

Animal Feed Scheme
Molasses Product, Dehydrated
Sample # 201628

Method Summary Report
 (Precision Report Follows)

Methods Reported: 325
Labs Reporting: 190
Issue Date : 09/30/2016

Method Code	Analyte and Method	Total # Labs Submitting	# Labs in Robust Calcs	Raw Mean	Raw SD	Assigned Value - Robust Mean	AAFCO PT ftp - Robust sd	Uncertainty (U) - Robust	% RSD - Robust	Average Range (R-bar)	Horwitz %RSD
000.02	Urea, As protein, Colorimetric (%)	1	1	0.18500							
001.00	Loss on Drying, Vac 95°C 5 hr (%)	8	8	5.8812	0.78392	5.8812	0.88896	0.39287	15.12%	0.15791	3.06%
001.03	Loss on Drying, Low temp. methods (%)	7	7	5.6621	0.74420	5.6621	0.84393	0.39872	14.90%	0.01857	3.08%
001.05	Loss on Drying, LECO (%)	1	1	5.5900							
001.07	Loss on Drying, 104°C 3 hr, in malt (%)	36	34	6.0078	0.81292	6.0371	0.50471	0.10820	8.36%	0.09954	3.05%
001.08	Loss on Drying, 102°C 16 hr, in meat (%)	2	2	6.7650	0.30406						
001.99	Loss on Drying, Miscellaneous (%)	21	21	5.8521	1.0226	5.8850	1.0882	0.29682	18.49%	0.10155	3.06%
002.00	Protein, Crude (%)	6	6	8.0112	2.3520	8.6110	1.1147	0.56882	12.94%	0.12533	2.89%
002.01	Protein, Auto Kjel-Foss (%)	12	10	9.2749	0.26007	9.2544	0.20525	0.08113	2.22%	0.03330	2.86%
002.02	Protein, Semiauto Autoanalyzer (%)	3	3	9.0874	0.22353	9.0874	0.22353	0.12905	2.46%	0.09867	2.87%
002.04	Protein, Copper Catalyst (%)	5	5	9.0110	0.47581	9.0110	0.47581	0.21279	5.28%	0.03000	2.87%
002.05	Protein, Copper, Boric Acid (%)	33	32	9.3078	0.18353	9.3194	0.16594	0.03667	1.78%	0.11523	2.86%
002.06	Protein, Combustion Nitrogen Analyzer (%)	118	116	9.3194	0.51009	9.3608	0.31276	0.03630	3.34%	0.12997	2.86%
002.08	Protein, Cu/Ti (%)	3	3	9.2902	0.04069	9.2902	0.04069	0.02349	0.44%	0.09950	2.86%
002.10	Protein, Block dig/distillation (%)	1	1	9.5900							
002.11	Protein, NIR (%)	2	2	10.270	1.2445						
002.99	Protein, Miscellaneous (%)	3	3	9.2683	0.86270	9.2683	0.86270	0.49808	9.31%	0.12333	2.86%
003.00	Fat, Eth Ext., Direct (%)	13	12	1.2204	0.53652	1.0625	0.14144	0.05104	13.31%	0.05091	3.96%
003.01	Fat, Ind Eth Ext (13th ed.), Indirect (%)	1	1	1.1850							
003.06	Fat, Pet Ether (%)	14	13	1.2059	0.36831	1.1412	0.21516	0.07459	18.85%	0.04793	3.92%
003.09	Fat, Soxtec, Eth Ext (%)	20	19	1.0652	0.19830	1.0594	0.17763	0.05094	16.77%	0.06417	3.97%
003.10	Fat, Soxtec, Pet Ether (%)	30	30	1.0438	0.25425	1.0154	0.16357	0.03733	16.11%	0.08685	3.99%
003.11	Fat, NIR (%)	2	2	0.88500	0.62225						
003.12	Fat, Hexane Ext (%)	4	4	1.1225	0.41321	1.2667	0.36250	0.20929	28.62%	0.10000	3.86%
003.13	Fat, Soxtec, Hexane Ext. (%)	7	7	1.0699	0.15057	1.0699	0.17075	0.08067	15.96%	0.05157	3.96%
003.14	Fat, Ankom (%)	37	36	1.2068	0.28681	1.1899	0.28100	0.05854	23.62%	0.08521	3.90%
003.99	Fat, Miscellaneous (%)	3	3	1.3067	0.30292	1.3067	0.30292	0.17489	23.18%	0.08000	3.84%
004.00	Fiber, Crude, Asbestos Free (%)	18	18	13.918	0.89416	13.793	0.68761	0.20259	4.99%	0.11936	2.69%
004.01	Fiber, Sing Filt (%)	2	2	14.175	0.81317						
004.03	Fiber, Fritted Glass (%)	4	4	13.247	2.6660	13.247	2.6660	1.3330	20.13%	0.14843	2.71%

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 (%)	24	23	14.300	0.72050	14.281	0.66475	0.17326	4.65%	0.21144	2.65%
004.07	Fiber, ANKOM (%)	61	60	13.608	0.77856	13.610	0.73465	0.11855	5.40%	0.25038	2.70%
004.11	Fiber, NIR (%)	1	1	18.600							
004.99	Fiber, Miscellaneous (%)	4	4	13.189	0.55962	13.475	0.03536	0.02500	0.26%	0.32750	2.70%
005.00	Ash, 2h @ 600°C (%)	102	99	10.302	0.20490	10.325	0.12171	0.01529	1.18%	0.05909	2.81%
005.02	Ash, LECO (%)	1	1	12.755							
005.05	Ash, 3h @ 550°C (%)	29	27	10.393	0.08457	10.392	0.08619	0.02073	0.83%	0.03990	2.81%
005.11	Ash, NIR (%)	1	1	7.6700							
005.99	Ash, Miscellaneous (%)	11	11	10.352	0.09826	10.359	0.09411	0.03547	0.91%	0.04458	2.81%
006.00	Total sugars, As sucrose (%)	2	2	33.468	1.6582						
006.01	Total sugars, Mod. Fehling Soln (%)	2	2	32.238	0.58336						
006.03	Total sugars, Invert w/o Invrns (%)	1	1	32.600							
006.05	Total sugars, TSI, Lane-Eunon (12th) (%)	2	2	36.975	0.10607						
006.99	Total sugars, Miscellaneous (%)	4	4	30.516	5.1116	30.516	5.1116	2.5558	16.75%	0.28250	1.81%
008.02	Fiber, Acid Detergent (%)	17	16	17.777	0.66068	17.681	0.49502	0.15469	2.80%	0.27688	2.38%
008.05	Fiber, Acid Detergent-Hach (%)	1	1	17.250							
008.08	Fiber, Acid Detergent, ANKOM (%)	44	44	16.804	1.4636	16.893	1.1389	0.21462	6.74%	0.29044	2.43%
008.99	Fiber, Acid Detergent Miscellaneous (%)	4	4	17.363	1.3462	17.363	1.3462	0.67311	7.75%	0.39000	2.40%
009.04	Fiber, Neutral Det-No ENZ Pretreat (%)	1	1	23.410							
009.07	Fiber, Neutral Det-ENZ Pretreat (%)	12	12	23.285	1.1568	23.285	1.3118	0.47337	5.63%	0.50075	2.07%
009.09	Fiber, Neutral Detergent, ANKOM (%)	47	46	22.095	1.0676	22.155	0.82884	0.15276	3.74%	0.27254	2.12%
009.99	Fiber, Neutral Det Miscellaneous (%)	5	5	24.903	6.4601	22.028	0.72174	0.36087	3.28%	0.38200	2.13%
010.03	Moisture, Karl-Fischer (%)	3	3	5.0433	0.32758	5.0433	0.32758	0.18913	6.50%	0.06667	3.14%
010.11	Moisture, NIR (%)	1	1	7.4100							
010.99	Moisture, Miscellaneous (%)	17	17	6.5732	1.3883	6.4103	1.1921	0.36141	18.60%	0.25746	3.02%
011.01	Loss on Drying, 135°C 2hr (%)	70	69	8.5893	1.1646	8.7422	0.81020	0.12192	9.27%	0.10013	2.89%
011.02	Loss on Drying, 130°C for 2 hours (%)	2	2	8.3825	0.45608						
011.03	Loss on drying, 130°C, 1 hour, Flour (%)	1	1	5.2900							
011.99	Loss on Drying, High Temp. Methods Miscellaneous	3	3	8.2550	2.3881	7.6825	3.0724	2.1725	39.99%	0.39000	2.94%
012.00	Starch, Polarimetric (Ewers) (%)	2		0.00000							
012.01	Starch, Megazyme (%)	9	9	0.93572	0.61695	0.93572	0.69963	0.29151	74.77%	0.18604	4.04%
012.02	Starch, Colorimetric (GOP) (%)	1	1	2.4700							
012.03	Starch, Enzymatic (%)	3	3	0.98133	1.2895	0.98133	1.2895	0.74449	131.40%	0.05047	4.01%
012.04	Starch, YSI Analyzer (%)	3	3	5.0567	5.7795	5.0567	5.7795	3.3368	114.29%	0.14667	3.13%
012.11	Starch, NIR (%)	1	1	10.325							
012.99	Starch, Miscellaneous (%)	2	2	33.900	7.3681						
013.00	Fat, Acid hydrolysis (%)	19	19	2.8639	0.98687	2.8279	1.0366	0.29728	36.66%	0.21359	3.42%
013.02	Fat, Mojonnier, Bak Ext (%)	21	21	3.6708	1.1137	3.5629	1.0030	0.27360	28.15%	0.18216	3.30%

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
013.08	Fat, Roese-Gottlieb Modified (%)	2	2	2.3873	0.48409						
013.10	Fat, Soxtec-Acid Hydrolysis (%)	4	4	2.0713	0.24270	2.0067	0.25167	0.14530	12.54%	0.18920	3.60%
013.13	Fat, Ankom- Acid Hydrolysis (%)	4	4	3.8613	0.90767	3.8613	0.90767	0.45383	23.51%	0.35250	3.26%
015.41	Aluminum, ICP, Dry ash (mg / kg (ppm))	3	3	70.660	21.494	70.660	21.494	12.409	30.42%	1.4600	8.43%
015.42	Aluminum, ICP, Open vessel (mg / kg (ppm))	1	1	53.150							
015.43	Aluminum, ICP, Microwave (mg / kg (ppm))	5	5	43.769	13.852	43.769	13.852	6.1948	31.65%	3.6320	9.06%
015.53	Aluminum, ICP-MS, Microwave (mg / kg (ppm))	1	1	62.750							
017.41	Boron, ICP, Dry ash (mg / kg (ppm))	4	4	10.828	3.5002	12.565	0.51340	0.29641	4.09%	1.3200	10.93%
017.42	Boron, ICP, Open vessel (mg / kg (ppm))	4	4	11.121	1.0332	11.121	1.0332	0.51659	9.29%	0.46050	11.13%
017.43	Boron, ICP, Microwave (mg / kg (ppm))	4	3	11.028	0.95781	11.500	0.70711	0.50000	6.15%	0.13667	11.08%
019.00	Calcium, Ox-Mn04 Vol. (%)	16	15	0.87579	0.05984	0.87556	0.06738	0.02175	7.70%	0.01199	4.08%
019.02	Calcium, Hach Method (%)	2	2	0.88650	0.13930						
019.03	Calcium, Semiauto (Autoanalyzer) (%)	1	1	0.99545							
019.08	Calcium, EDTA (%)	8	8	0.89824	0.06358	0.89824	0.07210	0.03186	8.03%	0.00996	4.06%
019.31	Calcium, AAS, Dry ash (%)	23	23	0.87230	0.03912	0.87168	0.04130	0.01077	4.74%	0.03045	4.08%
019.32	Calcium, AAS, Open vessel (%)	5	5	0.92475	0.07855	0.92479	0.09070	0.04535	9.81%	0.02950	4.05%
019.41	Calcium, ICP, Dry ash (%)	31	31	0.88682	0.04585	0.88472	0.04476	0.01005	5.06%	0.02118	4.07%
019.42	Calcium, ICP, Open vessel (%)	23	22	0.89299	0.05918	0.89036	0.05402	0.01440	6.07%	0.02930	4.07%
019.43	Calcium, ICP, Microwave (%)	21	20	0.90508	0.05295	0.90592	0.05763	0.01611	6.36%	0.02042	4.06%
019.44	Calcium, ICP, Dry ash (%)	1	1	0.88350							
019.52	Calcium, ICP-MS, Open vessel (%)	2	2	0.84808	0.00131						
019.53	Calcium, ICP-MS, Microwave (%)	2	2	0.93575	0.04702						
019.99	Calcium, Miscellaneous (%)	5	5	2.8400	4.2775	0.92750	0.10989	0.05494	11.85%	4.1840	4.05%
021.32	Cobalt, AAS, Open vessel (mg / kg (ppm))	1	1	0.75000							
021.41	Cobalt, ICP, Dry ash (mg / kg (ppm))	3	3	0.42017	0.03103	0.42017	0.03103	0.01792	7.39%	0.02433	18.23%
021.42	Cobalt, ICP, Open vessel (mg / kg (ppm))	2	2	0.47555	0.08280						
021.43	Cobalt, ICP, Microwave (mg / kg (ppm))	5	5	0.56265	0.06486	0.54331	0.05582	0.02791	10.27%	0.06546	17.53%
021.52	Cobalt, ICP-MS, Open vessel (mg / kg (ppm))	3	3	0.49050	0.08623	0.49050	0.08623	0.04979	17.58%	0.04100	17.81%
021.53	Cobalt, ICP-MS, Microwave (mg / kg (ppm))	3	3	0.47958	0.11684	0.47958	0.11684	0.06746	24.36%	0.02110	17.87%
021.99	Cobalt, Miscellaneous (mg / kg (ppm))	1	1	0.91000							
022.31	Copper, AAS, Dry ash (mg / kg (ppm))	12	11	6.5027	1.5804	6.1989	1.0983	0.41393	17.72%	0.18000	12.16%
022.32	Copper, AAS, Open vessel (mg / kg (ppm))	5	5	13.487	14.475	7.2335	4.3222	2.1611	59.75%	1.5005	11.88%
022.33	Copper, AAS, Microwave (mg / kg (ppm))	1	1	5.9350							
022.41	Copper, ICP, Dry ash (mg / kg (ppm))	23	21	6.4262	1.6072	6.2854	1.4143	0.38577	22.50%	0.51598	12.13%
022.42	Copper, ICP, Open vessel (mg / kg (ppm))	22	22	6.0040	2.4966	5.7469	0.94527	0.25191	16.45%	0.50587	12.30%
022.43	Copper, ICP, Microwave (mg / kg (ppm))	18	17	5.8032	1.7002	5.4399	0.71852	0.21783	13.21%	0.21671	12.40%
022.44	Copper, ICP, Dry ash (mg / kg (ppm))	1	1	5.8415							
022.52	Copper, ICP-MS, Open vessel (mg / kg (ppm))	2	2	5.6925	0.30759						

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))	2	2	5.7750	0.48790						
022.99	Copper, Miscellaneous (mg / kg (ppm))	3	3	5.1367	0.23671	5.0000	0.00000	0.00000	0.00%	0.06667	12.56%
024.53	Iodine, ICP-MS, Microwave (mg / kg (ppm))	1	1	1.4700							
025.31	Iron, AAS, Dry ash (mg / kg (ppm))	17	16	323.76	55.980	331.15	28.541	8.9190	8.62%	8.2982	6.68%
025.32	Iron, AAS, Open vessel (mg / kg (ppm))	5	5	331.08	54.948	311.97	39.872	19.936	12.78%	177.33	6.74%
025.33	Iron, AAS, Microwave (mg / kg (ppm))	2	2	357.49	14.081						
025.41	Iron, ICP, Dry ash (mg / kg (ppm))	24	24	334.86	15.357	334.66	16.974	4.3309	5.07%	11.369	6.67%
025.42	Iron, ICP, Open vessel (mg / kg (ppm))	18	17	330.81	25.057	331.72	22.655	6.8682	6.83%	14.307	6.68%
025.43	Iron, ICP, Microwave (mg / kg (ppm))	20	19	325.51	22.540	325.89	24.717	7.0880	7.58%	9.8257	6.70%
025.52	Iron, ICP-MS, Open vessel (mg / kg (ppm))	3	3	304.35	15.755	304.35	15.755	9.0963	5.18%	8.7833	6.77%
025.53	Iron, ICP-MS, Microwave (mg / kg (ppm))	1	1	368.50							
025.99	Iron, Miscellaneous (mg / kg (ppm))	4	4	330.19	23.944	330.19	23.944	11.972	7.25%	5.8250	6.68%
027.31	Magnesium, AAS, Dry ash (%)	19	19	0.34111	0.02759	0.34083	0.02323	0.00666	6.81%	0.00651	4.70%
027.32	Magnesium, AAS, Open vessel (%)	5	5	0.35069	0.01054	0.35069	0.01054	0.00471	3.00%	0.00954	4.68%
027.33	Magnesium, AAS, Microwave (%)	1	1	0.34925							
027.41	Magnesium, ICP, Dry ash (%)	26	25	0.34834	0.01750	0.34786	0.01453	0.00363	4.18%	0.00662	4.69%
027.42	Magnesium, ICP, Open vessel (%)	23	21	0.34930	0.02895	0.35031	0.02901	0.00791	8.28%	0.00823	4.68%
027.43	Magnesium, ICP, Microwave (%)	19	19	0.35062	0.01852	0.35026	0.01845	0.00529	5.27%	0.00798	4.68%
027.44	Magnesium, ICP, Dry ash (%)	1	1	0.33900							
027.52	Magnesium, ICP-MS, Open vessel (%)	2	2	0.33288	0.00972						
027.53	Magnesium, ICP-MS, Microwave (%)	2	2	0.37375	0.02086						
027.99	Magnesium, Miscellaneous (%)	3	3	0.35500	0.02598	0.34000	0.00000	0.00000	0.00%	0.01000	4.70%
028.31	Manganese, AAS, Dry ash (mg / kg (ppm))	14	14	16.841	5.6019	15.839	3.7492	1.2525	23.67%	1.7855	10.56%
028.32	Manganese, AAS, Open vessel (mg / kg (ppm))	5	5	50.435	76.642	16.169	2.0329	1.0165	12.57%	1.3708	10.52%
028.41	Manganese, ICP, Dry ash (mg / kg (ppm))	23	22	15.829	1.5660	15.666	1.2980	0.34593	8.29%	0.82967	10.57%
028.42	Manganese, ICP, Open vessel (mg / kg (ppm))	21	20	15.512	2.0798	15.664	2.0288	0.56708	12.95%	0.97603	10.57%
028.43	Manganese, ICP, Microwave (mg / kg (ppm))	17	17	16.726	2.5153	16.156	1.3164	0.39911	8.15%	0.44584	10.52%
028.44	Manganese, ICP, Dry ash (mg / kg (ppm))	1	1	15.739							
028.52	Manganese, ICP-MS, Open vessel (mg / kg (ppm))	2	2	15.430	0.09899						
028.53	Manganese, ICP-MS, Microwave (mg / kg (ppm))	2	2	16.925	1.0960						
028.99	Manganese, Miscellaneous (mg / kg (ppm))	3	3	15.420	1.4592	15.420	1.4592	0.84246	9.46%	0.57333	10.60%
031.00	Phosphorus, Vol (%)	1	1	0.11000							
031.01	Phosphorus, Photometric (%)	42	40	0.12068	0.03972	0.11488	0.02656	0.00525	23.12%	0.00588	5.54%
031.02	Phosphorus, GQMP (AOAC 935.13-Extraction) (%)	4	4	0.11554	0.01180	0.11554	0.01180	0.00590	10.22%	0.00598	5.53%
031.03	Phosphorus, Autoanalyzer (%)	5	5	0.11067	0.02098	0.10584	0.02077	0.01038	19.62%	0.00926	5.61%
031.06	Phosphorus, Hach Method (%)	2	2	0.13775	0.03217						
031.41	Phosphorus, ICP, Dry ash (%)	31	31	0.10801	0.00779	0.10835	0.00645	0.00145	5.95%	0.00373	5.59%
031.42	Phosphorus, ICP, Open vessel (%)	23	23	0.10747	0.01256	0.10700	0.00950	0.00248	8.88%	0.00864	5.60%

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
031.43	Phosphorus, ICP, Microwave (%)	17	17	0.10852	0.00616	0.10863	0.00618	0.00187	5.69%	0.00595	5.59%
031.44	Phosphorus, ICP, Dry ash (%)	1	1	0.10750							
031.52	Phosphorus, ICP-MS, Open vessel (%)	1	1	0.98550							
031.53	Phosphorus, ICP-MS, Microwave (%)	2	2	0.11925	0.00247						
031.99	Phosphorus, Miscellaneous (%)	5	5	0.09500	0.04472	0.09500	0.04472	0.02000	47.08%	0.00600	5.70%
032.02	Potassium, Flame Emission (%)	2	2	3.5698	0.17642						
032.31	Potassium, AAS, Dry ash (%)	21	20	3.5169	0.56068	3.6115	0.31768	0.08880	8.80%	0.06937	3.30%
032.32	Potassium, AAS, Open vessel (%)	4	4	3.5627	0.18042	3.5627	0.18042	0.09021	5.06%	0.03573	3.30%
032.41	Potassium, ICP, Dry ash (%)	27	27	3.5281	0.31084	3.5738	0.20481	0.04927	5.73%	0.10265	3.30%
032.42	Potassium, ICP, Open vessel (%)	23	22	3.6100	0.28237	3.6327	0.22503	0.05997	6.19%	0.09315	3.29%
032.43	Potassium, ICP, Microwave (%)	21	21	3.5411	0.20525	3.5495	0.18809	0.05131	5.30%	0.07458	3.31%
032.44	Potassium, ICP, Dry ash (%)	1	1	3.6300							
032.52	Potassium, ICP-MS, Open vessel (%)	1	1	3.5021							
032.53	Potassium, ICP-MS, Microwave (%)	2	2	4.1400	0.39598						
032.99	Potassium, Miscellaneous (%)	4	3	3.6750	0.10112	3.6750	0.10112	0.05838	2.75%	0.06933	3.29%
033.00	Salt as chloride, Sol Cl (%)	17	16	2.0884	0.36891	2.1259	0.33434	0.10448	15.73%	0.03681	3.57%
033.01	Salt as chloride, Poten Cl (%)	26	24	2.3741	0.05137	2.3754	0.04007	0.01023	1.69%	0.01558	3.51%
033.03	Salt as chloride, Quantab (%)	3	3	1.8617	0.58686	1.8100	0.82024	0.58000	45.32%	0.04333	3.66%
033.05	Salt as chloride, Ion Sel Electrode (%)	3	3	2.3867	0.07687	2.3867	0.07687	0.04438	3.22%	0.00667	3.51%
033.99	Salt, Miscellaneous (%)	7	7	2.1014	1.0310	2.1870	0.58905	0.27830	26.93%	0.13143	3.56%
034.01	Selenium, Fluor (mg / kg (ppm))	2	2	0.18075	0.14107						
034.04	Selenium, AA, Hydride (mg / kg (ppm))	3	3	0.26083	0.06136	0.26083	0.06136	0.03542	23.52%	0.03700	19.58%
034.32	Selenium, AAS, Open vessel (mg / kg (ppm))	1	1	0.28500							
034.41	Selenium, ICP, Dry ash (mg / kg (ppm))	1	1	0.23550							
034.42	Selenium, ICP, Open vessel (mg / kg (ppm))	1	1	0.60000							
034.43	Selenium, ICP, Microwave (mg / kg (ppm))	1	1	0.22485							
034.52	Selenium, ICP-MS, Open vessel (mg / kg (ppm))	1	1	0.28000							
034.53	Selenium, ICP-MS, Microwave (mg / kg (ppm))	3	3	0.39445	0.09144	0.39445	0.09144	0.05279	23.18%	0.04050	18.40%
034.99	Selenium, Miscellaneous (mg / kg (ppm))	2	2	0.24075	0.02722						
035.01	Sodium, Ion-selective electrode (%)	4	4	0.08263	0.01649	0.08263	0.01649	0.00825	19.96%	0.00475	5.82%
035.05	Sodium, Flame Emission (%)	3	3	0.07103	0.01342	0.07103	0.01342	0.00775	18.90%	0.00140	5.96%
035.31	Sodium, AAS, Dry ash (%)	19	18	0.07685	0.03417	0.07161	0.02241	0.00660	31.29%	0.00386	5.95%
035.32	Sodium, AAS, Open vessel (%)	4	4	0.08508	0.03384	0.08508	0.03384	0.01692	39.77%	0.00505	5.80%
035.41	Sodium, ICP, Dry ash (%)	27	26	0.06469	0.01942	0.06134	0.00820	0.00201	13.36%	0.00353	6.09%
035.42	Sodium, ICP, Open vessel (%)	20	20	0.06007	0.00772	0.05988	0.00833	0.00233	13.92%	0.00502	6.11%
035.43	Sodium, ICP, Microwave (%)	15	15	0.06429	0.01604	0.06231	0.01355	0.00437	21.75%	0.00355	6.07%
035.51	Sodium, ICP-MS, Dry ash (%)	1	1	0.06000							
035.52	Sodium, ICP-MS, Open vessel (%)	1	1	0.05405							

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
035.53	Sodium, ICP-MS, Microwave (%)	2	2	0.05668	0.00378						
035.99	Sodium, Miscellaneous (%)	5	5	0.21830	0.22392	0.19038	0.24830	0.12415	130.43%	0.02020	5.13%
036.04	Sulfur, LECO (%)	5	5	0.60800	0.11156	0.60800	0.11156	0.04989	18.35%	0.00640	4.31%
036.42	Sulfur, ICP, Open vessel (%)	23	22	0.63860	0.06178	0.62582	0.03354	0.00894	5.36%	0.01770	4.29%
036.43	Sulfur, ICP, Microwave (%)	12	12	0.62433	0.02554	0.62445	0.02871	0.01036	4.60%	0.01280	4.29%
036.52	Sulfur, ICP-MS, Open vessel (%)	1	1	0.67070							
036.53	Sulfur, ICP-MS, Microwave (%)	1	1	0.68650							
036.99	Sulfur, Miscellaneous (%)	2	2	0.62750	0.06718						
037.31	Zinc, AAS, Dry ash (mg / kg (ppm))	14	14	24.516	10.432	21.959	3.6509	1.2197	16.63%	1.1562	10.05%
037.32	Zinc, AAS, Open vessel (mg / kg (ppm))	5	5	53.654	80.331	17.943	10.106	5.0528	56.32%	2.0581	10.36%
037.41	Zinc, ICP, Dry ash (mg / kg (ppm))	23	23	22.950	3.7657	22.932	4.1326	1.0771	18.02%	2.7938	9.98%
037.42	Zinc, ICP, Open vessel (mg / kg (ppm))	20	19	22.558	3.1471	22.499	3.3391	0.95756	14.84%	1.0714	10.01%
037.43	Zinc, ICP, Microwave (mg / kg (ppm))	16	16	24.565	7.6120	22.908	4.0670	1.2709	17.75%	1.4467	9.99%
037.44	Zinc, ICP, Dry ash (mg / kg (ppm))	1	1	21.499							
037.52	Zinc, ICP-MS, Open vessel (mg / kg (ppm))	2	2	19.498	1.4177						
037.53	Zinc, ICP-MS, Microwave (mg / kg (ppm))	2	2	23.125	1.5203						
037.99	Zinc, Miscellaneous (mg / kg (ppm))	3	3	19.333	8.2209	19.333	8.2209	4.7463	42.52%	2.6667	10.24%
038.41	Molybdenum, ICP, Dry ash (mg / kg (ppm))	2	2	0.87750	0.29345						
038.42	Molybdenum, ICP, Open vessel (mg / kg (ppm))	3	3	0.80380	0.16542	0.80380	0.16542	0.09551	20.58%	0.06073	16.53%
038.43	Molybdenum, ICP, Microwave (mg / kg (ppm))	6	6	0.98233	0.49386	0.85360	0.22603	0.11535	26.48%	0.03798	16.38%
038.52	Molybdenum, ICP-MS, Open vessel (mg / kg (ppm))	2	2	0.80000	0.10607						
038.53	Molybdenum, ICP-MS, Microwave (mg / kg (ppm))	2	2	0.87698	0.01057						
040.42	Barium, ICP, Open vessel (mg / kg (ppm))	1	1	14.940							
040.52	Barium, ICP-MS, Open vessel (mg / kg (ppm))	1	1	14.500							
040.53	Barium, ICP-MS, Microwave (mg / kg (ppm))	1	1	15.245							
041.52	Vanadium, ICP-MS, Open vessel (mg / kg (ppm))	1	1	0.84500							
041.53	Vanadium, ICP-MS, Microwave (mg / kg (ppm))	1	1	0.47400							
042.00	Chloride, Titrimetric (%)	2	2	1.4275	0.01768						
042.01	Chloride, Ion-selective electrode (%)	2	2	1.3125	0.10960						
042.02	Chloride, Ion Chromatography (%)	3	3	1.4733	0.15830	1.4733	0.15830	0.09139	10.74%	0.02667	3.77%
042.99	Chloride, Miscellaneous (%)	1	1	0.91900							
101.01	Choline Chloride, Chem (mg / kg (ppm))	1	1	636.00							
102.01	Niacin, Microbiological (mg / kg (ppm))	1	1	25.300							
103.01	Pantothenic Acid, Microbiological (mg / kg (ppm))	1	1	23.200							
104.00	Riboflavin, Fluorometric (mg / kg (ppm))	1	1	16.700							
105.01	Thiamine, Fluorometer (mg / kg (ppm))	1	1	0.77150							
106.01	Vitamin A, UV (KU / kg)	1		0.00000							
106.02	Vitamin A, LC (KU / kg)	3	1								

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
107.00	Vitamin B12, Microbiological ($\mu\text{g} / \text{kg}$ (ppb))	1	1	11.200							
109.02	Vitamin E, LC (IU/kg)	5	4	10.020	4.0402	10.020	4.0402	2.0201	40.32%	0.56718	
112.01	Pyridoxine, LC ($\mu\text{g} / \text{g}$)	1	1	6.1650							
113.01	Folic Acid, Micro (mg / kg (ppm))	1	1	0.90150							
114.01	Biotin, Microbiological (mg / kg (ppm))	1	1	0.82300							
120.00	Alanine, Post-col Ninhydrin Der (%)	20	19	0.38945	0.01644	0.38859	0.01668	0.00478	4.29%	0.00677	4.61%
120.02	Alanine, Post-col OPA Der (%)	1	1	0.39600							
120.05	Alanine, Pre-col AQC Der (%)	3	3	0.37383	0.00535	0.37383	0.00535	0.00309	1.43%	0.01567	4.64%
120.99	Alanine, Miscellaneous (%)	1	1	0.40000							
121.00	Arginine, Post-col Ninhydrin Der (%)	20	20	0.27096	0.01692	0.27097	0.01856	0.00519	6.85%	0.00819	4.87%
121.02	Arginine, Post-col OPA Der (%)	1	1	0.24350							
121.05	Arginine, Pre-col AQC Der (%)	3	3	0.28417	0.01600	0.28417	0.01600	0.00924	5.63%	0.00833	4.83%
121.99	Arginine, Miscellaneous (%)	1	1	0.32000							
122.00	Aspartic, Post-col Ninhydrin Der (%)	20	19	1.3744	0.05836	1.3729	0.05791	0.01661	4.22%	0.01655	3.81%
122.02	Aspartic, Post-col OPA Der (%)	1	1	1.4260							
122.05	Aspartic, Pre-col AQC Der (%)	3	3	1.3522	0.06594	1.3522	0.06594	0.03807	4.88%	0.05500	3.82%
122.99	Aspartic, Miscellaneous (%)	1	1	1.1850							
124.00	Cysteine/Cystine, PAO Post-col Ninhydrin (%)	20	19	0.09951	0.02289	0.09965	0.01685	0.00483	16.91%	0.00323	5.66%
124.02	Cysteine/Cystine, PAO Post-col OPA Der (%)	1	1	0.11950							
124.05	Cysteine/Cystine, PAO Pre-col AQC Der (%)	3	3	0.10377	0.01846	0.09315	0.00233	0.00165	2.51%	0.00367	5.72%
124.99	Cysteine/Cystine, Miscellaneous (%)	1	1	0.11500							
125.00	Glutamic, Post-col Ninhydrin Der (%)	20	19	0.92004	0.03296	0.91599	0.02391	0.00686	2.61%	0.01237	4.05%
125.02	Glutamic, Post-col OPA Der (%)	1	1	0.88050							
125.05	Glutamic, Pre-col AQC Der (%)	3	3	0.88267	0.03272	0.88267	0.03272	0.01889	3.71%	0.02000	4.08%
125.99	Glutamic, Miscellaneous (%)	1	1	1.0800							
126.00	Glycine, Post-col Ninhydrin Der (%)	20	19	0.44102	0.02034	0.44082	0.02266	0.00650	5.14%	0.00443	4.52%
126.02	Glycine, Post-col OPA Der (%)	1	1	0.43500							
126.05	Glycine, Pre-col AQC Der (%)	3	3	0.42883	0.00548	0.42883	0.00548	0.00317	1.28%	0.00967	4.54%
126.99	Glycine, Miscellaneous (%)	1	1	0.32500							
127.00	Histidine, Post-col Ninhydrin Der (%)	19	18	0.15144	0.04548	0.14276	0.01737	0.00512	12.17%	0.00337	5.36%
127.02	Histidine, Post-col OPA Der (%)	1	1	0.12750							
127.05	Histidine, Pre-col AQC Der (%)	3	3	0.20800	0.13601	0.20800	0.13601	0.07853	65.39%	0.01000	5.07%
127.99	Histidine, Miscellaneous (%)	1	1	0.15500							
128.00	Isoleucine, Post-col Ninhydrin Der (%)	20	19	0.23937	0.03736	0.23503	0.01969	0.00565	8.38%	0.00606	4.97%
128.02	Isoleucine, Post-col OPA Der (%)	1	1	0.24100							
128.05	Isoleucine, Pre-col AQC Der (%)	3	3	0.23683	0.00275	0.23775	0.00318	0.00225	1.34%	0.01167	4.97%
128.99	Isoleucine, Miscellaneous (%)	1	1	0.29500							
129.00	Leucine, Post-col Ninhydrin Der (%)	20	20	0.38465	0.04308	0.37868	0.01725	0.00482	4.56%	0.00665	4.63%

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	0.38350							
129.05	Leucine, Pre-col AQC Der (%)	3	3	0.37967	0.01764	0.38525	0.02086	0.01475	5.41%	0.01133	4.62%
129.99	Leucine, Miscellaneous (%)	1	1	0.38500							
130.00	L-Lysine, Post-col Ninhydrin Der (%)	20	19	0.23342	0.02796	0.23580	0.02478	0.00710	10.51%	0.00549	4.97%
130.02	L-Lysine, Post-col OPA Der (%)	1	1	0.28600							
130.05	L-Lysine, Pre-col AQC Der (%)	4	4	0.24813	0.00944	0.24813	0.00944	0.00472	3.80%	0.00375	4.93%
130.99	L-Lysine, Miscellaneous (%)	2	2	0.26525	0.02086						
131.00	Methionine, PAO Post-col Ninhydrin Der (%)	20	20	0.05294	0.00799	0.05372	0.00703	0.00197	13.09%	0.00519	6.21%
131.02	Methionine, PAO Post-col OPA Der (%)	1	1	0.05050							
131.05	Methionine, PAO Pre-col AQC Der (%)	2	2	0.05080	0.00028						
131.99	Methionine, Miscellaneous (%)	1	1	0.04000							
132.00	Phenylalanine, Post-col Ninhydrin Der (%)	20	19	0.24766	0.02699	0.24467	0.01729	0.00496	7.07%	0.00859	4.94%
132.02	Phenylalanine, Post-col OPA Der (%)	1	1	0.22900							
132.05	Phenylalanine, Pre-col AQC Der (%)	3	3	0.23800	0.01480	0.23800	0.01480	0.00854	6.22%	0.00600	4.96%
132.99	Phenylalanine, Miscellaneous (%)	1	1	0.25000							
133.00	Proline, Post-col Ninhydrin Der (%)	19	18	0.31593	0.13075	0.29543	0.03078	0.00907	10.42%	0.01540	4.81%
133.05	Proline, Pre-col AQC Der (%)	3	3	0.29533	0.01012	0.29533	0.01012	0.00584	3.43%	0.00733	4.81%
133.99	Proline, Miscellaneous (%)	1	1	0.25000							
134.00	Serine, Post-col Ninhydrin Der (%)	20	20	0.34949	0.01648	0.35055	0.01274	0.00356	3.63%	0.00802	4.68%
134.02	Serine, Post-col OPA Der (%)	1	1	0.26200							
134.05	Serine, Pre-col AQC Der (%)	3	3	0.32983	0.01025	0.33500	0.00707	0.00500	2.11%	0.03500	4.72%
134.99	Serine, Miscellaneous (%)	1	1	0.37500							
135.00	Threonine, Post-col Ninhydrin Der (%)	20	20	0.23223	0.00938	0.23217	0.01006	0.00281	4.33%	0.00660	4.98%
135.02	Threonine, Post-col OPA Der (%)	1	1	0.22800							
135.05	Threonine, Pre-col AQC Der (%)	3	3	0.23450	0.01050	0.23450	0.01050	0.00606	4.48%	0.00767	4.98%
135.99	Threonine, Miscellaneous (%)	1	1	0.21000							
136.00	Tryptophan, Alka-Hydrol Post-col Ninhyd (%)	5	5	0.08435	0.04559	0.06556	0.02044	0.01022	31.17%	0.00334	6.03%
136.01	Tryptophan, Alka-Hydrol Rev Phase LC UV (%)	2	2	0.07400	0.00990						
136.02	Tryptophan, Alka-Hydrol Post-col OPA De (%)	1	1	0.06800							
136.03	Tryptophan, Alka-Hydrol + IS RP LC FI (%)	4	4	0.07275	0.00287	0.07275	0.00287	0.00144	3.95%	0.00100	5.93%
136.99	Tryptophan, Miscellaneous (%)	1	1	0.13500							
137.00	Tyrosine, Post-col Ninhydrin Der (%)	15	14	0.20405	0.05625	0.20998	0.05034	0.01682	23.97%	0.01154	5.06%
137.02	Tyrosine, Post-col OPA Der (%)	1	1	0.20500							
137.05	Tyrosine, Pre-col AQC Der (%)	3	3	0.21933	0.02866	0.21933	0.02866	0.01655	13.07%	0.01200	5.03%
137.99	Tyrosine, Miscellaneous (%)	1	1	0.23500							
138.00	Valine, Post-col Ninhydrin Der (%)	20	20	0.31561	0.03413	0.31144	0.02795	0.00781	8.98%	0.00991	4.77%
138.02	Valine, Post-col OPA Der (%)	1	1	0.32150							
138.05	Valine, Pre-col AQC Der (%)	3	3	0.30417	0.01077	0.30417	0.01077	0.00622	3.54%	0.00700	4.78%

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
138.99	Valine, Miscellaneous (%)	1	1	0.35000							
139.00	Taurine, Post-col Ninhydrin Der (%)	2	2	0.15250	0.00354						
139.02	Taurine, Post-col OPA Der (%)	1		0.00000							
139.99	Taurine, Miscellaneous (%)	1		0.00000							
160.99	Fructose, Miscellaneous (%)	7	7	4.4671	0.66985	4.6066	0.39350	0.18591	8.54%	0.13143	3.18%
162.99	Glucose, Miscellaneous (%)	7	7	1.6529	0.55342	1.6430	0.60482	0.28575	36.81%	0.11357	3.71%
163.99	Lactose, Miscellaneous (%)	3									
164.99	Maltose, Miscellaneous (%)	2	1	0.10000							
165.99	Sucrose, Miscellaneous (%)	8	8	22.780	1.8222	22.780	2.0664	0.91323	9.07%	0.68875	2.10%
166.99	Raffinose, Miscellaneous (%)	1		0.00000							
167.99	Stachyose, Miscellaneous (%)	1		0.00000							
400.01	Water activity, Aqualab chilled mirror (Units)	6	6	0.32576	0.01800	0.32544	0.01968	0.01004	6.05%	0.00315	
400.99	Water activity, Miscellaneous (Units)	2	2	0.32125	0.00177						
516.52	Arsenic, total, ICP-MS, Open vessel (mg / kg (ppm))	1	1	0.35000							
516.53	Arsenic, total, ICP-MS, Microwave (mg / kg (ppm))	6	6	0.22778	0.01871	0.22778	0.02122	0.01083	9.32%	0.01607	19.99%
518.41	Cadmium, ICP, Dry ash (mg / kg (ppm))	2	1	0.04000							
518.52	Cadmium, ICP-MS, Open vessel (mg / kg (ppm))	1	1	0.03500							
518.53	Cadmium, ICP-MS, Microwave (mg / kg (ppm))	5	5	0.03361	0.00685	0.03361	0.00685	0.00306	20.38%	0.00138	22.00%
520.31	Chromium, AAS, Dry ash (mg / kg (ppm))	2	2	5.5925	5.9503						
520.41	Chromium, ICP, Dry ash (mg / kg (ppm))	2	2	0.80300	0.08910						
520.43	Chromium, ICP, Microwave (mg / kg (ppm))	1	1	1.1200							
520.52	Chromium, ICP-MS, Open vessel (mg / kg (ppm))	1	1	1.0450							
520.53	Chromium, ICP-MS, Microwave (mg / kg (ppm))	1	1	0.71710							
526.41	Lead, ICP, Dry ash (mg / kg (ppm))	2	2	0.09975	0.11349						
526.52	Lead, ICP-MS, Open vessel (mg / kg (ppm))	2	2	0.13250	0.00354						
526.53	Lead, ICP-MS, Microwave (mg / kg (ppm))	5	5	0.12885	0.01183	0.12885	0.01183	0.00529	9.18%	0.00438	21.78%
539.41	Nickel, ICP, Dry ash (mg / kg (ppm))	1	1	1.4000							
539.52	Nickel, ICP-MS, Open vessel (mg / kg (ppm))	1	1	1.6500							
539.53	Nickel, ICP-MS, Microwave (mg / kg (ppm))	2	2	1.6165	0.18876						

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.

Animal Feed Scheme
Molasses Product, Dehydrated
Sample # 201628

Method Precision Report

Methods Reported: 86
Labs Reporting: 190
Issue Date : 09/30/2016

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
001.00	Loss on Drying, Vac 95°C 5 hr (%)	8	8	5.8812	0.78392	0.77411	0.17484	0.79361	13.16%	2.973%	13.49%	4.5390
001.07	Loss on Drying, 104°C 3 hr, in malt (%)	36	30	6.0153	0.43208	0.42843	0.07921	0.43569	7.12%	1.317%	7.24%	5.5003
001.99	Loss on Drying, Miscellaneous (%)	21	20	5.8727	1.0447	1.0426	0.09340	1.0468	17.75%	1.590%	17.82%	11.208
002.01	Protein, Auto Kjel-Foss (%)	12	9	9.2110	0.17366	0.17243	0.02926	0.17489	1.87%	0.318%	1.90%	5.9775
002.05	Protein, Copper, Boric Acid (%)	33	31	9.3249	0.15870	0.13274	0.12301	0.18098	1.42%	1.319%	1.94%	1.4712
002.06	Protein, Combustion Nitrogen Analyzer (%)	118	107	9.3638	0.37892	0.37343	0.09095	0.38434	3.99%	0.971%	4.10%	4.2258
003.00	Fat, Eth Ext., Direct (%)	13	11	1.0793	0.23187	0.22933	0.04843	0.23438	21.25%	4.487%	21.72%	4.8396
003.06	Fat, Pet Ether (%)	14	12	1.1143	0.17034	0.16650	0.05082	0.17409	14.94%	4.560%	15.62%	3.4257
003.09	Fat, Soxtec, Eth Ext (%)	20	17	1.0374	0.17037	0.16545	0.05746	0.17515	15.95%	5.539%	16.88%	3.0481
003.10	Fat, Soxtec, Pet Ether (%)	30	28	1.0138	0.18990	0.18253	0.07407	0.19699	18.00%	7.306%	19.43%	2.6595
003.14	Fat, Ankom (%)	37	34	1.1712	0.24365	0.23843	0.07091	0.24876	20.36%	6.055%	21.24%	3.5079
004.00	Fiber, Crude, Asbestos Free (%)	18	16	13.793	0.74294	0.74008	0.09215	0.74579	5.37%	0.668%	5.41%	8.0931
004.06	Fiber, Fibertec (%)	24	23	14.300	0.72050	0.70573	0.20522	0.73497	4.94%	1.435%	5.14%	3.5814
004.07	Fiber, ANKOM (%)	61	57	13.560	0.69071	0.67375	0.21515	0.70727	4.97%	1.587%	5.22%	3.2873
005.00	Ash, 2h @ 600°C (%)	102	94	10.317	0.14478	0.13988	0.05280	0.14951	1.36%	0.512%	1.45%	2.8316
005.05	Ash, 3h @ 550°C (%)	29	26	10.390	0.08396	0.07956	0.03793	0.08814	0.77%	0.365%	0.85%	2.3239
005.99	Ash, Miscellaneous (%)	11	11	10.352	0.09826	0.09404	0.04031	0.10232	0.91%	0.389%	0.99%	2.5379
008.02	Fiber, Acid Detergent (%)	17	14	17.661	0.47030	0.45810	0.15049	0.48219	2.59%	0.852%	2.73%	3.2041
008.08	Fiber, Acid Detergent, ANKOM (%)	44	42	16.961	1.2062	1.1938	0.24364	1.2184	7.04%	1.436%	7.18%	5.0010
009.07	Fiber, Neutral Det-ENZ Pretreat (%)	12	12	23.285	1.1568	1.1029	0.49351	1.2083	4.74%	2.119%	5.19%	2.4484
009.09	Fiber, Neutral Detergent, ANKOM (%)	47	42	22.165	0.90135	0.88849	0.21450	0.91402	4.01%	0.968%	4.12%	4.2612
010.99	Moisture, Miscellaneous (%)	17	16	6.3903	1.2038	1.1943	0.21334	1.2132	18.69%	3.339%	18.99%	5.6867
011.01	Loss on Drying, 135°C 2hr (%)	70	64	8.5504	1.0728	1.0712	0.08393	1.0745	12.53%	0.982%	12.57%	12.802
012.01	Starch, Megazyme (%)	9	9	0.93572	0.61695	0.59996	0.20336	0.63349	64.12%	21.733%	67.70%	3.1151
013.00	Fat, Acid hydrolysis (%)	19	19	2.8639	0.98687	0.97627	0.20406	0.99737	34.09%	7.125%	34.83%	4.8875
013.02	Fat, Mojonier, Bak Ext (%)	21	21	3.6708	1.1137	1.1075	0.16670	1.1199	30.17%	4.541%	30.51%	6.7183
019.00	Calcium, Ox-Mn04 Vol. (%)	16	14	0.87084	0.05883	0.05860	0.00733	0.05906	6.73%	0.842%	6.78%	8.0523
019.08	Calcium, EDTA (%)	8	8	0.89824	0.06358	0.06319	0.00992	0.06396	7.03%	1.105%	7.12%	6.4466
019.31	Calcium, AAS, Dry ash (%)	23	22	0.87007	0.03850	0.03288	0.02832	0.04340	3.78%	3.255%	4.99%	1.5323
019.41	Calcium, ICP, Dry ash (%)	31	30	0.88905	0.04490	0.04312	0.01768	0.04660	4.85%	1.988%	5.24%	2.6367
019.42	Calcium, ICP, Open vessel (%)	23	21	0.88670	0.05258	0.04991	0.02339	0.05512	5.63%	2.638%	6.22%	2.3564
019.43	Calcium, ICP, Microwave (%)	21	20	0.90508	0.05295	0.05054	0.02235	0.05526	5.58%	2.469%	6.11%	2.4726

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))	12	10	6.5330	1.6625	1.6600	0.12814	1.6650	25.41%	1.961%	25.49%	12.993
022.41	Copper, ICP, Dry ash (mg / kg (ppm))	23	20	6.1976	1.2502	1.1924	0.53126	1.3054	19.24%	8.572%	21.06%	2.4571
022.42	Copper, ICP, Open vessel (mg / kg (ppm))	22	20	5.6044	1.5519	1.5291	0.37440	1.5743	27.28%	6.680%	28.09%	4.2049
022.43	Copper, ICP, Microwave (mg / kg (ppm))	18	16	5.4471	0.88571	0.87725	0.17266	0.89408	16.10%	3.170%	16.41%	5.1781
025.31	Iron, AAS, Dry ash (mg / kg (ppm))	17	14	337.78	30.899	30.647	5.5692	31.149	9.07%	1.649%	9.22%	5.5932
025.41	Iron, ICP, Dry ash (mg / kg (ppm))	24	24	334.86	15.357	12.915	11.751	17.461	3.86%	3.509%	5.21%	1.4859
025.42	Iron, ICP, Open vessel (mg / kg (ppm))	18	16	330.26	25.775	24.497	11.334	26.992	7.42%	3.432%	8.17%	2.3815
025.43	Iron, ICP, Microwave (mg / kg (ppm))	20	18	325.22	23.157	22.614	7.0502	23.687	6.95%	2.168%	7.28%	3.3598
027.31	Magnesium, AAS, Dry ash (%)	19	18	0.33729	0.02262	0.02220	0.00613	0.02303	6.58%	1.817%	6.83%	3.7575
027.41	Magnesium, ICP, Dry ash (%)	26	24	0.34619	0.01409	0.01330	0.00660	0.01485	3.84%	1.906%	4.29%	2.2499
027.42	Magnesium, ICP, Open vessel (%)	23	21	0.34930	0.02895	0.02843	0.00775	0.02946	8.14%	2.219%	8.44%	3.8009
027.43	Magnesium, ICP, Microwave (%)	19	19	0.35062	0.01852	0.01769	0.00776	0.01932	5.05%	2.213%	5.51%	2.4904
028.31	Manganese, AAS, Dry ash (mg / kg (ppm))	14	13	15.690	3.7300	3.5828	1.4673	3.8716	22.83%	9.352%	24.68%	2.6386
028.41	Manganese, ICP, Dry ash (mg / kg (ppm))	23	20	15.611	1.2274	1.1150	0.72560	1.3303	7.14%	4.648%	8.52%	1.8334
028.42	Manganese, ICP, Open vessel (mg / kg (ppm))	21	19	15.618	2.0807	2.0166	0.72489	2.1429	12.91%	4.642%	13.72%	2.9562
028.43	Manganese, ICP, Microwave (mg / kg (ppm))	17	14	15.886	0.98886	0.95671	0.35368	1.0200	6.02%	2.226%	6.42%	2.8840
031.01	Phosphorus, Photometric (%)	42	36	0.11331	0.02765	0.02750	0.00410	0.02780	24.27%	3.620%	24.54%	6.7778
031.41	Phosphorus, ICP, Dry ash (%)	31	30	0.10823	0.00783	0.00737	0.00373	0.00826	6.81%	3.448%	7.64%	2.2144
031.42	Phosphorus, ICP, Open vessel (%)	23	22	0.10567	0.00935	0.00713	0.00855	0.01113	6.75%	8.089%	10.54%	1.3025
031.43	Phosphorus, ICP, Microwave (%)	17	17	0.10852	0.00616	0.00409	0.00651	0.00769	3.77%	5.999%	7.08%	1.1807
032.31	Potassium, AAS, Dry ash (%)	21	18	3.6090	0.37044	0.36834	0.05577	0.37253	10.21%	1.545%	10.32%	6.6795
032.41	Potassium, ICP, Dry ash (%)	27	26	3.5684	0.23421	0.22313	0.10070	0.24480	6.25%	2.822%	6.86%	2.4309
032.42	Potassium, ICP, Open vessel (%)	23	21	3.6476	0.22589	0.21786	0.08440	0.23364	5.97%	2.314%	6.41%	2.7681
032.43	Potassium, ICP, Microwave (%)	21	21	3.5411	0.20525	0.19752	0.07889	0.21269	5.58%	2.228%	6.01%	2.6961
033.00	Salt as chloride, Sol Cl (%)	17	15	2.0776	0.37925	0.37870	0.02878	0.37979	18.23%	1.385%	18.28%	13.198
033.01	Salt as chloride, Poten Cl (%)	26	22	2.3744	0.03395	0.03203	0.01589	0.03576	1.35%	0.669%	1.51%	2.2503
035.31	Sodium, AAS, Dry ash (%)	19	18	0.07685	0.03417	0.03406	0.00391	0.03428	44.32%	5.082%	44.61%	8.7770
035.41	Sodium, ICP, Dry ash (%)	27	24	0.06133	0.00898	0.00861	0.00361	0.00934	14.04%	5.883%	15.22%	2.5879
035.42	Sodium, ICP, Open vessel (%)	20	19	0.06060	0.00755	0.00681	0.00463	0.00823	11.24%	7.636%	13.58%	1.7791
035.43	Sodium, ICP, Microwave (%)	15	15	0.06429	0.01604	0.01583	0.00372	0.01626	24.62%	5.783%	25.29%	4.3721
036.42	Sulfur, ICP, Open vessel (%)	23	21	0.62877	0.04214	0.04064	0.01577	0.04359	6.46%	2.508%	6.93%	2.7638
036.43	Sulfur, ICP, Microwave (%)	12	12	0.62433	0.02554	0.02418	0.01161	0.02682	3.87%	1.859%	4.30%	2.3107
037.31	Zinc, AAS, Dry ash (mg / kg (ppm))	14	13	22.263	6.3976	6.3461	1.1455	6.4487	28.51%	5.145%	28.97%	5.6294
037.41	Zinc, ICP, Dry ash (mg / kg (ppm))	23	22	22.652	3.5665	3.0685	2.5706	4.0030	13.55%	11.348%	17.67%	1.5572
037.42	Zinc, ICP, Open vessel (mg / kg (ppm))	20	19	22.558	3.1471	3.0600	1.0399	3.2318	13.57%	4.610%	14.33%	3.1080
037.43	Zinc, ICP, Microwave (mg / kg (ppm))	16	15	23.067	4.8627	4.7756	1.2962	4.9483	20.70%	5.619%	21.45%	3.8176
120.00	Alanine, Post-col Ninhydrin Der (%)	20	18	0.39081	0.01578	0.01524	0.00578	0.01630	3.90%	1.479%	4.17%	2.8204
121.00	Arginine, Post-col Ninhydrin Der (%)	20	20	0.27096	0.01692	0.01614	0.00718	0.01767	5.96%	2.650%	6.52%	2.4603
122.00	Aspartic, Post-col Ninhydrin Der (%)	20	18	1.3757	0.05974	0.05907	0.01266	0.06041	4.29%	0.920%	4.39%	4.7707
124.00	Cysteine/Cystine, PAO Post-col Ninhydrin (%)	20	16	0.09907	0.01326	0.01311	0.00283	0.01341	13.24%	2.853%	13.54%	4.7463

Sample # 201628

Issue Date : 09/30/2016

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
125.00	Glutamic, Post-col Ninhydrin Der (%)	20	17	0.91196	0.02321	0.02247	0.00822	0.02392	2.46%	0.901%	2.62%	2.9114
126.00	Glycine, Post-col Ninhydrin Der (%)	20	18	0.43893	0.01873	0.01853	0.00390	0.01894	4.22%	0.889%	4.31%	4.8518
127.00	Histidine, Post-col Ninhydrin Der (%)	19	17	0.14123	0.01430	0.01411	0.00322	0.01448	9.99%	2.277%	10.25%	4.5026
128.00	Isoleucine, Post-col Ninhydrin Der (%)	20	17	0.23441	0.01660	0.01628	0.00458	0.01691	6.94%	1.955%	7.21%	3.6893
129.00	Leucine, Post-col Ninhydrin Der (%)	20	19	0.37582	0.01765	0.01728	0.00510	0.01801	4.60%	1.358%	4.79%	3.5308
130.00	L-Lysine, Post-col Ninhydrin Der (%)	20	18	0.23777	0.02112	0.02084	0.00478	0.02138	8.77%	2.010%	8.99%	4.4749
131.00	Methionine, PAO Post-col Ninhydrin Der (%)	20	20	0.05294	0.00799	0.00687	0.00577	0.00897	12.98%	10.890%	16.94%	1.5559
132.00	Phenylalanine, Post-col Ninhydrin Der (%)	20	17	0.24350	0.02035	0.01973	0.00702	0.02095	8.10%	2.883%	8.60%	2.9836
133.00	Proline, Post-col Ninhydrin Der (%)	19	17	0.28687	0.04485	0.04356	0.01513	0.04611	15.18%	5.273%	16.07%	3.0481
134.00	Serine, Post-col Ninhydrin Der (%)	20	19	0.35210	0.01198	0.01074	0.00751	0.01310	3.05%	2.134%	3.72%	1.7440
135.00	Threonine, Post-col Ninhydrin Der (%)	20	20	0.23223	0.00938	0.00831	0.00613	0.01033	3.58%	2.641%	4.45%	1.6845
137.00	Tyrosine, Post-col Ninhydrin Der (%)	15	13	0.21282	0.04754	0.04720	0.00806	0.04788	22.18%	3.787%	22.50%	5.9402
138.00	Valine, Post-col Ninhydrin Der (%)	20	19	0.31057	0.02630	0.02556	0.00874	0.02702	8.23%	2.814%	8.70%	3.0919
165.99	Sucrose, Miscellaneous (%)	8	8	22.780	1.8222	1.7622	0.65600	1.8803	7.74%	2.880%	8.25%	2.8664

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