



AAFCO
Proficiency Testing Program



Animal Feed Scheme

Swine Feed, Medicated

Test Material Code # 201730

Method Summary Report

(Precision Report Follows)

Methods Reported: 392

Labs Reporting: 200

Issue Date : 11/30/2017

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
000.02	Urea, As protein, Colorimetric (%)	1	1	0.20000							
001.00	Loss on Drying, Vac 95°C 5 hr (%)	7	7	9.1901	1.0222	9.3692	0.70029	0.33086	7.47%	0.14674	2.86%
001.03	Loss on Drying, Low temp. methods (%)	4	3	9.1346	0.04893	9.1346	0.04893	0.03531	0.54%	0.04157	2.87%
001.05	Loss on Drying, LECO (%)	2	2	458.70	635.76						
001.07	Loss on Drying, 104°C 3 hr, in malt (%)	42	41	9.2637	0.66668	9.2291	0.41935	0.08187	4.54%	0.13773	2.86%
001.99	Loss on Drying, Miscellaneous (%)	22	21	8.9893	0.90121	9.0773	0.80057	0.21837	8.82%	0.16943	2.87%
002.00	Protein, Crude (%)	3	3	20.815	0.78385	20.815	0.78385	0.56570	3.77%	0.13667	2.19%
002.01	Protein, Auto Kjeh-Foss (%)	14	13	19.847	3.3238	20.748	0.39517	0.13700	1.90%	0.19355	2.20%
002.02	Protein, Semiauto Autoanalyzer (%)	4	4	20.923	0.24865	20.923	0.24865	0.15541	1.19%	0.10085	2.19%
002.03	Protein, Hach Method (%)	1	1	20.045							
002.04	Protein, Copper Catalyst (%)	4	3	20.778	0.30913	20.778	0.30913	0.22310	1.49%	0.06333	2.19%
002.05	Protein, Copper, Boric Acid (%)	29	28	20.862	0.31627	20.863	0.33470	0.07906	1.60%	0.06755	2.19%
002.06	Protein, Combustion Nitrogen Analyzer (%)	130	126	21.178	1.2418	21.277	0.26844	0.02989	1.26%	0.15871	2.17%
002.08	Protein, Cu/Ti (%)	2	2	21.341	0.42515						
002.10	Protein, Block dig/distillation (%)	1	1	21.155							
002.11	Protein, NIR (%)	7	7	22.476	2.1920	22.476	2.4857	1.1744	11.06%	0.15714	2.11%
002.99	Protein, Miscellaneous (%)	4	4	20.765	0.38249	20.765	0.38249	0.23906	1.84%	0.13000	2.19%
003.00	Fat, Eth Ext., Direct (%)	15	14	6.7888	0.54042	6.8762	0.28788	0.09617	4.19%	0.15064	2.99%
003.01	Fat, Ind Eth Ext (13th ed.), Indirect (%)	2	2	6.0725	1.1208						
003.06	Fat, Pet Ether (%)	19	18	6.8485	0.11836	6.8498	0.13042	0.03842	1.90%	0.09505	2.99%
003.09	Fat, Soxtec, Eth Ext (%)	18	17	6.6780	0.42254	6.7338	0.30741	0.09320	4.57%	0.13184	3.00%
003.10	Fat, Soxtec, Pet Ether (%)	26	26	6.7818	0.28813	6.7545	0.24835	0.06088	3.68%	0.17604	3.00%
003.11	Fat, NIR (%)	7	7	6.9564	0.40765	6.9564	0.46228	0.21841	6.65%	0.03857	2.99%
003.12	Fat, Hexane Ext (%)	4	3	6.5745	0.10521	6.5745	0.10521	0.09299	1.60%	0.14567	3.01%
003.13	Fat, Soxtec, Hexane Ext. (%)	10	9	6.9064	0.24134	6.9066	0.27326	0.11386	3.96%	0.05467	2.99%
003.14	Fat, Ankom (%)	40	40	6.5125	0.78770	6.6614	0.42437	0.08387	6.37%	0.15832	3.01%
003.99	Fat, Miscellaneous (%)	7	7	7.1657	0.79019	7.1318	0.81726	0.38612	11.46%	0.27714	2.98%
004.00	Fiber, Crude, Asbestos Free (%)	21	21	2.4566	0.27893	2.4595	0.23749	0.06478	9.66%	0.11551	3.49%
004.01	Fiber, Sing Filt (%)	1	1	3.3000							
004.03	Fiber, Fritted Glass (%)	5	5	2.3832	0.53339	2.3832	0.53339	0.29817	22.38%	0.17064	3.51%

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
004.06	Fiber, Fibertec (%)	23	22	2.6420	0.34441	2.5964	0.26947	0.07181	10.38%	0.07604	3.46%
004.07	Fiber, ANKOM (%)	65	63	2.2962	0.41891	2.2686	0.31939	0.05030	14.08%	0.11377	3.54%
004.11	Fiber, NIR (%)	7	7	3.1757	1.3970	2.9570	1.0314	0.48730	34.88%	0.04000	3.40%
004.99	Fiber, Miscellaneous (%)	3	3	2.2250	0.25734	2.2250	0.25734	0.18572	11.57%	0.15000	3.55%
005.00	Ash, 2h @ 600°C (%)	95	93	7.7530	0.14289	7.7511	0.13691	0.01775	1.77%	0.05949	2.94%
005.02	Ash, LECO (%)	2	2	8.0475	0.11667						
005.05	Ash, 3h @ 550°C (%)	31	30	7.9086	0.13841	7.9159	0.12496	0.02852	1.58%	0.07127	2.93%
005.11	Ash, NIR (%)	5	4	8.7125	0.59878	8.7125	0.59878	0.37424	6.87%	0.10000	2.89%
005.99	Ash, Miscellaneous (%)	13	13	7.8374	0.24878	7.8718	0.18299	0.06344	2.32%	0.06139	2.93%
006.00	Total sugars, As sucrose (%)	2	2	7.0275	6.3534						
006.01	Total sugars, Mod. Fehling Soln (%)	1	1	11.235							
006.99	Total sugars, Miscellaneous (%)	1	1	10.150							
008.02	Fiber, Acid Detergent (%)	16	16	3.4024	0.37978	3.4206	0.33385	0.10433	9.76%	0.14880	3.32%
008.05	Fiber, Acid Detergent-Hach (%)	1	1	5.2000							
008.08	Fiber, Acid Detergent, ANKOM (%)	43	42	3.5914	1.2514	3.4258	0.43291	0.08350	12.64%	0.21779	3.32%
008.99	Fiber, Acid Detergent Miscellaneous (%)	2	2	25.850	32.032						
009.04	Fiber, Neutral Det-No ENZ Pretreat (%)	1	1	8.8450							
009.07	Fiber, Neutral Det-ENZ Pretreat (%)	14	13	7.8677	1.0487	7.8382	1.0108	0.35043	12.90%	0.30317	2.93%
009.09	Fiber, Neutral Detergent, ANKOM (%)	42	42	7.4445	1.4850	7.2774	0.92291	0.17801	12.68%	0.25533	2.97%
009.99	Fiber, Neutral Det Miscellaneous (%)	1	1	7.8900							
010.03	Moisture, Karl-Fischer (%)	3	3	9.2367	0.16855	9.2367	0.16855	0.12164	1.82%	0.25333	2.86%
010.11	Moisture, NIR (%)	5	5	9.5840	0.72538	9.5840	0.72538	0.40550	7.57%	0.07200	2.85%
010.99	Moisture, Miscellaneous (%)	20	19	9.4302	0.74718	9.3955	0.76123	0.21830	8.10%	0.12317	2.85%
011.01	Loss on Drying, 135°C 2hr (%)	69	68	10.750	0.88186	10.775	0.65896	0.09989	6.12%	0.12886	2.80%
011.02	Loss on Drying, 130°C for 2 hours (%)	3	3	10.620	0.37172	10.620	0.37172	0.26827	3.50%	0.10000	2.80%
011.99	Loss on Drying, High Temp. Methods Miscellaneo	4	4	10.280	0.38497	10.280	0.38497	0.24061	3.74%	0.29500	2.82%
012.00	Starch, Polarimetric (Ewers) (%)	12	11	28.820	1.2551	28.820	1.4233	0.53642	4.94%	0.27273	1.86%
012.01	Starch, Megazyme (%)	9	9	24.122	5.8208	25.094	3.9802	1.6584	15.86%	0.70970	2.00%
012.03	Starch, Enzymatic (%)	4	4	27.593	0.72307	27.593	0.72307	0.45192	2.62%	0.53500	1.90%
012.04	Starch, YSI Analyzer (%)	5	5	27.100	2.4180	27.100	2.4180	1.3517	8.92%	0.57600	1.92%
012.11	Starch, NIR (%)	2	2	23.920	0.90510						
013.00	Fat, Acid hydrolysis (%)	20	20	7.8729	1.1778	7.9438	1.0463	0.29246	13.17%	0.14056	2.93%
013.02	Fat, Mojonier, Bak Ext (%)	16	14	8.5568	0.51463	8.5683	0.55813	0.18646	6.51%	0.20071	2.89%
013.08	Fat, Roese-Gottlieb Modified (%)	1	1	7.5403							
013.10	Fat, Soxtec-Acid Hydrolysis (%)	5	4	7.6254	0.81046	7.6254	0.81046	0.50654	10.63%	0.50823	2.95%
013.13	Fat, Ankom- Acid Hydrolysis (%)	10	10	8.1378	1.1593	8.1140	1.2617	0.49875	15.55%	0.33134	2.92%
013.99	Fat, Pretreat or extended ext., Misc (%)	1	1	7.1950							
015.41	Aluminum, ICP, Dry ash (mg / kg (ppm))	3	3	238.63	42.586	238.63	42.586	30.734	17.85%	22.457	7.02%

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
015.42	Aluminum, ICP, Open vessel (mg / kg (ppm))	1	1	224.65							
015.43	Aluminum, ICP, Microwave (mg / kg (ppm))	5	5	212.16	33.440	212.16	33.440	18.694	15.76%	5.6116	7.14%
015.52	Aluminum, ICP-MS, Open vessel (mg / kg (ppm))	1	1	134.00							
017.41	Boron, ICP, Dry ash (mg / kg (ppm))	4	4	11.753	1.1895	11.753	1.1895	0.74344	10.12%	1.0800	11.04%
017.42	Boron, ICP, Open vessel (mg / kg (ppm))	5	4	11.259	0.18232	11.259	0.18232	0.11395	1.62%	0.56135	11.11%
017.43	Boron, ICP, Microwave (mg / kg (ppm))	4	4	11.694	0.87711	11.694	0.87711	0.54819	7.50%	0.38750	11.05%
019.00	Calcium, Ox-Mn04 Vol. (%)	11	11	1.1670	0.04694	1.1670	0.05323	0.02006	4.56%	0.01553	3.91%
019.02	Calcium, Hach Method (%)	1	1	1.2400							
019.03	Calcium, Semiauto (Autoanalyzer) (%)	1	1	1.2101							
019.08	Calcium, EDTA (%)	6	6	1.2007	0.13292	1.2007	0.15074	0.07692	12.55%	0.01800	3.89%
019.09	Calcium, Ion-selective electrode (%)	1	1	1.0690							
019.31	Calcium, AAS, Dry ash (%)	25	25	1.1844	0.06984	1.1805	0.06996	0.01749	5.93%	0.02348	3.90%
019.32	Calcium, AAS, Open vessel (%)	3	3	1.1967	0.03329	1.1967	0.03329	0.02402	2.78%	0.00667	3.89%
019.33	Calcium, AAS, Microwave (%)	1	1	1.1200							
019.41	Calcium, ICP, Dry ash (%)	29	29	1.1800	0.07912	1.1799	0.07282	0.01690	6.17%	0.03629	3.90%
019.42	Calcium, ICP, Open vessel (%)	23	23	1.1736	0.07576	1.1760	0.07119	0.01856	6.05%	0.03522	3.90%
019.43	Calcium, ICP, Microwave (%)	25	23	1.1830	0.09790	1.1735	0.08740	0.02278	7.45%	0.04025	3.90%
019.44	Calcium, ICP, Dry ash (%)	2	2	1.1500	0.01414						
019.51	Calcium, ICP-MS, Dry ash (%)	1	1	1.2250							
019.52	Calcium, ICP-MS, Open vessel (%)	3	3	1.1755	0.07730	1.1755	0.07730	0.05579	6.58%	0.05780	3.90%
019.53	Calcium, ICP-MS, Microwave (%)	2	2	1.1800	0.09192						
019.99	Calcium, Miscellaneous (%)	6	6	1.1723	0.06868	1.1863	0.04224	0.02156	3.56%	0.02217	3.90%
021.31	Cobalt, AAS, Dry ash (mg / kg (ppm))	2	2	1.9000	0.00000						
021.32	Cobalt, AAS, Open vessel (mg / kg (ppm))	1	1	1.9000							
021.34	Cobalt, AAS, Graphite furnace (mg / kg (ppm))	1	1	2,101.0							
021.41	Cobalt, ICP, Dry ash (mg / kg (ppm))	3	3	1.6217	0.48581	1.6217	0.48581	0.42940	29.96%	0.01667	14.87%
021.42	Cobalt, ICP, Open vessel (mg / kg (ppm))	4	4	1.7442	0.18714	1.7442	0.18714	0.11696	10.73%	0.05628	14.71%
021.43	Cobalt, ICP, Microwave (mg / kg (ppm))	7	7	1.8637	0.13006	1.8637	0.14748	0.06968	7.91%	0.02913	14.57%
021.52	Cobalt, ICP-MS, Open vessel (mg / kg (ppm))	2	2	1.6450	0.14849						
021.53	Cobalt, ICP-MS, Microwave (mg / kg (ppm))	3	3	1.8760	0.14078	1.8760	0.14078	0.12443	7.50%	0.22070	14.55%
022.31	Copper, AAS, Dry ash (mg / kg (ppm))	18	17	174.10	7.9910	174.86	6.9975	2.1214	4.00%	3.6897	7.35%
022.32	Copper, AAS, Open vessel (mg / kg (ppm))	4	4	174.79	17.866	174.79	17.866	11.166	10.22%	5.6250	7.35%
022.33	Copper, AAS, Microwave (mg / kg (ppm))	1	1	186.87							
022.41	Copper, ICP, Dry ash (mg / kg (ppm))	24	23	164.12	21.690	165.39	20.100	5.2389	12.15%	4.9334	7.42%
022.42	Copper, ICP, Open vessel (mg / kg (ppm))	22	21	182.74	16.746	182.33	12.477	3.4035	6.84%	4.7244	7.31%
022.43	Copper, ICP, Microwave (mg / kg (ppm))	23	21	174.84	9.9980	175.11	10.734	2.9279	6.13%	2.5892	7.35%
022.44	Copper, ICP, Dry ash (mg / kg (ppm))	1	1	181.00							
022.52	Copper, ICP-MS, Open vessel (mg / kg (ppm))	3	3	170.37	33.081	170.37	33.081	23.874	19.42%	4.7400	7.38%

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
022.53	Copper, ICP-MS, Microwave (mg / kg (ppm))	1	1	188.00							
022.99	Copper, Miscellaneous (mg / kg (ppm))	5	5	179.01	8.1759	179.01	8.1759	4.5705	4.57%	1.7000	7.33%
023.01	Fluorine, Ion Sel Elect (mg / kg (ppm))	1	1	15.700							
025.31	Iron, AAS, Dry ash (mg / kg (ppm))	19	17	739.20	32.787	739.20	37.180	11.272	5.03%	17.445	5.92%
025.32	Iron, AAS, Open vessel (mg / kg (ppm))	3	3	743.72	85.339	743.72	85.339	61.588	11.47%	26.767	5.91%
025.33	Iron, AAS, Microwave (mg / kg (ppm))	1	1	878.29							
025.41	Iron, ICP, Dry ash (mg / kg (ppm))	24	23	709.47	88.295	716.05	52.915	13.792	7.39%	13.623	5.95%
025.42	Iron, ICP, Open vessel (mg / kg (ppm))	19	18	647.03	160.41	686.33	68.027	20.043	9.91%	20.148	5.99%
025.43	Iron, ICP, Microwave (mg / kg (ppm))	21	21	691.39	57.371	693.99	58.591	15.982	8.44%	26.623	5.98%
025.52	Iron, ICP-MS, Open vessel (mg / kg (ppm))	3	3	614.57	56.925	614.57	56.925	41.082	9.26%	35.533	6.09%
025.53	Iron, ICP-MS, Microwave (mg / kg (ppm))	1	1	689.50							
025.99	Iron, Miscellaneous (mg / kg (ppm))	4	3	708.83	14.546	708.83	14.546	10.498	2.05%	4.3333	5.96%
027.31	Magnesium, AAS, Dry ash (%)	19	19	0.19349	0.01622	0.19554	0.01107	0.00318	5.66%	0.00602	5.11%
027.32	Magnesium, AAS, Open vessel (%)	4	3	0.19133	0.01858	0.19133	0.01858			0.00000	5.13%
027.33	Magnesium, AAS, Microwave (%)	1	1	0.21150							
027.41	Magnesium, ICP, Dry ash (%)	24	24	0.19883	0.01209	0.19886	0.01299	0.00331	6.53%	0.00749	5.10%
027.42	Magnesium, ICP, Open vessel (%)	21	20	0.19772	0.01167	0.19844	0.01063	0.00297	5.36%	0.00563	5.10%
027.43	Magnesium, ICP, Microwave (%)	24	22	0.19821	0.01669	0.19709	0.01298	0.00346	6.58%	0.00359	5.11%
027.44	Magnesium, ICP, Dry ash (%)	2	2	0.19200	0.00071						
027.51	Magnesium, ICP-MS, Dry ash (%)	1	1	0.17300							
027.52	Magnesium, ICP-MS, Open vessel (%)	3	3	0.19173	0.01239	0.19173	0.01239	0.00894	6.46%	0.00333	5.13%
027.53	Magnesium, ICP-MS, Microwave (%)	2	2	0.19675	0.00106						
027.99	Magnesium, Miscellaneous (%)	5	4	0.20250	0.00500	0.20250	0.00500	0.00442	2.47%	0.00500	5.09%
028.31	Manganese, AAS, Dry ash (mg / kg (ppm))	15	15	164.95	8.2258	165.23	8.6866	2.8036	5.26%	5.3916	7.42%
028.32	Manganese, AAS, Open vessel (mg / kg (ppm))	3	3	164.16	8.6984	164.16	8.6984	6.2775	5.30%	2.7833	7.42%
028.33	Manganese, AAS, Microwave (mg / kg (ppm))	1	1	153.62							
028.41	Manganese, ICP, Dry ash (mg / kg (ppm))	22	22	156.82	20.551	159.47	13.833	3.6864	8.67%	4.5420	7.46%
028.42	Manganese, ICP, Open vessel (mg / kg (ppm))	21	20	164.15	13.383	164.73	13.900	3.8851	8.44%	4.5098	7.42%
028.43	Manganese, ICP, Microwave (mg / kg (ppm))	23	22	161.12	10.058	161.14	10.489	2.7953	6.51%	3.4957	7.44%
028.44	Manganese, ICP, Dry ash (mg / kg (ppm))	2	2	155.00	7.7782						
028.52	Manganese, ICP-MS, Open vessel (mg / kg (ppm))	2	2	198.63	31.639						
028.53	Manganese, ICP-MS, Microwave (mg / kg (ppm))	2	2	157.25	10.253						
028.99	Manganese, Miscellaneous (mg / kg (ppm))	4	4	144.00	44.078	144.00	44.078	27.549	30.61%	2.6000	7.57%
031.00	Phosphorus, Vol (%)	2	2	0.65000	0.06364						
031.01	Phosphorus, Photometric (%)	38	38	0.69526	0.03195	0.69505	0.03503	0.00710	5.04%	0.02195	4.22%
031.02	Phosphorus, GQMP (AOAC 935.13-Extraction) (%)	3	3	0.69368	0.02918	0.69368	0.02918	0.02579	4.21%	0.00170	4.23%
031.03	Phosphorus, Autoanalyzer (%)	4	4	0.70231	0.03281	0.70231	0.03281	0.02051	4.67%	0.01023	4.22%
031.06	Phosphorus, Hach Method (%)	1	1	0.55000							

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
031.41	Phosphorus, ICP, Dry ash (%)	28	27	0.70029	0.04889	0.70280	0.03920	0.00943	5.58%	0.01386	4.22%
031.42	Phosphorus, ICP, Open vessel (%)	24	24	0.68803	0.04528	0.69098	0.04394	0.01121	6.36%	0.02029	4.23%
031.43	Phosphorus, ICP, Microwave (%)	24	23	0.69600	0.03030	0.69843	0.02605	0.00679	3.73%	0.01252	4.22%
031.44	Phosphorus, ICP, Dry ash (%)	2	2	0.69625	0.00601						
031.51	Phosphorus, ICP-MS, Dry ash (%)	1	1	0.67650							
031.52	Phosphorus, ICP-MS, Open vessel (%)	2	2	0.67783	0.07520						
031.53	Phosphorus, ICP-MS, Microwave (%)	3	3	0.71217	0.06304	0.71217	0.06304	0.04550	8.85%	0.03033	4.21%
031.99	Phosphorus, Miscellaneous (%)	6	6	0.69192	0.02124	0.69192	0.02408	0.01229	3.48%	0.01683	4.23%
032.02	Potassium, Flame Emission (%)	2	2	1.1275	0.00354						
032.31	Potassium, AAS, Dry ash (%)	16	15	1.1210	0.15662	1.1000	0.10664	0.03442	9.69%	0.02410	3.94%
032.32	Potassium, AAS, Open vessel (%)	3	3	1.0433	0.10867	1.0433	0.10867	0.07843	10.42%	0.00667	3.97%
032.41	Potassium, ICP, Dry ash (%)	24	22	1.1139	0.06984	1.1118	0.06199	0.01652	5.58%	0.03406	3.94%
032.42	Potassium, ICP, Open vessel (%)	23	23	1.1413	0.06193	1.1377	0.06084	0.01586	5.35%	0.02217	3.92%
032.43	Potassium, ICP, Microwave (%)	27	26	1.0965	0.06189	1.1006	0.06027	0.01478	5.48%	0.02565	3.94%
032.44	Potassium, ICP, Dry ash (%)	2	2	1.0975	0.02475						
032.51	Potassium, ICP-MS, Dry ash (%)	1	1	1.1850							
032.52	Potassium, ICP-MS, Open vessel (%)	2	2	1.0928	0.02436						
032.53	Potassium, ICP-MS, Microwave (%)	1	1	1.2200							
032.99	Potassium, Miscellaneous (%)	4	4	1.0868	0.03506	1.0868	0.03506	0.02191	3.23%	0.01400	3.95%
033.00	Salt as chloride, Sol Cl (%)	17	16	1.4019	0.06399	1.3994	0.06660	0.02081	4.76%	0.02646	3.80%
033.01	Salt as chloride, Poten Cl (%)	35	34	1.4408	0.04710	1.4420	0.03339	0.00716	2.32%	0.01275	3.79%
033.03	Salt as chloride, Quantab (%)	5	5	1.2820	0.06130	1.2820	0.06130	0.03427	4.78%	0.06800	3.85%
033.05	Salt as chloride, Ion Sel Electrode (%)	1	1	1.3900							
033.99	Salt, Miscellaneous (%)	9	9	1.3472	0.19510	1.3935	0.08454	0.03523	6.07%	0.02778	3.80%
034.01	Selenium, Fluor (mg / kg (ppm))	1	1	1.8310							
034.04	Selenium, AA, Hydride (mg / kg (ppm))	5	4	1.4472	0.55481	1.4472	0.55481	0.34676	38.34%	0.08915	15.13%
034.41	Selenium, ICP, Dry ash (mg / kg (ppm))	2	2	1.4275	0.20153						
034.42	Selenium, ICP, Open vessel (mg / kg (ppm))	2	2	2.0550	0.50205						
034.43	Selenium, ICP, Microwave (mg / kg (ppm))	2	2	1.3567	0.08248						
034.52	Selenium, ICP-MS, Open vessel (mg / kg (ppm))	6	6	1.8308	0.13497	1.8308	0.15305	0.07811	8.36%	0.10483	14.61%
034.53	Selenium, ICP-MS, Microwave (mg / kg (ppm))	4	3	1.6223	0.12416	1.6223	0.12416	0.08960	7.65%	0.03867	14.87%
034.99	Selenium, Miscellaneous (mg / kg (ppm))	1	1	0.11500							
035.01	Sodium, Ion-selective electrode (%)	2	2	0.51750	0.00354						
035.02	Sodium, Em Spect (%)	1	1	0.52500							
035.05	Sodium, Flame Emission (%)	2	2	0.60500	0.06364						
035.31	Sodium, AAS, Dry ash (%)	21	21	0.52032	0.04538	0.52442	0.03981	0.01086	7.59%	0.02363	4.41%
035.32	Sodium, AAS, Open vessel (%)	3	3	0.50667	0.04041	0.50667	0.04041			0.00000	4.43%
035.33	Sodium, AAS, Microwave (%)	1	1	0.53000							

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
035.41	Sodium, ICP, Dry ash (%)	25	25	0.51498	0.08773	0.53186	0.03804	0.00951	7.15%	0.01816	4.40%
035.42	Sodium, ICP, Open vessel (%)	18	17	0.53023	0.04113	0.52893	0.03662	0.01110	6.92%	0.01389	4.40%
035.43	Sodium, ICP, Microwave (%)	23	23	0.51738	0.03916	0.51517	0.03221	0.00839	6.25%	0.00951	4.42%
035.52	Sodium, ICP-MS, Open vessel (%)	2	2	0.53068	0.03581						
035.53	Sodium, ICP-MS, Microwave (%)	2	2	0.54450	0.00354						
035.99	Sodium, Miscellaneous (%)	3	3	0.54000	0.01323	0.54000	0.01323	0.00955	2.45%	0.01333	4.39%
036.04	Sulfur, LECO (%)	2	2	0.32750	0.01061						
036.42	Sulfur, ICP, Open vessel (%)	16	15	0.29417	0.01838	0.29405	0.01888	0.00609	6.42%	0.00727	4.81%
036.43	Sulfur, ICP, Microwave (%)	12	11	0.30646	0.01704	0.30668	0.01885	0.00710	6.15%	0.00402	4.78%
036.52	Sulfur, ICP-MS, Open vessel (%)	2	2	0.28058	0.00767						
036.99	Sulfur, Miscellaneous (%)	2	2	0.32275	0.00389						
037.31	Zinc, AAS, Dry ash (mg / kg (ppm))	19	18	3,544.1	820.75	3,727.1	228.19	67.232	6.12%	47.057	4.64%
037.32	Zinc, AAS, Open vessel (mg / kg (ppm))	4	3	3,790.2	172.71	3,790.2	172.71	124.64	4.56%	95.667	4.63%
037.33	Zinc, AAS, Microwave (mg / kg (ppm))	1	1	3,748.8							
037.41	Zinc, ICP, Dry ash (mg / kg (ppm))	22	22	3,843.4	738.47	3,897.5	304.65	81.191	7.82%	116.82	4.61%
037.42	Zinc, ICP, Open vessel (mg / kg (ppm))	21	21	3,661.2	621.30	3,732.1	330.03	90.023	8.84%	109.32	4.64%
037.43	Zinc, ICP, Microwave (mg / kg (ppm))	22	22	3,804.5	328.31	3,774.2	264.58	70.511	7.01%	66.689	4.63%
037.44	Zinc, ICP, Dry ash (mg / kg (ppm))	2	2	3,598.0	53.033						
037.52	Zinc, ICP-MS, Open vessel (mg / kg (ppm))	2	2	3,469.8	435.12						
037.53	Zinc, ICP-MS, Microwave (mg / kg (ppm))	2	2	3,915.0	28.284						
037.99	Zinc, Miscellaneous (mg / kg (ppm))	6	6	3,705.7	277.67	3,705.7	314.87	160.68	8.50%	38.000	4.64%
038.41	Molybdenum, ICP, Dry ash (mg / kg (ppm))	1	1	1.6900							
038.42	Molybdenum, ICP, Open vessel (mg / kg (ppm))	4	4	1.9069	0.35557	1.9069	0.35557	0.22223	18.65%	0.18165	14.52%
038.43	Molybdenum, ICP, Microwave (mg / kg (ppm))	6	6	1.6437	0.21105	1.6437	0.23933	0.12213	14.56%	0.13098	14.84%
038.52	Molybdenum, ICP-MS, Open vessel (mg / kg (ppm))	2	2	1.7325	0.11667						
038.53	Molybdenum, ICP-MS, Microwave (mg / kg (ppm))	3	3	1.6449	0.20195	1.6449	0.20195	0.14574	12.28%	0.05547	14.84%
040.42	Barium, ICP, Open vessel (mg / kg (ppm))	1	1	6.8700							
040.53	Barium, ICP-MS, Microwave (mg / kg (ppm))	1	1	6.1474							
041.53	Vanadium, ICP-MS, Microwave (mg / kg (ppm))	1	1	1.2650							
042.00	Chloride, Titrimetric (%)	2	2	0.89250	0.02475						
042.02	Chloride, Ion Chromatography (%)	2	2	1.0625	0.33588						
042.99	Chloride, Miscellaneous (%)	2	2	0.89500	0.00707						
101.00	Choline Chloride, Microbiological (mg / kg (ppm))	2	2	2,043.7	532.20						
101.01	Choline Chloride, Chem (mg / kg (ppm))	2	2	1,889.8	148.14						
101.02	Choline Chloride, LC (mg / kg (ppm))	1	1	1,495.5							
102.01	Niacin, Microbiological (mg / kg (ppm))	1	1	134.00							
102.02	Niacin, LC (mg / kg (ppm))	1	1	210.29							
103.01	Pantothenic Acid, Microbiological (mg / kg (ppm))	1	1	69.250							

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
104.00	Riboflavin, Fluorometric (mg / kg (ppm))	1	1	21.500							
104.03	Riboflavin, LC (mg / kg (ppm))	2	2	20.090	3.8820						
105.00	Thiamine, LC (mg / kg (ppm))	3	3	6.2970	2.3873	6.2970	2.3873	1.7229	37.91%	0.24267	12.13%
105.01	Thiamine, Fluorometer (mg / kg (ppm))	1	1	9.4100							
106.00	Vitamin A, Color (KU / kg)	1	1	29.907							
106.01	Vitamin A, UV (KU / kg)	1	1	48.050							
106.02	Vitamin A, LC (KU / kg)	19	18	33.143	11.632	33.551	7.7367	2.2795	23.06%	3.2736	
107.00	Vitamin B12, Microbiological (µg / kg (ppb))	1	1	169.50							
108.01	Vitamin D3, LC, AOAC (KU / kg)	1	1	6.0000							
108.02	Vitamin D3, LC (KU / kg)	7	7	14.111	5.5349	14.111	6.2765	2.9654	44.48%	1.3740	
108.99	Vitamin D3, Miscellaneous (KU / kg)	1	1	11.550							
109.02	Vitamin E, LC (IU/kg)	17	17	194.83	93.830	177.26	36.116	10.949	20.37%	5.7366	
111.01	Vitamin C, Ascorbic Acid, LC (mkg/kg (ppm))	1	1	1.9300							
112.01	Pyridoxine, LC (µg / g)	1	1	7.0900							
113.01	Folic Acid, Micro (mg / kg (ppm))	1	1	4.8200							
114.01	Biotin, Microbiological (mg / kg (ppm))	1	1	0.97000							
120.00	Alanine, Post-col Ninhydrin Der (%)	21	21	1.0506	0.03672	1.0463	0.02197	0.00599	2.10%	0.01537	3.97%
120.02	Alanine, Post-col OPA Der (%)	1	1	1.0395							
120.05	Alanine, Pre-col AQC Der (%)	3	3	1.0003	0.01329	1.0003	0.01329	0.00959	1.33%	0.02067	4.00%
120.99	Alanine, Miscellaneous (%)	2	2	1.0600	0.04243						
121.00	Arginine, Post-col Ninhydrin Der (%)	21	21	1.2571	0.04617	1.2543	0.04609	0.01257	3.67%	0.01931	3.87%
121.02	Arginine, Post-col OPA Der (%)	1	1	1.2920							
121.05	Arginine, Pre-col AQC Der (%)	3	3	1.2207	0.04179	1.2207	0.04179	0.03016	3.42%	0.02867	3.88%
121.99	Arginine, Miscellaneous (%)	1	1	1.2200							
122.00	Aspartic, Post-col Ninhydrin Der (%)	21	21	2.0050	0.06342	1.9994	0.05822	0.01588	2.91%	0.03703	3.60%
122.02	Aspartic, Post-col OPA Der (%)	1	1	2.0375							
122.05	Aspartic, Pre-col AQC Der (%)	3	3	1.9288	0.10137	1.9288	0.10137	0.07316	5.26%	0.09367	3.62%
122.99	Aspartic, Miscellaneous (%)	2	2	1.7975	0.16617						
124.00	Cysteine/Cystine, PAO Post-col Ninhydry (%)	20	19	0.33217	0.01409	0.33305	0.01370	0.00393	4.11%	0.00779	4.72%
124.02	Cysteine/Cystine, PAO Post-col OPA Der (%)	1	1	0.34800							
124.05	Cysteine/Cystine, PAO Pre-col AQC Der (%)	3	3	0.33367	0.00769	0.33367	0.00769	0.00680	2.30%	0.00167	4.72%
124.99	Cysteine/Cystine, Miscellaneous (%)	3	3	0.29667	0.09504	0.29667	0.09504	0.08400	32.04%	0.02000	4.80%
125.00	Glutamic, Post-col Ninhydrin Der (%)	21	21	3.4863	0.13202	3.4726	0.11047	0.03013	3.18%	0.04572	3.32%
125.02	Glutamic, Post-col OPA Der (%)	1	1	3.4590							
125.05	Glutamic, Pre-col AQC Der (%)	3	3	3.3522	0.15404	3.3522	0.15404	0.11117	4.60%	0.12567	3.33%
125.99	Glutamic, Miscellaneous (%)	2	2	3.6075	0.39244						
126.00	Glycine, Post-col Ninhydrin Der (%)	21	21	0.99205	0.04069	0.98744	0.01920	0.00524	1.94%	0.01504	4.01%
126.02	Glycine, Post-col OPA Der (%)	1	1	1.0095							

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
126.05	Glycine, Pre-col AQC Der (%)	3	3	0.98050	0.01899	0.98050	0.01899	0.01370	1.94%	0.01833	4.01%
126.99	Glycine, Miscellaneous (%)	2	2	0.93750	0.00354						
127.00	Histidine, Post-col Ninhydrin Der (%)	20	19	0.49627	0.01813	0.49720	0.01848	0.00530	3.72%	0.01064	4.44%
127.02	Histidine, Post-col OPA Der (%)	1	1	0.49950							
127.05	Histidine, Pre-col AQC Der (%)	3	3	0.48717	0.02391	0.48717	0.02391	0.01726	4.91%	0.01500	4.46%
127.99	Histidine, Miscellaneous (%)	2	2	0.50250	0.01061						
128.00	Isoleucine, Post-col Ninhydrin Der (%)	21	20	0.81053	0.05107	0.81872	0.03587	0.01003	4.38%	0.01788	4.12%
128.02	Isoleucine, Post-col OPA Der (%)	1	1	0.83700							
128.05	Isoleucine, Pre-col AQC Der (%)	3	3	0.82750	0.05019	0.82750	0.05019	0.03622	6.07%	0.02833	4.12%
128.99	Isoleucine, Miscellaneous (%)	3	3	0.86667	0.10251	0.86667	0.10251	0.07398	11.83%	0.02667	4.09%
129.00	Leucine, Post-col Ninhydrin Der (%)	21	20	1.6033	0.06070	1.6058	0.04998	0.01397	3.11%	0.02138	3.72%
129.02	Leucine, Post-col OPA Der (%)	1	1	1.6620							
129.05	Leucine, Pre-col AQC Der (%)	3	3	1.6510	0.06471	1.6510	0.06471	0.04670	3.92%	0.04933	3.71%
129.99	Leucine, Miscellaneous (%)	3	3	1.3717	0.33669	1.3717	0.33669	0.24299	24.55%	0.05667	3.81%
130.00	L-Lysine, Post-col Ninhydrin Der (%)	22	21	1.3976	0.05486	1.3975	0.05349	0.01459	3.83%	0.02333	3.80%
130.02	L-Lysine, Post-col OPA Der (%)	1	1	1.5070							
130.05	L-Lysine, Pre-col AQC Der (%)	5	5	1.3965	0.03595	1.3965	0.03595	0.02010	2.57%	0.04700	3.80%
130.99	L-Lysine, Miscellaneous (%)	3	3	1.4483	0.30538	1.4483	0.30538	0.22039	21.09%	0.03667	3.78%
131.00	Methionine, PAO Post-col Ninhydrin Der (%)	20	20	0.43472	0.02854	0.43509	0.02977	0.00832	6.84%	0.01032	4.53%
131.02	Methionine, PAO Post-col OPA Der (%)	1	1	0.43400							
131.05	Methionine, PAO Pre-col AQC Der (%)	4	4	0.39688	0.01978	0.39688	0.01978	0.01236	4.98%	0.00225	4.60%
131.99	Methionine, Miscellaneous (%)	4	4	0.48000	0.06285	0.48000	0.06285	0.03928	13.09%	0.02500	4.47%
132.00	Phenylalanine, Post-col Ninhydrin Der (%)	21	21	0.96021	0.03403	0.96118	0.03596	0.00981	3.74%	0.02229	4.02%
132.02	Phenylalanine, Post-col OPA Der (%)	1	1	0.95700							
132.05	Phenylalanine, Pre-col AQC Der (%)	3	3	0.94550	0.02277	0.94550	0.02277	0.01643	2.41%	0.01767	4.03%
132.99	Phenylalanine, Miscellaneous (%)	2	2	0.90250	0.03182						
133.00	Proline, Post-col Ninhydrin Der (%)	21	20	1.1412	0.05603	1.1359	0.04883	0.01365	4.30%	0.02235	3.92%
133.05	Proline, Pre-col AQC Der (%)	3	3	1.1458	0.02777	1.1458	0.02777	0.02455	2.42%	0.02167	3.92%
133.99	Proline, Miscellaneous (%)	2	2	1.1175	0.03889						
134.00	Serine, Post-col Ninhydrin Der (%)	21	21	0.99726	0.07395	0.99404	0.04243	0.01157	4.27%	0.02162	4.00%
134.02	Serine, Post-col OPA Der (%)	1	1	0.95200							
134.05	Serine, Pre-col AQC Der (%)	3	3	0.94900	0.05147	0.94900	0.05147	0.03715	5.42%	0.00933	4.03%
134.99	Serine, Miscellaneous (%)	2	2	0.96000	0.02828						
135.00	Threonine, Post-col Ninhydrin Der (%)	22	21	0.89397	0.05026	0.89587	0.04312	0.01176	4.81%	0.01388	4.07%
135.02	Threonine, Post-col OPA Der (%)	1	1	0.92950							
135.05	Threonine, Pre-col AQC Der (%)	3	3	0.87783	0.02417	0.87783	0.02417	0.01744	2.75%	0.01633	4.08%
135.99	Threonine, Miscellaneous (%)	3	3	0.90667	0.08145	0.90667	0.08145	0.05878	8.98%	0.02667	4.06%
136.00	Tryptophan, Alka-Hydrol Post-col Ninhyd (%)	7	7	0.24183	0.04329	0.24183	0.04910	0.02320	20.30%	0.00840	4.95%

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
136.01	Tryptophan, Alka-Hydrol Rev Phase LC UV (%)	2	2	0.24050	0.03323						
136.02	Tryptophan, Alka-Hydrol Post-col OPA De (%)	1	1	0.23800							
136.03	Tryptophan, Alka-Hydrol + IS RP LC FI (%)	6	6	0.24402	0.00700	0.24409	0.00776	0.00396	3.18%	0.00857	4.95%
136.99	Tryptophan, Miscellaneous (%)	2	2	0.23000	0.01414						
137.00	Tyrosine, Post-col Ninhydrin Der (%)	16	16	0.63293	0.06432	0.63658	0.05461	0.01707	8.58%	0.02743	4.28%
137.02	Tyrosine, Post-col OPA Der (%)	1	1	0.70350							
137.05	Tyrosine, Pre-col AQC Der (%)	3	3	0.67283	0.12090	0.67283	0.12090	0.08725	17.97%	0.03500	4.25%
137.99	Tyrosine, Miscellaneous (%)	2	2	0.63250	0.04596						
138.00	Valine, Post-col Ninhydrin Der (%)	21	20	0.98936	0.05045	0.99280	0.04779	0.01336	4.81%	0.01832	4.00%
138.02	Valine, Post-col OPA Der (%)	1	1	1.0370							
138.05	Valine, Pre-col AQC Der (%)	3	3	1.0110	0.05717	1.0110	0.05717	0.04126	5.65%	0.02600	3.99%
138.99	Valine, Miscellaneous (%)	2	2	0.97250	0.01768						
139.00	Taurine, Post-col Ninhydrin Der (%)	2	2	0.18275	0.04561						
139.02	Taurine, Post-col OPA Der (%)	1		0.00000							
139.99	Taurine, Miscellaneous (%)	1	1	0.03500							
150.00	Phytase, Colorimetric (Units / kg)	3	3	1,004.7	314.94	1,004.7	314.94	227.29	31.35%	44.000	
150.99	Phytase, Miscellaneous (Units / kg)	1	1	1,150.0							
160.99	Fructose, Miscellaneous (%)	4	4	0.59288	0.47941	0.59288	0.47941	0.29963	80.86%	0.00675	4.33%
162.99	Glucose, Miscellaneous (%)	5	4	0.49913	0.19932	0.49913	0.19932	0.14385	39.93%	0.01175	4.44%
163.99	Lactose, Miscellaneous (%)	8	8	8.0604	0.88680	7.9014	0.58440	0.25827	7.40%	0.12625	2.93%
164.99	Maltose, Miscellaneous (%)	4	3	2.1600	1.4110	2.1600	1.4110	1.0183	65.32%	0.12667	3.56%
165.99	Sucrose, Miscellaneous (%)	6	6	3.5150	0.10516	3.5150	0.11925	0.06086	3.39%	0.08333	3.31%
166.99	Raffinose, Miscellaneous (%)	2	2	0.26925	0.02722						
167.99	Stachyose, Miscellaneous (%)	2	2	1.0775	0.09546						
345.02	Amprolium, LC (UV or FL) (mg/kg (ppm))	3	2	1.9775	0.32173	1.9775	0.32173			0.37500	14.44%
350.01	Carbadox, LC (UV or FL) (mg/kg (ppm))	6	6	26.492	2.3873	26.492	2.7072	1.3815	10.22%	1.0833	9.77%
350.02	Carbadox, LC-MS (mg/kg (ppm))	1	1	35.350							
351.00	Chlortetracycline, Plate (mg/kg (ppm))	5	4	156.77	19.343	156.77	19.343	12.089	12.34%	5.1544	7.48%
351.03	Chlortetracycline, LC (UV or FL) (mg/kg (ppm))	8	7	149.05	16.182	149.05	18.350	8.6696	12.31%	4.6214	7.53%
351.04	Chlortetracycline, LC-MS (mg/kg (ppm))	1	1	200.00							
351.05	Chlortetracycline, LC-MS/MS (mg/kg (ppm))	2	2	165.53	2.2274						
357.01	Ethoxyquin, LC (mg/kg (ppm))	1	1	7.5000							
357.99	Ethoxyquin, Miscellaneous (mg/kg (ppm))	1	1	8.5000							
373.06	Oxytetracycline, LC-MS/MS (mg/kg (ppm))	1	1	2.0150							
382.00	Sulfamethazine, Spectrophotometer (mg/kg (ppm))	2	2	42.725	6.6822						
382.01	Sulfamethazine, LC (mg/kg (ppm))	3	3	56.467	41.437	56.467	41.437	36.625	73.38%	0.90000	8.72%
382.02	Sulfamethazine, LC-PCD (mg/kg (ppm))	1	1	37.991							
382.04	Sulfamethazine, LC-MS/MS (mg/kg (ppm))	1	1	43.585							

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
386.00	Tiamulin, LC (mg/kg (ppm))	4	2	8.3525	2.1178	8.3525	2.1178			0.52500	11.62%
386.01	Tiamulin, LC-MS (mg/kg (ppm))	1	1	12.000							
386.02	Tiamulin, LC-MS/MS (mg/kg (ppm))	1	1	15.100							
388.05	Tylosin, LC-MS/MS (mg/kg (ppm))	2	2	0.10800	0.10253						
400.01	Water activity, Aqualab chilled mirror (Units)	6	6	0.60106	0.01087	0.59875	0.00646	0.00330	1.08%	0.00395	
400.99	Water activity, Miscellaneous (Units)	2	2	0.58550	0.00424						
412.01	Dietary Starch, Enzymatic-Colorimetric (%)	1	1	26.845							
516.00	Arsenic, total, AA, Hydride (mg / kg (ppm))	1	1	0.15600							
516.52	Arsenic, total, ICP-MS, Open vessel (mg / kg (ppm))	3	3	0.35183	0.10890	0.35183	0.10890	0.07859	30.95%	0.01967	18.72%
516.53	Arsenic, total, ICP-MS, Microwave (mg / kg (ppm))	5	5	0.34463	0.05999	0.34463	0.05999	0.03354	17.41%	0.02622	18.78%
518.41	Cadmium, ICP, Dry ash (mg / kg (ppm))	1	1	0.06335							
518.52	Cadmium, ICP-MS, Open vessel (mg / kg (ppm))	3	3	0.17900	0.03143	0.17900	0.03143	0.02268	17.56%	0.01000	20.72%
518.53	Cadmium, ICP-MS, Microwave (mg / kg (ppm))	5	5	0.15242	0.00916	0.15242	0.00916	0.00512	6.01%	0.01052	21.23%
520.42	Chromium, ICP, Open vessel (mg / kg (ppm))	2	2	4.3439	0.31268						
520.43	Chromium, ICP, Microwave (mg / kg (ppm))	2	2	4.3837	0.00516						
520.52	Chromium, ICP-MS, Open vessel (mg / kg (ppm))	1	1	2.6450							
520.53	Chromium, ICP-MS, Microwave (mg / kg (ppm))	2	2	3.6700	0.74246						
526.41	Lead, ICP, Dry ash (mg / kg (ppm))	1	1	0.80000							
526.43	Lead, ICP, Microwave (mg / kg (ppm))	1	1	0.86875							
526.52	Lead, ICP-MS, Open vessel (mg / kg (ppm))	3	3	0.93017	0.00837	0.93017	0.00837	0.00740	0.90%	0.03100	16.17%
526.53	Lead, ICP-MS, Microwave (mg / kg (ppm))	5	5	0.91440	0.08863	0.91440	0.08863	0.04955	9.69%	0.05992	16.21%
529.99	Mercury, Miscellaneous (µg / kg (ppb))	3	2	28.448	33.308	28.448	33.308			1.1550	22.00%
539.31	Nickel, AAS, Dry ash (mg / kg (ppm))	1	1	3.9250							
539.42	Nickel, ICP, Open vessel (mg / kg (ppm))	1	1	3.4800							
539.43	Nickel, ICP, Microwave (mg / kg (ppm))	1	1	3.4418							
539.52	Nickel, ICP-MS, Open vessel (mg / kg (ppm))	1	1	2.7450							
539.53	Nickel, ICP-MS, Microwave (mg / kg (ppm))	2	2	3.0152	0.36741						
710.01	Lauric Acid (12:0), Direct Methylation by Alkali Hy	1	1	0.02000							
710.99	Lauric Acid (12:0), Miscellaneous (% (w/w))	1	1	0.00335							
714.01	Myristic Acid (14:0), Direct Methylation by Alkali H	1	1	0.09000							
714.99	Myristic Acid (14:0), Miscellaneous (% (w/w))	1	1	0.07015							
716.02	Palmitic Acid (16:0), Direct Methylation by Acid-All	1	1	1.0570							
716.99	Palmitic Acid (16:0), Miscellaneous (% (w/w))	1	1	1.1729							
718.01	Palmitoleic Acid (9c-16:1), Direct Methylation by A	1	1	0.11750							
718.99	Palmitoleic Acid (9c-16:1), Miscellaneous (% (w/w))	1	1	0.07700							
720.01	Margaric acid (17:0), Direct Methylation by Alkali H	1	1	0.01300							
722.01	Stearic Acid (18:0), Direct Methylation by Alkali H	1	1	0.33000							
722.99	Stearic Acid (18:0), Miscellaneous (% (w/w))	1	1	0.35340							

Test Material Code # 201730
Issue Date : 11/30/2017

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
724.01	Oleic Acid (9c-18:1), Direct Methylation by Alkali F	1	1	2.5205							
724.99	Oleic Acid (9c-18:1), Miscellaneous (% (w/w))	1	1	1.6324							
726.01	Linoleic Acid (9c,12c-18:2), Direct Methylation by ,	1	1	4.7080							
726.99	Linoleic Acid (9c,12c-18:2), Miscellaneous (% (w/	1	1	3.2932							
728.01	alpha-Linolenic Acid (9c,12c,15c-18:3), Direct Met	1	1	0.54650							
728.99	alpha-Linolenic Acid (9c,12c,15c-18:3), Miscellane	1	1	0.37415							
730.01	Arachidic Acid (20:0), Direct Methylation by Alkali	1	1	0.02600							
730.99	Arachidic Acid (20:0), Miscellaneous (% (w/w))	1	1	0.02120							
732.99	Gondoic Acid (11c-20:1), Miscellaneous (% (w/w))	1	1	0.02450							
738.01	Mead Acid (11c,14c,17c-20:3), Direct Methylation	1	1	0.01750							
740.99	Eicosapentaenoic Acid EPA (5c,8c,11c,14c,17c-20:3)	1	1	0.05110							
742.99	Behenic Acid (22:0), Miscellaneous (% (w/w))	1	1	0.01870							
744.99	Erucic Acid (13c-22:1), Miscellaneous (% (w/w))	1		0.00000							
746.01	Docosapentaenoic Acid n-3 DPA (DHA)7c,10c,13c,16c,19c	1	1	0.01800							
746.99	Docosapentaenoic Acid n-3 DPA (DHA)7c,10c,13c,16c,19c	1	1	0.01135							
748.99	Lignoceric Acid (24:0), Miscellaneous (% (w/w))	1	1	0.06120							
750.01	Docosahexaenoic Acid DHA (4c,7c,10c,13c,16c,19c,22c)	1	1	0.04800							
750.99	Docosahexaenoic Acid DHA (4c,7c,10c,13c,16c,19c,22c)	1	1	0.03535							
752.99	Nervonic Acid (24:1) isomers, Miscellaneous (% (w/w))	1		0.00020							
772.99	Total Fatty Acids, Miscellaneous (% (w/w))	1	1	7.2866							

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.



AAFCO
Proficiency Testing Program



Animal Feed Scheme
Swine Feed, Medicated
Test Material Code # 201730

Method Precision Report

Methods Reported: 88
Labs Reporting: 200
Issue Date : 11/30/2017

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 (%)	42	37	9.2637	0.66668	0.42608	0.11270	0.44073	4.62%	1.222%	4.78%	3.9108
001.99	Loss on Drying, Miscellaneous (%)	22	20	8.9893	0.90121	0.72178	0.14494	0.73619	7.92%	1.591%	8.08%	5.0793
002.01	Protein, Auto Kjel-Foss (%)	14	12	19.847	3.3238	0.37904	0.19470	0.42612	1.83%	0.938%	2.05%	2.1886
002.05	Protein, Copper, Boric Acid (%)	29	27	20.862	0.31627	0.31910	0.06111	0.32490	1.53%	0.293%	1.56%	5.3168
002.06	Protein, Combustion Nitrogen Analyzer (%)	130	121	21.178	1.2418	0.28959	0.13164	0.31811	1.36%	0.618%	1.49%	2.4165
003.00	Fat, Eth Ext., Direct (%)	15	12	6.7888	0.54042	0.19657	0.08538	0.21431	2.86%	1.242%	3.12%	2.5102
003.06	Fat, Pet Ether (%)	19	17	6.8485	0.11836	0.11132	0.06967	0.13132	1.63%	1.018%	1.92%	1.8851
003.09	Fat, Soxtec, Eth Ext (%)	18	16	6.6780	0.42254	0.23646	0.13378	0.27169	3.50%	1.979%	4.02%	2.0308
003.10	Fat, Soxtec, Pet Ether (%)	26	24	6.7818	0.28813	0.20300	0.15040	0.25264	3.01%	2.233%	3.75%	1.6798
003.13	Fat, Soxtec, Hexane Ext. (%)	10	9	6.9064	0.24134	0.23910	0.04635	0.24355	3.46%	0.671%	3.53%	5.2551
003.14	Fat, Ankom (%)	40	38	6.5125	0.78770	0.56270	0.13112	0.57778	8.50%	1.980%	8.72%	4.4064
004.00	Fiber, Crude, Asbestos Free (%)	21	19	2.4566	0.27893	0.22423	0.09595	0.24390	9.01%	3.855%	9.80%	2.5421
004.06	Fiber, Fibertec (%)	23	20	2.6420	0.34441	0.27393	0.06402	0.28131	10.62%	2.481%	10.90%	4.3942
004.07	Fiber, ANKOM (%)	65	59	2.2962	0.41891	0.28618	0.09487	0.30150	12.62%	4.185%	13.30%	3.1779
005.00	Ash, 2h @ 600°C (%)	95	88	7.7530	0.14289	0.12856	0.05343	0.13922	1.66%	0.689%	1.80%	2.6056
005.05	Ash, 3h @ 550°C (%)	31	28	7.9086	0.13841	0.11728	0.06105	0.13222	1.48%	0.771%	1.67%	2.1659
005.99	Ash, Miscellaneous (%)	13	12	7.8374	0.24878	0.14178	0.04207	0.14789	1.80%	0.533%	1.87%	3.5151
008.02	Fiber, Acid Detergent (%)	16	15	3.4024	0.37978	0.38342	0.12156	0.40222	11.28%	3.576%	11.83%	3.3088
008.08	Fiber, Acid Detergent, ANKOM (%)	43	41	3.5914	1.2514	0.40055	0.20924	0.45191	11.75%	6.137%	13.25%	2.1597
009.07	Fiber, Neutral Det-ENZ Pretreat (%)	14	12	7.8677	1.0487	0.84380	0.18267	0.86335	10.98%	2.377%	11.23%	4.7262
009.09	Fiber, Neutral Detergent, ANKOM (%)	42	39	7.4445	1.4850	0.89331	0.21751	0.91941	12.22%	2.976%	12.58%	4.2270
010.99	Moisture, Miscellaneous (%)	20	18	9.4302	0.74718	0.76085	0.09624	0.76691	8.08%	1.023%	8.15%	7.9688
011.01	Loss on Drying, 135°C 2hr (%)	69	66	10.750	0.88186	0.66694	0.12072	0.67777	6.19%	1.121%	6.29%	5.6146
012.00	Starch, Polarimetric (Ewers) (%)	12	10	28.820	1.2551	1.2057	0.16754	1.2173	4.16%	0.578%	4.20%	7.2659
012.01	Starch, Megazyme (%)	9	8	24.122	5.8208	2.8561	0.62170	2.9230	11.05%	2.406%	11.31%	4.7016
013.00	Fat, Acid hydrolysis (%)	20	19	7.8729	1.1778	0.90338	0.14400	0.91478	11.23%	1.790%	11.37%	6.3528
013.02	Fat, Mojonier, Bak Ext (%)	16	13	8.5568	0.51463	0.52675	0.13727	0.54434	6.15%	1.604%	6.36%	3.9656
013.13	Fat, Ankom- Acid Hydrolysis (%)	10	9	8.1378	1.1593	1.2074	0.19183	1.2225	14.94%	2.374%	15.13%	6.3729
019.00	Calcium, Ox-MnO4 Vol. (%)	11	11	1.1670	0.04694	0.04590	0.01390	0.04796	3.93%	1.191%	4.11%	3.4494
019.31	Calcium, AAS, Dry ash (%)	25	22	1.1844	0.06984	0.05907	0.01566	0.06111	4.99%	1.324%	5.17%	3.9012
019.41	Calcium, ICP, Dry ash (%)	29	28	1.1800	0.07912	0.07703	0.03317	0.08387	6.53%	2.810%	7.10%	2.5284
019.42	Calcium, ICP, Open vessel (%)	23	21	1.1736	0.07576	0.06081	0.03108	0.06829	5.14%	2.629%	5.78%	2.1975

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 (%)	25	22	1.1830	0.09790	0.08053	0.02568	0.08452	6.87%	2.192%	7.22%	3.2920
022.31	Copper, AAS, Dry ash (mg / kg (ppm))	18	17	174.10	7.9910	7.6461	3.2842	8.3216	4.39%	1.886%	4.78%	2.5338
022.41	Copper, ICP, Dry ash (mg / kg (ppm))	24	21	164.12	21.690	16.466	4.1823	16.989	9.79%	2.487%	10.10%	4.0620
022.42	Copper, ICP, Open vessel (mg / kg (ppm))	22	19	182.74	16.746	9.5656	3.4341	10.163	5.25%	1.883%	5.57%	2.9595
022.43	Copper, ICP, Microwave (mg / kg (ppm))	23	21	174.84	9.9980	9.8566	2.3692	10.137	5.64%	1.355%	5.80%	4.2788
025.31	Iron, AAS, Dry ash (mg / kg (ppm))	19	17	739.20	32.787	30.797	15.909	34.663	4.17%	2.152%	4.69%	2.1788
025.41	Iron, ICP, Dry ash (mg / kg (ppm))	24	20	709.47	88.295	52.509	9.3506	53.335	7.32%	1.303%	7.43%	5.7039
025.42	Iron, ICP, Open vessel (mg / kg (ppm))	19	17	647.03	160.41	99.542	19.495	101.43	14.70%	2.879%	14.98%	5.2030
025.43	Iron, ICP, Microwave (mg / kg (ppm))	21	19	691.39	57.371	47.825	15.223	50.189	6.83%	2.173%	7.16%	3.2970
027.31	Magnesium, AAS, Dry ash (%)	19	18	0.19349	0.01622	0.00941	0.00494	0.01063	4.79%	2.512%	5.41%	2.1537
027.41	Magnesium, ICP, Dry ash (%)	24	24	0.19883	0.01209	0.01068	0.00800	0.01335	5.37%	4.023%	6.71%	1.6686
027.42	Magnesium, ICP, Open vessel (%)	21	20	0.19772	0.01167	0.01093	0.00580	0.01237	5.53%	2.936%	6.26%	2.1314
027.43	Magnesium, ICP, Microwave (%)	24	21	0.19821	0.01669	0.01201	0.00398	0.01265	6.14%	2.032%	6.46%	3.1810
028.31	Manganese, AAS, Dry ash (mg / kg (ppm))	15	15	164.95	8.2258	7.3719	5.1612	8.9991	4.47%	3.129%	5.46%	1.7436
028.41	Manganese, ICP, Dry ash (mg / kg (ppm))	22	21	156.82	20.551	13.789	5.0567	14.687	8.62%	3.160%	9.18%	2.9045
028.42	Manganese, ICP, Open vessel (mg / kg (ppm))	21	20	164.15	13.383	13.055	4.1611	13.703	7.95%	2.535%	8.35%	3.2930
028.43	Manganese, ICP, Microwave (mg / kg (ppm))	23	22	161.12	10.058	9.8170	3.0931	10.293	6.09%	1.920%	6.39%	3.3277
031.01	Phosphorus, Photometric (%)	38	36	0.69526	0.03195	0.02692	0.01949	0.03323	3.89%	2.814%	4.80%	1.7053
031.41	Phosphorus, ICP, Dry ash (%)	28	25	0.70029	0.04889	0.03635	0.01267	0.03849	5.14%	1.792%	5.44%	3.0384
031.42	Phosphorus, ICP, Open vessel (%)	24	23	0.68803	0.04528	0.03750	0.01799	0.04159	5.41%	2.596%	6.00%	2.3125
031.43	Phosphorus, ICP, Microwave (%)	24	22	0.69600	0.03030	0.02461	0.01263	0.02767	3.52%	1.806%	3.96%	2.1899
032.31	Potassium, AAS, Dry ash (%)	16	14	1.1210	0.15662	0.08720	0.02445	0.09056	8.02%	2.249%	8.33%	3.7043
032.41	Potassium, ICP, Dry ash (%)	24	21	1.1139	0.06984	0.05222	0.03219	0.06135	4.73%	2.914%	5.55%	1.9055
032.42	Potassium, ICP, Open vessel (%)	23	22	1.1413	0.06193	0.04889	0.02049	0.05302	4.31%	1.808%	4.68%	2.5870
032.43	Potassium, ICP, Microwave (%)	27	24	1.0965	0.06189	0.05227	0.02064	0.05620	4.73%	1.869%	5.09%	2.7233
033.00	Salt as chloride, Sol Cl (%)	17	15	1.4019	0.06399	0.05204	0.02129	0.05623	3.74%	1.528%	4.04%	2.6414
033.01	Salt as chloride, Poten Cl (%)	35	31	1.4408	0.04710	0.02959	0.01233	0.03206	2.05%	0.856%	2.23%	2.5993
035.31	Sodium, AAS, Dry ash (%)	21	20	0.52032	0.04538	0.03032	0.02173	0.03730	5.75%	4.123%	7.08%	1.7167
035.41	Sodium, ICP, Dry ash (%)	25	22	0.51498	0.08773	0.03149	0.01821	0.03638	5.84%	3.375%	6.74%	1.9975
035.42	Sodium, ICP, Open vessel (%)	18	15	0.53023	0.04113	0.02681	0.00917	0.02833	5.07%	1.733%	5.36%	3.0908
035.43	Sodium, ICP, Microwave (%)	23	22	0.51738	0.03916	0.02845	0.00983	0.03010	5.56%	1.920%	5.88%	3.0630
036.42	Sulfur, ICP, Open vessel (%)	16	15	0.29417	0.01838	0.01773	0.00686	0.01901	6.03%	2.332%	6.46%	2.7708
036.43	Sulfur, ICP, Microwave (%)	12	11	0.30646	0.01704	0.01683	0.00375	0.01725	5.49%	1.225%	5.63%	4.5956
037.31	Zinc, AAS, Dry ash (mg / kg (ppm))	19	16	3,544.1	820.75	244.20	39.876	247.44	6.54%	1.068%	6.63%	6.2052
037.41	Zinc, ICP, Dry ash (mg / kg (ppm))	22	20	3,843.4	738.47	430.38	104.98	442.99	10.79%	2.633%	11.11%	4.2198
037.42	Zinc, ICP, Open vessel (mg / kg (ppm))	21	19	3,661.2	621.30	325.84	85.705	336.92	8.57%	2.255%	8.86%	3.9311
037.43	Zinc, ICP, Microwave (mg / kg (ppm))	22	21	3,804.5	328.31	258.61	61.183	265.75	6.88%	1.627%	7.07%	4.3435
106.02	Vitamin A, LC (KU / kg)	19	16	33.143	11.632	8.4540	2.4123	8.7914	23.84%	6.803%	24.79%	3.6444
109.02	Vitamin E, LC (IU/kg)	17	15	194.83	93.830	33.696	4.1617	33.952	19.50%	2.408%	19.65%	8.1582
120.00	Alanine, Post-col Ninhydrin Der (%)	21	20	1.0506	0.03672	0.02304	0.01420	0.02706	2.21%	1.359%	2.59%	1.9060

Test Material Code # 201730

Issue Date : 11/30/2017

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
121.00	Arginine, Post-col Ninhydrin Der (%)	21	21	1.2571	0.04617	0.04440	0.01788	0.04787	3.53%	1.422%	3.81%	2.6774
122.00	Aspartic, Post-col Ninhydrin Der (%)	21	21	2.0050	0.06342	0.05831	0.03531	0.06816	2.91%	1.761%	3.40%	1.9306
124.00	Cysteine/Cystine, PAO Post-col Ninhydri (%)	20	17	0.33217	0.01409	0.00971	0.00683	0.01187	2.90%	2.037%	3.54%	1.7383
125.00	Glutamic, Post-col Ninhydrin Der (%)	21	20	3.4863	0.13202	0.09395	0.03840	0.10149	2.71%	1.108%	2.93%	2.6434
126.00	Glycine, Post-col Ninhydrin Der (%)	21	20	0.99205	0.04069	0.01928	0.01248	0.02297	1.96%	1.268%	2.33%	1.8405
127.00	Histidine, Post-col Ninhydrin Der (%)	20	18	0.49627	0.01813	0.01670	0.00824	0.01863	3.37%	1.665%	3.76%	2.2606
128.00	Isoleucine, Post-col Ninhydrin Der (%)	21	17	0.81053	0.05107	0.03862	0.00992	0.03988	4.73%	1.214%	4.88%	4.0204
129.00	Leucine, Post-col Ninhydrin Der (%)	21	19	1.6033	0.06070	0.04479	0.01877	0.04857	2.78%	1.164%	3.01%	2.5868
130.00	L-Lysine, Post-col Ninhydrin Der (%)	22	21	1.3976	0.05486	0.05288	0.02068	0.05678	3.78%	1.480%	4.06%	2.7455
131.00	Methionine, PAO Post-col Ninhydrin Der (%)	20	18	0.43472	0.02854	0.02925	0.00675	0.03002	6.73%	1.552%	6.90%	4.4483
132.00	Phenylalanine, Post-col Ninhydrin Der (%)	21	21	0.96021	0.03403	0.03074	0.02063	0.03702	3.20%	2.149%	3.86%	1.7946
133.00	Proline, Post-col Ninhydrin Der (%)	21	20	1.1412	0.05603	0.05398	0.02124	0.05801	4.73%	1.861%	5.08%	2.7312
134.00	Serine, Post-col Ninhydrin Der (%)	21	20	0.99726	0.07395	0.05770	0.01823	0.06051	5.73%	1.809%	6.01%	3.3200
135.00	Threonine, Post-col Ninhydrin Der (%)	22	20	0.89397	0.05026	0.03895	0.01218	0.04081	4.32%	1.352%	4.53%	3.3500
137.00	Tyrosine, Post-col Ninhydrin Der (%)	16	15	0.63293	0.06432	0.06297	0.02510	0.06779	10.00%	3.985%	10.76%	2.7005
138.00	Valine, Post-col Ninhydrin Der (%)	21	18	0.98936	0.05045	0.03730	0.01433	0.03996	3.75%	1.442%	4.02%	2.7884

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