



AAFCO
Proficiency Testing Program



Pet Food Scheme

Flaxseed Meal

Test Material Code # 201742

Method Summary Report

(Precision Report Follows)

Methods Reported: 308

Labs Reporting: 56

Issue Date : 07/31/2017

Method Code	Analyte and Method	Total # Labs Submitting	# Labs in Robust Calcs	Raw Mean	Raw SD	Assigned Value - Robust Mean	AAFCO PT fp - Robust sd	Uncertainty (U) Robust	% RSD - Robust	Average Range (R-bar)	Horwitz %RSD
001.00	Loss on Drying, Vac 95°C 5 hr (%)	5	5	6.7801	0.38848	6.7801	0.38848	0.19424	5.73%	0.10380	3.00%
001.02	Loss on Drying, Vac on sand (%)	1	1	5.4409							
001.03	Loss on Drying, Low temp. methods (%)	1	1	6.8250							
001.05	Loss on Drying, LECO (%)	1	1	6.9600							
001.07	Loss on Drying, 104°C 3 hr, in malt (%)	10	9	6.8303	0.20814	6.8303	0.23603	0.09835	3.46%	0.15736	3.00%
001.08	Loss on Drying, 102°C 16 hr, in meat (%)	1	1	6.9250							
001.99	Loss on Drying, Miscellaneous (%)	3	3	5.9000	0.59108	5.9000	0.59108	0.34126	10.02%	0.10000	3.06%
002.01	Protein, Auto Kjell-Foss (%)	3	3	21.599	1.0534	21.599	1.0534	0.60818	4.88%	0.10267	2.15%
002.02	Protein, Semiauto Autoanalyzer (%)	1	1	20.740							
002.04	Protein, Copper Catalyst (%)	2	2	21.278	0.10253						
002.05	Protein, Copper, Boric Acid (%)	3	3	20.855	0.25343	20.855	0.25343	0.14632	1.22%	0.05667	2.19%
002.06	Protein, Combustion Nitrogen Analyzer (%)	43	43	21.148	0.80761	21.150	0.33196	0.06328	1.57%	0.24328	2.17%
002.08	Protein, Cu/Ti (%)	1	1	21.085							
002.99	Protein, Miscellaneous (%)	3	3	20.983	0.55302	20.983	0.55302	0.31929	2.64%	0.10000	2.18%
003.00	Fat, Eth Ext., Direct (%)	5	5	37.248	2.6417	37.248	2.6417	1.1814	7.09%	0.35902	1.64%
003.01	Fat, Ind Eth Ext (13th ed.), Indirect (%)	1	1	33.955							
003.06	Fat, Pet Ether (%)	2	2	36.828	5.6321						
003.09	Fat, Soxhlet, Eth Ext (%)	4	4	34.764	0.40460	34.764	0.40460	0.20230	1.16%	0.68905	1.70%
003.10	Fat, Soxhlet, Pet Ether (%)	9	9	32.457	4.0562	31.740	2.6400	1.1000	8.32%	0.29439	1.78%
003.12	Fat, Hexane Ext (%)	1	1	41.865							
003.14	Fat, Ankom (%)	7	7	31.745	10.497	34.951	2.8449	1.3441	8.14%	0.42036	1.69%
003.99	Fat, Miscellaneous (%)	2	2	24.948	18.240						
004.00	Fiber, Crude, Asbestos Free (%)	8	8	9.0198	6.7613	8.2535	5.7671	2.5487	69.88%	0.30516	2.91%
004.03	Fiber, Fritted Glass (%)	1	1	10.950							
004.06	Fiber, Fibertec (%)	2	2	13.965	9.7581						
004.07	Fiber, ANKOM (%)	7	7	18.070	5.2003	19.074	3.2918	1.5552	17.26%	0.71247	2.29%
004.99	Fiber, Miscellaneous (%)	1	1	5.1600							
005.00	Ash, 2h @ 600°C (%)	32	31	3.3983	0.09474	3.3930	0.08042	0.01806	2.37%	0.06197	3.33%
005.02	Ash, LECO (%)	1	1	3.5450							
005.05	Ash, 3h @ 550°C (%)	6	5	3.4060	0.09529	3.4060	0.09529	0.05327	2.80%	0.05600	3.33%

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
005.99	Ash, Miscellaneous (%)	6	6	3.7566	1.6950	3.3800	0.40515	0.20675	11.99%	0.23352	3.33%
006.01	Total sugars, Mod. Fehling Soln (%)	1	1	3.3605							
006.99	Total sugars, Miscellaneous (%)	4	4	1.9788	0.80165	1.9788	0.80165	0.40083	40.51%	0.03750	3.61%
008.02	Fiber, Acid Detergent (%)	3	3	10.070	2.8563	10.070	2.8563	1.6491	28.36%	0.93800	2.83%
008.08	Fiber, Acid Detergent, ANKOM (%)	5	5	16.756	7.2777	16.756	7.2777	3.6389	43.43%	0.50512	2.44%
009.04	Fiber, Neutral Det-No ENZ Pretreat (%)	1	1	25.185							
009.07	Fiber, Neutral Det-ENZ Pretreat (%)	2	2	21.092	5.8797						
009.09	Fiber, Neutral Detergent, ANKOM (%)	5	5	24.519	7.4010	24.519	7.4010	3.3098	30.18%	0.73380	2.02%
010.03	Moisture, Karl-Fischer (%)	1	1	7.0750							
010.99	Moisture, Miscellaneous (%)	6	6	7.0926	0.57325	7.0897	0.64347	0.32837	9.08%	0.09087	2.98%
011.01	Loss on Drying, 135°C 2hr (%)	21	21	6.6829	0.43890	6.6829	0.49765	0.13575	7.45%	0.14600	3.01%
011.02	Loss on Drying, 130°C for 2 hours (%)	2	2	6.2575	0.55508						
011.03	Loss on drying, 130°C, 1 hour, Flour (%)	2	2	6.9100	0.37477						
012.00	Starch, Polarimetric (Ewers) (%)	2	2	14.600	17.041						
012.01	Starch, Megazyme (%)	3	3	1.0142	1.6332	1.0142	1.6332	1.1548	161.03%	0.21003	3.99%
012.03	Starch, Enzymatic (%)	2	1	0.45000							
012.04	Starch, YSI Analyzer (%)	1	1	0.24000							
013.00	Fat, Acid hydrolysis (%)	10	10	36.586	8.7124	37.765	6.7531	2.6694	17.88%	0.75270	1.63%
013.02	Fat, Mojonnier, Bak Ext (%)	14	14	39.076	2.6025	39.120	2.8551	0.95382	7.30%	0.57693	1.60%
013.10	Fat, Soxtec-Acid Hydrolysis (%)	4	4	32.471	10.054	32.471	10.054	5.8047	30.96%	4.1525	1.75%
013.13	Fat, Ankom- Acid Hydrolysis (%)	2	2	42.663	0.97227						
014.99	Fiber, total dietary TDF, Miscellaneous (%)	3	3	24.357	3.1719	24.357	3.1719	1.8313	13.02%	2.3600	2.03%
015.41	Aluminum, ICP, Dry ash (mg / kg (ppm))	1	1	7.6000							
015.43	Aluminum, ICP, Microwave (mg / kg (ppm))	1	1	4.0500							
017.43	Boron, ICP, Microwave (mg / kg (ppm))	1	1	16.000							
017.44	Boron, ICP, Dry ash (mg / kg (ppm))	1	1	14.250							
017.53	Boron, ICP-MS, Microwave (mg / kg (ppm))	1	1	22.350							
019.00	Calcium, Ox-Mn04 Vol. (%)	1	1	0.19000							
019.31	Calcium, AAS, Dry ash (%)	3	3	0.23153	0.02837	0.23153	0.02837	0.01638	12.25%	0.00453	4.98%
019.32	Calcium, AAS, Open vessel (%)	1	1	0.27715							
019.33	Calcium, AAS, Microwave (%)	1	1	0.27455							
019.41	Calcium, ICP, Dry ash (%)	11	11	0.25340	0.01537	0.25340	0.01743	0.00657	6.88%	0.01036	4.92%
019.42	Calcium, ICP, Open vessel (%)	4	4	0.22853	0.04264	0.22853	0.04264	0.02462	18.66%	0.02440	4.99%
019.43	Calcium, ICP, Microwave (%)	9	9	0.25054	0.01657	0.25054	0.01879	0.00783	7.50%	0.01070	4.93%
019.44	Calcium, ICP, Dry ash (%)	6	6	0.23433	0.00906	0.23542	0.00761	0.00388	3.23%	0.00212	4.97%
019.52	Calcium, ICP-MS, Open vessel (%)	1	1	0.30100							
019.53	Calcium, ICP-MS, Microwave (%)	1	1	0.28350							
019.99	Calcium, Miscellaneous (%)	1	1	0.26500							

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
021.41	Cobalt, ICP, Dry ash (mg / kg (ppm))	2	2	0.23695	0.00983						
021.43	Cobalt, ICP, Microwave (mg / kg (ppm))	2	2	0.26108	0.02980						
021.53	Cobalt, ICP-MS, Microwave (mg / kg (ppm))	1	1	0.25400							
022.31	Copper, AAS, Dry ash (mg / kg (ppm))	1	1	13.300							
022.32	Copper, AAS, Open vessel (mg / kg (ppm))	1	1	11.390							
022.33	Copper, AAS, Microwave (mg / kg (ppm))	1	1	9.5185							
022.41	Copper, ICP, Dry ash (mg / kg (ppm))	11	10	12.945	1.8320	12.771	1.6879	0.66720	13.22%	0.51868	10.90%
022.42	Copper, ICP, Open vessel (mg / kg (ppm))	3	3	15.005	4.4071	15.005	4.4071	3.1163	29.37%	1.1833	10.64%
022.43	Copper, ICP, Microwave (mg / kg (ppm))	7	7	10.794	2.3452	11.083	1.9466	0.91969	17.56%	1.0075	11.14%
022.44	Copper, ICP, Dry ash (mg / kg (ppm))	4	4	11.257	1.0335	11.257	1.0335	0.51675	9.18%	0.14813	11.11%
022.52	Copper, ICP-MS, Open vessel (mg / kg (ppm))	1	1	12.860							
022.53	Copper, ICP-MS, Microwave (mg / kg (ppm))	2	2	12.600	0.00000						
022.99	Copper, Miscellaneous (mg / kg (ppm))	1	1	10.500							
024.99	Iodine, Miscellaneous (mg / kg (ppm))	3									
025.31	Iron, AAS, Dry ash (mg / kg (ppm))	1	1	63.050							
025.32	Iron, AAS, Open vessel (mg / kg (ppm))	1	1	64.625							
025.41	Iron, ICP, Dry ash (mg / kg (ppm))	14	13	59.311	5.4876	58.944	5.3198	1.8443	9.03%	1.9792	8.66%
025.42	Iron, ICP, Open vessel (mg / kg (ppm))	3	3	62.822	28.867	62.822	28.867	16.666	45.95%	8.7767	8.58%
025.43	Iron, ICP, Microwave (mg / kg (ppm))	7	7	55.343	7.5589	55.959	7.0982	3.3536	12.68%	2.8008	8.73%
025.52	Iron, ICP-MS, Open vessel (mg / kg (ppm))	1	1	61.160							
025.53	Iron, ICP-MS, Microwave (mg / kg (ppm))	1	1	57.200							
025.99	Iron, Miscellaneous (mg / kg (ppm))	1	1	54.500							
027.31	Magnesium, AAS, Dry ash (%)	3	3	0.36043	0.02808	0.36043	0.02808	0.01621	7.79%	0.00980	4.66%
027.32	Magnesium, AAS, Open vessel (%)	1	1	0.38045							
027.33	Magnesium, AAS, Microwave (%)	1	1	0.31005							
027.41	Magnesium, ICP, Dry ash (%)	11	11	0.37390	0.01144	0.37350	0.01206	0.00454	3.23%	0.00416	4.64%
027.42	Magnesium, ICP, Open vessel (%)	2	2	0.37900	0.01485						
027.43	Magnesium, ICP, Microwave (%)	9	9	0.37069	0.02733	0.37161	0.02892	0.01205	7.78%	0.01521	4.64%
027.44	Magnesium, ICP, Dry ash (%)	6	6	0.37620	0.01133	0.37620	0.01285	0.00656	3.42%	0.00583	4.63%
027.52	Magnesium, ICP-MS, Open vessel (%)	1	1	0.41800							
027.53	Magnesium, ICP-MS, Microwave (%)	1	1	0.40700							
027.99	Magnesium, Miscellaneous (%)	1	1	0.38500							
028.31	Manganese, AAS, Dry ash (mg / kg (ppm))	1	1	26.500							
028.32	Manganese, AAS, Open vessel (mg / kg (ppm))	1	1	29.170							
028.33	Manganese, AAS, Microwave (mg / kg (ppm))	1	1	30.400							
028.41	Manganese, ICP, Dry ash (mg / kg (ppm))	11	11	27.532	1.4208	27.683	1.2235	0.46111	4.42%	0.61866	9.70%
028.42	Manganese, ICP, Open vessel (mg / kg (ppm))	3	3	28.548	6.9906	28.548	6.9906	4.0360	24.49%	2.2433	9.66%
028.43	Manganese, ICP, Microwave (mg / kg (ppm))	9	9	25.620	4.7857	26.252	3.5282	1.4701	13.44%	1.6610	9.78%

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
028.44	Manganese, ICP, Dry ash (mg / kg (ppm))	5	5	26.493	1.2802	26.493	1.2802	0.57252	4.83%	0.24414	9.77%
028.52	Manganese, ICP-MS, Open vessel (mg / kg (ppm))	1	1	27.460							
028.53	Manganese, ICP-MS, Microwave (mg / kg (ppm))	1	1	28.750							
028.99	Manganese, Miscellaneous (mg / kg (ppm))	1	1	27.500							
031.01	Phosphorus, Photometric (%)	5	5	0.57740	0.01436	0.57740	0.01436	0.00642	2.49%	0.02800	4.34%
031.03	Phosphorus, Autoanalyzer (%)	2	2	0.58650	0.00212						
031.41	Phosphorus, ICP, Dry ash (%)	10	10	0.60106	0.03777	0.59459	0.02473	0.00978	4.16%	0.01823	4.33%
031.42	Phosphorus, ICP, Open vessel (%)	4	4	0.54209	0.06502	0.54209	0.06502	0.03251	11.99%	0.01528	4.39%
031.43	Phosphorus, ICP, Microwave (%)	8	8	0.58439	0.06279	0.59124	0.05428	0.02399	9.18%	0.01148	4.33%
031.44	Phosphorus, ICP, Dry ash (%)	6	6	0.56213	0.02144	0.56213	0.02431	0.01241	4.32%	0.01017	4.36%
031.53	Phosphorus, ICP-MS, Microwave (%)	1	1	0.56200							
031.99	Phosphorus, Miscellaneous (%)	1	1	0.60000							
032.02	Potassium, Flame Emission (%)	1	1	0.68500							
032.31	Potassium, AAS, Dry ash (%)	2	2	0.72700	0.08202						
032.41	Potassium, ICP, Dry ash (%)	11	11	0.69003	0.02276	0.68965	0.02497	0.00941	3.62%	0.01756	4.23%
032.42	Potassium, ICP, Open vessel (%)	4	4	0.67518	0.07026	0.67518	0.07026	0.04056	10.41%	0.02350	4.24%
032.43	Potassium, ICP, Microwave (%)	9	9	0.69064	0.04948	0.69064	0.05612	0.02338	8.13%	0.02503	4.23%
032.44	Potassium, ICP, Dry ash (%)	6	6	0.68139	0.03531	0.68384	0.03420	0.01745	5.00%	0.00505	4.24%
032.53	Potassium, ICP-MS, Microwave (%)	1	1	0.71450							
032.99	Potassium, Miscellaneous (%)	2	2	0.71625	0.01945						
033.00	Salt as chloride, Sol Cl (%)	1	1	0.04685							
033.01	Salt as chloride, Poten Cl (%)	6	5	0.31410	0.61287	0.04350	0.02295	0.01283	52.76%	0.00420	6.41%
033.99	Salt, Miscellaneous (%)	1	1	0.16000							
034.04	Selenium, AA, Hydride (mg / kg (ppm))	2	2	0.44750	0.25102						
034.43	Selenium, ICP, Microwave (mg / kg (ppm))	3	3	0.69325	0.57438	0.69325	0.57438	0.33162	82.85%	0.19897	16.90%
034.52	Selenium, ICP-MS, Open vessel (mg / kg (ppm))	1	1	0.45500							
034.53	Selenium, ICP-MS, Microwave (mg / kg (ppm))	2	2	0.66200	0.19516						
034.99	Selenium, Miscellaneous (mg / kg (ppm))	3	3	0.45533	0.03083	0.45533	0.03083	0.01780	6.77%	0.00933	18.01%
035.05	Sodium, Flame Emission (%)	1	1	0.02000							
035.31	Sodium, AAS, Dry ash (%)	2	2	0.02550	0.00424						
035.41	Sodium, ICP, Dry ash (%)	14	14	0.02754	0.00870	0.02652	0.00706	0.00236	26.63%	0.00120	6.91%
035.42	Sodium, ICP, Open vessel (%)	2	2	0.02675	0.01025						
035.43	Sodium, ICP, Microwave (%)	7	7	0.02013	0.00039	0.02013	0.00044	0.00021	2.20%	0.00066	7.20%
035.53	Sodium, ICP-MS, Microwave (%)	1	1	0.02380							
035.99	Sodium, Miscellaneous (%)	1	1	0.02000							
036.04	Sulfur, LECO (%)	1	1	0.20500							
036.42	Sulfur, ICP, Open vessel (%)	4	4	0.20493	0.01092	0.20493	0.01092	0.00630	5.33%	0.00160	5.08%
036.43	Sulfur, ICP, Microwave (%)	5	5	0.20695	0.01257	0.20695	0.01257	0.00562	6.07%	0.00694	5.07%

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
036.53	Sulfur, ICP-MS, Microwave (%)	1	1	0.21800							
036.99	Sulfur, Miscellaneous (%)	1	1	0.20500							
037.31	Zinc, AAS, Dry ash (mg / kg (ppm))	2	2	41.615	5.7771						
037.32	Zinc, AAS, Open vessel (mg / kg (ppm))	1	1	42.180							
037.33	Zinc, AAS, Microwave (mg / kg (ppm))	1	1	36.135							
037.41	Zinc, ICP, Dry ash (mg / kg (ppm))	11	11	47.037	7.7384	45.794	5.9106	2.2276	12.91%	2.6527	9.00%
037.42	Zinc, ICP, Open vessel (mg / kg (ppm))	3	3	42.800	23.503	42.800	23.503	13.569	54.91%	0.18667	9.09%
037.43	Zinc, ICP, Microwave (mg / kg (ppm))	8	7	43.655	4.9941	43.309	4.8415	2.2874	11.18%	0.93229	9.07%
037.44	Zinc, ICP, Dry ash (mg / kg (ppm))	4	4	40.207	1.1790	40.207	1.1790	0.58950	2.93%	0.28388	9.17%
037.52	Zinc, ICP-MS, Open vessel (mg / kg (ppm))	1	1	43.060							
037.53	Zinc, ICP-MS, Microwave (mg / kg (ppm))	1	1	46.500							
037.99	Zinc, Miscellaneous (mg / kg (ppm))	1	1	43.000							
038.41	Molybdenum, ICP, Dry ash (mg / kg (ppm))	1	1	0.35000							
038.43	Molybdenum, ICP, Microwave (mg / kg (ppm))	1	1	0.40000							
038.53	Molybdenum, ICP-MS, Microwave (mg / kg (ppm))	2	2	0.41075	0.02015						
042.00	Chloride, Titrimetric (%)	2	2	0.10200	0.11950						
042.99	Chloride, Miscellaneous (%)	1	1	0.02850							
101.01	Choline Chloride, Chem (mg / kg (ppm))	2	2	674.25	300.17						
102.01	Niacin, Microbiological (mg / kg (ppm))	3	3	30.000	4.1500	30.000	4.1500	2.3960	13.83%	1.8667	9.59%
103.02	Pantothenic Acid, LC (mg / kg (ppm))	1	1	7.0000							
104.00	Riboflavin, Fluorometric (mg / kg (ppm))	1	1	1.9000							
104.02	Riboflavin, Microbiological, Turbidity (mg / kg (ppm))	2	2	3.0000	0.14142						
104.03	Riboflavin, LC (mg / kg (ppm))	1	1	2.1500							
105.00	Thiamine, LC (mg / kg (ppm))	1	1	4.5500							
105.01	Thiamine, Fluorometer (mg / kg (ppm))	1	1	6.7750							
105.99	Thiamine, Miscellaneous (mg / kg (ppm))	2	2	4.7250	0.03536						
106.02	Vitamin A, LC (KU / kg)	5	2	0.23925	0.24926	0.23925	0.24926			0.00450	
107.00	Vitamin B12, Microbiological (µg / kg (ppb))	2	1	1.8000							
108.01	Vitamin D3, LC, AOAC (KU / kg)	2	1	34.505							
108.99	Vitamin D3, Miscellaneous (KU / kg)	4									
109.02	Vitamin E, LC (IU/kg)	6	3	13.478	16.929	13.478	16.929	12.218	125.60%	2.9967	
112.00	Pyridoxine, Vitamin B6 (µg / g)	2	2	2,437.2	3,440.5						
114.01	Biotin, Microbiological (mg / kg (ppm))	2	2	0.30700	0.00212						
115.01	Non Protein N (NPN), Automated (%)	1	1	0.43000							
120.00	Alanine, Post-col Ninhydrin Der (%)	4	4	0.98225	0.06359	0.98225	0.06359	0.03180	6.47%	0.01115	4.01%
120.01	Alanine, Pre-col OPA Der (%)	2	2	0.97175	0.00177						
120.02	Alanine, Post-col OPA Der (%)	1	1	0.94000							
120.05	Alanine, Pre-col AQC Der (%)	1	1	0.93650							

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
120.99	Alanine, Miscellaneous (%)	1	1	0.94950							
121.00	Arginine, Post-col Ninhydrin Der (%)	4	4	1.9894	0.09609	1.9894	0.09609	0.05548	4.83%	0.03065	3.61%
121.01	Arginine, Pre-col OPA Der (%)	2	2	2.0625	0.09546						
121.02	Arginine, Post-col OPA Der (%)	1	1	2.1650							
121.05	Arginine, Pre-col AQC Der (%)	1	1	1.9640							
121.99	Arginine, Miscellaneous (%)	1	1	2.0900							
122.00	Aspartic, Post-col Ninhydrin Der (%)	4	4	2.0488	0.12230	2.0488	0.12230	0.06115	5.97%	0.02460	3.59%
122.01	Aspartic, Pre-col OPA Der (%)	2	2	1.9700	0.01414						
122.02	Aspartic, Post-col OPA Der (%)	1	1	1.9100							
122.05	Aspartic, Pre-col AQC Der (%)	1	1	1.9735							
122.99	Aspartic, Miscellaneous (%)	1	1	1.9675							
124.00	Cysteine/Cystine, PAO Post-col Ninhydrin (%)	4	4	0.34088	0.04167	0.34088	0.04167	0.02084	12.22%	0.00590	4.70%
124.01	Cysteine/Cystine, PAO Pre-col OPA Der (%)	2	2	0.34650	0.01838						
124.02	Cysteine/Cystine, PAO Post-col OPA Der (%)	1	1	0.38000							
124.05	Cysteine/Cystine, PAO Pre-col AQC Der (%)	1	1	0.35200							
124.99	Cysteine/Cystine, Miscellaneous (%)	1	1	0.32850							
125.00	Glutamic, Post-col Ninhydrin Der (%)	4	4	4.0507	0.36358	4.0507	0.36358	0.18179	8.98%	0.05200	3.24%
125.01	Glutamic, Pre-col OPA Der (%)	2	2	3.9325	0.12374						
125.02	Glutamic, Post-col OPA Der (%)	1	1	3.8900							
125.05	Glutamic, Pre-col AQC Der (%)	1	1	3.9105							
125.99	Glutamic, Miscellaneous (%)	1	1	3.9190							
126.00	Glycine, Post-col Ninhydrin Der (%)	4	4	1.3069	0.03891	1.3069	0.03891	0.01946	2.98%	0.01278	3.84%
126.01	Glycine, Pre-col OPA Der (%)	2	2	1.2150	0.09192						
126.02	Glycine, Post-col OPA Der (%)	1	1	1.2700							
126.05	Glycine, Pre-col AQC Der (%)	1	1	1.3070							
126.99	Glycine, Miscellaneous (%)	1	1	1.2670							
127.00	Histidine, Post-col Ninhydrin Der (%)	4	4	0.43565	0.01121	0.43565	0.01121	0.00561	2.57%	0.00830	4.53%
127.01	Histidine, Pre-col OPA Der (%)	2	2	0.40750	0.03889						
127.02	Histidine, Post-col OPA Der (%)	1	1	0.47000							
127.05	Histidine, Pre-col AQC Der (%)	1	1	0.41300							
127.99	Histidine, Miscellaneous (%)	1	1	0.45650							
128.00	Isoleucine, Post-col Ninhydrin Der (%)	4	4	0.88879	0.04709	0.88879	0.04709	0.02355	5.30%	0.00568	4.07%
128.01	Isoleucine, Pre-col OPA Der (%)	2	2	0.90550	0.00778						
128.02	Isoleucine, Post-col OPA Der (%)	1	1	0.93500							
128.05	Isoleucine, Pre-col AQC Der (%)	1	1	0.83000							
128.99	Isoleucine, Miscellaneous (%)	1	1	0.86500							
129.00	Leucine, Post-col Ninhydrin Der (%)	4	4	1.2276	0.04830	1.2276	0.04830	0.02415	3.93%	0.01238	3.88%
129.01	Leucine, Pre-col OPA Der (%)	2	2	1.2300	0.01414						

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
129.02	Leucine, Post-col OPA Der (%)	1	1	1.2350							
129.05	Leucine, Pre-col AQC Der (%)	1	1	1.1985							
129.99	Leucine, Miscellaneous (%)	1	1	1.2175							
130.00	L-Lysine, Post-col Ninhydrin Der (%)	4	4	0.85863	0.03219	0.85863	0.03219	0.01610	3.75%	0.01955	4.09%
130.01	L-Lysine, Pre-col OPA Der (%)	2	2	0.75625	0.08803						
130.02	L-Lysine, Post-col OPA Der (%)	1	1	0.78000							
130.05	L-Lysine, Pre-col AQC Der (%)	2	2	0.90875	0.08450						
130.99	L-Lysine, Miscellaneous (%)	1	1	0.82500							
131.00	Methionine, PAO Post-col Ninhydrin Der (%)	4	4	0.39731	0.00269	0.39731	0.00269	0.00135	0.68%	0.01128	4.60%
131.01	Methionine, PAO Pre-col OPA Der (%)	2	2	0.38650	0.00636						
131.02	Methionine, PAO Post-col OPA Der (%)	2	2	0.39025	0.02864						
131.05	Methionine, PAO Pre-col AQC Der (%)	1	1	0.39600							
131.99	Methionine, Miscellaneous (%)	1	1	0.38300							
132.00	Phenylalanine, Post-col Ninhydrin Der (%)	3	3	1.0148	0.06639	1.0148	0.06639	0.04694	6.54%	0.00963	3.99%
132.01	Phenylalanine, Pre-col OPA Der (%)	2	2	0.99850	0.00919						
132.02	Phenylalanine, Post-col OPA Der (%)	1	1	0.98500							
132.05	Phenylalanine, Pre-col AQC Der (%)	1	1	0.94750							
132.99	Phenylalanine, Miscellaneous (%)	1	1	1.1215							
133.00	Proline, Post-col Ninhydrin Der (%)	4	4	0.77820	0.06284	0.77820	0.06284	0.03142	8.08%	0.01535	4.15%
133.04	Proline, Pre-col FMOC Der (%)	1	1	0.76600							
133.05	Proline, Pre-col AQC Der (%)	1	1	0.76350							
133.99	Proline, Miscellaneous (%)	3	3	0.73383	0.03487	0.73383	0.03487	0.02466	4.75%	0.03167	4.19%
134.00	Serine, Post-col Ninhydrin Der (%)	4	4	0.99649	0.10749	0.99649	0.10749	0.05375	10.79%	0.03228	4.00%
134.01	Serine, Pre-col OPA Der (%)	2	2	0.99700	0.00636						
134.02	Serine, Post-col OPA Der (%)	1	1	0.50000							
134.05	Serine, Pre-col AQC Der (%)	1	1	0.98850							
134.99	Serine, Miscellaneous (%)	1	1	0.98200							
135.00	Threonine, Post-col Ninhydrin Der (%)	4	4	0.81788	0.04173	0.81788	0.04173	0.02951	5.10%	0.01035	4.12%
135.01	Threonine, Pre-col OPA Der (%)	2	2	0.79900	0.00071						
135.02	Threonine, Post-col OPA Der (%)	1	1	0.60000							
135.05	Threonine, Pre-col AQC Der (%)	2	2	0.85500	0.08132						
135.99	Threonine, Miscellaneous (%)	1	1	0.77800							
136.00	Tryptophan, Alka-Hydrol Post-col Ninhyd (%)	2	2	0.35235	0.09567						
136.02	Tryptophan, Alka-Hydrol Post-col OPA De (%)	1	1	0.29500							
136.99	Tryptophan, Miscellaneous (%)	4	4	0.33188	0.09459	0.33188	0.09459	0.05461	28.50%	0.01375	4.72%
137.00	Tyrosine, Post-col Ninhydrin Der (%)	4	4	0.49105	0.06595	0.49105	0.06595	0.03298	13.43%	0.01865	4.45%
137.01	Tyrosine, Pre-col OPA Der (%)	2	2	0.57300	0.00354						
137.02	Tyrosine, Post-col OPA Der (%)	1	1	0.45500							

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
137.05	Tyrosine, Pre-col AQC Der (%)	1	1	0.53250							
137.99	Tyrosine, Miscellaneous (%)	1	1	0.49000							
138.00	Valine, Post-col Ninhydrin Der (%)	4	4	1.0717	0.04004	1.0717	0.04004	0.02312	3.74%	0.02445	3.96%
138.01	Valine, Pre-col OPA Der (%)	2	2	1.0185	0.02333						
138.02	Valine, Post-col OPA Der (%)	1	1	1.0600							
138.05	Valine, Pre-col AQC Der (%)	1	1	1.0585							
138.99	Valine, Miscellaneous (%)	1	1	0.97650							
139.00	Taurine, Post-col Ninhydrin Der (%)	2		0.00000							
139.01	Taurine, Pre-col OPA Der (%)	1	1	0.01115							
139.99	Taurine, Miscellaneous (%)	1	1	0.09500							
160.99	Fructose, Miscellaneous (%)	4	1								
161.99	Galactose, Miscellaneous (%)	3	1								
162.99	Glucose, Miscellaneous (%)	4	1								
163.99	Lactose, Miscellaneous (%)	4									
164.99	Maltose, Miscellaneous (%)	4	1								
165.99	Sucrose, Miscellaneous (%)	5	5	1.3983	0.29126	1.3983	0.29126	0.13026	20.83%	0.04340	3.80%
400.01	Water activity, Aqualab chilled mirror (Units)	3	3	0.54105	0.03389	0.54105	0.03389	0.01957	6.26%	0.00157	
516.00	Arsenic, total, AA, Hydride (mg / kg (ppm))	1	1	0.00400							
516.43	Arsenic, total, ICP, Microwave (mg / kg (ppm))	1		0.00000							
518.41	Cadmium, ICP, Dry ash (mg / kg (ppm))	1	1	0.52000							
518.43	Cadmium, ICP, Microwave (mg / kg (ppm))	1	1	0.27000							
518.53	Cadmium, ICP-MS, Microwave (mg / kg (ppm))	3	3	0.47950	0.07967	0.47950	0.07967	0.05634	16.62%	0.04167	17.87%
520.41	Chromium, ICP, Dry ash (mg / kg (ppm))	1	1	0.27500							
520.53	Chromium, ICP-MS, Microwave (mg / kg (ppm))	1	1	0.12500							
526.41	Lead, ICP, Dry ash (mg / kg (ppm))	1	1	1.0500							
526.53	Lead, ICP-MS, Microwave (mg / kg (ppm))	3	3	0.04305	0.01048	0.04305	0.01048	0.00741	24.34%	0.00343	22.00%
539.41	Nickel, ICP, Dry ash (mg / kg (ppm))	1	1	0.85000							
539.53	Nickel, ICP-MS, Microwave (mg / kg (ppm))	2	2	0.95400	0.03677						
710.99	Lauric Acid (12:0), Miscellaneous (% (w/w))	2		0.00000							
714.99	Myristic Acid (14:0), Miscellaneous (% (w/w))	1	1	0.01000							
716.99	Palmitic Acid (16:0), Miscellaneous (% (w/w))	2	2	2.0000	0.10607						
718.99	Palmitoleic Acid (9c-16:1), Miscellaneous (% (w/w))	3	3	0.02100	0.00361	0.02100	0.00361	0.00255	17.19%	0.00333	
722.99	Stearic Acid (18:0), Miscellaneous (% (w/w))	2	2	1.2675	0.09546						
724.99	Oleic Acid (9c-18:1), Miscellaneous (% (w/w))	2	2	7.1950	0.33941						
726.99	Linoleic Acid (9c,12c-18:2), Miscellaneous (% (w/w))	3	3	6.8912	0.63170	6.8912	0.63170	0.36471	9.17%	0.07767	
728.99	alpha-Linolenic Acid (9c,12c,15c-18:3), Miscellaneous	4	3	22.342	6.9451	22.342	6.9451	4.0098	31.09%	0.73420	
730.99	Arachidic Acid (20:0), Miscellaneous (% (w/w))	1	1	0.07500							
732.99	Gondoic Acid (11c-20:1), Miscellaneous (% (w/w))	2	2	11.853	16.677						

Test Material Code # 201742

Issue Date : 07/31/2017

Method Code	Analyte and Method	Total # Labs Submitting	# Labs in Robust Calcs	Raw Mean	Raw SD	Assigned Value - Robust Mean	AAFCO PT ffp - Robust sd	Uncertainty (U) - Robust	% RSD - Robust	Average Range (R-bar)	Horwitz %RSD
736.99	Arachidonic Acid (5c,8c,11c,14c-20:4), Miscellane	2		0.00000							
740.99	Eicosapentaenoic Acid EPA (5c,8c,11c,14c,17c-20:5), Miscellane	2	1	0.01400							
742.99	Behenic Acid (22:0), Miscellaneous (% (w/w))	1	1	0.05500							
746.99	Docosapentaenoic Acid n-3 DPA (DHA)7c,10c,13c,16c,19c,22:5n-3	2		0.00000							
748.99	Lignoceric Acid (24:0), Miscellaneous (% (w/w))	1	1	0.06000							
750.99	Docosahexaenoic Acid DHA (4c,7c,10c,13c,16c,19c,22:6n-3)	2		0.00000							
754.99	Total n-3 Polyunsaturated (Omega-3) Fatty Acids, Miscellaneous	5	5	22.455	4.9923	22.455	4.9923	2.2326	22.23%	0.51892	
756.99	Total n-6 Polyunsaturated (Omega-6) Fatty Acids, Miscellaneous	4	4	6.3833	1.2181	6.3833	1.2181	0.60905	19.08%	0.16048	
758.99	Total Saturated Fatty Acids, Miscellaneous (% (w/w))	3	3	2.9623	0.59769	2.9623	0.59769	0.34508	20.18%	0.06133	
762.99	Total Monounsaturated Fatty Acids, Miscellaneous	3	3	6.2551	1.2280	6.2551	1.2280	0.70899	19.63%	0.23833	
766.99	Total Polyunsaturated Fatty Acids, Miscellaneous	3	3	25.322	3.8300	25.322	3.8300	2.2113	15.13%	0.79880	
772.99	Total Fatty Acids, Miscellaneous (% (w/w))	1	1	41.470							

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.



Pet Food Scheme

Flaxseed Meal

Test Material Code # 201742

Method Precision Report

Methods Reported: 21

Labs Reporting: 56

Issue Date : 07/31/2017

Method Code	Analyte and Method	Total # Labs Submitting	# Labs used in Precision Calcs	Precision Mean	Precision SD	Between Labs sL	Within Labs sr	Reproducibility sR	Between Labs %RSD	Within Labs %rsd	Reproducibility %RSD	sR/sr
001.07	Loss on Drying, 104°C 3 hr, in malt (%)	10	9	6.8303	0.20814	0.17902	0.15015	0.23366	2.62%	2.198%	3.42%	1.5561
002.06	Protein, Combustion Nitrogen Analyzer (%)	43	40	21.148	0.80761	0.29123	0.19590	0.35099	1.38%	0.926%	1.66%	1.7917
003.10	Fat, Soxtec, Pet Ether (%)	9	8	32.457	4.0562	1.9094	0.23579	1.9239	6.11%	0.755%	6.16%	8.1595
005.00	Ash, 2h @ 600°C (%)	32	29	3.3983	0.09474	0.07210	0.05167	0.08870	2.13%	1.525%	2.62%	1.7168
011.01	Loss on Drying, 135°C 2hr (%)	21	20	6.6829	0.43890	0.42321	0.12388	0.44097	6.31%	1.846%	6.57%	3.5596
013.00	Fat, Acid hydrolysis (%)	10	9	36.586	8.7124	5.0377	0.73057	5.0904	12.95%	1.879%	13.09%	6.9676
013.02	Fat, Mojonnier, Bak Ext (%)	14	14	39.076	2.6025	2.5799	0.48392	2.6249	6.60%	1.238%	6.72%	5.4243
019.41	Calcium, ICP, Dry ash (%)	11	11	0.25340	0.01537	0.01425	0.00816	0.01642	5.62%	3.221%	6.48%	2.0118
019.43	Calcium, ICP, Microwave (%)	9	9	0.25054	0.01657	0.01537	0.00875	0.01768	6.13%	3.492%	7.06%	2.0214
022.41	Copper, ICP, Dry ash (mg / kg (ppm))	11	10	12.945	1.8320	1.8051	0.44168	1.8584	13.94%	3.412%	14.36%	4.2075
025.41	Iron, ICP, Dry ash (mg / kg (ppm))	14	12	59.311	5.4876	5.4325	1.3236	5.5914	9.10%	2.216%	9.36%	4.2244
027.41	Magnesium, ICP, Dry ash (%)	11	11	0.37390	0.01144	0.01106	0.00414	0.01181	2.96%	1.108%	3.16%	2.8488
027.43	Magnesium, ICP, Microwave (%)	9	8	0.37069	0.02733	0.02799	0.01055	0.02991	7.53%	2.837%	8.04%	2.8350
028.41	Manganese, ICP, Dry ash (mg / kg (ppm))	11	10	27.532	1.4208	0.85735	0.54155	1.0141	3.08%	1.943%	3.64%	1.8725
028.43	Manganese, ICP, Microwave (mg / kg (ppm))	9	8	25.620	4.7857	2.4782	1.5159	2.9051	9.19%	5.620%	10.77%	1.9165
031.41	Phosphorus, ICP, Dry ash (%)	10	9	0.60106	0.03777	0.01574	0.01388	0.02099	2.67%	2.351%	3.55%	1.5116
031.43	Phosphorus, ICP, Microwave (%)	8	8	0.58439	0.06279	0.06244	0.00928	0.06313	10.69%	1.588%	10.80%	6.8033
032.41	Potassium, ICP, Dry ash (%)	11	11	0.69003	0.02276	0.01985	0.01574	0.02533	2.88%	2.281%	3.67%	1.6097
032.43	Potassium, ICP, Microwave (%)	9	9	0.69064	0.04948	0.04667	0.02328	0.05215	6.76%	3.370%	7.55%	2.2405
035.41	Sodium, ICP, Dry ash (%)	14	13	0.02754	0.00870	0.00564	0.00121	0.00577	21.94%	4.708%	22.44%	4.7654
037.41	Zinc, ICP, Dry ash (mg / kg (ppm))	11	10	47.037	7.7384	5.6323	1.8375	5.9245	12.41%	4.048%	13.05%	3.2243

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