |                 |        |                 |                |                    |                   |                  |                      |        |                       |              |
| 035.53      | 4                       | 4                               | 0.36325 | 0.01319 | 0.36325                      | 0.01319                  | 0.00466         | 3.63%  | 0.00997         | 0.01222        | 0.01577            | 2.75%             | 3.36%            | 4.34%                | 1.2909 | 0.01450               | 4.66%        |
| 036.04      | 4                       | 4                               | 0.38625 | 0.02869 | 0.38625                      | 0.02869                  | 0.01014         | 7.43%  | 0.02814         | 0.00791        | 0.02923            | 7.28%             | 2.05%            | 7.57%                | 3.6968 | 0.00750               | 4.62%        |
| 036.42      | 12                      | 11                              | 0.35910 | 0.02559 | 0.36126                      | 0.02364                  | 0.00504         | 6.54%  | 0.01797         | 0.00272        | 0.01817            | 4.95%             | 0.75%            | 5.01%                | 6.6862 | 0.00397               | 4.66%        |
| 036.43      | 7                       | 7                               | 0.35357 | 0.02582 | 0.35308                      | 0.02513                  | 0.00672         | 7.12%  | 0.02358         | 0.00518        | 0.02415            | 6.77%             | 1.49%            | 6.93%                | 4.6611 | 0.00886               | 4.68%        |
| 036.53      | 1                       |                                 | 0.34000 |         |                              |                          |                 |        |                 |                |                    |                   |                  |                      |        |                       |              |
| 037.31      | 22                      | 21                              | 2,096.4 | 117.56  | 2,088.7                      | 115.62                   | 17.841          | 5.54%  | 117.52          | 23.660         | 119.88             | 5.59%             | 1.13%            | 5.71%                | 5.0666 | 29.060                | 5.06%        |
| 037.32      | 4                       | 4                               | 1,660.9 | 1,021.7 | 1,660.9                      | 1,021.7                  | 361.23          | 61.51% | 147.82          | 60.879         | 159.86             | 6.82%             | 2.81%            | 7.37%                | 2.6259 | 54.325                | 5.24%        |
| 037.33      | 1                       |                                 | 2,055.0 |         |                              |                          |                 |        |                 |                |                    |                   |                  |                      |        |                       |              |
| 037.41      | 35                      | 34                              | 2,117.1 | 239.94  | 2,116.5                      | 117.70                   | 14.273          | 5.56%  | 158.77          | 33.066         | 162.18             | 7.38%             | 1.54%            | 7.54%                | 4.9045 | 40.132                | 5.05%        |
| 037.42      | 14                      | 13                              | 1,996.3 | 480.40  | 2,105.2                      | 113.50                   | 22.258          | 5.39%  | 160.24          | 37.134         | 164.48             | 7.55%             | 1.75%            | 7.75%                | 4.4294 | 32.569                | 5.06%        |
| 037.43      | 16                      | 16                              | 2,044.0 | 175.84  | 2,061.2                      | 148.65                   | 26.277          | 7.21%  | 180.66          | 27.980         | 182.81             | 8.85%             | 1.37%            | 8.95%                | 6.5338 | 38.590                | 5.07%        |
| 037.44      | 3                       | 3                               | 2,008.2 | 196.94  | 2,008.2                      | 196.94                   | 80.402          | 9.81%  | 195.10          | 38.064         | 198.77             | 9.72%             | 1.90%            | 9.90%                | 5.2222 | 48.333                | 5.09%        |
| 037.52      | 4                       | 4                               | 2,096.2 | 210.66  | 2,096.2                      | 210.66                   | 74.480          | 10.05% | 206.74          | 57.220         | 214.51             | 9.86%             | 2.73%            | 10.23%               | 3.7489 | 55.383                | 5.06%        |
| 037.53      | 4                       | 4                               | 1,967.0 | 115.16  | 1,967.0                      | 115.16                   | 40.716          | 5.85%  | 100.26          | 80.137         | 128.35             | 5.10%             | 4.07%            | 6.53%                | 1.6016 | 101.00                | 5.11%        |
| 037.99      | 1                       |                                 | 2,040.8 |         |                              |                          |                 |        |                 |                |                    |                   |                  |                      |        |                       |              |
| 038.41      | 3                       | 3                               | 3.7948  | 0.25634 | 3.7948                       | 0.25634                  | 0.10465         | 6.76%  | 0.22813         | 0.16534        | 0.28175            | 6.01%             | 4.36%            | 7.42%                | 1.7040 | 0.15700               | 13.09%       |
| 038.42      | 4                       | 4                               | 4.0650  | 0.29309 | 4.0650                       | 0.29309                  | 0.10362         | 7.21%  | 0.13210         | 0.37000        | 0.39287            | 3.25%             | 9.10%            | 9.66%                | 1.0618 | 0.35000               | 12.95%       |
| 038.43      | 6                       | 6                               | 4.1558  | 0.21935 | 4.2508                       | 0.05916                  | 0.01708         | 1.39%  | 0.18031         | 0.17666        | 0.25243            | 4.34%             | 4.25%            | 6.07%                | 1.4289 | 0.22350               | 12.87%       |
| 038.52      | 1                       |                                 | 4.3855  |         |                              |                          |                 |        |                 |                |                    |                   |                  |                      |        |                       |              |
| 038.53      | 1                       |                                 | 4.5100  |         |                              |                          |                 |        |                 |                |                    |                   |                  |                      |        |                       |              |
| 040.43      | 1                       |                                 | 5.1400  |         |                              |                          |                 |        |                 |                |                    |                   |                  |                      |        |                       |              |
| 040.52      | 1                       |                                 | 4.0000  |         |                              |                          |                 |        |                 |                |                    |                   |                  |                      |        |                       |              |
| 050.01      | 10                      | 10                              | 0.00511 | 0.00046 | 0.00504                      | 0.00033                  | 0.00007         | 6.62%  | 0.00026         | 0.00012        | 0.00029            | 5.23%             | 2.31%            | 5.72%                | 2.4728 | 0.00012               | 8.87%        |
| 057.00      | 1                       |                                 | 10.305  |         |                              |                          |                 |        |                 |                |                    |                   |                  |                      |        |                       |              |
| 057.99      | 1                       |                                 | 9.7500  |         |                              |                          |                 |        |                 |                |                    |                   |                  |                      |        |                       |              |
| 101.01      | 1                       |                                 | 0.00325 |         |                              |                          |                 |        |                 |                |                    |                   |                  |                      |        |                       |              |
| 101.02      | 1                       |                                 | 645.00  |         |                              |                          |                 |        |                 |                |                    |                   |                  |                      |        |                       |              |
| 101.99      | 1                       |                                 | 939.78  |         |                              |                          |                 |        |                 |                |                    |                   |                  |                      |        |                       |              |
| 102.01      | 1                       |                                 | 85.352  |         |                              |                          |                 |        |                 |                |                    |                   |                  |                      |        |                       |              |
| 102.99      | 1                       |                                 | 77.112  |         |                              |                          |                 |        |                 |                |                    |                   |                  |                      |        |                       |              |
| 103.01      | 1                       |                                 | 88.350  |         |                              |                          |                 |        |                 |                |                    |                   |                  |                      |        |                       |              |
| 104.00      | 1                       |                                 | 18.365  |         |                              |                          |                 |        |                 |                |                    |                   |                  |                      |        |                       |              |
| 104.03      | 5                       | 5                               | 22.727  | 5.2760  | 22.727                       | 5.2760                   | 1.6684          | 23.21% | 5.2138          | 1.1423         | 5.3374             | 22.94%            | 5.03%            | 23.49%               | 4.6724 | 1.3400                | 8.88%        |
| 104.99      | 1                       |                                 | 19.732  |         |                              |                          |                 |        |                 |                |                    |                   |                  |                      |        |                       |              |
| 105.00      | 2                       | 2                               | 4.0630  | 4.1748  |                              |                          |                 |        |                 |                |                    |                   |                  |                      |        |                       |              |

| Method Code | Total # Labs Submitting | # Labs Included in Calculations | Mean    | SD      | Assigned Value - Robust Mean | AAFCO CS ftp - Robust sd | Uncertainty (U) | % RSD  | Between Labs sL | Within Labs sr | Reproducibility sR | Between Labs %RSD | Within Labs %rsd | Reproducibility %RSD | sR/sr  | Average Range (R-bar) | Horwitz %RSD |
|-------------|-------------------------|---------------------------------|---------|---------|------------------------------|--------------------------|-----------------|--------|-----------------|----------------|--------------------|-------------------|------------------|----------------------|--------|-----------------------|--------------|
| 105.01      | 1                       |                                 | 4.5360  |         |                              |                          |                 |        |                 |                |                    |                   |                  |                      |        |                       |              |
| 106.00      | 1                       |                                 | 6.4500  |         |                              |                          |                 |        |                 |                |                    |                   |                  |                      |        |                       |              |
| 106.01      | 1                       |                                 | 6.9016  |         |                              |                          |                 |        |                 |                |                    |                   |                  |                      |        |                       |              |
| 106.02      | 16                      | 15                              | 8.2108  | 2.3264  | 8.2712                       | 2.3810                   | 0.43470         | 28.79% | 2.0776          | 0.96731        | 2.2917             | 26.11%            | 12.16%           | 28.80%               | 2.3692 | 1.6098                |              |
| 107.00      | 1                       |                                 | 80.812  |         |                              |                          |                 |        |                 |                |                    |                   |                  |                      |        |                       |              |
| 108.01      | 2                       | 2                               | 1,457.0 | 2,032.3 |                              |                          |                 |        |                 |                |                    |                   |                  |                      |        |                       |              |
| 108.02      | 6                       | 6                               | 3.4583  | 1.8872  | 3.2017                       | 1.5461                   | 0.44632         | 48.29% | 1.8798          | 0.23668        | 1.8946             | 54.36%            | 6.84%            | 54.78%               | 8.0051 | 0.26667               |              |
| 109.01      | 1                       |                                 | 207.35  |         |                              |                          |                 |        |                 |                |                    |                   |                  |                      |        |                       |              |
| 109.02      | 17                      | 16                              | 347.04  | 87.111  | 321.12                       | 37.824                   | 6.6865          | 11.78% | 68.894          | 6.0333         | 69.158             | 20.69%            | 1.81%            | 20.77%               | 11.463 | 6.0664                | 6.71%        |
| 110.00      | 1                       |                                 | 3.6855  |         |                              |                          |                 |        |                 |                |                    |                   |                  |                      |        |                       |              |
| 112.00      | 3                       | 3                               | 59.817  | 55.628  | 59.817                       | 55.628                   | 22.710          | 93.00% | 0.17321         | 0.31623        | 0.36056            | 0.63%             | 1.14%            | 1.30%                | 1.1402 | 0.96667               | 8.64%        |
| 112.99      | 1                       |                                 | 22.500  |         |                              |                          |                 |        |                 |                |                    |                   |                  |                      |        |                       |              |
| 113.01      | 2                       | 2                               | 5.4425  | 0.07425 |                              |                          |                 |        |                 |                |                    |                   |                  |                      |        |                       |              |
| 113.02      | 1                       |                                 | 47.350  |         |                              |                          |                 |        |                 |                |                    |                   |                  |                      |        |                       |              |
| 113.99      | 1                       |                                 | 7.0000  |         |                              |                          |                 |        |                 |                |                    |                   |                  |                      |        |                       |              |
| 114.01      | 2                       | 2                               | 0.96250 | 0.10960 |                              |                          |                 |        |                 |                |                    |                   |                  |                      |        |                       |              |
| 115.99      | 1                       |                                 | 0.45000 |         |                              |                          |                 |        |                 |                |                    |                   |                  |                      |        |                       |              |
| 120.00      | 16                      | 16                              | 1.1065  | 0.05882 | 1.0949                       | 0.03275                  | 0.00579         | 2.99%  | 0.03316         | 0.02394        | 0.04090            | 3.03%             | 2.19%            | 3.74%                | 1.7084 | 0.02746               | 3.95%        |
| 120.01      | 2                       | 2                               | 1.0648  | 0.12763 |                              |                          |                 |        |                 |                |                    |                   |                  |                      |        |                       |              |
| 120.02      | 3                       | 3                               | 1.0893  | 0.08333 | 1.0893                       | 0.08333                  | 0.03402         | 7.65%  | 0.08101         | 0.02759        | 0.08558            | 7.44%             | 2.53%            | 7.86%                | 3.1023 | 0.03270               | 3.95%        |
| 120.05      | 1                       |                                 | 1.1225  |         |                              |                          |                 |        |                 |                |                    |                   |                  |                      |        |                       |              |
| 121.00      | 16                      | 16                              | 1.4199  | 0.05242 | 1.4166                       | 0.05233                  | 0.00925         | 3.69%  | 0.05199         | 0.01859        | 0.05521            | 3.67%             | 1.31%            | 3.89%                | 2.9704 | 0.02178               | 3.80%        |
| 121.01      | 2                       | 2                               | 1.3885  | 0.36275 |                              |                          |                 |        |                 |                |                    |                   |                  |                      |        |                       |              |
| 121.02      | 3                       | 3                               | 1.4285  | 0.01066 | 1.4285                       | 0.01066                  | 0.00435         | 0.75%  |                 | 0.05789        |                    |                   | 4.05%            |                      |        | 0.07003               | 3.79%        |
| 121.05      | 1                       |                                 | 1.4125  |         |                              |                          |                 |        |                 |                |                    |                   |                  |                      |        |                       |              |
| 122.00      | 16                      | 16                              | 2.2130  | 0.12046 | 2.1934                       | 0.06909                  | 0.01221         | 3.15%  | 0.05661         | 0.03456        | 0.06632            | 2.59%             | 1.58%            | 3.03%                | 1.9193 | 0.04816               | 3.55%        |
| 122.01      | 3                       | 3                               | 2.1645  | 0.47349 | 2.1645                       | 0.47349                  | 0.19330         | 21.88% | 0.47334         | 0.01664        | 0.47363            | 21.87%            | 0.77%            | 21.88%               | 28.466 | 0.02033               | 3.56%        |
| 122.02      | 3                       | 3                               | 2.2602  | 0.04559 | 2.2602                       | 0.04559                  | 0.01861         | 2.02%  |                 | 0.08181        |                    |                   | 3.62%            |                      |        | 0.09757               | 3.54%        |
| 122.05      | 1                       |                                 | 2.2965  |         |                              |                          |                 |        |                 |                |                    |                   |                  |                      |        |                       |              |
| 123.99      | 1                       |                                 | 3.9400  |         |                              |                          |                 |        |                 |                |                    |                   |                  |                      |        |                       |              |
| 124.00      | 14                      | 13                              | 0.32598 | 0.02599 | 0.32606                      | 0.01615                  | 0.00317         | 4.95%  | 0.01878         | 0.00599        | 0.01971            | 5.67%             | 1.81%            | 5.95%                | 3.2912 | 0.00817               | 4.73%        |
| 124.01      | 2                       | 2                               | 0.44375 | 0.26340 |                              |                          |                 |        |                 |                |                    |                   |                  |                      |        |                       |              |
| 124.02      | 3                       | 3                               | 0.34360 | 0.03064 | 0.34360                      | 0.03064                  | 0.01251         | 8.92%  | 0.03002         | 0.00865        | 0.03125            | 8.74%             | 2.52%            | 9.09%                | 3.6120 | 0.00900               | 4.70%        |
| 124.05      | 1                       |                                 | 0.22350 |         |                              |                          |                 |        |                 |                |                    |                   |                  |                      |        |                       |              |
| 125.00      | 15                      | 14                              | 3.8492  | 0.23335 | 3.8207                       | 0.11615                  | 0.02195         | 3.04%  | 0.13543         | 0.04169        | 0.14170            | 3.57%             | 1.10%            | 3.73%                | 3.3991 | 0.04566               | 3.27%        |
| 125.01      | 3                       | 3                               | 3.8002  | 0.55519 | 3.8002                       | 0.55519                  | 0.22666         | 14.61% | 0.55482         | 0.02859        | 0.55556            | 14.60%            | 0.75%            | 14.62%               | 19.431 | 0.03633               | 3.27%        |
| 125.02      | 3                       | 3                               | 3.8863  | 0.03876 | 3.8863                       | 0.03876                  | 0.01582         | 1.00%  |                 | 0.06969        |                    |                   | 1.79%            |                      |        | 0.08930               | 3.26%        |
| 125.05      | 1                       |                                 | 4.0255  |         |                              |                          |                 |        |                 |                |                    |                   |                  |                      |        |                       |              |

| Method Code | Total # Labs Submitting | # Labs Included in Calculations | Mean    | SD      | Assigned Value - Robust Mean | AAFCO CS ftp - Robust sd | Uncertainty (U) | % RSD  | Between Labs sL | Within Labs sT | Reproducibility sR | Between Labs %RSD | Within Labs %rsd | Reproducibility %RSD | sR/sr  | Average Range (R-bar) | Horwitz %RSD |
|-------------|-------------------------|---------------------------------|---------|---------|------------------------------|--------------------------|-----------------|--------|-----------------|----------------|--------------------|-------------------|------------------|----------------------|--------|-----------------------|--------------|
| 126.00      | 16                      | 16                              | 1.0413  | 0.03963 | 1.0358                       | 0.02260                  | 0.00400         | 2.18%  | 0.02630         | 0.02537        | 0.03654            | 2.54%             | 2.45%            | 3.53%                | 1.4403 | 0.02452               | 3.98%        |
| 126.01      | 3                       | 3                               | 0.96567 | 0.14925 | 0.96567                      | 0.14925                  | 0.06093         | 15.46% | 0.14915         | 0.00764        | 0.14935            | 15.45%            | 0.79%            | 15.47%               | 19.554 | 0.01000               | 4.02%        |
| 126.02      | 3                       | 3                               | 1.0252  | 0.03639 | 1.0252                       | 0.03639                  | 0.01486         | 3.55%  | 0.03152         | 0.02571        | 0.04068            | 3.07%             | 2.51%            | 3.97%                | 1.5821 | 0.03460               | 3.98%        |
| 126.05      | 1                       |                                 | 1.0550  |         |                              |                          |                 |        |                 |                |                    |                   |                  |                      |        |                       |              |
| 127.00      | 15                      | 15                              | 0.56661 | 0.02475 | 0.56026                      | 0.01523                  | 0.00278         | 2.72%  | 0.02379         | 0.00964        | 0.02567            | 4.20%             | 1.70%            | 4.53%                | 2.6618 | 0.00957               | 4.36%        |
| 127.01      | 1                       |                                 | 0.48550 |         |                              |                          |                 |        |                 |                |                    |                   |                  |                      |        |                       |              |
| 127.02      | 3                       | 3                               | 0.58645 | 0.09936 | 0.58645                      | 0.09936                  | 0.04056         | 16.94% | 0.09914         | 0.00944        | 0.09958            | 16.90%            | 1.61%            | 16.98%               | 10.548 | 0.01197               | 4.33%        |
| 127.05      | 1                       |                                 | 0.56350 |         |                              |                          |                 |        |                 |                |                    |                   |                  |                      |        |                       |              |
| 128.00      | 16                      | 16                              | 0.89840 | 0.06428 | 0.90370                      | 0.03676                  | 0.00650         | 4.07%  | 0.03455         | 0.02163        | 0.04076            | 3.79%             | 2.37%            | 4.47%                | 1.8849 | 0.02192               | 4.06%        |
| 128.01      | 3                       | 3                               | 0.94467 | 0.12345 | 0.94467                      | 0.12345                  | 0.05040         | 13.07% | 0.12333         | 0.00775        | 0.12357            | 13.06%            | 0.82%            | 13.08%               | 15.953 | 0.00933               | 4.03%        |
| 128.02      | 3                       | 3                               | 0.94665 | 0.03685 | 0.94665                      | 0.03685                  | 0.01504         | 3.89%  | 0.03245         | 0.02467        | 0.04077            | 3.43%             | 2.61%            | 4.31%                | 1.6523 | 0.03197               | 4.03%        |
| 128.05      | 1                       |                                 | 0.88050 |         |                              |                          |                 |        |                 |                |                    |                   |                  |                      |        |                       |              |
| 129.00      | 16                      | 15                              | 1.7261  | 0.05262 | 1.7318                       | 0.03584                  | 0.00654         | 2.07%  | 0.05298         | 0.01870        | 0.05618            | 3.07%             | 1.08%            | 3.25%                | 3.0038 | 0.02595               | 3.68%        |
| 129.01      | 3                       | 3                               | 1.8098  | 0.12401 | 1.8098                       | 0.12401                  | 0.05063         | 6.85%  | 0.12244         | 0.02780        | 0.12555            | 6.77%             | 1.54%            | 6.94%                | 4.5164 | 0.03433               | 3.66%        |
| 129.02      | 3                       | 3                               | 1.7868  | 0.03225 | 1.7868                       | 0.03225                  | 0.01317         | 1.81%  | 0.04262         | 0.00170        | 0.04266            | 2.39%             | 0.10%            | 2.40%                | 25.091 | 0.01447               | 3.67%        |
| 129.05      | 1                       |                                 | 1.7980  |         |                              |                          |                 |        |                 |                |                    |                   |                  |                      |        |                       |              |
| 130.00      | 18                      | 17                              | 1.5890  | 0.07205 | 1.5934                       | 0.06818                  | 0.01169         | 4.28%  | 0.05529         | 0.02047        | 0.05896            | 3.46%             | 1.28%            | 3.68%                | 2.8801 | 0.02374               | 3.73%        |
| 130.01      | 4                       | 4                               | 1.4129  | 0.31876 | 1.4129                       | 0.31876                  | 0.11270         | 22.56% | 0.31837         | 0.02224        | 0.31915            | 22.53%            | 1.57%            | 22.59%               | 14.350 | 0.02875               | 3.80%        |
| 130.02      | 3                       | 3                               | 1.6178  | 0.17828 | 1.6178                       | 0.17828                  | 0.07278         | 11.02% | 0.16874         | 0.08136        | 0.18733            | 10.43%            | 5.03%            | 11.58%               | 2.3026 | 0.08457               | 3.72%        |
| 130.05      | 4                       | 4                               | 1.6296  | 0.02664 | 1.6296                       | 0.02664                  | 0.00942         | 1.63%  | 0.01654         | 0.02953        | 0.03385            | 1.01%             | 1.81%            | 2.08%                | 1.1461 | 0.03025               | 3.72%        |
| 130.99      | 1                       |                                 | 1.5650  |         |                              |                          |                 |        |                 |                |                    |                   |                  |                      |        |                       |              |
| 131.00      | 14                      | 14                              | 0.48002 | 0.03405 | 0.47673                      | 0.02980                  | 0.00563         | 6.25%  | 0.02194         | 0.01100        | 0.02454            | 4.61%             | 2.31%            | 5.16%                | 2.2318 | 0.01435               | 4.47%        |
| 131.01      | 3                       | 3                               | 0.41850 | 0.19741 | 0.41850                      | 0.19741                  | 0.08059         | 47.17% | 0.19724         | 0.01155        | 0.19758            | 47.13%            | 2.76%            | 47.21%               | 17.100 | 0.01367               | 4.56%        |
| 131.02      | 4                       | 4                               | 0.48606 | 0.01792 | 0.48606                      | 0.01792                  | 0.00634         | 3.69%  | 0.01625         | 0.01069        | 0.01945            | 3.34%             | 2.20%            | 4.00%                | 1.8199 | 0.01343               | 4.46%        |
| 131.05      | 2                       | 2                               | 0.44650 | 0.07566 |                              |                          |                 |        |                 |                |                    |                   |                  |                      |        |                       |              |
| 132.00      | 15                      | 15                              | 1.0240  | 0.04852 | 1.0340                       | 0.02195                  | 0.00401         | 2.12%  | 0.03344         | 0.01461        | 0.03649            | 3.24%             | 1.42%            | 3.53%                | 2.4981 | 0.01907               | 3.98%        |
| 132.01      | 2                       | 2                               | 1.1050  | 0.27577 |                              |                          |                 |        |                 |                |                    |                   |                  |                      |        |                       |              |
| 132.02      | 3                       | 3                               | 1.0411  | 0.02009 | 1.0411                       | 0.02009                  | 0.00820         | 1.93%  | 0.01534         | 0.01835        | 0.02391            | 1.47%             | 1.76%            | 2.30%                | 1.3032 | 0.02150               | 3.98%        |
| 132.05      | 1                       |                                 | 1.0570  |         |                              |                          |                 |        |                 |                |                    |                   |                  |                      |        |                       |              |
| 133.00      | 16                      | 16                              | 1.2489  | 0.08745 | 1.2391                       | 0.05324                  | 0.00941         | 4.30%  | 0.05870         | 0.01952        | 0.06186            | 4.76%             | 1.58%            | 5.02%                | 3.1683 | 0.02344               | 3.87%        |
| 133.05      | 2                       | 2                               | 1.2788  | 0.02157 |                              |                          |                 |        |                 |                |                    |                   |                  |                      |        |                       |              |
| 133.99      | 2                       | 2                               | 1.6575  | 0.08132 |                              |                          |                 |        |                 |                |                    |                   |                  |                      |        |                       |              |
| 134.00      | 16                      | 15                              | 1.0341  | 0.07252 | 1.0473                       | 0.04853                  | 0.00886         | 4.63%  | 0.04790         | 0.01419        | 0.04996            | 4.57%             | 1.35%            | 4.77%                | 3.5196 | 0.01713               | 3.97%        |
| 134.01      | 3                       | 3                               | 1.0838  | 0.12470 | 1.0838                       | 0.12470                  | 0.05091         | 11.51% | 0.12184         | 0.03753        | 0.12749            | 11.24%            | 3.46%            | 11.76%               | 3.3966 | 0.03833               | 3.95%        |
| 134.02      | 3                       | 3                               | 1.0129  | 0.06251 | 1.0129                       | 0.06251                  | 0.02552         | 6.17%  | 0.05140         | 0.05033        | 0.07193            | 5.07%             | 4.97%            | 7.10%                | 1.4293 | 0.06290               | 3.99%        |
| 134.05      | 1                       |                                 | 1.1390  |         |                              |                          |                 |        |                 |                |                    |                   |                  |                      |        |                       |              |
| 135.00      | 15                      | 15                              | 1.1673  | 0.04488 | 1.1682                       | 0.03788                  | 0.00692         | 3.24%  | 0.04238         | 0.01402        | 0.04464            | 3.64%             | 1.21%            | 3.84%                | 3.1838 | 0.01851               | 3.91%        |
| 135.01      | 3                       | 3                               | 1.0102  | 0.29360 | 1.0102                       | 0.29360                  | 0.11986         | 29.06% | 0.29332         | 0.01837        | 0.29389            | 29.04%            | 1.82%            | 29.09%               | 15.997 | 0.02300               | 3.99%        |



| Method Code | Total # Labs Submitting | # Labs Included in Calculations | Mean    | SD      | Assigned Value - Robust Mean | AAFCO CS ftp - Robust sd | Uncertainty (U) | % RSD   | Between Labs sL | Within Labs sr | Reproducibility sR | Between Labs %RSD | Within Labs %/rsd | Reproducibility %RSD | sR/sr  | Average Range (R-bar) | Horwitz %RSD |
|-------------|-------------------------|---------------------------------|---------|---------|------------------------------|--------------------------|-----------------|---------|-----------------|----------------|--------------------|-------------------|-------------------|----------------------|--------|-----------------------|--------------|
| 135.02      | 3                       | 3                               | 1.1964  | 0.02912 | 1.1964                       | 0.02912                  | 0.01189         | 2.43%   |                 | 0.06794        |                    |                   | 5.68%             |                      |        | 0.07410               | 3.89%        |
| 135.05      | 1                       |                                 | 1.2330  |         |                              |                          |                 |         |                 |                |                    |                   |                   |                      |        |                       |              |
| 136.00      | 3                       | 3                               | 0.25950 | 0.07318 | 0.25950                      | 0.07318                  | 0.02988         | 28.20%  |                 | 0.00206        |                    |                   | 0.68%             |                      |        | 0.00500               | 4.90%        |
| 136.01      | 6                       | 6                               | 0.26442 | 0.02871 | 0.26681                      | 0.02851                  | 0.00823         | 10.69%  | 0.02870         | 0.00112        | 0.02873            | 10.86%            | 0.42%             | 10.86%               | 25.693 | 0.00117               | 4.88%        |
| 136.02      | 1                       |                                 | 0.23000 |         |                              |                          |                 |         |                 |                |                    |                   |                   |                      |        |                       |              |
| 136.99      | 2                       | 2                               | 0.28500 | 0.00707 |                              |                          |                 |         |                 |                |                    |                   |                   |                      |        |                       |              |
| 137.00      | 12                      | 12                              | 0.67171 | 0.05695 | 0.67417                      | 0.04450                  | 0.00908         | 6.60%   | 0.05875         | 0.01306        | 0.06019            | 8.73%             | 1.94%             | 8.94%                | 4.6094 | 0.02008               | 4.24%        |
| 137.01      | 2                       | 2                               | 0.73625 | 0.05763 |                              |                          |                 |         |                 |                |                    |                   |                   |                      |        |                       |              |
| 137.02      | 3                       | 3                               | 0.73307 | 0.07668 | 0.73307                      | 0.07668                  | 0.03130         | 10.46%  | 0.07374         | 0.02972        | 0.07950            | 10.06%            | 4.05%             | 10.85%               | 2.6748 | 0.04120               | 4.19%        |
| 137.05      | 1                       |                                 | 0.59450 |         |                              |                          |                 |         |                 |                |                    |                   |                   |                      |        |                       |              |
| 138.00      | 16                      | 16                              | 1.0062  | 0.06225 | 1.0075                       | 0.06788                  | 0.01200         | 6.74%   | 0.06008         | 0.02301        | 0.06434            | 5.97%             | 2.29%             | 6.39%                | 2.7962 | 0.02446               | 4.00%        |
| 138.01      | 2                       | 2                               | 1.1548  | 0.18420 |                              |                          |                 |         |                 |                |                    |                   |                   |                      |        |                       |              |
| 138.02      | 3                       | 3                               | 1.0968  | 0.06821 | 1.0968                       | 0.06821                  | 0.02785         | 6.22%   | 0.06683         | 0.01931        | 0.06956            | 6.09%             | 1.76%             | 6.34%                | 3.6017 | 0.02440               | 3.94%        |
| 138.05      | 1                       |                                 | 1.0340  |         |                              |                          |                 |         |                 |                |                    |                   |                   |                      |        |                       |              |
| 139.00      | 3                       | 3                               | 0.11150 | 0.11469 | 0.11150                      | 0.11469                  | 0.04682         | 102.86% | 0.11375         | 0.02074        | 0.11563            | 102.02%           | 18.60%            | 103.70%              | 5.5749 | 0.02633               | 5.56%        |
| 139.02      | 2                       | 2                               | 0.02053 | 0.00074 |                              |                          |                 |         |                 |                |                    |                   |                   |                      |        |                       |              |
| 139.05      | 1                       |                                 | 0.02200 |         |                              |                          |                 |         |                 |                |                    |                   |                   |                      |        |                       |              |
| 160.99      | 3                       | 3                               | 0.23933 | 0.26123 | 0.23933                      | 0.26123                  | 0.10665         | 109.15% | 0.14142         | 0.00000        | 0.14142            | 141.42%           | 0.00%             | 141.42%              |        | 0.04200               | 4.96%        |
| 161.99      | 2                       | 2                               | 0.04250 | 0.06010 |                              |                          |                 |         |                 |                |                    |                   |                   |                      |        |                       |              |
| 162.99      | 2                       | 2                               | 0.11900 | 0.02687 |                              |                          |                 |         |                 |                |                    |                   |                   |                      |        |                       |              |
| 163.99      | 7                       | 7                               | 6.2864  | 1.2534  | 6.3257                       | 0.24604                  | 0.06576         | 3.89%   | 1.2360          | 0.29434        | 1.2706             | 19.66%            | 4.68%             | 20.21%               | 4.3167 | 0.33000               | 3.03%        |
| 164.99      | 2                       | 2                               | 0.00000 | 0.00000 |                              |                          |                 |         |                 |                |                    |                   |                   |                      |        |                       |              |
| 165.99      | 4                       | 4                               | 3.1038  | 0.16997 | 3.1038                       | 0.16997                  | 0.06009         | 5.48%   | 0.12493         | 0.16298        | 0.20536            | 4.03%             | 5.25%             | 6.62%                | 1.2600 | 0.18750               | 3.37%        |
| 166.99      | 1                       |                                 | 0.68700 |         |                              |                          |                 |         |                 |                |                    |                   |                   |                      |        |                       |              |
| 167.99      | 1                       |                                 | 1.7700  |         |                              |                          |                 |         |                 |                |                    |                   |                   |                      |        |                       |              |
| 400.01      | 3                       | 3                               | 0.57383 | 0.00548 | 0.57383                      | 0.00548                  | 0.00224         | 0.96%   | 0.00742         | 0.00050        | 0.00743            | 1.29%             | 0.09%             | 1.29%                | 14.866 | 0.00433               |              |
| 516.00      | 3                       | 3                               | 0.17583 | 0.07256 | 0.17583                      | 0.07256                  | 0.02962         | 41.26%  | 0.07247         | 0.00498        | 0.07264            | 41.22%            | 2.83%             | 41.31%               | 14.577 | 0.00567               | 20.78%       |
| 516.34      | 1                       |                                 | 0.14500 |         |                              |                          |                 |         |                 |                |                    |                   |                   |                      |        |                       |              |
| 516.43      | 1                       |                                 | 0.29500 |         |                              |                          |                 |         |                 |                |                    |                   |                   |                      |        |                       |              |
| 516.53      | 4                       | 4                               | 0.20050 | 0.12385 | 0.20050                      | 0.12385                  | 0.04379         | 61.77%  | 0.12331         | 0.01620        | 0.12437            | 61.50%            | 8.08%             | 62.03%               | 7.6765 | 0.01750               | 20.37%       |
| 518.31      | 2                       | 2                               | 0.04350 | 0.06152 |                              |                          |                 |         |                 |                |                    |                   |                   |                      |        |                       |              |
| 518.33      | 1                       |                                 | 0.07850 |         |                              |                          |                 |         |                 |                |                    |                   |                   |                      |        |                       |              |
| 518.34      | 2                       | 2                               | 0.07510 | 0.00721 |                              |                          |                 |         |                 |                |                    |                   |                   |                      |        |                       |              |
| 518.41      | 2                       | 2                               | 0.09375 | 0.01450 |                              |                          |                 |         |                 |                |                    |                   |                   |                      |        |                       |              |
| 518.43      | 3                       | 3                               | 0.11683 | 0.03204 | 0.11683                      | 0.03204                  | 0.01308         | 27.42%  | 0.02797         | 0.02211        | 0.03565            | 23.94%            | 18.92%            | 30.51%               | 1.6125 | 0.02700               | 22.10%       |
| 518.52      | 2                       | 2                               | 0.07800 | 0.01131 |                              |                          |                 |         |                 |                |                    |                   |                   |                      |        |                       |              |
| 518.53      | 4                       | 4                               | 0.08766 | 0.00309 | 0.08766                      | 0.00309                  | 0.00109         | 3.52%   |                 | 0.00588        |                    |                   | 6.71%             |                      |        | 0.00583               | 23.07%       |
| 520.31      | 1                       |                                 | 4.8150  |         |                              |                          |                 |         |                 |                |                    |                   |                   |                      |        |                       |              |

| Method Code | Total # Labs Submitting | # Labs Included in Calculations | Mean    | SD      | Assigned Value - Robust Mean | AAFCO CS ftp - Robust sd | Uncertainty (U) | % RSD   | Between Labs sL | Within Labs sr | Reproducibility sR | Between Labs %RSD | Within Labs %/rsd | Reproducibility %RSD | sR/sr  | Average Range (R-bar) | Horwitz %RSD |
|-------------|-------------------------|---------------------------------|---------|---------|------------------------------|--------------------------|-----------------|---------|-----------------|----------------|--------------------|-------------------|-------------------|----------------------|--------|-----------------------|--------------|
| 520.41      | 2                       | 2                               | 3.9236  | 0.32721 |                              |                          |                 |         |                 |                |                    |                   |                   |                      |        |                       |              |
| 520.42      | 1                       |                                 | 3.0000  |         |                              |                          |                 |         |                 |                |                    |                   |                   |                      |        |                       |              |
| 520.43      | 3                       | 3                               | 3.6683  | 1.3542  | 3.6683                       | 1.3542                   | 0.55286         | 36.92%  | 1.3462          | 0.20821        | 1.3622             | 36.70%            | 5.68%             | 37.13%               | 6.5425 | 0.25667               | 13.15%       |
| 520.52      | 2                       | 2                               | 3.1705  | 2.2917  |                              |                          |                 |         |                 |                |                    |                   |                   |                      |        |                       |              |
| 520.53      | 2                       | 2                               | 3.9350  | 0.30406 |                              |                          |                 |         |                 |                |                    |                   |                   |                      |        |                       |              |
| 520.99      | 1                       |                                 | 3.8605  |         |                              |                          |                 |         |                 |                |                    |                   |                   |                      |        |                       |              |
| 526.31      | 3                       | 3                               | 0.19383 | 0.16812 | 0.19383                      | 0.16812                  | 0.06863         | 86.73%  | 0.15624         | 0.08779        | 0.17921            | 80.60%            | 45.29%            | 92.46%               | 2.0414 | 0.09300               | 20.48%       |
| 526.33      | 1                       |                                 | 0.20450 |         |                              |                          |                 |         |                 |                |                    |                   |                   |                      |        |                       |              |
| 526.34      | 3                       | 3                               | 0.38933 | 0.04606 | 0.38933                      | 0.04606                  | 0.01880         | 11.83%  | 0.04336         | 0.02197        | 0.04861            | 11.14%            | 5.64%             | 12.48%               | 2.2125 | 0.02533               | 18.44%       |
| 526.41      | 2                       | 2                               | 0.12175 | 0.17218 |                              |                          |                 |         |                 |                |                    |                   |                   |                      |        |                       |              |
| 526.43      | 3                       | 3                               | 1.7487  | 1.0927  | 1.7487                       | 1.0927                   | 0.44608         | 62.49%  | 1.0752          | 0.27500        | 1.1098             | 61.49%            | 15.73%            | 63.47%               | 4.0358 | 0.31933               | 14.71%       |
| 526.52      | 2                       | 2                               | 0.40775 | 0.03924 |                              |                          |                 |         |                 |                |                    |                   |                   |                      |        |                       |              |
| 526.53      | 4                       | 4                               | 0.43188 | 0.01951 | 0.43188                      | 0.01951                  | 0.00690         | 4.52%   | 0.01467         | 0.01820        | 0.02337            | 3.40%             | 4.21%             | 5.41%                | 1.2844 | 0.02175               | 18.15%       |
| 529.00      | 2                       | 2                               | 49.000  | 57.983  |                              |                          |                 |         |                 |                |                    |                   |                   |                      |        |                       |              |
| 529.99      | 3                       | 3                               | 33.400  | 49.017  | 33.400                       | 49.017                   | 20.011          | 146.76% |                 | 0.00000        |                    |                   | 0.00%             |                      |        | 1.3333                | 26.68%       |
| 539.41      | 2                       | 2                               | 3.4565  | 0.01980 |                              |                          |                 |         |                 |                |                    |                   |                   |                      |        |                       |              |
| 539.43      | 4                       | 4                               | 3.8759  | 0.85969 | 3.8759                       | 0.85969                  | 0.30395         | 22.18%  | 0.83142         | 0.30922        | 0.88706            | 21.45%            | 7.98%             | 22.89%               | 2.8687 | 0.35725               | 13.05%       |
| 539.52      | 2                       | 2                               | 3.1480  | 1.1285  |                              |                          |                 |         |                 |                |                    |                   |                   |                      |        |                       |              |
| 539.53      | 2                       | 2                               | 3.7825  | 0.51972 |                              |                          |                 |         |                 |                |                    |                   |                   |                      |        |                       |              |
| 600.01      | 5                       | 5                               | 3.9300  | 1.7957  |                              |                          |                 |         |                 |                |                    |                   |                   |                      |        | 0.66400               |              |
| 600.08      | 4                       | 4                               | 6.8125  | 2.6871  |                              |                          |                 |         |                 |                |                    |                   |                   |                      |        | 0.57500               |              |
| 600.13      | 2                       | 2                               | 3.8650  | 0.51265 |                              |                          |                 |         |                 |                |                    |                   |                   |                      |        |                       |              |
| 600.20      | 2                       | 2                               | 0.83950 | 1.1872  |                              |                          |                 |         |                 |                |                    |                   |                   |                      |        |                       |              |
| 600.21      | 1                       |                                 | 0.00000 |         |                              |                          |                 |         |                 |                |                    |                   |                   |                      |        |                       |              |
| 600.24      | 1                       |                                 | 0.30000 |         |                              |                          |                 |         |                 |                |                    |                   |                   |                      |        |                       |              |
| 601.20      | 1                       |                                 | 0.10000 |         |                              |                          |                 |         |                 |                |                    |                   |                   |                      |        |                       |              |
| 601.23      | 3                       | 3                               | 0.10000 | 0.17321 |                              |                          |                 |         |                 |                |                    |                   |                   |                      |        | 0.00000               |              |
| 601.24      | 1                       |                                 | 0.00000 |         |                              |                          |                 |         |                 |                |                    |                   |                   |                      |        |                       |              |
| 602.20      | 1                       |                                 | 0.00000 |         |                              |                          |                 |         |                 |                |                    |                   |                   |                      |        |                       |              |
| 602.23      | 2                       | 2                               | 0.00000 | 0.00000 |                              |                          |                 |         |                 |                |                    |                   |                   |                      |        |                       |              |
| 603.20      | 1                       |                                 | 0.00000 |         |                              |                          |                 |         |                 |                |                    |                   |                   |                      |        |                       |              |
| 603.23      | 2                       | 2                               | 0.00000 | 0.00000 |                              |                          |                 |         |                 |                |                    |                   |                   |                      |        |                       |              |
| 604.20      | 1                       |                                 | 0.00000 |         |                              |                          |                 |         |                 |                |                    |                   |                   |                      |        |                       |              |
| 604.23      | 2                       | 2                               | 0.00000 | 0.00000 |                              |                          |                 |         |                 |                |                    |                   |                   |                      |        |                       |              |
| 610.01      | 1                       |                                 | 9,000.0 |         |                              |                          |                 |         |                 |                |                    |                   |                   |                      |        |                       |              |
| 610.05      | 4                       | 4                               | 1,101.5 | 817.91  |                              |                          |                 |         |                 |                |                    |                   |                   |                      |        | 97.505                |              |
| 610.07      | 2                       | 2                               | 1,231.0 | 394.57  |                              |                          |                 |         |                 |                |                    |                   |                   |                      |        |                       |              |
| 610.08      | 2                       | 2                               | 620.07  | 875.30  |                              |                          |                 |         |                 |                |                    |                   |                   |                      |        |                       |              |

| Method Code | Total # Labs Submitting | # Labs Included in Calculations | Mean    | SD      | Assigned Value - Robust Mean | AAFCO CS ffp - Robust sd | Uncertainty (U) | % RSD | Between Labs sL | Within Labs sr | Reproducibility sR | Between Labs %RSD | Within Labs %/rsd | Reproducibility %RSD | sR/sr | Average Range (R-bar) | Horwitz %RSD |
|-------------|-------------------------|---------------------------------|---------|---------|------------------------------|--------------------------|-----------------|-------|-----------------|----------------|--------------------|-------------------|-------------------|----------------------|-------|-----------------------|--------------|
| 610.09      | 1                       |                                 | 896.00  |         |                              |                          |                 |       |                 |                |                    |                   |                   |                      |       |                       |              |
| 610.20      | 1                       |                                 | 910.00  |         |                              |                          |                 |       |                 |                |                    |                   |                   |                      |       |                       |              |
| 610.23      | 2                       | 2                               | 942.00  | 71.418  |                              |                          |                 |       |                 |                |                    |                   |                   |                      |       |                       |              |
| 610.25      | 1                       |                                 | 882.00  |         |                              |                          |                 |       |                 |                |                    |                   |                   |                      |       |                       |              |
| 620.06      | 1                       |                                 | 1,575.0 |         |                              |                          |                 |       |                 |                |                    |                   |                   |                      |       |                       |              |
| 620.07      | 2                       | 2                               | 2,327.5 | 272.24  |                              |                          |                 |       |                 |                |                    |                   |                   |                      |       |                       |              |
| 620.09      | 2                       | 2                               | 566.75  | 800.09  |                              |                          |                 |       |                 |                |                    |                   |                   |                      |       |                       |              |
| 620.11      | 2                       | 2                               | 2,955.0 | 1,902.1 |                              |                          |                 |       |                 |                |                    |                   |                   |                      |       |                       |              |
| 620.21      | 1                       |                                 | 970.00  |         |                              |                          |                 |       |                 |                |                    |                   |                   |                      |       |                       |              |
| 620.23      | 2                       | 2                               | 1,573.3 | 240.77  |                              |                          |                 |       |                 |                |                    |                   |                   |                      |       |                       |              |
| 621.23      | 3                       | 3                               | 993.67  | 233.34  |                              |                          |                 |       |                 |                |                    |                   |                   |                      |       | 80.667                |              |
| 621.99      | 1                       |                                 | 1,210.0 |         |                              |                          |                 |       |                 |                |                    |                   |                   |                      |       |                       |              |
| 622.23      | 3                       | 3                               | 378.83  | 171.09  |                              |                          |                 |       |                 |                |                    |                   |                   |                      |       | 4.3333                |              |
| 622.99      | 1                       |                                 | 405.00  |         |                              |                          |                 |       |                 |                |                    |                   |                   |                      |       |                       |              |
| 630.01      | 1                       |                                 | 0.10000 |         |                              |                          |                 |       |                 |                |                    |                   |                   |                      |       |                       |              |
| 630.03      | 2                       | 2                               | 1.9250  | 0.10607 |                              |                          |                 |       |                 |                |                    |                   |                   |                      |       |                       |              |
| 630.05      | 1                       |                                 | 9.3150  |         |                              |                          |                 |       |                 |                |                    |                   |                   |                      |       |                       |              |
| 630.06      | 1                       |                                 | 6.3000  |         |                              |                          |                 |       |                 |                |                    |                   |                   |                      |       |                       |              |
| 630.20      | 3                       | 3                               | 0.83333 | 1.4434  |                              |                          |                 |       |                 |                |                    |                   |                   |                      |       | 0.00000               |              |
| 640.01      | 2                       | 2                               | 104.45  | 66.397  |                              |                          |                 |       |                 |                |                    |                   |                   |                      |       |                       |              |
| 640.03      | 3                       | 3                               | 89.000  | 22.220  |                              |                          |                 |       |                 |                |                    |                   |                   |                      |       | 9.2667                |              |
| 640.05      | 1                       |                                 | 36.950  |         |                              |                          |                 |       |                 |                |                    |                   |                   |                      |       |                       |              |
| 640.20      | 1                       |                                 | 6.0000  |         |                              |                          |                 |       |                 |                |                    |                   |                   |                      |       |                       |              |
| 640.23      | 2                       | 2                               | 6.9250  | 2.7224  |                              |                          |                 |       |                 |                |                    |                   |                   |                      |       |                       |              |
| 640.25      | 1                       |                                 | 0.00000 |         |                              |                          |                 |       |                 |                |                    |                   |                   |                      |       |                       |              |
| 650.04      | 4                       | 4                               | 144.08  | 63.618  |                              |                          |                 |       |                 |                |                    |                   |                   |                      |       | 14.850                |              |
| 650.06      | 1                       |                                 | 114.15  |         |                              |                          |                 |       |                 |                |                    |                   |                   |                      |       |                       |              |
| 650.07      | 3                       | 3                               | 177.34  | 48.366  |                              |                          |                 |       |                 |                |                    |                   |                   |                      |       | 6.2567                |              |
| 650.20      | 1                       |                                 | 81.800  |         |                              |                          |                 |       |                 |                |                    |                   |                   |                      |       |                       |              |
| 650.21      | 1                       |                                 | 77.900  |         |                              |                          |                 |       |                 |                |                    |                   |                   |                      |       |                       |              |
| 650.24      | 1                       |                                 | 62.500  |         |                              |                          |                 |       |                 |                |                    |                   |                   |                      |       |                       |              |