



**AAFCO**  
Proficiency Testing Program



**Animal Feed Scheme**  
**Poultry Layer Feed, Medicated**  
**Test Material Code # 201722**

**Method Summary Report**  
(Precision Report Follows)

**# Methods Reported: 409**  
**# Labs Reporting: 198**  
**Issue Date : 03/31/2017**

Method Code	Analyte and Method	Total # Labs Submitting	# Labs in Robust Calcs	Raw Mean	Raw SD	Assigned Value - Robust Mean	AAFCO PT fp - Robust sd	Uncertainty (U) - Robust	% RSD - Robust	Average Range (R-bar)	Horwitz %RSD
000.02	Urea, As protein, Colorimetric (%)	1	1	0.30000							
001.00	Loss on Drying, Vac 95°C 5 hr (%)	7	7	9.4691	0.37104	9.4691	0.42076	0.19879	4.44%	0.07760	2.85%
001.03	Loss on Drying, Low temp. methods (%)	7	7	9.5180	0.15237	9.5180	0.17278	0.08163	1.82%	0.03261	2.85%
001.05	Loss on Drying, LECO (%)	1	1	9.1850							
001.07	Loss on Drying, 104°C 3 hr, in malt (%)	37	37	9.3823	0.42685	9.4011	0.33193	0.06821	3.53%	0.16256	2.85%
001.08	Loss on Drying, 102°C 16 hr, in meat (%)	2	2	9.6425	0.08132						
001.99	Loss on Drying, Miscellaneous (%)	23	23	9.1956	0.57176	9.2575	0.48892	0.12743	5.28%	0.12408	2.86%
002.00	Protein, Crude (%)	4	4	18.765	0.29255	18.765	0.29255	0.14628	1.56%	0.10000	2.31%
002.01	Protein, Auto Kjel-Foss (%)	15	15	18.647	0.68775	18.777	0.26133	0.08434	1.39%	0.08173	2.31%
002.02	Protein, Semiauto Autoanalyzer (%)	2	2	18.979	0.38035						
002.04	Protein, Copper Catalyst (%)	4	4	20.153	3.1616	20.153	3.1616	2.2356	15.69%	0.31000	2.23%
002.05	Protein, Copper, Boric Acid (%)	29	29	18.688	0.46605	18.758	0.18665	0.04332	1.00%	0.11511	2.31%
002.06	Protein, Combustion Nitrogen Analyzer (%)	129	129	96.091	876.76	19.024	0.24137	0.02656	1.27%	154.54	2.29%
002.08	Protein, Cu/Ti (%)	3	3	18.678	0.10588	18.678	0.10588	0.06113	0.57%	0.17513	2.31%
002.10	Protein, Block dig/distillation (%)	1	1	18.860							
002.11	Protein, NIR (%)	7	7	20.310	0.56291	20.263	0.52598	0.24850	2.60%	0.21957	2.22%
002.99	Protein, Miscellaneous (%)	2	2	18.708	0.72478						
003.00	Fat, Eth Ext., Direct (%)	10	10	5.1025	0.13432	5.1025	0.15232	0.06021	2.99%	0.09340	3.13%
003.01	Fat, Ind Eth Ext (13th ed.), Indirect (%)	1	1	5.4500							
003.06	Fat, Pet Ether (%)	18	18	5.1663	0.21200	5.1244	0.09548	0.02813	1.86%	0.06173	3.13%
003.09	Fat, Soxtec, Eth Ext (%)	22	22	5.1411	0.16008	5.1380	0.15911	0.04240	3.10%	0.06004	3.13%
003.10	Fat, Soxtec, Pet Ether (%)	26	26	4.9205	0.40566	4.9695	0.17327	0.04248	3.49%	0.08890	3.14%
003.11	Fat, NIR (%)	7	7	5.0232	0.30144	5.0293	0.32808	0.15500	6.52%	0.05446	3.14%
003.12	Fat, Hexane Ext (%)	7	7	4.9466	0.35427	4.9601	0.37055	0.17507	7.47%	0.05904	3.14%
003.13	Fat, Soxtec, Hexane Ext. (%)	8	8	5.1180	0.14537	5.1065	0.12588	0.05563	2.47%	0.14775	3.13%
003.14	Fat, Ankom (%)	42	42	4.8693	0.73180	5.0011	0.22067	0.04256	4.41%	0.14170	3.14%
003.99	Fat, Miscellaneous (%)	6	6	5.1575	1.6658	5.1800	1.7466	0.89129	33.72%	0.48500	3.12%
004.00	Fiber, Crude, Asbestos Free (%)	17	17	4.9174	1.1611	4.6744	0.33342	0.10108	7.13%	0.34647	3.17%
004.01	Fiber, Sing Filt (%)	1	1	6.0500							
004.03	Fiber, Fritted Glass (%)	6	6	4.9975	0.75372	4.9975	0.85471	0.43617	17.10%	0.57167	3.14%

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004.06	Fiber, Fibertec (%)	27	27	4.7274	0.37667	4.7099	0.36951	0.08889	7.85%	0.10048	3.17%
004.07	Fiber, ANKOM (%)	64	64	5.1391	1.6357	4.8732	0.61894	0.09671	12.70%	0.22691	3.15%
004.11	Fiber, NIR (%)	7	7	4.6890	0.39200	4.6763	0.41507	0.19610	8.88%	0.10701	3.17%
004.99	Fiber, Miscellaneous (%)	4	4	4.2375	0.16641	4.2375	0.16641	0.08321	3.93%	0.07000	3.22%
005.00	Ash, 2h @ 600°C (%)	92	92	11.628	0.73619	11.793	0.34138	0.04449	2.89%	0.14913	2.76%
005.02	Ash, LECO (%)	1	1	12.040							
005.05	Ash, 3h @ 550°C (%)	31	31	12.013	0.32206	12.059	0.21552	0.04838	1.79%	0.12199	2.75%
005.11	Ash, NIR (%)	6	6	10.357	2.1726	10.357	2.4637	1.2573	23.79%	0.50098	2.81%
005.99	Ash, Miscellaneous (%)	11	11	11.947	0.76662	12.081	0.44074	0.16611	3.65%	0.11966	2.75%
006.00	Total sugars, As sucrose (%)	2	2	2.6850	0.26163						
006.01	Total sugars, Mod. Fehling Soln (%)	2	2	2.7625	0.65407						
006.99	Total sugars, Miscellaneous (%)	1	1	3.2000							
008.02	Fiber, Acid Detergent (%)	15	15	6.7795	1.0548	6.8490	0.57322	0.18501	8.37%	0.24209	2.99%
008.05	Fiber, Acid Detergent-Hach (%)	1	1	8.0000							
008.08	Fiber, Acid Detergent, ANKOM (%)	43	43	6.9919	0.96503	6.9992	0.92239	0.17583	13.18%	0.28179	2.98%
008.99	Fiber, Acid Detergent Miscellaneous (%)	2	2	6.8250	1.0253						
009.04	Fiber, Neutral Det-No ENZ Pretreat (%)	1	1	14.620							
009.07	Fiber, Neutral Det-ENZ Pretreat (%)	9	9	15.532	1.5795	15.532	1.7911	0.74630	11.53%	0.27889	2.54%
009.09	Fiber, Neutral Detergent, ANKOM (%)	37	37	15.324	1.0169	15.276	1.0114	0.20784	6.62%	0.31719	2.56%
009.99	Fiber, Neutral Det Miscellaneous (%)	2	2	17.733	0.78135						
010.03	Moisture, Karl-Fischer (%)	3	3	9.2367	0.40928	9.2367	0.40928	0.23630	4.43%	0.50000	2.86%
010.11	Moisture, NIR (%)	6	6	9.9523	0.71766	9.9523	0.81383	0.41531	8.18%	0.12067	2.83%
010.99	Moisture, Miscellaneous (%)	16	16	9.4046	0.76746	9.4729	0.43526	0.13602	4.59%	0.12181	2.85%
011.01	Loss on Drying, 135°C 2hr (%)	65	65	10.084	0.49803	10.160	0.35053	0.05435	3.45%	0.11691	2.82%
011.02	Loss on Drying, 130°C for 2 hours (%)	2	2	10.110	0.04243						
011.99	Loss on Drying, High Temp. Methods Miscellaneous	4	4	9.7888	0.19220	9.7888	0.19220	0.09610	1.96%	0.11750	2.84%
012.00	Starch, Polarimetric (Ewers) (%)	8	8	30.643	0.52888	30.643	0.59975	0.26505	1.96%	0.29140	1.81%
012.01	Starch, Megazyme (%)	9	9	27.279	2.1259	27.583	1.6156	0.67319	5.86%	0.79000	1.90%
012.02	Starch, Colorimetric (GOP) (%)	2	2	31.908	2.4855						
012.03	Starch, Enzymatic (%)	5	5	29.269	0.50505	29.269	0.50505	0.25253	1.73%	0.20970	1.85%
012.04	Starch, YSI Analyzer (%)	5	5	29.062	0.58755	29.062	0.58755	0.29378	2.02%	0.28800	1.85%
012.11	Starch, NIR (%)	3	3	31.280	0.96675	31.280	0.96675	0.55815	3.09%	0.23067	1.79%
013.00	Fat, Acid hydrolysis (%)	16	16	6.0209	0.53243	6.0209	0.60377	0.18868	10.03%	0.18063	3.05%
013.02	Fat, Mojonier, Bak Ext (%)	22	22	6.4193	0.54406	6.3763	0.39947	0.10646	6.26%	0.18955	3.03%
013.08	Fat, Roese-Gottlieb Modified (%)	1	1	4.6850							
013.10	Fat, Soxtec-Acid Hydrolysis (%)	5	5	5.8575	0.40960	5.8575	0.40960	0.23648	6.99%	0.22546	3.07%
013.12	Fat, NIR- Acid Hydrolysis (%)	1	1	5.8576							
013.13	Fat, Ankom- Acid Hydrolysis (%)	6	6	5.9644	0.86118	5.9761	0.94947	0.48452	15.89%	0.21250	3.06%

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015.41	Aluminum, ICP, Dry ash (mg / kg (ppm))	4	4	123.47	33.593	123.47	33.593	16.797	27.21%	6.3775	7.75%
015.42	Aluminum, ICP, Open vessel (mg / kg (ppm))	1	1	153.75							
015.43	Aluminum, ICP, Microwave (mg / kg (ppm))	6	6	164.32	36.848	164.32	41.785	21.324	25.43%	27.764	7.42%
015.53	Aluminum, ICP-MS, Microwave (mg / kg (ppm))	1	1	220.50							
017.41	Boron, ICP, Dry ash (mg / kg (ppm))	4	4	6.2100	0.81428	6.2100	0.81428	0.47012	13.11%	0.63000	12.15%
017.42	Boron, ICP, Open vessel (mg / kg (ppm))	6	6	6.4158	1.2436	6.4158	1.4103	0.71969	21.98%	0.18500	12.09%
017.43	Boron, ICP, Microwave (mg / kg (ppm))	5	4	6.4125	0.56032	6.4125	0.56032	0.28016	8.74%	0.43500	12.09%
017.52	Boron, ICP-MS, Open vessel (mg / kg (ppm))	1	1	5.7785							
019.00	Calcium, Ox-Mn04 Vol. (%)	10	10	3.5426	0.16128	3.5357	0.13449	0.05316	3.80%	0.08692	3.31%
019.02	Calcium, Hach Method (%)	2	2	4.7738	1.0271						
019.03	Calcium, Semiauto (Autoanalyzer) (%)	1	1	3.6154							
019.08	Calcium, EDTA (%)	9	9	3.5362	0.06765	3.5362	0.07671	0.03196	2.17%	0.05072	3.31%
019.09	Calcium, Ion-selective electrode (%)	1	1	3.3015							
019.31	Calcium, AAS, Dry ash (%)	27	27	3.5489	0.36552	3.5048	0.21049	0.05064	6.01%	0.11287	3.31%
019.32	Calcium, AAS, Open vessel (%)	4	4	3.5969	0.20828	3.5969	0.20828	0.10414	5.79%	0.03525	3.30%
019.33	Calcium, AAS, Microwave (%)	3	3	3.7658	0.21396	3.7658	0.21396	0.12353	5.68%	0.08567	3.28%
019.41	Calcium, ICP, Dry ash (%)	26	26	3.4439	0.63968	3.5396	0.14551	0.03567	4.11%	0.05637	3.31%
019.42	Calcium, ICP, Open vessel (%)	22	22	3.6085	0.20707	3.6040	0.21243	0.05661	5.89%	0.09864	3.30%
019.43	Calcium, ICP, Microwave (%)	27	27	1,191.3	6,171.4	3.6078	0.16890	0.04063	4.68%	21.038	3.30%
019.44	Calcium, ICP, Dry ash (%)	2	2	3.5820	0.16688						
019.52	Calcium, ICP-MS, Open vessel (%)	2	2	3.4621	0.00060						
019.53	Calcium, ICP-MS, Microwave (%)	3	3	3.5283	0.07784	3.5283	0.07784	0.04494	2.21%	0.07667	3.31%
019.99	Calcium, Miscellaneous (%)	4	4	3.6185	0.29951	3.6185	0.29951	0.14976	8.28%	0.02100	3.30%
021.31	Cobalt, AAS, Dry ash (mg / kg (ppm))	4	4	2.2088	1.0107	2.2088	1.0107	0.58353	45.76%	0.15750	14.20%
021.32	Cobalt, AAS, Open vessel (mg / kg (ppm))	1	1	1.9500							
021.34	Cobalt, AAS, Graphite furnace (mg / kg (ppm))	1	1	1.7550							
021.41	Cobalt, ICP, Dry ash (mg / kg (ppm))	2	2	1.2845	0.44618						
021.42	Cobalt, ICP, Open vessel (mg / kg (ppm))	4	4	1.3325	0.15924	1.3325	0.15924	0.07962	11.95%	0.10500	15.32%
021.43	Cobalt, ICP, Microwave (mg / kg (ppm))	8	7	1.7104	0.42191	1.7104	0.47845	0.22605	27.97%	0.16644	14.76%
021.52	Cobalt, ICP-MS, Open vessel (mg / kg (ppm))	2	2	1.0809	0.08616						
021.53	Cobalt, ICP-MS, Microwave (mg / kg (ppm))	5	5	1.7534	0.44647	1.7534	0.44647	0.19967	25.46%	0.13078	14.70%
021.99	Cobalt, Miscellaneous (mg / kg (ppm))	1	1	2.2200							
022.31	Copper, AAS, Dry ash (mg / kg (ppm))	14	14	18.939	2.5448	18.950	2.4845	0.83002	13.11%	1.3069	10.27%
022.32	Copper, AAS, Open vessel (mg / kg (ppm))	2	2	21.053	0.07425						
022.33	Copper, AAS, Microwave (mg / kg (ppm))	1	1	19.255							
022.41	Copper, ICP, Dry ash (mg / kg (ppm))	19	19	17.249	3.8934	18.004	1.3606	0.39019	7.56%	1.2850	10.35%
022.42	Copper, ICP, Open vessel (mg / kg (ppm))	20	20	16.656	4.0868	17.338	1.6733	0.46769	9.65%	0.69774	10.41%
022.43	Copper, ICP, Microwave (mg / kg (ppm))	21	20	16.151	3.1095	16.843	1.6114	0.45041	9.57%	0.75729	10.46%

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022.44	Copper, ICP, Dry ash (mg / kg (ppm))	1	1	19.464							
022.52	Copper, ICP-MS, Open vessel (mg / kg (ppm))	1	1	17.843							
022.53	Copper, ICP-MS, Microwave (mg / kg (ppm))	4	4	17.655	1.2032	17.655	1.2032	0.60160	6.82%	1.4650	10.38%
022.99	Copper, Miscellaneous (mg / kg (ppm))	3	3	17.800	1.4731	17.800	1.4731	0.85049	8.28%	2.0000	10.37%
023.01	Fluorine, Ion Sel Elect (mg / kg (ppm))	1	1	8.1500							
025.31	Iron, AAS, Dry ash (mg / kg (ppm))	17	17	341.39	34.649	337.89	23.149	7.0180	6.85%	13.885	6.66%
025.32	Iron, AAS, Open vessel (mg / kg (ppm))	1	1	344.50							
025.33	Iron, AAS, Microwave (mg / kg (ppm))	2	2	312.59	8.0815						
025.41	Iron, ICP, Dry ash (mg / kg (ppm))	20	20	309.99	74.592	322.92	36.577	10.223	11.33%	15.435	6.71%
025.42	Iron, ICP, Open vessel (mg / kg (ppm))	17	17	273.25	61.600	280.76	46.964	14.238	16.73%	21.274	6.85%
025.43	Iron, ICP, Microwave (mg / kg (ppm))	20	20	305.52	37.823	304.44	39.576	11.062	13.00%	19.180	6.76%
025.52	Iron, ICP-MS, Open vessel (mg / kg (ppm))	2	2	304.56	73.042						
025.53	Iron, ICP-MS, Microwave (mg / kg (ppm))	2	2	308.23	71.100						
025.99	Iron, Miscellaneous (mg / kg (ppm))	3	3	308.17	4.3684	308.17	4.3684	2.5221	1.42%	25.667	6.75%
027.31	Magnesium, AAS, Dry ash (%)	20	20	0.30466	0.01945	0.30452	0.01982	0.00554	6.51%	0.00814	4.78%
027.32	Magnesium, AAS, Open vessel (%)	3	3	0.29903	0.00777	0.29903	0.00777	0.00449	2.60%	0.00367	4.80%
027.33	Magnesium, AAS, Microwave (%)	3	3	0.31550	0.01645	0.31550	0.01645	0.01163	5.21%	0.00900	4.76%
027.41	Magnesium, ICP, Dry ash (%)	21	21	0.30049	0.06127	0.31160	0.01465	0.00400	4.70%	0.00597	4.77%
027.42	Magnesium, ICP, Open vessel (%)	20	20	0.30631	0.03087	0.31134	0.01836	0.00513	5.90%	0.00848	4.77%
027.43	Magnesium, ICP, Microwave (%)	25	25	112.25	529.51	0.31635	0.02187	0.00547	6.91%	0.39294	4.76%
027.44	Magnesium, ICP, Dry ash (%)	1	1	0.29400							
027.52	Magnesium, ICP-MS, Open vessel (%)	2	2	0.30330	0.01534						
027.53	Magnesium, ICP-MS, Microwave (%)	2	2	0.32650	0.00000						
027.99	Magnesium, Miscellaneous (%)	4	4	0.32000	0.03028	0.32000	0.03028	0.01748	9.46%	0.00500	4.75%
028.31	Manganese, AAS, Dry ash (mg / kg (ppm))	17	17	156.54	37.404	164.74	11.162	3.3839	6.78%	4.0205	7.42%
028.32	Manganese, AAS, Open vessel (mg / kg (ppm))	2	2	175.30	13.859						
028.33	Manganese, AAS, Microwave (mg / kg (ppm))	3	3	166.73	15.424	166.73	15.424	8.9051	9.25%	0.87367	7.41%
028.41	Manganese, ICP, Dry ash (mg / kg (ppm))	19	19	148.88	35.146	156.66	10.651	3.0545	6.80%	5.7215	7.48%
028.42	Manganese, ICP, Open vessel (mg / kg (ppm))	20	20	161.29	27.888	161.94	16.537	4.6224	10.21%	7.7305	7.44%
028.43	Manganese, ICP, Microwave (mg / kg (ppm))	24	24	163.74	9.6461	163.57	9.7348	2.4839	5.95%	5.2482	7.43%
028.44	Manganese, ICP, Dry ash (mg / kg (ppm))	2	2	158.61	0.85454						
028.52	Manganese, ICP-MS, Open vessel (mg / kg (ppm))	1	1	166.93							
028.53	Manganese, ICP-MS, Microwave (mg / kg (ppm))	3	3	163.63	0.77675	163.63	0.77675	0.44846	0.47%	4.9333	7.43%
028.99	Manganese, Miscellaneous (mg / kg (ppm))	4	4	171.25	5.4848	171.25	5.4848	2.7424	3.20%	4.5000	7.38%
031.00	Phosphorus, Vol (%)	2	2	0.62500	0.00000						
031.01	Phosphorus, Photometric (%)	40	40	0.59967	0.04338	0.59939	0.02399	0.00474	4.00%	0.01387	4.32%
031.02	Phosphorus, GQMP (AOAC 935.13-Extraction) (%)	4	4	0.61125	0.01109	0.61125	0.01109	0.00555	1.81%	0.00750	4.31%
031.03	Phosphorus, Autoanalyzer (%)	4	4	0.60050	0.01202	0.60050	0.01202	0.00601	2.00%	0.01530	4.32%

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031.06	Phosphorus, Hach Method (%)	2	2	0.54350	0.10394						
031.41	Phosphorus, ICP, Dry ash (%)	25	25	0.59093	0.11411	0.60930	0.02964	0.00741	4.86%	0.01317	4.31%
031.42	Phosphorus, ICP, Open vessel (%)	23	23	0.60065	0.05064	0.60636	0.04180	0.01089	6.89%	0.01844	4.31%
031.43	Phosphorus, ICP, Microwave (%)	27	27	195.93	1,014.9	0.61127	0.03456	0.00831	5.65%	2.7734	4.31%
031.44	Phosphorus, ICP, Dry ash (%)	2	2	0.58550	0.00778						
031.52	Phosphorus, ICP-MS, Open vessel (%)	1	1	0.57125							
031.53	Phosphorus, ICP-MS, Microwave (%)	3	3	0.61933	0.01962	0.61933	0.01962	0.01133	3.17%	0.04133	4.30%
031.99	Phosphorus, Miscellaneous (%)	5	5	0.61040	0.03512	0.61040	0.03512	0.01756	5.75%	0.00960	4.31%
032.02	Potassium, Flame Emission (%)	1	1	0.66500							
032.31	Potassium, AAS, Dry ash (%)	20	20	0.66472	0.03922	0.66464	0.04028	0.01126	6.06%	0.01232	4.25%
032.32	Potassium, AAS, Open vessel (%)	2	2	0.64275	0.01450						
032.33	Potassium, AAS, Microwave (%)	1	1	0.69000							
032.41	Potassium, ICP, Dry ash (%)	22	22	0.65192	0.13904	0.67059	0.03488	0.00930	5.20%	0.01398	4.25%
032.42	Potassium, ICP, Open vessel (%)	19	19	0.70934	0.05519	0.70199	0.03954	0.01134	5.63%	0.02376	4.22%
032.43	Potassium, ICP, Microwave (%)	22	22	284.00	1,328.9	0.68040	0.04591	0.01224	6.75%	2.9548	4.24%
032.44	Potassium, ICP, Dry ash (%)	1	1	0.66650							
032.52	Potassium, ICP-MS, Open vessel (%)	1	1	0.64735							
032.53	Potassium, ICP-MS, Microwave (%)	3	3	0.69600	0.02407	0.69600	0.02407	0.01390	3.46%	0.01267	4.22%
032.99	Potassium, Miscellaneous (%)	3	2	0.68000	0.00707	0.68000	0.00707			0.01000	4.24%
033.00	Salt as chloride, Sol Cl (%)	20	20	0.31657	0.09439	0.30435	0.05234	0.01463	17.20%	0.01472	4.78%
033.01	Salt as chloride, Poten Cl (%)	28	28	0.34373	0.04878	0.33407	0.02444	0.00577	7.32%	0.01768	4.72%
033.03	Salt as chloride, Quantab (%)	5	5	0.24120	0.05466	0.24120	0.05466	0.02444	22.66%	0.02000	4.95%
033.05	Salt as chloride, Ion Sel Electrode (%)	4	4	0.26375	0.05543	0.26375	0.05543	0.02772	21.02%	0.00750	4.89%
033.99	Salt, Miscellaneous (%)	10	10	0.38887	0.09170	0.38672	0.09920	0.03921	25.65%	0.03834	4.61%
034.01	Selenium, Fluor (mg / kg (ppm))	2	2	0.63100	0.00566						
034.04	Selenium, AA, Hydride (mg / kg (ppm))	7	7	0.62704	0.08888	0.60947	0.05504	0.02600	9.03%	0.03021	17.23%
034.41	Selenium, ICP, Dry ash (mg / kg (ppm))	1	1	0.40700							
034.42	Selenium, ICP, Open vessel (mg / kg (ppm))	2	2	2.1825	0.39952						
034.43	Selenium, ICP, Microwave (mg / kg (ppm))	3	2	0.62585	0.28164	0.62585	0.28164			0.00850	17.17%
034.52	Selenium, ICP-MS, Open vessel (mg / kg (ppm))	4	4	0.81466	0.35019	0.81466	0.35019	0.20218	42.99%	0.02183	16.50%
034.53	Selenium, ICP-MS, Microwave (mg / kg (ppm))	5	5	0.70402	0.18860	0.70402	0.18860	0.08434	26.79%	0.02880	16.86%
035.01	Sodium, Ion-selective electrode (%)	4	4	0.19875	0.02633	0.19875	0.02633	0.01317	13.25%	0.00400	5.10%
035.02	Sodium, Em Spect (%)	1	1	0.20000							
035.05	Sodium, Flame Emission (%)	3	3	0.21000	0.00866	0.21000	0.00866	0.00612	4.12%	0.00667	5.06%
035.31	Sodium, AAS, Dry ash (%)	19	19	0.21216	0.01629	0.21126	0.01532	0.00439	7.25%	0.00771	5.05%
035.32	Sodium, AAS, Open vessel (%)	2	2	0.19810	0.00014						
035.33	Sodium, AAS, Microwave (%)	1	1	0.20000							
035.41	Sodium, ICP, Dry ash (%)	25	25	0.20448	0.04132	0.20849	0.01116	0.00279	5.35%	0.00691	5.06%

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035.42	Sodium, ICP, Open vessel (%)	17	17	0.21298	0.01367	0.21269	0.01472	0.00446	6.92%	0.00706	5.05%
035.43	Sodium, ICP, Microwave (%)	23	23	84.543	404.47	0.20660	0.02462	0.00642	11.92%	1.5069	5.07%
035.52	Sodium, ICP-MS, Open vessel (%)	2	2	0.20125	0.01450						
035.53	Sodium, ICP-MS, Microwave (%)	3	3	0.20850	0.00826	0.20850	0.00826	0.00477	3.96%	0.01233	5.06%
035.99	Sodium, Miscellaneous (%)	5	5	0.24970	0.09635	0.24970	0.09635	0.04818	38.59%	0.02220	4.93%
036.00	Sulfur, Gravimetric (%)	1	1	0.37050							
036.04	Sulfur, LECO (%)	4	4	0.34125	0.02250	0.34125	0.02250	0.01299	6.59%	0.01250	4.70%
036.42	Sulfur, ICP, Open vessel (%)	20	20	0.38144	0.03189	0.37986	0.03265	0.00913	8.60%	0.00715	4.63%
036.43	Sulfur, ICP, Microwave (%)	13	13	251.86	906.74	0.37960	0.02796	0.00969	7.37%	2.8689	4.63%
036.52	Sulfur, ICP-MS, Open vessel (%)	1	1	3,547.0							
036.99	Sulfur, Miscellaneous (%)	2	2	0.39400	0.00566						
037.31	Zinc, AAS, Dry ash (mg / kg (ppm))	19	19	134.90	29.406	137.80	8.5167	2.4423	6.18%	4.5637	7.62%
037.32	Zinc, AAS, Open vessel (mg / kg (ppm))	2	2	143.13	1.2374						
037.33	Zinc, AAS, Microwave (mg / kg (ppm))	4	4	146.09	25.528	146.09	25.528	12.764	17.47%	5.6935	7.56%
037.41	Zinc, ICP, Dry ash (mg / kg (ppm))	19	19	129.13	29.836	134.48	8.9401	2.5637	6.65%	7.1404	7.65%
037.42	Zinc, ICP, Open vessel (mg / kg (ppm))	20	19	133.48	17.263	135.32	14.847	4.2576	10.97%	6.0652	7.64%
037.43	Zinc, ICP, Microwave (mg / kg (ppm))	26	26	134.76	12.814	133.70	11.519	2.8238	8.62%	5.7204	7.66%
037.44	Zinc, ICP, Dry ash (mg / kg (ppm))	2	2	130.59	1.1080						
037.52	Zinc, ICP-MS, Open vessel (mg / kg (ppm))	1	1	136.31							
037.53	Zinc, ICP-MS, Microwave (mg / kg (ppm))	3	3	131.72	5.8835	131.72	5.8835	3.3968	4.47%	8.0333	7.67%
037.99	Zinc, Miscellaneous (mg / kg (ppm))	5	5	130.80	8.8431	130.80	8.8431	4.4216	6.76%	6.4000	7.68%
038.41	Molybdenum, ICP, Dry ash (mg / kg (ppm))	2	2	1.0900	0.19799						
038.42	Molybdenum, ICP, Open vessel (mg / kg (ppm))	4	4	1.3375	0.20431	1.3375	0.20431	0.10216	15.28%	0.15500	15.31%
038.43	Molybdenum, ICP, Microwave (mg / kg (ppm))	7	6	1.0887	0.33823	1.0887	0.38355	0.19573	35.23%	0.14103	15.79%
038.52	Molybdenum, ICP-MS, Open vessel (mg / kg (ppm))	2	2	1.0259	0.33358						
038.53	Molybdenum, ICP-MS, Microwave (mg / kg (ppm))	4	4	1.1269	0.34538	1.1269	0.34538	0.19941	30.65%	0.07173	15.71%
040.42	Barium, ICP, Open vessel (mg / kg (ppm))	1	1	6.5950							
040.52	Barium, ICP-MS, Open vessel (mg / kg (ppm))	1	1	6.6097							
040.53	Barium, ICP-MS, Microwave (mg / kg (ppm))	1	1	6.0996							
041.43	Vanadium, ICP, Microwave (mg / kg (ppm))	1		0.00000							
041.53	Vanadium, ICP-MS, Microwave (mg / kg (ppm))	2	2	0.99650	0.12516						
042.00	Chloride, Titrimetric (%)	1	1	0.18500							
042.02	Chloride, Ion Chromatography (%)	1	1	0.14500							
042.99	Chloride, Miscellaneous (%)	1	1	0.25500							
101.02	Choline Chloride, LC (mg / kg (ppm))	2	2	1,102.5	753.07						
102.01	Niacin, Microbiological (mg / kg (ppm))	1	1	181.50							
102.02	Niacin, LC (mg / kg (ppm))	1	1	89.575							
103.01	Pantothenic Acid, Microbiological (mg / kg (ppm))	1	1	24.600							

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103.02	Pantothenic Acid, LC (mg / kg (ppm))	1	1	10.280							
104.00	Riboflavin, Fluorometric (mg / kg (ppm))	2	2	31.475	0.74246						
104.03	Riboflavin, LC (mg / kg (ppm))	5	5	25.694	3.5579	25.694	3.5579	1.5911	13.85%	1.2186	9.81%
105.00	Thiamine, LC (mg / kg (ppm))	5	5	6.7789	2.1784	6.7789	2.1784	0.97421	32.14%	0.69900	11.99%
105.01	Thiamine, Fluorometer (mg / kg (ppm))	1	1	7.0300							
106.00	Vitamin A, Color (KU / kg)	3	3	40.397	9.6705	40.397	9.6705	5.5833	23.94%	2.7486	
106.01	Vitamin A, UV (KU / kg)	1	1	28.200							
106.02	Vitamin A, LC (KU / kg)	25	25	30.862	8.1096	30.057	5.5196	1.3799	18.36%	3.0922	
107.00	Vitamin B12, Microbiological (µg / kg (ppb))	1	1	47.200							
108.01	Vitamin D3, LC, AOAC (KU / kg)	2	2	6.2975	2.5420						
108.02	Vitamin D3, LC (KU / kg)	6	6	5.0045	1.5336	5.0045	1.7391	0.88750	34.75%	0.56833	
109.02	Vitamin E, LC (IU/kg)	22	22	113.52	44.816	119.08	32.912	8.7711	27.64%	6.4680	
109.99	Vitamin E, Miscellaneous (IU/kg)	1	1	108.00							
112.01	Pyridoxine, LC (µg / g)	2	2	12.585	1.3647						
113.01	Folic Acid, Micro (mg / kg (ppm))	1	1	15.250							
113.02	Folic acid, LC (mg / kg (ppm))	1	1	24.695							
114.01	Biotin, Microbiological (mg / kg (ppm))	2	2	0.94100	0.04313						
114.99	Biotin, Miscellaneous (mg / kg (ppm))	2	2	0.86500	0.74953						
120.00	Alanine, Post-col Ninhydrin Der (%)	17	17	1.1755	0.02724	1.1773	0.01751	0.00531	1.49%	0.01628	3.90%
120.02	Alanine, Post-col OPA Der (%)	1	1	1.2045							
120.05	Alanine, Pre-col AQC Der (%)	5	5	1.1257	0.04270	1.1257	0.04270	0.01910	3.79%	0.01140	3.93%
120.99	Alanine, Miscellaneous (%)	2	2	1.8875	1.0076						
121.00	Arginine, Post-col Ninhydrin Der (%)	17	17	0.95455	0.03364	0.95279	0.02695	0.00817	2.83%	0.00885	4.03%
121.02	Arginine, Post-col OPA Der (%)	1	1	0.94150							
121.05	Arginine, Pre-col AQC Der (%)	5	5	0.92740	0.05460	0.92740	0.05460	0.02442	5.89%	0.01040	4.05%
121.99	Arginine, Miscellaneous (%)	2	2	1.8675	1.2551						
122.00	Aspartic, Post-col Ninhydrin Der (%)	17	17	1.3049	0.02954	1.3049	0.03350	0.01016	2.57%	0.01641	3.84%
122.02	Aspartic, Post-col OPA Der (%)	1	1	1.2975							
122.05	Aspartic, Pre-col AQC Der (%)	5	5	1.2918	0.01959	1.2918	0.01959	0.00980	1.52%	0.01120	3.85%
122.99	Aspartic, Miscellaneous (%)	2	2	1.9900	1.5910						
124.00	Cysteine/Cystine, PAO Post-col Ninhydi (%)	17	17	0.36425	0.02296	0.36355	0.02166	0.00657	5.96%	0.01010	4.66%
124.02	Cysteine/Cystine, PAO Post-col OPA Der (%)	1	1	0.36500							
124.05	Cysteine/Cystine, PAO Pre-col AQC Der (%)	4	4	0.36313	0.05550	0.36313	0.05550	0.02775	15.28%	0.00425	4.66%
124.99	Cysteine/Cystine, Miscellaneous (%)	1	1	0.55000							
125.00	Glutamic, Post-col Ninhydrin Der (%)	17	17	3.4065	0.07561	3.4109	0.07133	0.02162	2.09%	0.03728	3.33%
125.02	Glutamic, Post-col OPA Der (%)	1	1	3.3800							
125.05	Glutamic, Pre-col AQC Der (%)	5	5	3.3499	0.11252	3.3499	0.11252	0.05032	3.36%	0.02500	3.33%
125.99	Glutamic, Miscellaneous (%)	2	2	5.5425	3.6239						

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126.00	Glycine, Post-col Ninhydrin Der (%)	17	17	0.77674	0.02030	0.78042	0.01273	0.00386	1.63%	0.00899	4.15%
126.02	Glycine, Post-col OPA Der (%)	1	1	0.76300							
126.05	Glycine, Pre-col AQC Der (%)	5	5	0.76770	0.01830	0.76770	0.01830	0.00818	2.38%	0.01140	4.16%
126.99	Glycine, Miscellaneous (%)	2	2	1.1550	0.50205						
127.00	Histidine, Post-col Ninhydrin Der (%)	17	17	0.46542	0.01846	0.46563	0.01643	0.00498	3.53%	0.00729	4.49%
127.02	Histidine, Post-col OPA Der (%)	1	1	0.45650							
127.05	Histidine, Pre-col AQC Der (%)	5	5	0.44480	0.03020	0.44480	0.03020	0.01351	6.79%	0.00640	4.52%
127.99	Histidine, Miscellaneous (%)	2	2	0.76250	0.35002						
128.00	Isoleucine, Post-col Ninhydrin Der (%)	17	17	0.67367	0.03462	0.67496	0.03056	0.00927	4.53%	0.01232	4.24%
128.02	Isoleucine, Post-col OPA Der (%)	1	1	0.68500							
128.05	Isoleucine, Pre-col AQC Der (%)	5	5	0.64330	0.07429	0.64330	0.07429	0.03322	11.55%	0.01100	4.27%
128.99	Isoleucine, Miscellaneous (%)	2	2	1.1225	0.57629						
129.00	Leucine, Post-col Ninhydrin Der (%)	17	17	1.8877	0.04965	1.8891	0.04623	0.01402	2.45%	0.02920	3.63%
129.02	Leucine, Post-col OPA Der (%)	1	1	1.9075							
129.05	Leucine, Pre-col AQC Der (%)	5	5	1.8504	0.05660	1.8504	0.05660	0.02531	3.06%	0.02240	3.65%
129.99	Leucine, Miscellaneous (%)	2	2	2.9750	1.5274						
130.00	L-Lysine, Post-col Ninhydrin Der (%)	19	19	0.85653	0.05255	0.85215	0.04893	0.01403	5.74%	0.01594	4.10%
130.02	L-Lysine, Post-col OPA Der (%)	1	1	0.90450							
130.05	L-Lysine, Pre-col AQC Der (%)	8	8	0.83606	0.04262	0.83606	0.04833	0.02136	5.78%	0.01738	4.11%
130.99	L-Lysine, Miscellaneous (%)	2	2	1.2800	0.55861						
131.00	Methionine, PAO Post-col Ninhydrin Der (%)	19	19	0.41891	0.03434	0.41715	0.03469	0.00995	8.32%	0.00927	4.56%
131.02	Methionine, PAO Post-col OPA Der (%)	1	1	0.38150							
131.05	Methionine, PAO Pre-col AQC Der (%)	6	6	0.37008	0.03264	0.37008	0.03701	0.01889	10.00%	0.03883	4.65%
131.99	Methionine, Miscellaneous (%)	2	2	0.56250	0.21567						
132.00	Phenylalanine, Post-col Ninhydrin Der (%)	17	17	0.89646	0.05206	0.89082	0.03058	0.00927	3.43%	0.01495	4.07%
132.02	Phenylalanine, Post-col OPA Der (%)	1	1	0.88000							
132.05	Phenylalanine, Pre-col AQC Der (%)	5	5	0.88910	0.05731	0.88910	0.05731	0.02563	6.45%	0.01420	4.07%
132.99	Phenylalanine, Miscellaneous (%)	2	2	1.3725	0.69650						
133.00	Proline, Post-col Ninhydrin Der (%)	17	17	1.3694	0.05300	1.3685	0.05832	0.01768	4.26%	0.02550	3.82%
133.05	Proline, Pre-col AQC Der (%)	5	5	1.3645	0.04024	1.3645	0.04024	0.01800	2.95%	0.02420	3.82%
133.99	Proline, Miscellaneous (%)	2	2	2.1575	1.0006						
134.00	Serine, Post-col Ninhydrin Der (%)	17	17	0.86086	0.04296	0.86544	0.02845	0.00863	3.29%	0.01619	4.09%
134.02	Serine, Post-col OPA Der (%)	1	1	0.83100							
134.05	Serine, Pre-col AQC Der (%)	5	5	0.86270	0.04750	0.86270	0.04750	0.02124	5.51%	0.01580	4.09%
134.99	Serine, Miscellaneous (%)	2	2	1.4950	0.91217						
135.00	Threonine, Post-col Ninhydrin Der (%)	17	17	0.68932	0.02185	0.68700	0.01935	0.00587	2.82%	0.00659	4.23%
135.02	Threonine, Post-col OPA Der (%)	1	1	0.68800							
135.05	Threonine, Pre-col AQC Der (%)	5	5	0.66590	0.02066	0.66590	0.02066	0.00924	3.10%	0.00660	4.25%



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135.99	Threonine, Miscellaneous (%)	2	2	1.0950	0.56569						
136.00	Tryptophan, Alka-Hydrol Post-col Ninhyd (%)	5	5	0.24280	0.09358	0.24280	0.09358	0.04679	38.54%	0.01272	4.95%
136.01	Tryptophan, Alka-Hydrol Rev Phase LC UV (%)	2	2	0.19450	0.00778						
136.02	Tryptophan, Alka-Hydrol Post-col OPA De (%)	1	1	0.18750							
136.03	Tryptophan, Alka-Hydrol + IS RP LC FI (%)	3	3	0.18433	0.00797	0.18433	0.00797	0.00460	4.32%	0.00267	5.16%
136.99	Tryptophan, Miscellaneous (%)	4	4	0.25375	0.10843	0.25375	0.10843	0.06260	42.73%	0.00750	4.92%
137.00	Tyrosine, Post-col Ninhydrin Der (%)	13	13	0.62282	0.03721	0.62282	0.04219	0.01463	6.77%	0.01778	4.30%
137.02	Tyrosine, Post-col OPA Der (%)	1	1	0.63050							
137.05	Tyrosine, Pre-col AQC Der (%)	5	5	0.67090	0.09416	0.67090	0.09416	0.04211	14.03%	0.02100	4.25%
137.99	Tyrosine, Miscellaneous (%)	2	2	1.0925	0.59751						
138.00	Valine, Post-col Ninhydrin Der (%)	17	17	0.87534	0.04373	0.87749	0.04437	0.01345	5.06%	0.01304	4.08%
138.02	Valine, Post-col OPA Der (%)	1	1	0.89150							
138.05	Valine, Pre-col AQC Der (%)	5	5	0.85370	0.07894	0.85370	0.07894	0.03530	9.25%	0.01260	4.10%
138.99	Valine, Miscellaneous (%)	1	1	1.6950							
139.00	Taurine, Post-col Ninhydrin Der (%)	2	2	0.13250	0.02475						
139.02	Taurine, Post-col OPA Der (%)	1		0.00000							
160.99	Fructose, Miscellaneous (%)	4	4	0.42800	0.45925	0.42800	0.45925	0.26515	107.30%	0.01850	4.54%
162.99	Glucose, Miscellaneous (%)	5	4	0.38213	0.27782	0.38213	0.27782	0.16040	72.70%	0.06075	4.62%
163.99	Lactose, Miscellaneous (%)	2		0.00000							
164.99	Maltose, Miscellaneous (%)	2	1	0.75000							
165.99	Sucrose, Miscellaneous (%)	5	5	1.1090	0.53814	1.1090	0.53814	0.26907	48.52%	0.01800	3.94%
166.99	Raffinose, Miscellaneous (%)	2	2	0.32250	0.06010						
167.99	Stachyose, Miscellaneous (%)	2	2	0.25200	0.06647						
314.04	Semduramicin sodium, LC-MS/MS (mg/kg (ppm))	1		0.00000							
317.05	Maduramicin, LC-MS/MS (mg/kg (ppm))	1		0.00000							
345.00	Amprolium, Colorimetric (mg/kg (ppm))	1	1	15.650							
345.02	Amprolium, LC (UV or FL) (mg/kg (ppm))	2	2	27.098	36.483						
345.03	Amprolium, LC-MS (mg/kg (ppm))	1	1	1.8200							
345.04	Amprolium, LC-MS/MS (mg/kg (ppm))	1	1	1.5500							
351.03	Chlortetracycline, LC (UV or FL) (mg/kg (ppm))	1	1	0.49020							
351.05	Chlortetracycline, LC-MS/MS (mg/kg (ppm))	1	1	1.0200							
354.01	Decoquinatate, LC (UV or FL) (mg/kg (ppm))	2	2	1.2143	0.30300						
354.02	Decoquinatate, LC (mg/kg (ppm))	3	3	0.93110	0.14378	0.93110	0.14378	0.08301	15.44%	0.09553	16.17%
354.04	Decoquinatate, LC-MS/MS (mg/kg (ppm))	4	4	0.87875	0.05373	0.87875	0.05373	0.02687	6.11%	0.02995	16.31%
355.03	Erythromycin, LC-MS/MS (mg/kg (ppm))	1		0.00000							
357.01	Ethoxyquin, LC (mg/kg (ppm))	2	2	1.0525	0.07425						
361.02	Lasalocid sodium, LC (mg/kg (ppm))	1	1	0.88075							
361.03	Lasalocid sodium, LC (UV or FL) (mg/kg (ppm))	2	2	0.84708	0.06657						

Method Code	Analyte and Method	Total # Labs Submitting	# Labs in Robust Calcs	Raw Mean	Raw SD	Assigned Value - Robust Mean	AAFCO PT ffp - Robust sd	Uncertainty (U) - Robust	% RSD - Robust	Average Range (R-bar)	Horwitz %RSD
361.04	Lasalocid sodium, LC-MS (mg/kg (ppm))	1	1	1.1200							
361.05	Lasalocid sodium, LC-MS/MS (mg/kg (ppm))	5	5	0.66932	0.27359	0.66932	0.27359	0.13680	40.88%	0.04188	16.99%
363.03	Lincomycin, LC-MS/MS (mg/kg (ppm))	1		0.00000							
365.05	Monensin, LC-MS/MS (mg/kg (ppm))	1		0.00000							
370.03	Novobiocin, LC-MS/MS (mg/kg (ppm))	1		0.00000							
373.03	Oxytetracycline, LC (mg/kg (ppm))	1	1	1.6500							
373.04	Oxytetracycline, LC, AOAC (mg/kg (ppm))	1	1	1.5805							
373.05	Oxytetracycline, LC-MS (mg/kg (ppm))	1	1	2.9500							
379.05	Salinomycin, LC-MS/MS (mg/kg (ppm))	1		0.00000							
388.03	Tylosin, LC (mg/kg (ppm))	1	1	0.81300							
388.05	Tylosin, LC-MS/MS (mg/kg (ppm))	2	2	0.82500	0.53033						
389.03	Virginiamycin, LC-MS/MS (mg/kg (ppm))	1		0.00000							
391.03	Narasin, LC-MS/MS (mg/kg (ppm))	1		0.00000							
400.01	Water activity, Aqualab chilled mirror (Units)	6	6	0.59153	0.01597	0.59153	0.01811	0.00924	3.06%	0.00195	
400.99	Water activity, Miscellaneous (Units)	2	2	0.60025	0.02015						
516.00	Arsenic, total, AA, Hydride (mg / kg (ppm))	1	1	0.13000							
516.43	Arsenic, total, ICP, Microwave (mg / kg (ppm))	1		0.00000							
516.52	Arsenic, total, ICP-MS, Open vessel (mg / kg (ppm))	2	2	0.14090	0.01994						
516.53	Arsenic, total, ICP-MS, Microwave (mg / kg (ppm))	6	6	0.15513	0.03404	0.15147	0.02972	0.01517	19.62%	0.00862	21.25%
518.41	Cadmium, ICP, Dry ash (mg / kg (ppm))	2	2	0.05725	0.01096						
518.43	Cadmium, ICP, Microwave (mg / kg (ppm))	2	1	0.07000							
518.52	Cadmium, ICP-MS, Open vessel (mg / kg (ppm))	2	2	0.06105	0.00148						
518.53	Cadmium, ICP-MS, Microwave (mg / kg (ppm))	6	6	0.06141	0.00534	0.06141	0.00606	0.00309	9.86%	0.00282	22.00%
520.41	Chromium, ICP, Dry ash (mg / kg (ppm))	2	2	4.9225	1.2410						
520.42	Chromium, ICP, Open vessel (mg / kg (ppm))	3	3	9.5221	1.8509	9.5221	1.8509	1.0686	19.44%	4.5173	11.40%
520.43	Chromium, ICP, Microwave (mg / kg (ppm))	3	2	5.5625	2.4501	5.5625	2.4501			0.17500	12.36%
520.52	Chromium, ICP-MS, Open vessel (mg / kg (ppm))	1	1	12.646							
520.53	Chromium, ICP-MS, Microwave (mg / kg (ppm))	4	4	7.4292	6.0561	7.4292	6.0561	3.0281	81.52%	1.5479	11.83%
526.41	Lead, ICP, Dry ash (mg / kg (ppm))	2	1	0.20000							
526.43	Lead, ICP, Microwave (mg / kg (ppm))	1		0.00000							
526.52	Lead, ICP-MS, Open vessel (mg / kg (ppm))	2	2	0.19048	0.01347						
526.53	Lead, ICP-MS, Microwave (mg / kg (ppm))	6	6	0.19413	0.01607	0.19413	0.01822	0.00930	9.39%	0.00857	20.47%
529.99	Mercury, Miscellaneous (µg / kg (ppb))	1	1	1.2000							
539.41	Nickel, ICP, Dry ash (mg / kg (ppm))	1	1	2.3500							
539.42	Nickel, ICP, Open vessel (mg / kg (ppm))	1	1	2.4200							
539.43	Nickel, ICP, Microwave (mg / kg (ppm))	1		1.6000							
539.52	Nickel, ICP-MS, Open vessel (mg / kg (ppm))	1	1	2.9774							
539.53	Nickel, ICP-MS, Microwave (mg / kg (ppm))	4	4	2.3552	1.0810	2.3552	1.0810	0.54050	45.90%	0.20883	14.06%

Method Code	Analyte and Method	Total # Labs Submitting	# Labs in Robust Calcs	Raw Mean	Raw SD	Assigned Value - Robust Mean	AAFCO PT ffp - Robust sd	Uncertainty (U) - Robust	% RSD - Robust	Average Range (R-bar)	Horwitz %RSD
702.00	Butyric Acid (4:0), Miscellaneous GC (%)	1	1	0.01095							
704.00	Caproic Acid (6:0) , Miscellaneous GC (%)	1	1	0.00085							
706.01	Caprylic acid (8:0), Direct Methylation by Alkali Hy	1	1	0.01955							
708.01	Capric acid (10:0), Direct Methylation by Alkali Hy	1	1	0.02390							
710.01	Lauric Acid (12:0), Direct Methylation by Alkali Hyc	1	1	0.04810							
710.99	Lauric Acid (12:0), Miscellaneous (% (w/w))	1	1	0.05350							
714.01	Myristic Acid (14:0) , Direct Methylation by Alkali F	1	1	0.03335							
716.01	Palmitic Acid (16:0), Direct Methylation by Alkali H	1	1	0.77940							
718.01	Palmitoleic Acid (9c-16:1), Direct Methylation by A	1	1	0.02730							
718.99	Palmitoleic Acid (9c-16:1), Miscellaneous (% (w/v	1	1	0.01100							
722.01	Stearic Acid (18:0), Direct Methylation by Alkali Hy	1	1	0.08110							
724.01	Oleic Acid (9c-18:1), Direct Methylation by Alkali F	1	1	1.2525							
726.01	Linoleic Acid (9c,12c-18:2), Direct Methylation by ,	1	1	1.8142							
726.99	Linoleic Acid (9c,12c-18:2), Miscellaneous (% (w/	1	1	2.4275							
728.01	alpha-Linolenic Acid (9c,12c,15c-18:3), Direct Met	1	1	0.77615							
728.99	alpha-Linolenic Acid (9c,12c,15c-18:3), Miscellane	1	1	0.80700							
730.01	Arachidic Acid (20:0), Direct Methylation by Alkali	1	1	0.03715							
732.01	Gondoic Acid (11c-20:1), Direct Methylation by All	1	1	0.03615							
736.01	Arachidonic Acid (5c,8c,11c,14c-20:4), Direct Metl	1		0.00000							
736.99	Arachidonic Acid (5c,8c,11c,14c-20:4), Miscellane	1		0.00000							
738.01	Mead Acid (11c,14c,17c-20:3), Direct Methylation	1		0.00000							
740.01	Eicosapentaenoic Acid EPA (5c,8c,11c,14c,17c-2	1		0.00000							
740.99	Eicosapentaenoic Acid EPA (5c,8c,11c,14c,17c-2	1	1	0.04200							
744.01	Erucic Acid (13c-22:1), Direct Methylation by Alkal	1		0.00000							
746.01	Docosapentaenoic Acid n-3 DPA (DHA)7c,10c,13	1		0.00000							
746.99	Docosapentaenoic Acid n-3 DPA (DHA)7c,10c,13	1		0.00000							
750.01	Docosahexaenoic Acid DHA (4c,7c,10c,13c,16c,1	1		0.00000							
750.99	Docosahexaenoic Acid DHA (4c,7c,10c,13c,16c,1	1		0.00000							
752.01	Nervonic Acid (24:1) isomers, Direct Methylation b	1		0.00000							
754.01	Total n-3 Polyunsaturated (Omega-3) Fatty Acids,	1	1	0.88500							
754.02	Total n-3 Polyunsaturated (Omega-3) Fatty Acids,	2	2	0.79500	0.09899						
754.99	Total n-3 Polyunsaturated (Omega-3) Fatty Acids,	2	2	0.79250	0.08839						
756.02	Total n-6 Polyunsaturated (Omega-6) Fatty Acids,	1	1	2.5250							
756.99	Total n-6 Polyunsaturated (Omega-6) Fatty Acids,	2	2	2.4823	0.07389						
758.02	Total Saturated Fatty Acids, Direct Methylation by	1	1	17.070							
762.01	Total Monounsaturated Fatty Acids, Direct Methyla	1	1	25.460							
766.01	Total Polyunsaturated Fatty Acids, Direct Methylat	1	1	57.430							

Notes: Robust statistics not used if < 6 labs reporting, in this case means and SD's may be reported based on Raw Data with obvious blunders removed.

**Test Material Code # 201722**

**Issue Date : 03/31/2017**

Method Code	Analyte and Method	Total # Labs Submitting	# Labs in Robust Calcs	Raw Mean	Raw SD	Assigned Value - Robust Mean	AAFCO PT ffp - Robust sd	Uncertainty (U) - Robust	% RSD - Robust	Average Range (R-bar)	Horwitz %RSD
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**AAFCO**  
Proficiency Testing Program



**Animal Feed Scheme**  
**Poultry Layer Feed, Medicated**  
**Test Material Code # 201722**

**Method Precision Report**

**# Methods Reported: 90**  
**# Labs Reporting: 198**  
**Issue Date : 03/31/2017**

Method Code	Analyte and Method	Total # Labs Submitting	# Labs used in Precision Calcs	Precision Mean	Precision SD	Between Labs SL	Within Labs sr	Reproducibility SR	Between Labs %RSD	Within Labs %rsd	Reproducibility %RSD	sr/sr
001.07	Loss on Drying, 104°C 3 hr, in malt (%)	37	33	9.3823	0.42685	0.31979	0.11794	0.34085	3.40%	1.255%	3.63%	2.8901
001.99	Loss on Drying, Miscellaneous (%)	23	22	9.1956	0.57176	0.45827	0.10694	0.47058	4.94%	1.154%	5.08%	4.4005
002.01	Protein, Auto Kjel-Foss (%)	15	14	18.647	0.68775	0.22457	0.07846	0.23788	1.19%	0.417%	1.26%	3.0319
002.05	Protein, Copper, Boric Acid (%)	29	27	18.688	0.46605	0.14954	0.09476	0.17703	0.80%	0.505%	0.94%	1.8683
002.06	Protein, Combustion Nitrogen Analyzer (%)	129	128	96.091	876.76	1.4408	0.17796	1.4518	7.62%	0.942%	7.68%	8.1579
003.00	Fat, Eth Ext., Direct (%)	10	9	5.1025	0.13432	0.12768	0.05265	0.13811	2.51%	1.035%	2.71%	2.6231
003.06	Fat, Pet Ether (%)	18	17	5.1663	0.21200	0.08291	0.05027	0.09696	1.62%	0.982%	1.89%	1.9287
003.09	Fat, Soxtec, Eth Ext (%)	22	21	5.1411	0.16008	0.15614	0.04118	0.16148	3.04%	0.802%	3.15%	3.9215
003.10	Fat, Soxtec, Pet Ether (%)	26	24	4.9205	0.40566	0.17277	0.06965	0.18628	3.46%	1.395%	3.73%	2.6746
003.13	Fat, Soxtec, Hexane Ext. (%)	8	8	5.1180	0.14537	0.11318	0.12903	0.17163	2.21%	2.521%	3.35%	1.3302
003.14	Fat, Ankom (%)	42	40	4.8693	0.73180	0.26742	0.11485	0.29104	5.34%	2.294%	5.81%	2.5342
004.00	Fiber, Crude, Asbestos Free (%)	17	16	4.9174	1.1611	0.22820	0.21175	0.31131	4.91%	4.560%	6.70%	1.4702
004.06	Fiber, Fibertec (%)	27	25	4.7274	0.37667	0.38196	0.07093	0.38849	8.11%	1.505%	8.25%	5.4773
004.07	Fiber, ANKOM (%)	64	61	5.1391	1.6357	0.65851	0.20978	0.69112	13.53%	4.309%	14.20%	3.2945
005.00	Ash, 2h @ 600°C (%)	92	85	11.628	0.73619	0.37942	0.11861	0.39753	3.22%	1.005%	3.37%	3.3516
005.05	Ash, 3h @ 550°C (%)	31	27	12.013	0.32206	0.17925	0.05194	0.18663	1.48%	0.430%	1.54%	3.5930
005.99	Ash, Miscellaneous (%)	11	10	11.947	0.76662	0.34307	0.12556	0.36533	2.82%	1.033%	3.01%	2.9096
008.02	Fiber, Acid Detergent (%)	15	13	6.7795	1.0548	0.65801	0.19236	0.68555	9.35%	2.734%	9.75%	3.5640
008.08	Fiber, Acid Detergent, ANKOM (%)	43	40	6.9919	0.96503	0.76175	0.24320	0.79963	10.93%	3.490%	11.48%	3.2880
009.07	Fiber, Neutral Det-ENZ Pretreat (%)	9	8	15.532	1.5795	1.5907	0.16664	1.5994	10.13%	1.061%	10.18%	9.5982
009.09	Fiber, Neutral Detergent, ANKOM (%)	37	35	15.324	1.0169	0.85380	0.28768	0.90096	5.61%	1.890%	5.92%	3.1318
010.99	Moisture, Miscellaneous (%)	16	15	9.4046	0.76746	0.47014	0.10357	0.48142	4.92%	1.084%	5.04%	4.6481
011.01	Loss on Drying, 135°C 2hr (%)	65	61	10.084	0.49803	0.36142	0.10957	0.37767	3.56%	1.078%	3.72%	3.4469
012.00	Starch, Polarimetric (Ewers) (%)	8	8	30.643	0.52888	0.49121	0.27719	0.56403	1.60%	0.905%	1.84%	2.0348
012.01	Starch, Megazyme (%)	9	8	27.279	2.1259	1.0166	0.82748	1.3108	3.65%	2.967%	4.70%	1.5841
013.00	Fat, Acid hydrolysis (%)	16	15	6.0209	0.53243	0.51428	0.13485	0.53166	8.60%	2.255%	8.89%	3.9428
013.02	Fat, Mojonnier, Bak Ext (%)	22	20	6.4193	0.54406	0.35634	0.15320	0.38787	5.62%	2.414%	6.11%	2.5318
019.00	Calcium, Ox-MnO4 Vol. (%)	10	9	3.5426	0.16128	0.13018	0.05678	0.14202	3.64%	1.589%	3.97%	2.5014
019.08	Calcium, EDTA (%)	9	9	3.5362	0.06765	0.05780	0.04970	0.07623	1.63%	1.405%	2.16%	1.5338
019.31	Calcium, AAS, Dry ash (%)	27	24	3.5489	0.36552	0.19406	0.11287	0.22450	5.61%	3.263%	6.49%	1.9890
019.41	Calcium, ICP, Dry ash (%)	26	24	3.4439	0.63968	0.17384	0.04688	0.18005	4.87%	1.314%	5.05%	3.8410
019.42	Calcium, ICP, Open vessel (%)	22	21	3.6085	0.20707	0.19706	0.08370	0.21410	5.48%	2.327%	5.95%	2.5579

Method Code	Analyte and Method	Total # Labs Submitting	# Labs used in Precision Calcs	Precision Mean	Precision SD	Between Labs sL	Within Labs sr	Reproducibility sR	Between Labs %RSD	Within Labs %rsd	Reproducibility %RSD	sR/sr
019.43	Calcium, ICP, Microwave (%)	27	26	1,191.3	6,171.4	0.20473	0.08364	0.22116	5.73%	2.342%	6.19%	2.6443
022.31	Copper, AAS, Dry ash (mg / kg (ppm))	14	13	18.939	2.5448	2.4509	0.83605	2.5896	13.08%	4.463%	13.83%	3.0974
022.41	Copper, ICP, Dry ash (mg / kg (ppm))	19	18	17.249	3.8934	0.74719	1.2382	1.4462	4.13%	6.839%	7.99%	1.1680
022.42	Copper, ICP, Open vessel (mg / kg (ppm))	20	18	16.656	4.0868	1.4141	0.60707	1.5389	8.11%	3.482%	8.83%	2.5350
022.43	Copper, ICP, Microwave (mg / kg (ppm))	21	18	16.151	3.1095	1.4651	0.64989	1.6028	8.60%	3.813%	9.40%	2.4663
025.31	Iron, AAS, Dry ash (mg / kg (ppm))	17	15	341.39	34.649	21.882	10.511	24.276	6.55%	3.147%	7.27%	2.3095
025.41	Iron, ICP, Dry ash (mg / kg (ppm))	20	18	309.99	74.592	31.578	11.600	33.641	9.70%	3.563%	10.33%	2.9001
025.42	Iron, ICP, Open vessel (mg / kg (ppm))	17	15	273.25	61.600	34.147	18.511	38.842	12.14%	6.579%	13.80%	2.0983
025.43	Iron, ICP, Microwave (mg / kg (ppm))	20	19	305.52	37.823	30.699	17.898	35.535	10.19%	5.943%	11.80%	1.9855
027.31	Magnesium, AAS, Dry ash (%)	20	19	0.30466	0.01945	0.01926	0.00668	0.02038	6.33%	2.198%	6.70%	3.0496
027.41	Magnesium, ICP, Dry ash (%)	21	19	0.30049	0.06127	0.01366	0.00497	0.01454	4.35%	1.581%	4.63%	2.9259
027.42	Magnesium, ICP, Open vessel (%)	20	18	0.30631	0.03087	0.01567	0.00712	0.01721	5.04%	2.288%	5.53%	2.4170
027.43	Magnesium, ICP, Microwave (%)	25	24	112.25	529.51	30.392	0.47780	30.396	466.19%	7.329%	466.25%	63.616
028.31	Manganese, AAS, Dry ash (mg / kg (ppm))	17	15	156.54	37.404	9.9256	3.4380	10.504	6.03%	2.088%	6.38%	3.0553
028.41	Manganese, ICP, Dry ash (mg / kg (ppm))	19	18	148.88	35.146	10.712	5.5908	12.083	6.84%	3.572%	7.72%	2.1612
028.42	Manganese, ICP, Open vessel (mg / kg (ppm))	20	18	161.29	27.888	12.237	6.9534	14.075	7.56%	4.293%	8.69%	2.0242
028.43	Manganese, ICP, Microwave (mg / kg (ppm))	24	22	163.74	9.6461	8.4164	3.4844	9.1091	5.17%	2.139%	5.59%	2.6143
031.01	Phosphorus, Photometric (%)	40	36	0.59967	0.04338	0.01969	0.01045	0.02229	3.29%	1.745%	3.72%	2.1333
031.41	Phosphorus, ICP, Dry ash (%)	25	23	0.59093	0.11411	0.02786	0.01133	0.03008	4.55%	1.851%	4.91%	2.6545
031.42	Phosphorus, ICP, Open vessel (%)	23	21	0.60065	0.05064	0.03583	0.01401	0.03848	5.92%	2.316%	6.36%	2.7460
031.43	Phosphorus, ICP, Microwave (%)	27	26	195.93	1,014.9	0.03657	0.01394	0.03913	6.04%	2.301%	6.46%	2.8078
032.31	Potassium, AAS, Dry ash (%)	20	19	0.66472	0.03922	0.03983	0.00803	0.04063	5.99%	1.207%	6.11%	5.0591
032.41	Potassium, ICP, Dry ash (%)	22	21	0.65192	0.13904	0.04548	0.01272	0.04722	6.69%	1.871%	6.95%	3.7112
032.42	Potassium, ICP, Open vessel (%)	19	17	0.70934	0.05519	0.03195	0.01836	0.03685	4.58%	2.634%	5.29%	2.0068
032.43	Potassium, ICP, Microwave (%)	22	21	284.00	1,328.9	0.04271	0.01278	0.04458	6.30%	1.885%	6.58%	3.4897
033.00	Salt as chloride, Sol Cl (%)	20	17	0.31657	0.09439	0.05149	0.00885	0.05224	17.50%	3.007%	17.76%	5.9063
033.01	Salt as chloride, Poten Cl (%)	28	27	0.34373	0.04878	0.03106	0.00967	0.03253	9.23%	2.872%	9.66%	3.3648
033.99	Salt, Miscellaneous (%)	10	9	0.38887	0.09170	0.09586	0.02319	0.09862	24.68%	5.969%	25.39%	4.2536
035.31	Sodium, AAS, Dry ash (%)	19	17	0.21216	0.01629	0.01263	0.00612	0.01404	6.03%	2.924%	6.70%	2.2921
035.41	Sodium, ICP, Dry ash (%)	25	24	0.20448	0.04132	0.01493	0.00658	0.01632	7.04%	3.100%	7.69%	2.4809
035.42	Sodium, ICP, Open vessel (%)	17	17	0.21298	0.01367	0.01291	0.00635	0.01439	6.06%	2.983%	6.76%	2.2649
035.43	Sodium, ICP, Microwave (%)	23	22	84.543	404.47	0.02101	0.00756	0.02232	10.23%	3.680%	10.87%	2.9535
036.42	Sulfur, ICP, Open vessel (%)	20	20	0.38144	0.03189	0.03148	0.00722	0.03230	8.25%	1.894%	8.47%	4.4710
036.43	Sulfur, ICP, Microwave (%)	13	12	251.86	906.74	0.01944	0.01498	0.02454	5.17%	3.984%	6.53%	1.6379
037.31	Zinc, AAS, Dry ash (mg / kg (ppm))	19	18	134.90	29.406	14.053	4.3047	14.698	9.98%	3.056%	10.44%	3.4143
037.41	Zinc, ICP, Dry ash (mg / kg (ppm))	19	17	129.13	29.836	7.7671	5.3563	9.4349	5.72%	3.946%	6.95%	1.7615
037.42	Zinc, ICP, Open vessel (mg / kg (ppm))	20	17	133.48	17.263	12.348	5.2044	13.400	9.15%	3.856%	9.93%	2.5747
037.43	Zinc, ICP, Microwave (mg / kg (ppm))	26	24	134.76	12.814	12.936	3.6246	13.434	9.56%	2.680%	9.93%	3.7063
106.02	Vitamin A, LC (KU / kg)	25	22	30.862	8.1096	5.8988	1.9831	6.2232	20.25%	6.807%	21.36%	3.1381
109.02	Vitamin E, LC (IU/kg)	22	19	113.52	44.816	27.104	5.3772	27.632	21.92%	4.349%	22.35%	5.1387

**Test Material Code # 201722**

**Issue Date : 03/31/2017**

Method Code	Analyte and Method	Total # Labs Submitting	# Labs used in Precision Calcs	Precision Mean	Precision SD	Between Labs sL	Within Labs sr	Reproducibility sR	Between Labs %RSD	Within Labs %rsd	Reproducibility %RSD	sR/sr
120.00	Alanine, Post-col Ninhydrin Der (%)	17	16	1.1755	0.02724	0.01964	0.01358	0.02388	1.67%	1.151%	2.02%	1.7587
121.00	Arginine, Post-col Ninhydrin Der (%)	17	15	0.95455	0.03364	0.02525	0.00632	0.02603	2.66%	0.665%	2.74%	4.1176
122.00	Aspartic, Post-col Ninhydrin Der (%)	17	17	1.3049	0.02954	0.02757	0.01501	0.03139	2.11%	1.151%	2.41%	2.0909
124.00	Cysteine/Cystine, PAO Post-col Ninhydrin (%)	17	16	0.36425	0.02296	0.02310	0.00714	0.02418	6.35%	1.962%	6.64%	3.3865
125.00	Glutamic, Post-col Ninhydrin Der (%)	17	16	3.4065	0.07561	0.05556	0.03139	0.06382	1.63%	0.918%	1.87%	2.0328
126.00	Glycine, Post-col Ninhydrin Der (%)	17	16	0.77674	0.02030	0.01177	0.00786	0.01415	1.51%	1.007%	1.81%	1.8006
127.00	Histidine, Post-col Ninhydrin Der (%)	17	17	0.46542	0.01846	0.01789	0.00643	0.01901	3.84%	1.383%	4.09%	2.9548
128.00	Isoleucine, Post-col Ninhydrin Der (%)	17	16	0.67367	0.03462	0.02668	0.00968	0.02838	3.93%	1.426%	4.18%	2.9324
129.00	Leucine, Post-col Ninhydrin Der (%)	17	17	1.8877	0.04965	0.04600	0.02642	0.05305	2.44%	1.400%	2.81%	2.0076
130.00	L-Lysine, Post-col Ninhydrin Der (%)	19	17	0.85653	0.05255	0.04342	0.00992	0.04453	5.12%	1.170%	5.26%	4.4912
130.05	L-Lysine, Pre-col AQC Der (%)	8	8	0.83606	0.04262	0.04137	0.01449	0.04383	4.95%	1.734%	5.24%	3.0243
131.00	Methionine, PAO Post-col Ninhydrin Der (%)	19	17	0.41891	0.03434	0.03434	0.00579	0.03483	8.24%	1.388%	8.35%	6.0160
132.00	Phenylalanine, Post-col Ninhydrin Der (%)	17	16	0.89646	0.05206	0.02853	0.01138	0.03071	3.22%	1.284%	3.47%	2.6991
133.00	Proline, Post-col Ninhydrin Der (%)	17	16	1.3694	0.05300	0.05308	0.01851	0.05621	3.88%	1.352%	4.11%	3.0371
134.00	Serine, Post-col Ninhydrin Der (%)	17	16	0.86086	0.04296	0.02420	0.01227	0.02714	2.78%	1.412%	3.12%	2.2109
135.00	Threonine, Post-col Ninhydrin Der (%)	17	17	0.68932	0.02185	0.02120	0.00747	0.02248	3.08%	1.084%	3.26%	3.0087
137.00	Tyrosine, Post-col Ninhydrin Der (%)	13	12	0.62282	0.03721	0.03711	0.01304	0.03933	5.98%	2.100%	6.33%	3.0161
138.00	Valine, Post-col Ninhydrin Der (%)	17	17	0.87534	0.04373	0.04290	0.01197	0.04454	4.90%	1.368%	5.09%	3.7193

Notes: Precision Calculations provided for methods with 8 or more labs used in calculations.