Animal Feed Scheme
Lamb Feed
Test Material Code # 201827

Method Summary Report

(Precision Report Follows)

 # Methods Reported: 398
 # Labs Reporting: 196
Issue Date : 08/31/2018

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	1.2000							
001.00	Loss on Drying, Vac 95°C 5 hr (%)	5	5	8.4513	0.65122	8.4513	0.65122	0.36404	7.71%	0.20860	2.90%
001.03	Loss on Drying, Low temp. methods (%)	6	6	8.3908	0.15998	8.3908	0.18142	0.09258	2.16%	0.05500	2.90%
001.05	Loss on Drying, LECO (%)	2	2	8.4375	0.07425						
001.07	Loss on Drying, 104°C 3 hr, in malt (%)	46	45	8.4279	0.39024	8.4226	0.25304	0.04715	3.00%	0.13189	2.90%
001.99	Loss on Drying, Miscellaneous (%)	22	21	8.0417	1.1400	8.1845	0.87544	0.23880	10.70%	0.15924	2.91%
002.00	Protein, Crude, Crude (%)	1	1	19.140							
002.01	Protein, Crude, Auto Kjel-Foss (%)	16	16	19.076	0.29891	19.076	0.33806	0.10564	1.77%	0.12638	2.29%
002.02	Protein, Crude, Semiauto Autoanalyzer (%)	4	4	19.073	0.54555	19.073	0.54555	0.34097	2.86%	0.08160	2.29%
002.03	Protein, Crude, Hach Method (%)	1	1	18.677							
002.04	Protein, Crude, Copper Catalyst (%)	2	2	19.050	0.48790						
002.05	Protein, Crude, Copper, Boric Acid (%)	36	35	19.143	0.39765	19.091	0.25970	0.05487	1.36%	0.10281	2.29%
002.06	Protein, Crude, Combustion Nitrogen Analyzer (%)	121	118	19.391	0.62080	19.340	0.29452	0.03389	1.52%	0.16541	2.27%
002.08	Protein, Crude, Cu/Ti (%)	1	1	18.990							
002.11	Protein, Crude, NIR (%)	10	10	19.777	2.1332	19.589	1.9558	0.77309	9.98%	0.09090	2.26%
002.99	Protein, Crude, Miscellaneous (%)	1	1	19.160							
003.00	Fat, Crude, Diethyl Ether Ext., Direct (%)	15	15	4.4643	0.23805	4.4733	0.24916	0.08042	5.57%	0.06934	3.19%
003.01	Fat, Crude, Diethyl Ether Ext (13th ed.), Indirect (%)	2	2	4.2050	0.04950						
003.06	Fat, Crude, Pet Ether (%)	16	16	4.2368	0.23452	4.2286	0.24708	0.07721	5.84%	0.09488	3.22%
003.09	Fat, Crude, Randall, Diethyl Ether Ext (%)	18	17	4.4537	0.18466	4.4319	0.15405	0.04670	3.48%	0.10400	3.20%
003.10	Fat, Crude, Randall, Pet Ether (%)	30	29	4.1336	0.30234	4.0897	0.16121	0.03742	3.94%	0.08041	3.24%
003.11	Fat, Crude, NIR (%)	8	8	4.2245	0.52665	4.1771	0.48239	0.21319	11.55%	0.10038	3.23%
003.12	Fat, Crude, Hexane Ext (%)	5	5	4.1240	0.24232	4.1240	0.24232	0.13546	5.88%	0.02400	3.23%
003.13	Fat, Crude, Randall, Hexane Ext. (%)	9	9	4.2544	0.09992	4.2544	0.11331	0.04721	2.66%	0.11688	3.22%
003.14	Fat, Crude, Ankom (%)	46	45	4.0707	0.25435	4.0736	0.22580	0.04207	5.54%	0.11665	3.24%
003.99	Fat, Crude, Miscellaneous (%)	3	3	4.1067	0.22827	4.1067	0.22827	0.16474	5.56%	0.21333	3.23%
004.00	Fiber, Crude, Asbestos Free (%)	14	14	11.251	0.93540	11.145	0.74506	0.24891	6.68%	0.18056	2.78%
004.03	Fiber, Crude, Fritted Glass (%)	6	6	10.989	1.5827	11.151	1.4019	0.71540	12.57%	0.42550	2.78%
004.06	Fiber, Crude, Fibertec (%)	27	26	10.904	0.83052	10.989	0.65149	0.15971	5.93%	0.14935	2.79%
004.07	Fiber, Crude, ANKOM (%)	61	58	10.719	1.1793	10.601	0.96620	0.15859	9.11%	0.24642	2.80%
004.11	Fiber, Crude, NIR (%)	9	8	9.7163	0.84942	9.7125	0.95491	0.42201	9.83%	0.13868	2.84%
004.99	Fiber, Crude, Miscellaneous (%)	4	4	9.8788	0.58387	9.8788	0.58387	0.36492	5.91%	0.13750	2.83%

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005.00	Ash, 2h @ 600°C (%)	89	87	9.0912	0.36318	9.1053	0.34654	0.04644	3.81%	0.09404	2.87%
005.02	Ash, LECO (%)	1	1	9.6200							
005.03	Ash, Microwave furnace (%)	1	1	8.6300							
005.05	Ash, 3h @ 550°C (%)	38	37	9.4712	0.33636	9.4722	0.24359	0.05006	2.57%	0.07230	2.85%
005.11	Ash, NIR (%)	6	6	7.3470	2.1710	7.4569	2.2018	1.1236	29.53%	0.26697	2.96%
005.99	Ash, Miscellaneous (%)	8	8	9.3069	0.60951	9.3807	0.50663	0.22390	5.40%	0.07125	2.86%
006.00	Total Sugars, As sucrose (%)	3	3	6.1650	0.69844	6.1650	0.69844	0.50406	11.33%	0.07667	3.04%
006.99	Total Sugars, Miscellaneous (%)	3	3	5.8067	0.77818	5.8067	0.77818	0.68782	13.40%	0.12000	3.07%
008.02	Fiber, Acid Detergent, Crucible (%)	16	16	14.180	1.0043	14.280	0.85848	0.26827	6.01%	0.18424	2.65%
008.05	Fiber, Acid Detergent, Acid Detergent-Hach (%)	1	1	15.150							
008.08	Fiber, Acid Detergent, Filter Bag - ANKOM (%)	43	41	13.817	1.1267	13.847	1.1543	0.22533	8.34%	0.25297	2.69%
008.99	Fiber, Acid Detergent, Miscellaneous (%)	4	4	14.025	0.29891	14.025	0.29891	0.18682	2.13%	0.06500	2.67%
009.04	Fiber, Neutral Detergent, Neutral Det-No ENZ Pretreat (%)	1	1	25.390							
009.07	Fiber, Neutral Detergent, AOAC -ENZ Pretreat (%)	15	14	23.738	1.0122	23.771	1.0773	0.35989	4.53%	0.36997	2.05%
009.09	Fiber, Neutral Detergent, Filter Bag - ANKOM (%)	43	42	23.388	1.6238	23.315	1.4846	0.28635	6.37%	0.42428	2.07%
009.99	Fiber, Neutral Detergent, Miscellaneous (%)	3	3	24.777	1.4398	24.777	1.4398	1.0391	5.81%	0.24667	2.01%
010.03	Moisture, Karl-Fischer (%)	2	2	8.2200	0.60104						
010.11	Moisture, NIR (%)	5	4	8.9225	0.64251	8.9225	0.64251	0.40157	7.20%	0.04500	2.88%
010.99	Moisture, Miscellaneous (%)	18	17	8.7735	0.82904	8.7995	0.70206	0.21284	7.98%	0.12588	2.88%
011.01	Loss on Drying, 135°C 2hr (%)	66	64	9.6046	0.46684	9.6219	0.40823	0.06379	4.24%	0.10803	2.84%
011.02	Loss on Drying, 130°C for 2 hours (%)	3	3	9.4500	0.34253	9.4500	0.34253	0.24720	3.62%	0.08667	2.85%
011.99	Loss on Drying, High Temp. Methods Miscellaneous (%)	2	2	9.6500	0.49497						
012.00	Starch, Polarimetric (Ewers) (%)	17	16	22.077	0.55823	22.112	0.54644	0.17076	2.47%	0.18338	2.13%
012.01	Starch, Enzymatic-Colorimetric Method (Megazyme) (%)	10	10	20.450	2.4945	20.678	1.5444	0.61049	7.47%	0.39302	2.20%
012.03	Starch, Enzymatic-Colorimetric Method, Miscellaneous (%)	5	4	22.471	2.6470	22.471	2.6470	1.6544	11.78%	0.20750	2.11%
012.04	Starch, Enzymatic-Enzyme Membrane Technology (YSI) (%)	4	4	21.266	0.84541	21.266	0.84541	0.52838	3.98%	0.45250	2.17%
012.11	Starch, NIR (%)	5	5	23.280	1.8518	23.280	1.8518	1.0352	7.95%	0.31980	2.07%
012.99	Starch, Miscellaneous (%)	1	1	22.310							
013.00	Fat, Acid Pretreat, Acid hydrolysis (%)	19	19	4.9597	0.67227	4.9890	0.69109	0.19818	13.85%	0.18012	3.14%
013.02	Fat, Acid Pretreat, Mojonnier, Bak Ext (%)	15	15	5.7160	0.51167	5.7160	0.58023	0.18727	10.15%	0.11218	3.08%
013.08	Fat, Base Pretreat, Roese-Gottlieb Modified (%)	1	1	3.5206							
013.10	Fat, Acid Pretreat, Soxtec-Acid Hydrolysis (%)	5	5	4.7491	0.38394	4.7491	0.38394	0.21463	8.08%	0.15718	3.16%
013.12	Fat, Acid Pretreat, NIR- Acid Hydrolysis (%)	1	1	4.6073							
013.13	Fat, Acid Pretreat, Ankom- Acid Hydrolysis (%)	5	5	6.2006	0.93502	6.2006	0.93502	0.52269	15.08%	0.25864	3.04%
015.41	Aluminum, ICP, Dry ash (mg / kg (ppm))	4	4	188.91	22.970	188.91	22.970	14.356	12.16%	7.5763	7.27%
015.42	Aluminum, ICP, Open vessel (mg / kg (ppm))	1	1	187.80							
015.43	Aluminum, ICP, Microwave (mg / kg (ppm))	6	6	168.18	26.070	168.18	29.563	15.086	17.58%	6.1847	7.40%
015.52	Aluminum, ICP-MS, Open vessel (mg / kg (ppm))	1	1	123.50							
015.53	Aluminum, ICP-MS, Microwave (mg / kg (ppm))	1	1	223.50							
017.41	Boron, ICP, Dry ash (mg / kg (ppm))	3	3	13.540	0.31777	13.540	0.31777	0.22933	2.35%	0.98667	10.81%

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017.42	Boron, ICP, Open vessel (mg / kg (ppm))	6	6	12.845	1.2553	12.845	1.4235	0.72645	11.08%	0.42733	10.89%
017.43	Boron, ICP, Microwave (mg / kg (ppm))	5	4	11.813	3.4118	11.813	3.4118	2.4623	28.88%	0.04000	11.03%
017.52	Boron, ICP-MS, Open vessel (mg / kg (ppm))	1	1	12.786							
017.53	Boron, ICP-MS, Microwave (mg / kg (ppm))	1	1	11.250							
019.00	Calcium, Ox-Mn04 Vol. (%)	13	13	1.8791	0.07260	1.8751	0.07312	0.02535	3.90%	0.02449	3.64%
019.02	Calcium, Hach Method (%)	1	1	1.8045							
019.03	Calcium, Semiauto (Autoanalyzer) (%)	1	1	1.9715							
019.08	Calcium, EDTA (%)	13	13	1.9120	0.20736	1.9096	0.11537	0.04000	6.04%	0.05980	3.63%
019.09	Calcium, Ion-selective electrode (%)	1	1	2.1330							
019.31	Calcium, AAS, Dry ash (%)	20	19	1.8239	0.20660	1.8598	0.10407	0.02984	5.60%	0.05739	3.64%
019.32	Calcium, AAS, Open vessel (%)	1	1	1.8900							
019.33	Calcium, AAS, Microwave (%)	1	1	1.9900							
019.41	Calcium, ICP, Dry ash (%)	32	32	1.8643	0.09345	1.8671	0.07889	0.01743	4.23%	0.03259	3.64%
019.42	Calcium, ICP, Open vessel (%)	22	22	1.8650	0.17832	1.8818	0.14465	0.03855	7.69%	0.04256	3.64%
019.43	Calcium, ICP, Microwave (%)	30	30	1.9211	0.12091	1.9166	0.10839	0.02474	5.66%	0.05160	3.63%
019.44	Calcium, ICP, Dry ash (%)	1	1	1.9000							
019.52	Calcium, ICP-MS, Open vessel (%)	4	4	1.9294	0.16092	1.9294	0.16092	0.10058	8.34%	0.09528	3.62%
019.53	Calcium, ICP-MS, Microwave (%)	4	4	1.8510	0.14447	1.8510	0.14447	0.09029	7.80%	0.08300	3.65%
019.99	Calcium, Miscellaneous (%)	6	6	1.8987	0.12377	1.8987	0.14036	0.07163	7.39%	0.01602	3.63%
021.34	Cobalt, AAS, Graphite furnace (mg / kg (ppm))	1	1	5.1550							
021.41	Cobalt, ICP, Dry ash (mg / kg (ppm))	4	4	4.7016	0.74595	4.7016	0.74595	0.46622	15.87%	0.11525	12.67%
021.42	Cobalt, ICP, Open vessel (mg / kg (ppm))	3	3	4.7023	0.28023	4.7023	0.28023	0.20224	5.96%	0.37533	12.67%
021.43	Cobalt, ICP, Microwave (mg / kg (ppm))	6	6	5.1449	0.60429	5.2087	0.53047	0.27071	10.18%	0.15497	12.48%
021.52	Cobalt, ICP-MS, Open vessel (mg / kg (ppm))	4	3	3.9216	0.06642	3.9216	0.06642	0.04793	1.69%	0.15073	13.02%
021.53	Cobalt, ICP-MS, Microwave (mg / kg (ppm))	5	5	5.2951	1.0325	5.2951	1.0325	0.57719	19.50%	0.20322	12.45%
022.31	Copper, AAS, Dry ash (mg / kg (ppm))	9	9	37.396	3.0124	37.454	3.2862	1.3693	8.77%	1.1933	9.27%
022.32	Copper, AAS, Open vessel (mg / kg (ppm))	2	2	33.571	2.0213						
022.33	Copper, AAS, Microwave (mg / kg (ppm))	2	2	38.070	1.9523						
022.41	Copper, ICP, Dry ash (mg / kg (ppm))	23	22	36.867	4.5671	36.244	2.2993	0.61277	6.34%	1.1477	9.32%
022.42	Copper, ICP, Open vessel (mg / kg (ppm))	22	21	37.768	4.0003	38.013	3.4132	0.93103	8.98%	0.80720	9.25%
022.43	Copper, ICP, Microwave (mg / kg (ppm))	25	24	37.361	2.5284	37.051	1.6312	0.41620	4.40%	1.6005	9.29%
022.52	Copper, ICP-MS, Open vessel (mg / kg (ppm))	3	3	38.805	5.7750	38.805	5.7750	4.1677	14.88%	2.0967	9.22%
022.53	Copper, ICP-MS, Microwave (mg / kg (ppm))	3	3	35.883	1.2045	35.883	1.2045	0.86927	3.36%	0.56667	9.33%
022.99	Copper, Miscellaneous (mg / kg (ppm))	4	4	36.014	2.0421	36.014	2.0421	1.2763	5.67%	1.0275	9.33%
023.01	Fluorine, Ion Sel Elect (mg / kg (ppm))	1	1	7.1000							
025.31	Iron, AAS, Dry ash (mg / kg (ppm))	10	9	410.61	32.442	408.58	31.986	13.327	7.83%	4.3056	6.47%
025.32	Iron, AAS, Open vessel (mg / kg (ppm))	1	1	450.18							
025.41	Iron, ICP, Dry ash (mg / kg (ppm))	23	22	378.84	26.162	378.23	24.060	6.4120	6.36%	8.9543	6.55%
025.42	Iron, ICP, Open vessel (mg / kg (ppm))	17	16	342.11	66.180	347.68	35.902	11.219	10.33%	10.671	6.63%
025.43	Iron, ICP, Microwave (mg / kg (ppm))	22	22	388.92	34.373	388.14	27.617	7.3601	7.12%	7.7955	6.52%

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025.52	Iron, ICP-MS, Open vessel (mg / kg (ppm))	1	1	358.90							
025.53	Iron, ICP-MS, Microwave (mg / kg (ppm))	2	2	352.00	45.255						
025.99	Iron, Miscellaneous (mg / kg (ppm))	3	3	386.87	15.431	386.87	15.431	13.639	3.99%	16.533	6.53%
027.31	Magnesium, AAS, Dry ash (%)	7	6	0.29734	0.00862	0.29734	0.00977	0.00499	3.29%	0.00318	4.80%
027.32	Magnesium, AAS, Open vessel (%)	1	1	0.26150							
027.33	Magnesium, AAS, Microwave (%)	1	1	0.33350							
027.34	Magnesium, AAS, Dry ash (%)	1	1	0.27000							
027.41	Magnesium, ICP, Dry ash (%)	25	25	0.29050	0.01137	0.29156	0.00995	0.00249	3.41%	0.00607	4.81%
027.42	Magnesium, ICP, Open vessel (%)	21	21	0.29065	0.01848	0.28994	0.01937	0.00528	6.68%	0.00924	4.82%
027.43	Magnesium, ICP, Microwave (%)	25	24	0.28980	0.01679	0.28933	0.01759	0.00449	6.08%	0.00762	4.82%
027.52	Magnesium, ICP-MS, Open vessel (%)	3	3	0.31235	0.02565	0.31235	0.02565	0.01851	8.21%	0.02090	4.77%
027.53	Magnesium, ICP-MS, Microwave (%)	2	2	0.29950	0.00141						
027.99	Magnesium, Miscellaneous (%)	4	3	0.29333	0.01528	0.29333	0.01528			0.00000	4.81%
028.31	Manganese, AAS, Dry ash (mg / kg (ppm))	10	9	144.87	9.1346	142.98	5.0115	2.0881	3.50%	3.1600	7.58%
028.32	Manganese, AAS, Open vessel (mg / kg (ppm))	2	2	151.77	9.5746						
028.33	Manganese, AAS, Microwave (mg / kg (ppm))	1	1	141.99							
028.41	Manganese, ICP, Dry ash (mg / kg (ppm))	22	22	138.96	9.2059	138.90	7.1191	1.8973	5.13%	3.1967	7.61%
028.42	Manganese, ICP, Open vessel (mg / kg (ppm))	21	21	143.07	8.0185	143.20	8.4674	2.3097	5.91%	3.4202	7.58%
028.43	Manganese, ICP, Microwave (mg / kg (ppm))	26	26	145.08	9.8771	144.58	7.8819	1.9322	5.45%	4.3034	7.57%
028.44	Manganese, ICP, Dry ash (mg / kg (ppm))	2	2	140.89	11.247						
028.52	Manganese, ICP-MS, Open vessel (mg / kg (ppm))	3	3	146.60	18.144	146.60	18.144	13.094	12.38%	2.6766	7.55%
028.53	Manganese, ICP-MS, Microwave (mg / kg (ppm))	3	3	139.50	6.2650	139.50	6.2650	4.5214	4.49%	6.3333	7.61%
028.99	Manganese, Miscellaneous (mg / kg (ppm))	4	4	144.30	9.7379	144.30	9.7379	6.0862	6.75%	5.5000	7.57%
031.00	Phosphorus, Vol (%)	2	2	0.55750	0.01061						
031.01	Phosphorus, Photometric (%)	43	42	0.55270	0.04933	0.54964	0.03162	0.00610	5.75%	0.00810	4.38%
031.02	Phosphorus, GQMP (AOAC 935.13-Extraction) (%)	3	3	0.55908	0.00799	0.55908	0.00799	0.00577	1.43%	0.00483	4.37%
031.03	Phosphorus, Autoanalyzer (%)	3	3	0.53365	0.03827	0.53365	0.03827	0.02762	7.17%	0.00150	4.40%
031.06	Phosphorus, Hach Method (%)	1	1	0.38500							
031.41	Phosphorus, ICP, Dry ash (%)	29	28	0.54592	0.03213	0.54817	0.02399	0.00567	4.38%	0.00750	4.38%
031.42	Phosphorus, ICP, Open vessel (%)	21	21	0.54424	0.03052	0.54469	0.03028	0.00826	5.56%	0.01542	4.38%
031.43	Phosphorus, ICP, Microwave (%)	29	29	0.55883	0.04352	0.55641	0.02618	0.00608	4.71%	0.01077	4.37%
031.44	Phosphorus, ICP, Dry ash (%)	1	1	0.55000							
031.52	Phosphorus, ICP-MS, Open vessel (%)	2	2	0.60998	0.06148						
031.53	Phosphorus, ICP-MS, Microwave (%)	4	4	0.53613	0.03710	0.53613	0.03710	0.02319	6.92%	0.03075	4.39%
031.99	Phosphorus, Miscellaneous (%)	5	5	0.53639	0.04748	0.53639	0.04748	0.02654	8.85%	0.00818	4.39%
032.31	Potassium, AAS, Dry ash (%)	11	10	1.5967	0.09395	1.5967	0.10654	0.04211	6.67%	0.03200	3.73%
032.32	Potassium, AAS, Open vessel (%)	1	1	1.3950							
032.33	Potassium, AAS, Microwave (%)	1	1	1.5850							
032.41	Potassium, ICP, Dry ash (%)	26	26	1.4907	0.10466	1.5041	0.08107	0.01987	5.39%	0.03541	3.76%
032.42	Potassium, ICP, Open vessel (%)	20	20	1.5317	0.05800	1.5306	0.06162	0.01722	4.03%	0.03699	3.75%

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032.43	Potassium, ICP, Microwave (%)	28	28	1.5262	0.10495	1.5247	0.09619	0.02272	6.31%	0.03651	3.75%
032.44	Potassium, ICP, Dry ash (%)	1	1	1.4500							
032.52	Potassium, ICP-MS, Open vessel (%)	2	2	1.6314	0.08683						
032.53	Potassium, ICP-MS, Microwave (%)	2	2	1.6000	0.07071						
032.99	Potassium, Miscellaneous (%)	6	6	1.4694	0.13786	1.4990	0.08107	0.04137	5.41%	0.03133	3.76%
033.00	Salt as chloride, Sol Cl (%)	24	23	1.5789	0.12127	1.5927	0.07300	0.01903	4.58%	0.02593	3.73%
033.01	Salt as chloride, Poten Cl (%)	31	30	1.6683	0.06069	1.6738	0.04779	0.01091	2.85%	0.01400	3.70%
033.03	Salt as chloride, Quantab (%)	3	3	1.5983	0.20251	1.5983	0.20251	0.14615	12.67%	0.05000	3.73%
033.05	Salt as chloride, Ion Sel Electrode (%)	3	3	1.6050	0.07399	1.6050	0.07399	0.05340	4.61%	0.01667	3.72%
033.99	Salt, Miscellaneous (%)	10	10	1.2496	0.55422	1.2496	0.62848	0.24843	50.29%	0.02120	3.87%
034.04	Selenium, AA, Hydride (mg / kg (ppm))	5	5	1.6792	0.11575	1.6792	0.11575	0.06471	6.89%	0.04808	14.80%
034.41	Selenium, ICP, Dry ash (mg / kg (ppm))	3	3	1.4000	0.73180	1.4000	0.73180	0.64683	52.27%	0.07733	15.21%
034.42	Selenium, ICP, Open vessel (mg / kg (ppm))	3	2	2.1475	0.42780	2.1475	0.42780			0.25500	14.26%
034.43	Selenium, ICP, Microwave (mg / kg (ppm))	3	3	2.2204	0.63505	2.2204	0.63505	0.45831	28.60%	0.23420	14.19%
034.52	Selenium, ICP-MS, Open vessel (mg / kg (ppm))	5	4	1.7324	0.06484	1.7324	0.06484	0.04053	3.74%	0.13905	14.73%
034.53	Selenium, ICP-MS, Microwave (mg / kg (ppm))	10	10	1.9141	0.23560	1.8834	0.18636	0.07367	9.89%	0.14232	14.54%
035.01	Sodium, Ion-selective electrode (%)	2	2	0.21375	0.01167						
035.05	Sodium, Flame Emission (%)	3	3	0.21833	0.00764	0.21833	0.00764	0.00551	3.50%	0.01000	5.03%
035.31	Sodium, AAS, Dry ash (%)	12	11	0.21120	0.04181	0.20467	0.02901	0.01093	14.17%	0.00929	5.08%
035.32	Sodium, AAS, Open vessel (%)	1	1	0.18200							
035.41	Sodium, ICP, Dry ash (%)	26	25	0.19947	0.01691	0.19680	0.01257	0.00314	6.39%	0.00456	5.11%
035.42	Sodium, ICP, Open vessel (%)	16	16	0.19266	0.01307	0.19275	0.01237	0.00387	6.42%	0.00573	5.12%
035.43	Sodium, ICP, Microwave (%)	25	24	0.20402	0.02517	0.20151	0.02222	0.00567	11.02%	0.00988	5.09%
035.52	Sodium, ICP-MS, Open vessel (%)	3	3	0.21828	0.01909	0.21828	0.01909	0.01378	8.75%	0.01163	5.03%
035.53	Sodium, ICP-MS, Microwave (%)	4	4	0.19338	0.01110	0.19338	0.01110	0.00694	5.74%	0.00575	5.12%
035.99	Sodium, Miscellaneous (%)	7	6	0.25721	0.16825	0.19496	0.02104	0.01074	10.79%	0.00458	5.12%
036.04	Sulfur, LECO (%)	2	2	0.30780	0.00311						
036.42	Sulfur, ICP, Open vessel (%)	18	18	0.31434	0.02851	0.31646	0.02470	0.00728	7.81%	0.01159	4.76%
036.43	Sulfur, ICP, Microwave (%)	14	14	0.31978	0.02875	0.32391	0.01238	0.00414	3.82%	0.01101	4.74%
036.52	Sulfur, ICP-MS, Open vessel (%)	2	2	0.32060	0.04299						
036.53	Sulfur, ICP-MS, Microwave (%)	1	1	0.34300							
036.99	Sulfur, Miscellaneous (%)	2	2	0.31828	0.00951						
037.31	Zinc, AAS, Dry ash (mg / kg (ppm))	9	8	263.17	4.6190	263.25	2.3241	1.0271	0.88%	4.5013	6.91%
037.32	Zinc, AAS, Open vessel (mg / kg (ppm))	2	2	269.32	31.926						
037.33	Zinc, AAS, Microwave (mg / kg (ppm))	3	3	333.09	106.02	333.09	106.02	76.513	31.83%	7.4587	6.67%
037.41	Zinc, ICP, Dry ash (mg / kg (ppm))	24	23	266.06	14.454	266.75	11.434	2.9802	4.29%	8.9223	6.90%
037.42	Zinc, ICP, Open vessel (mg / kg (ppm))	20	20	265.03	17.672	264.54	18.822	5.2608	7.11%	6.1605	6.91%
037.43	Zinc, ICP, Microwave (mg / kg (ppm))	26	25	272.63	16.677	272.51	15.269	3.8172	5.60%	6.1597	6.88%
037.44	Zinc, ICP, Dry ash (mg / kg (ppm))	1	1	254.82							
037.52	Zinc, ICP-MS, Open vessel (mg / kg (ppm))	3	3	279.42	18.697	279.42	18.697	13.493	6.69%	12.185	6.85%

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037.53	Zinc, ICP-MS, Microwave (mg / kg (ppm))	3	3	270.00	30.643	270.00	30.643	22.115	11.35%	9.3333	6.89%
037.99	Zinc, Miscellaneous (mg / kg (ppm))	5	5	263.31	30.106	263.31	30.106	16.830	11.43%	9.8057	6.91%
038.41	Molybdenum, ICP, Dry ash (mg / kg (ppm))	2	2	4.2800	0.44548						
038.42	Molybdenum, ICP, Open vessel (mg / kg (ppm))	5	5	4.5484	0.18140	4.5484	0.18140	0.10141	3.99%	0.57980	12.74%
038.43	Molybdenum, ICP, Microwave (mg / kg (ppm))	7	7	4.4395	0.34366	4.4256	0.35751	0.16891	8.08%	0.23854	12.79%
038.52	Molybdenum, ICP-MS, Open vessel (mg / kg (ppm))	3	3	3.9762	0.21478	3.9762	0.21478	0.15500	5.40%	0.24157	13.00%
038.53	Molybdenum, ICP-MS, Microwave (mg / kg (ppm))	4	4	4.3129	0.74486	4.3129	0.74486	0.46554	17.27%	0.71508	12.84%
040.42	Barium, ICP, Open vessel (mg / kg (ppm))	1	1	12.605							
040.52	Barium, ICP-MS, Open vessel (mg / kg (ppm))	1	1	11.694							
040.53	Barium, ICP-MS, Microwave (mg / kg (ppm))	1	1	12.093							
041.53	Vanadium, ICP-MS, Microwave (mg / kg (ppm))	1	1	0.69000							
042.00	Chloride, Titrimetric (%)	2	2	1.1390	0.16405						
042.02	Chloride, Ion Chromatography (%)	1	1	1.0245							
042.99	Chloride, Miscellaneous (%)	2	2	1.0438	0.00530						
101.02	Choline Chloride, LC (mg / kg (ppm))	1	1	1,580.0							
101.99	Choline Chloride, Miscellaneous (mg / kg (ppm))	2	2	1,266.3	102.99						
102.01	Niacin, Microbiological (mg / kg (ppm))	1	1	732.50							
102.02	Niacin, LC (mg / kg (ppm))	1	1	729.71							
103.01	Pantothenic Acid, Microbiological (mg / kg (ppm))	1	1	11.800							
104.00	Riboflavin, Fluorometric (mg / kg (ppm))	1	1	5.6600							
104.03	Riboflavin, LC (mg / kg (ppm))	2	2	2.8450	1.4991						
105.00	Thiamine, LC (mg / kg (ppm))	2	2	3.3750	0.35355						
105.01	Thiamine, Fluorometer (mg / kg (ppm))	1	1	4.4850							
106.00	Vitamin A, Color (KU / kg)	2	2	33.879	4.4251						
106.01	Vitamin A, UV (KU / kg)	1	1	26.900							
106.02	Vitamin A, LC (KU / kg)	16	15	24.740	9.6918	24.426	5.7987	1.8715	23.74%	4.1589	
107.00	Vitamin B12, Microbiological (µg / kg (ppb))	1	1	21.050							
107.99	Vitamin B12, Miscellaneous (µg / kg (ppb))	1	1	79.800							
108.02	Vitamin D3, LC (KU / kg)	4	4	4.1363	1.1245	4.1363	1.1245	0.70281	27.19%	0.54250	
109.02	Vitamin E, LC (IU / kg)	15	15	113.84	14.107	114.08	15.351	4.9544	13.46%	8.5894	
109.99	Vitamin E, Miscellaneous (IU / kg)	1	1	113.50							
112.01	Pyridoxine, LC (µg / g)	2	2	1.4457	1.2930						
113.01	Folic Acid, Micro (mg / kg (ppm))	1	1	0.74500							
114.01	Biotin, Microbiological (mg / kg (ppm))	1	1	0.34150							
114.99	Biotin, Miscellaneous (mg / kg (ppm))	1	1	0.62415							
115.00	Non Protein N (NPN), Urea + Am, Urease method (%)	1	1	1.4150							
118.99	Peroxide value, Miscellaneous (meq/kg)	1	1	2.8300							
120.00	Alanine, Post-col Ninhydrin Der (%)	23	23	0.85558	0.04411	0.85603	0.03561	0.00928	4.16%	0.01489	4.09%
120.02	Alanine, Post-col OPA Der (%)	1	1	0.88700							
120.05	Alanine, Pre-col AQC Der (%)	7	7	0.90686	0.18381	0.85486	0.06409	0.03028	7.50%	0.01457	4.10%

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120.99	Alanine, Miscellaneous (%)	2	2	0.70003	0.20503						
121.00	Arginine, Post-col Ninhydrin Der (%)	23	23	1.1811	0.06740	1.1807	0.03817	0.00995	3.23%	0.02300	3.90%
121.02	Arginine, Post-col OPA Der (%)	1	1	1.1735							
121.05	Arginine, Pre-col AQC Der (%)	7	7	1.2336	0.25334	1.1831	0.15555	0.07349	13.15%	0.04829	3.90%
121.99	Arginine, Miscellaneous (%)	2	2	0.92968	0.26916						
122.00	Aspartic, Post-col Ninhydrin Der (%)	23	23	1.7550	0.09407	1.7659	0.06953	0.01812	3.94%	0.03107	3.67%
122.02	Aspartic, Post-col OPA Der (%)	1	1	1.8280							
122.05	Aspartic, Pre-col AQC Der (%)	7	7	1.9428	0.48155	1.8032	0.15665	0.07401	8.69%	0.03014	3.66%
122.99	Aspartic, Miscellaneous (%)	2	2	1.3863	0.42953						
124.00	Cysteine/Cystine, PAO Post-col Ninhydri (%)	23	23	0.28496	0.03434	0.28471	0.03497	0.00912	12.28%	0.00718	4.83%
124.02	Cysteine/Cystine, PAO Post-col OPA Der (%)	1	1	0.29900							
124.05	Cysteine/Cystine, PAO Pre-col AQC Der (%)	7	7	0.24275	0.07301	0.24275	0.08279	0.03911	34.10%	0.00916	4.95%
124.99	Cysteine/Cystine, Miscellaneous (%)	2	2	0.36923	0.11204						
125.00	Glutamic, Post-col Ninhydrin Der (%)	23	23	3.0654	0.22629	3.0563	0.17606	0.04589	5.76%	0.05047	3.38%
125.02	Glutamic, Post-col OPA Der (%)	1	1	3.1305							
125.05	Glutamic, Pre-col AQC Der (%)	7	7	3.3746	0.91395	3.0805	0.18351	0.08670	5.96%	0.06557	3.38%
125.99	Glutamic, Miscellaneous (%)	2	2	3.5303	0.73578						
126.00	Glycine, Post-col Ninhydrin Der (%)	23	23	0.83273	0.04070	0.83443	0.03084	0.00804	3.70%	0.01370	4.11%
126.02	Glycine, Post-col OPA Der (%)	1	1	0.85100							
126.05	Glycine, Pre-col AQC Der (%)	7	7	0.89079	0.14808	0.85328	0.06613	0.03124	7.75%	0.01929	4.10%
126.99	Glycine, Miscellaneous (%)	2	2	0.73530	0.12685						
127.00	Histidine, Post-col Ninhydrin Der (%)	23	23	0.42604	0.03311	0.43061	0.01604	0.00418	3.73%	0.01250	4.54%
127.02	Histidine, Post-col OPA Der (%)	1	1	0.43050							
127.05	Histidine, Pre-col AQC Der (%)	7	7	0.42693	0.03389	0.42693	0.03843	0.01816	9.00%	0.01157	4.55%
127.99	Histidine, Miscellaneous (%)	2	2	0.40255	0.01054						
128.00	Isoleucine, Post-col Ninhydrin Der (%)	23	23	0.65251	0.05557	0.65725	0.05126	0.01336	7.80%	0.01898	4.26%
128.02	Isoleucine, Post-col OPA Der (%)	1	1	0.68850							
128.05	Isoleucine, Pre-col AQC Der (%)	7	7	0.69886	0.06360	0.69567	0.06467	0.03056	9.30%	0.01971	4.22%
128.99	Isoleucine, Miscellaneous (%)	2	2	0.54583	0.09783						
129.00	Leucine, Post-col Ninhydrin Der (%)	23	23	1.2663	0.06546	1.2704	0.03511	0.00915	2.76%	0.01991	3.86%
129.02	Leucine, Post-col OPA Der (%)	1	1	1.3020							
129.05	Leucine, Pre-col AQC Der (%)	7	7	1.3504	0.25991	1.2739	0.08079	0.03817	6.34%	0.03443	3.86%
129.99	Leucine, Miscellaneous (%)	2	2	1.0411	0.23182						
130.00	L-Lysine, Post-col Ninhydrin Der (%)	23	22	0.87588	0.05914	0.88481	0.04571	0.01218	5.17%	0.01606	4.07%
130.02	L-Lysine, Post-col OPA Der (%)	1	1	0.91700							
130.05	L-Lysine, Pre-col AQC Der (%)	7	7	0.95893	0.22857	0.89010	0.06540	0.03090	7.35%	0.01957	4.07%
130.99	L-Lysine, Miscellaneous (%)	4	4	0.97688	0.21554	0.97688	0.21554	0.13471	22.06%	0.06190	4.01%
131.00	Methionine, PAO Post-col Ninhydrin Der (%)	23	23	0.26075	0.02572	0.25960	0.02664	0.00694	10.26%	0.00906	4.90%
131.02	Methionine, PAO Post-col OPA Der (%)	1	1	0.25850							
131.05	Methionine, PAO Pre-col AQC Der (%)	7	7	0.26574	0.11296	0.24914	0.08642	0.04083	34.69%	0.02057	4.93%

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131.99	Methionine, Miscellaneous (%)	4	4	0.30370	0.05144	0.30370	0.05144	0.03215	16.94%	0.02050	4.79%
132.00	Phenylalanine, Post-col Ninhydrin Der (%)	23	23	0.82335	0.04631	0.82481	0.02978	0.00776	3.61%	0.01690	4.12%
132.02	Phenylalanine, Post-col OPA Der (%)	1	1	0.82850							
132.05	Phenylalanine, Pre-col AQC Der (%)	7	7	0.84221	0.09949	0.82420	0.06649	0.03141	8.07%	0.02071	4.12%
132.99	Phenylalanine, Miscellaneous (%)	2	2	0.74815	0.04504						
133.00	Proline, Post-col Ninhydrin Der (%)	23	22	0.98782	0.12490	0.97800	0.05113	0.01363	5.23%	0.02286	4.01%
133.05	Proline, Pre-col AQC Der (%)	7	7	1.0567	0.20429	0.99926	0.07236	0.03419	7.24%	0.04000	4.00%
133.99	Proline, Miscellaneous (%)	2	2	0.97218	0.20107						
134.00	Serine, Post-col Ninhydrin Der (%)	23	23	0.82714	0.05394	0.83178	0.04420	0.01152	5.31%	0.01702	4.11%
134.02	Serine, Post-col OPA Der (%)	1	1	0.72550							
134.05	Serine, Pre-col AQC Der (%)	7	7	0.88786	0.17008	0.84500	0.07666	0.03622	9.07%	0.03000	4.10%
134.99	Serine, Miscellaneous (%)	2	2	0.93933	0.16168						
135.00	Threonine, Post-col Ninhydrin Der (%)	23	23	0.65735	0.03408	0.65981	0.02380	0.00620	3.61%	0.01298	4.26%
135.02	Threonine, Post-col OPA Der (%)	1	1	0.66000							
135.05	Threonine, Pre-col AQC Der (%)	7	7	0.67214	0.11650	0.64813	0.06917	0.03268	10.67%	0.02714	4.27%
135.99	Threonine, Miscellaneous (%)	3	3	0.66847	0.05752	0.66847	0.05752	0.04151	8.60%	0.01227	4.25%
136.00	Tryptophan, Alka-Hydrol Post-col Ninhyd (%)	7	7	0.22193	0.04707	0.22193	0.05338	0.02522	24.05%	0.00929	5.02%
136.01	Tryptophan, Alka-Hydrol Rev Phase LC UV (%)	4	3	0.22667	0.00451	0.22667	0.00451	0.00325	1.99%	0.00467	5.00%
136.02	Tryptophan, Alka-Hydrol Post-col OPA De (%)	1	1	0.21400							
136.03	Tryptophan, Alka-Hydrol + IS RP LC Fl (%)	5	5	0.22852	0.02791	0.22852	0.02791	0.01560	12.21%	0.00524	4.99%
136.99	Tryptophan, Miscellaneous (%)	2	2	0.17940	0.00085						
137.00	Tyrosine, Post-col Ninhydrin Der (%)	17	16	0.52164	0.06778	0.52757	0.06277	0.01962	11.90%	0.01594	4.40%
137.02	Tyrosine, Post-col OPA Der (%)	1	1	0.54500							
137.05	Tyrosine, Pre-col AQC Der (%)	7	7	0.64800	0.15597	0.64800	0.17687	0.08356	27.29%	0.02714	4.27%
137.99	Tyrosine, Miscellaneous (%)	2	2	0.42700	0.01697						
138.00	Valine, Post-col Ninhydrin Der (%)	23	22	0.80985	0.06774	0.81496	0.06051	0.01613	7.43%	0.02239	4.12%
138.02	Valine, Post-col OPA Der (%)	1	1	0.85900							
138.05	Valine, Pre-col AQC Der (%)	7	7	0.84286	0.09178	0.82889	0.06888	0.03254	8.31%	0.02771	4.11%
138.99	Valine, Miscellaneous (%)	2	2	0.71868	0.01602						
139.00	Taurine, Post-col Ninhydrin Der (%)	3	3	0.07533	0.07685	0.07533	0.07685	0.06793	102.02%	0.02000	5.90%
139.02	Taurine, Post-col OPA Der (%)	1		0.01000							
139.99	Taurine, Miscellaneous (%)	1	1	0.01000							
160.99	Fructose, Miscellaneous (%)	4	4	0.65138	0.15329	0.65138	0.15329	0.09581	23.53%	0.06475	4.27%
161.99	Galactose, Miscellaneous (%)	1		0.00000							
162.99	Glucose, Miscellaneous (%)	4	3	0.23683	0.07394	0.23683	0.07394	0.06535	31.22%	0.02367	4.97%
163.99	Lactose, Miscellaneous (%)	4									
164.99	Maltose, Miscellaneous (%)	4	1								
165.99	Sucrose, Miscellaneous (%)	4	4	3.6249	0.35981	3.6249	0.35981	0.22488	9.93%	0.12125	3.30%
166.99	Raffinose, Miscellaneous (%)	2	2	0.55550	0.04313						
167.99	Stachyose, Miscellaneous (%)	2	2	0.79175	0.12975						

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319.02	Morantel Tartrate, LC-MS (mg/kg (ppm))	1	1	47.150							
345.00	Amprolium, Colorimetric (mg/kg (ppm))	6	5	63.940	23.106	63.940	23.106	14.628	36.14%	1.7600	8.56%
345.02	Amprolium, LC (UV or FL) (mg/kg (ppm))	7	7	61.469	7.6974	59.773	4.2386	2.0026	7.09%	1.5288	8.64%
345.03	Amprolium, LC-MS (mg/kg (ppm))	1	1	62.000							
351.00	Chlortetracycline, Plate (mg/kg (ppm))	1		2.0000							
351.03	Chlortetracycline, LC (UV or FL) (mg/kg (ppm))	1	1	4.5645							
351.05	Chlortetracycline, LC-MS/MS (mg/kg (ppm))	3	3	1.5300	1.1186	1.5300	1.1186	0.80728	73.11%	0.28000	15.00%
354.01	Decoquinate, LC (UV or FL) (mg/kg (ppm))	9	8	40.221	2.1852	40.483	1.8232	0.80574	4.50%	0.81029	9.17%
354.02	Decoquinate, LC (mg/kg (ppm))	6	6	40.693	1.8206	40.693	2.0646	1.0536	5.07%	1.7960	9.16%
354.03	Decoquinate, LC-MS (mg/kg (ppm))	1	1	37.100							
354.04	Decoquinate, LC-MS/MS (mg/kg (ppm))	3	3	36.098	4.2596	36.098	4.2596	3.0741	11.80%	2.7500	9.32%
357.01	Ethoxyquin, LC (mg/kg (ppm))	1	1	2.0000							
361.02	Lasalocid Sodium, LC (mg/kg (ppm))	4	4	27.699	1.8550	27.699	1.8550	1.1594	6.70%	1.0508	9.70%
361.03	Lasalocid Sodium, LC (UV or FL) (mg/kg (ppm))	8	8	32.190	13.052	27.918	1.5383	0.67985	5.51%	1.3200	9.69%
361.04	Lasalocid Sodium, LC-MS (mg/kg (ppm))	1	1	32.700							
361.05	Lasalocid Sodium, LC-MS/MS (mg/kg (ppm))	4	4	28.026	7.0752	28.026	7.0752	4.4220	25.25%	5.3275	9.69%
365.05	Monensin, LC-MS/MS (mg/kg (ppm))	2	2	1.5900	0.29698						
400.01	Water Activity, Aqualab chilled mirror (Units)	7	7	0.51550	0.01963	0.51401	0.01870	0.00884	3.64%	0.00149	
400.99	Water Activity, Miscellaneous (Units)	1	1	0.49350							
412.01	Starch, Dietary, Enzymatic-Colorimetric (%)	1	1	20.700							
516.00	Arsenic, Total, AA, Hydride (mg / kg (ppm))	3	3	0.21217	0.07461	0.21217	0.07461	0.05385	35.17%	0.02100	20.20%
516.43	Arsenic, Total, ICP, Microwave (mg / kg (ppm))	2	2	1.0735	0.82809						
516.52	Arsenic, Total, ICP-MS, Open vessel (mg / kg (ppm))	3	3	0.30015	0.02488	0.30015	0.02488	0.01796	8.29%	0.03290	19.17%
516.53	Arsenic, Total, ICP-MS, Microwave (mg / kg (ppm))	5	4	0.33785	0.04910	0.33785	0.04910	0.03069	14.53%	0.00890	18.83%
518.31	Cadmium, AAS, Dry ash (mg / kg (ppm))	2		0.00000							
518.52	Cadmium, ICP-MS, Open vessel (mg / kg (ppm))	3	3	0.09058	0.00426	0.09058	0.00426	0.00307	4.70%	0.00777	22.00%
518.53	Cadmium, ICP-MS, Microwave (mg / kg (ppm))	5	5	0.09407	0.00390	0.09407	0.00390	0.00218	4.15%	0.00638	22.00%
520.41	Chromium, ICP, Dry ash (mg / kg (ppm))	1	1	8.3500							
520.42	Chromium, ICP, Open vessel (mg / kg (ppm))	3	3	8.0924	0.36381	8.0924	0.36381	0.26256	4.50%	0.62167	11.68%
520.43	Chromium, ICP, Microwave (mg / kg (ppm))	2	2	8.7068	0.05402						
520.52	Chromium, ICP-MS, Open vessel (mg / kg (ppm))	2	2	4.6434	2.0060						
520.53	Chromium, ICP-MS, Microwave (mg / kg (ppm))	3	3	7.5125	3.7771	7.5125	3.7771	2.7259	50.28%	0.17487	11.81%
526.31	Lead, AAS, Dry ash (mg / kg (ppm))	2		0.00000							
526.52	Lead, ICP-MS, Open vessel (mg / kg (ppm))	3	3	0.18907	0.01205	0.18907	0.01205	0.00870	6.37%	0.00727	20.55%
526.53	Lead, ICP-MS, Microwave (mg / kg (ppm))	6	6	0.20912	0.03251	0.20912	0.03687	0.01881	17.63%	0.01027	20.24%
529.00	Mercury, Cold vapor (µg / kg (ppb))	1		0.00000							
529.99	Mercury, Miscellaneous (µg / kg (ppb))	1	1	3.4600							
539.43	Nickel, ICP, Microwave (mg / kg (ppm))	1	1	5.4051							
539.52	Nickel, ICP-MS, Open vessel (mg / kg (ppm))	2	2	3.9681	1.1853						
539.53	Nickel, ICP-MS, Microwave (mg / kg (ppm))	2	2	4.5595	1.7190						

Test Material Code # 201827 **Issue Date : 08/31/2018**

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	0.00650							
704.00	Caproic Acid (6:0) , Miscellaneous GC (%)	1	1	0.00700							
706.01	Caprylic acid (8:0), Direct Methylation by Alkali Hydrolysis & GC (% (w/w))	1		0.00000							
708.01	Capric acid (10:0), Direct Methylation by Alkali Hydrolysis & GC (% (w/w))	1		0.00000							
710.01	Lauric Acid (12:0), Direct Methylation by Alkali Hydrolysis & GC (% (w/w))	1	1	0.02100							
710.99	Lauric Acid (12:0), Miscellaneous (% (w/w))	3	2	0.00298	0.00074	0.00298	0.00074			0.00065	
714.01	Myristic Acid (14:0), Direct Methylation by Alkali Hydrolysis & GC (% (w/w))	1	1	0.03950							
714.99	Myristic Acid (14:0), Miscellaneous (% (w/w))	2	2	0.03550	0.00636						
716.01	Palmitic Acid (16:0), Direct Methylation by Alkali Hydrolysis & GC (% (w/w))	1	1	0.95000							
716.99	Palmitic Acid (16:0), Miscellaneous (% (w/w))	2	2	0.77153	0.07563						
718.01	Palmitoleic Acid (9c-16:1), Direct Methylation by Alkali Hydrolysis & GC (% (w	1	1	0.04950							
718.99	Palmitoleic Acid (9c-16:1), Miscellaneous (% (w/w))	3	3	0.04180	0.00720	0.04180	0.00720	0.00520	17.22%	0.00040	
722.01	Stearic Acid (18:0), Direct Methylation by Alkali Hydrolysis & GC (% (w/w))	1	1	0.13050							
722.99	Stearic Acid (18:0), Miscellaneous (% (w/w))	1	1	0.14140							
724.01	Oleic Acid (9c-18:1), Direct Methylation by Alkali Hydrolysis & GC (% (w/w))	1	1	1.2350							
724.99	Oleic Acid (9c-18:1), Miscellaneous (% (w/w))	2	2	0.96500	0.09192						
726.01	Linoleic Acid (9c,12c-18:2), Direct Methylation by Alkali Hydrolysis & GC (% (v	1	1	2.1400							
726.99	Linoleic Acid (9c,12c-18:2), Miscellaneous (% (w/w))	3	3	1.9355	0.16282	1.9355	0.16282	0.11751	8.41%	0.01963	
728.01	alpha-Linolenic Acid (9c,12c,15c-18:3), Direct Methylation by Alkali Hydrolysis	1	1	0.20050							
728.99	alpha-Linolenic Acid (9c,12c,15c-18:3), Miscellaneous (% (w/w))	3	3	0.18330	0.01935	0.18330	0.01935	0.01710	10.56%	0.00033	
730.01	Arachidic Acid (20:0), Direct Methylation by Alkali Hydrolysis & GC (% (w/w))	1	1	0.03250							
730.99	Arachidic Acid (20:0), Miscellaneous (% (w/w))	1	1	0.01445							
732.01	Gondoic Acid (11c-20:1), Direct Methylation by Alkali Hydrolysis & GC (% (w/v	1	1	0.02800							
732.99	Gondoic Acid (11c-20:1), Miscellaneous (% (w/w))	1	1	0.08550							
736.01	Arachidonic Acid (5c,8c,11c,14c-20:4), Direct Methylation by Alkali Hydrolysis	1		0.00000							
736.99	Arachidonic Acid (5c,8c,11c,14c-20:4), Miscellaneous (% (w/w))	1	1	0.01250							
738.01	Mead Acid (11c,14c,17c-20:3), Direct Methylation by Alkali Hydrolysis & GC (%	1		0.00000							
740.01	Eicosapentaenoic Acid EPA (5c,8c,11c,14c,17c-20:5), Direct Methylation by Al	1	1	0.03700							
740.99	Eicosapentaenoic Acid EPA (5c,8c,11c,14c,17c-20:5), Miscellaneous (% (w/w	2	2	0.08858	0.05738						
742.99	Behenic Acid (22:0), Miscellaneous (% (w/w))	2	1	0.01450							
744.01	Erucic Acid (13c-22:1), Direct Methylation by Alkali Hydrolysis & GC (% (w/w))	1		0.00000							
744.99	Erucic Acid (13c-22:1), Miscellaneous (% (w/w))	1	1	0.00145							
746.01	Docosapentaenoic Acid n-3 DPA (7c,10c,13c,16c,19c-22:5), Direct Methylatior	1		0.00000							
746.99	Docosapentaenoic Acid n-3 DPA (7c,10c,13c,16c,19c-22:5), Miscellaneous (%	2	2	0.00568	0.00166						
748.99	Lignoceric Acid (24:0), Miscellaneous (% (w/w))	1	1	0.01480							
750.01	Docosahexaenoic Acid DHA (4c,7c,10c,13c,16c,19c-22:6), Direct Methylation	1	1	0.04000							
750.99	Docosahexaenoic Acid DHA (4c,7c,10c,13c,16c,19c-22:6), Miscellaneous (%	2	2	0.02780	0.00042						
752.01	Nervonic Acid (24:1) isomers, Direct Methylation by Alkali Hydrolysis & GC (%	1		0.00000							
752.99	Nervonic Acid (24:1) isomers, Miscellaneous (% (w/w))	1	1	0.00115							
754.99	Total n-3 Polyunsaturated (Omega-3) Fatty Acids, Miscellaneous (% (w/w))	2	2	0.26000	0.03536						

Test Material Code # 201827 **Issue Date : 08/31/2018**

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
756.99	Total n-6 Polyunsaturated (Omega-6) Fatty Acids, Miscellaneous (% (w/w))	2	2	1.9800	0.22627						
758.99	Total Saturated Fatty Acids, Miscellaneous (% (w/w))	1	1	1.1200							
762.99	Total Monounsaturated Fatty Acids, Miscellaneous (% (w/w))	1	1	1.1000							
766.99	Total Polyunsaturated Fatty Acids, Miscellaneous (% (w/w))	1	1	2.0750							
770.99	Total Fat (equivalent to NLEA), Miscellaneous (% (w/w))	1	1	4.5150							
772.99	Total Fatty Acids, Miscellaneous (% (w/w))	2	2	4.1826	0.18728						

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

AAFCO PTP Animal Feed Scheme

Animal Feed Scheme

Lamb Feed

Test Material Code # 201827

Method Precision Report

 # Methods Reported: 90

 # Labs Reporting: 196

Issue Date : 08/31/2018

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 (%)	46	40	8.4279	0.39024	0.19829	0.10659	0.22513	2.35%	1.264%	2.67%	2.1120
001.99	Loss on Drying, Miscellaneous (%)	22	19	8.0417	1.1400	0.78636	0.13234	0.79742	9.52%	1.603%	9.66%	6.0256
002.01	Protein, Crude, Auto Kjel-Foss (%)	16	15	19.076	0.29891	0.28265	0.09915	0.29953	1.48%	0.520%	1.57%	3.0210
002.05	Protein, Crude, Copper, Boric Acid (%)	36	33	19.143	0.39765	0.31724	0.08595	0.32868	1.66%	0.449%	1.72%	3.8239
002.06	Protein, Crude, Combustion Nitrogen Analyzer (%)	121	114	19.391	0.62080	0.28470	0.14553	0.31974	1.47%	0.752%	1.65%	2.1971
002.11	Protein, Crude, NIR (%)	10	10	19.777	2.1332	2.1323	0.08437	2.1340	10.78%	0.427%	10.79%	25.294
003.00	Fat, Crude, Diethyl Ether Ext., Direct (%)	15	15	4.4643	0.23805	0.23342	0.06607	0.24259	5.23%	1.480%	5.43%	3.6715
003.06	Fat, Crude, Pet Ether (%)	16	16	4.2368	0.23452	0.22696	0.08357	0.24185	5.36%	1.972%	5.71%	2.8941
003.09	Fat, Crude, Randall, Diethyl Ether Ext (%)	18	15	4.4537	0.18466	0.13094	0.08541	0.15633	2.96%	1.930%	3.53%	1.8305
003.10	Fat, Crude, Randall, Pet Ether (%)	30	27	4.1336	0.30234	0.15087	0.06009	0.16239	3.68%	1.467%	3.96%	2.7027
003.11	Fat, Crude, NIR (%)	8	8	4.2245	0.52665	0.52208	0.09790	0.53118	12.36%	2.317%	12.57%	5.4257
003.13	Fat, Crude, Randall, Hexane Ext. (%)	9	9	4.2544	0.09992	0.06303	0.10965	0.12647	1.48%	2.577%	2.97%	1.1535
003.14	Fat, Crude, Ankom (%)	46	42	4.0707	0.25435	0.18424	0.10130	0.21025	4.51%	2.480%	5.15%	2.0755
004.00	Fiber, Crude, Asbestos Free (%)	14	13	11.251	0.93540	0.59485	0.14895	0.61322	5.38%	1.347%	5.55%	4.1169
004.06	Fiber, Crude, Fibertec (%)	27	24	10.904	0.83052	0.54156	0.13927	0.55918	4.92%	1.265%	5.08%	4.0150
004.07	Fiber, Crude, ANKOM (%)	61	55	10.719	1.1793	0.95022	0.22448	0.97637	8.98%	2.121%	9.23%	4.3495
004.11	Fiber, Crude, NIR (%)	9	8	9.7163	0.84942	0.84414	0.13383	0.85468	8.69%	1.377%	8.80%	6.3862
005.00	Ash, 2h @ 600°C (%)	89	83	9.0912	0.36318	0.33298	0.08186	0.34290	3.66%	0.900%	3.77%	4.1886
005.05	Ash, 3h @ 550°C (%)	38	35	9.4712	0.33636	0.26060	0.06116	0.26768	2.76%	0.649%	2.84%	4.3765
008.02	Fiber, Acid Detergent, Crucible (%)	16	14	14.180	1.0043	0.61708	0.12787	0.63019	4.27%	0.884%	4.36%	4.9282
008.08	Fiber, Acid Detergent, Filter Bag - ANKOM (%)	43	39	13.817	1.1267	1.0149	0.22539	1.0396	7.30%	1.621%	7.48%	4.6127
009.07	Fiber, Neutral Detergent, AOAC -ENZ Pretreat (%)	15	14	23.738	1.0122	0.98467	0.33142	1.0389	4.15%	1.396%	4.38%	3.1348
009.09	Fiber, Neutral Detergent, Filter Bag - ANKOM (%)	43	39	23.388	1.6238	1.4956	0.33708	1.5331	6.42%	1.446%	6.58%	4.5483
010.99	Moisture, Miscellaneous (%)	18	15	8.7735	0.82904	0.61391	0.10053	0.62209	6.95%	1.138%	7.04%	6.1880
011.01	Loss on Drying, 135°C 2hr (%)	66	59	9.6046	0.46684	0.37545	0.09156	0.38646	3.89%	0.949%	4.01%	4.2208
012.00	Starch, Polarimetric (Ewers) (%)	17	15	22.077	0.55823	0.42488	0.18480	0.46333	1.92%	0.834%	2.09%	2.5072
012.01	Starch, Enzymatic-Colorimetric Method (Megazyme) (%)	10	8	20.450	2.4945	1.5712	0.16811	1.5801	7.40%	0.792%	7.45%	9.3996
013.00	Fat, Acid Pretreat, Acid hydrolysis (%)	19	18	4.9597	0.67227	0.65165	0.14263	0.66707	13.26%	2.903%	13.58%	4.6769
013.02	Fat, Acid Pretreat, Mojonnier, Bak Ext (%)	15	15	5.7160	0.51167	0.50579	0.10942	0.51749	8.85%	1.914%	9.05%	4.7293
019.00	Calcium, Ox-Mn04 Vol. (%)	13	13	1.8791	0.07260	0.07094	0.02184	0.07422	3.78%	1.162%	3.95%	3.3987
019.08	Calcium, EDTA (%)	13	12	1.9120	0.20736	0.14939	0.04757	0.15679	7.98%	2.542%	8.38%	3.2960
019.31	Calcium, AAS, Dry ash (%)	20	17	1.8239	0.20660	0.06702	0.05619	0.08746	3.57%	2.991%	4.66%	1.5566
019.41	Calcium, ICP, Dry ash (%)	32	31	1.8643	0.09345	0.07411	0.02995	0.07994	3.95%	1.598%	4.27%	2.6687
019.42	Calcium, ICP, Open vessel (%)	22	20	1.8650	0.17832	0.12244	0.03472	0.12727	6.46%	1.831%	6.71%	3.6654
019.43	Calcium, ICP, Microwave (%)	30	29	1.9211	0.12091	0.09422	0.04690	0.10525	4.94%	2.458%	5.52%	2.2439

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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
022.31	Copper, AAS, Dry ash (mg / kg (ppm))	9	8	37.396	3.0124	2.9248	0.98388	3.0859	7.90%	2.657%	8.33%	3.1364
022.41	Copper, ICP, Dry ash (mg / kg (ppm))	23	21	36.867	4.5671	2.3900	1.0204	2.5987	6.63%	2.831%	7.21%	2.5469
022.42	Copper, ICP, Open vessel (mg / kg (ppm))	22	18	37.768	4.0003	3.2880	0.54582	3.3330	8.63%	1.433%	8.75%	6.1064
022.43	Copper, ICP, Microwave (mg / kg (ppm))	25	23	37.361	2.5284	1.1550	1.3727	1.7940	3.13%	3.716%	4.86%	1.3069
025.31	Iron, AAS, Dry ash (mg / kg (ppm))	10	9	410.61	32.442	32.293	4.3860	32.590	7.86%	1.068%	7.94%	7.4304
025.41	Iron, ICP, Dry ash (mg / kg (ppm))	23	20	378.84	26.162	21.762	7.5249	23.026	5.80%	2.006%	6.14%	3.0600
025.42	Iron, ICP, Open vessel (mg / kg (ppm))	17	15	342.11	66.180	38.987	9.4917	40.126	10.96%	2.669%	11.28%	4.2275
025.43	Iron, ICP, Microwave (mg / kg (ppm))	22	21	388.92	34.373	29.269	6.8909	30.069	7.45%	1.754%	7.65%	4.3636
027.41	Magnesium, ICP, Dry ash (%)	25	24	0.29050	0.01137	0.00869	0.00600	0.01057	2.98%	2.058%	3.62%	1.7599
027.42	Magnesium, ICP, Open vessel (%)	21	20	0.29065	0.01848	0.01712	0.00710	0.01853	5.92%	2.453%	6.40%	2.6105
027.43	Magnesium, ICP, Microwave (%)	25	24	0.28980	0.01679	0.01598	0.00730	0.01757	5.51%	2.519%	6.06%	2.4065
028.31	Manganese, AAS, Dry ash (mg / kg (ppm))	10	8	144.87	9.1346	2.7970	3.2909	4.3189	1.97%	2.317%	3.04%	1.3124
028.41	Manganese, ICP, Dry ash (mg / kg (ppm))	22	21	138.96	9.2059	7.4284	3.0901	8.0454	5.39%	2.242%	5.84%	2.6037
028.42	Manganese, ICP, Open vessel (mg / kg (ppm))	21	21	143.07	8.0185	7.6699	3.3075	8.3526	5.36%	2.312%	5.84%	2.5254
028.43	Manganese, ICP, Microwave (mg / kg (ppm))	26	25	145.08	9.8771	8.7370	3.5437	9.4283	6.06%	2.457%	6.54%	2.6606
031.01	Phosphorus, Photometric (%)	43	40	0.55270	0.04933	0.03764	0.00765	0.03841	6.90%	1.401%	7.04%	5.0236
031.41	Phosphorus, ICP, Dry ash (%)	29	26	0.54592	0.03213	0.02084	0.00669	0.02188	3.78%	1.213%	3.97%	3.2702
031.42	Phosphorus, ICP, Open vessel (%)	21	21	0.54424	0.03052	0.02883	0.01416	0.03212	5.30%	2.602%	5.90%	2.2678
031.43	Phosphorus, ICP, Microwave (%)	29	27	0.55883	0.04352	0.02606	0.01002	0.02792	4.67%	1.796%	5.00%	2.7863
032.31	Potassium, AAS, Dry ash (%)	11	9	1.5967	0.09395	0.08043	0.01984	0.08284	5.09%	1.256%	5.24%	4.1746
032.41	Potassium, ICP, Dry ash (%)	26	25	1.4907	0.10466	0.07284	0.03526	0.08093	4.84%	2.343%	5.38%	2.2951
032.42	Potassium, ICP, Open vessel (%)	20	19	1.5317	0.05800	0.05561	0.02996	0.06316	3.63%	1.957%	4.13%	2.1083
032.43	Potassium, ICP, Microwave (%)	28	27	1.5262	0.10495	0.08597	0.03474	0.09273	5.67%	2.292%	6.12%	2.6693
033.00	Salt as chloride, Sol Cl (%)	24	22	1.5789	0.12127	0.06525	0.02015	0.06829	4.08%	1.259%	4.27%	3.3884
033.01	Salt as chloride, Poten Cl (%)	31	28	1.6683	0.06069	0.05118	0.01254	0.05270	3.05%	0.748%	3.15%	4.2029
033.99	Salt, Miscellaneous (%)	10	10	1.2496	0.55422	0.55400	0.02171	0.55443	44.33%	1.738%	44.37%	25.533
034.53	Selenium, ICP-MS, Microwave (mg / kg (ppm))	10	9	1.9141	0.23560	0.10433	0.13150	0.16786	5.63%	7.099%	9.06%	1.2765
035.31	Sodium, AAS, Dry ash (%)	12	10	0.21120	0.04181	0.02149	0.00823	0.02301	10.73%	4.110%	11.49%	2.7948
035.41	Sodium, ICP, Dry ash (%)	26	22	0.19947	0.01691	0.01464	0.00356	0.01507	7.40%	1.800%	7.62%	4.2327
035.42	Sodium, ICP, Open vessel (%)	16	16	0.19266	0.01307	0.01256	0.00510	0.01356	6.52%	2.650%	7.04%	2.6557
035.43	Sodium, ICP, Microwave (%)	25	22	0.20402	0.02517	0.02036	0.00829	0.02199	10.18%	4.145%	10.99%	2.6513
036.42	Sulfur, ICP, Open vessel (%)	18	17	0.31434	0.02851	0.01921	0.01225	0.02278	6.02%	3.840%	7.14%	1.8598
036.43	Sulfur, ICP, Microwave (%)	14	12	0.31978	0.02875	0.01190	0.00911	0.01499	3.64%	2.783%	4.58%	1.6458
037.41	Zinc, ICP, Dry ash (mg / kg (ppm))	24	21	266.06	14.454	10.430	7.5565	12.880	3.89%	2.820%	4.81%	1.7045
037.42	Zinc, ICP, Open vessel (mg / kg (ppm))	20	19	265.03	17.672	17.710	4.8619	18.365	6.69%	1.838%	6.94%	3.7773
037.43	Zinc, ICP, Microwave (mg / kg (ppm))	26	24	272.63	16.677	16.253	5.1286	17.043	5.98%	1.886%	6.27%	3.3232
106.02	Vitamin A, LC (KU / kg)	16	14	24.740	9.6918	7.0272	4.4171	8.3001	26.67%	16.762%	31.50%	1.8791
109.02	Vitamin E, LC (IU / kg)	15	15	113.84	14.107	12.914	8.0285	15.206	11.34%	7.053%	13.36%	1.8940
120.00	Alanine, Post-col Ninhydrin Der (%)	23	22	0.85558	0.04411	0.03445	0.01359	0.03703	4.00%	1.578%	4.30%	2.7252
121.00	Arginine, Post-col Ninhydrin Der (%)	23	20	1.1811	0.06740	0.03122	0.01816	0.03612	2.64%	1.535%	3.05%	1.9890
122.00	Aspartic, Post-col Ninhydrin Der (%)	23	21	1.7550	0.09407	0.07291	0.02504	0.07709	4.13%	1.417%	4.36%	3.0788
124.00	Cysteine/Cystine, PAO Post-col Ninhydri (%)	23	23	0.28496	0.03434	0.03406	0.00622	0.03462	11.95%	2.181%	12.15%	5.5703
125.00	Glutamic, Post-col Ninhydrin Der (%)	23	21	3.0654	0.22629	0.15469	0.04797	0.16196	5.05%	1.566%	5.29%	3.3762

Test Material Code # 201827 **Issue Date : 08/31/2018**

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
126.00	Glycine, Post-col Ninhydrin Der (%)	23	22	0.83273	0.04070	0.02896	0.01178	0.03126	3.45%	1.405%	3.73%	2.6528
127.00	Histidine, Post-col Ninhydrin Der (%)	23	21	0.42604	0.03311	0.01692	0.01088	0.02011	3.89%	2.504%	4.63%	1.8489
128.00	Isoleucine, Post-col Ninhydrin Der (%)	23	23	0.65251	0.05557	0.05413	0.01774	0.05696	8.30%	2.718%	8.73%	3.2115
129.00	Leucine, Post-col Ninhydrin Der (%)	23	21	1.2663	0.06546	0.02991	0.01728	0.03454	2.36%	1.362%	2.72%	1.9992
130.00	L-Lysine, Post-col Ninhydrin Der (%)	23	22	0.87588	0.05914	0.05827	0.01431	0.06000	6.65%	1.634%	6.85%	4.1926
131.00	Methionine, PAO Post-col Ninhydrin Der (%)	23	23	0.26075	0.02572	0.02515	0.00763	0.02628	9.65%	2.924%	10.08%	3.4466
132.00	Phenylalanine, Post-col Ninhydrin Der (%)	23	21	0.82335	0.04631	0.02847	0.01484	0.03210	3.46%	1.803%	3.90%	2.1640
133.00	Proline, Post-col Ninhydrin Der (%)	23	20	0.98782	0.12490	0.09764	0.01752	0.09920	10.06%	1.806%	10.22%	5.6604
134.00	Serine, Post-col Ninhydrin Der (%)	23	21	0.82714	0.05394	0.04211	0.01464	0.04458	5.03%	1.749%	5.33%	3.0449
135.00	Threonine, Post-col Ninhydrin Der (%)	23	21	0.65735	0.03408	0.01720	0.01124	0.02055	2.61%	1.704%	3.11%	1.8282
137.00	Tyrosine, Post-col Ninhydrin Der (%)	17	14	0.52164	0.06778	0.05088	0.01120	0.05210	9.45%	2.081%	9.68%	4.6513
138.00	Valine, Post-col Ninhydrin Der (%)	23	22	0.80985	0.06774	0.06620	0.02035	0.06925	8.17%	2.513%	8.55%	3.4030

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