



## Pet Food Ingredient Scheme

Brewer's Yeast

Test Material Code # 202042

## Method Summary Report

(Precision Report Follows)

# Labs Reporting: 54

# Methods Reported: 205

Issue Date : 06/30/2020

Method Code	Analyte and Method	Total # Labs Submitting	# Labs in Robust Calcs	Raw Mean	Raw SD	Assigned Value Robust Mean	AAFCO #fp Robust SD	Uncertainty (U) Robust	% RSD - Robust	Average Range (R-bar)	Thompson Horwitz %RSD
001.07	Loss on Drying, 104°C 3 hr, in malt (%)	14	14	9.957	0.3667	10.02	0.2241	0.0749	2.24%	0.1480	2.83%
001.99	Loss on Drying, Miscellaneous (%)	7	7	9.741	0.4382	9.777	0.4114	0.1944	4.21%	0.1171	2.84%
001.00	Loss on Drying, Vac 95°C 5 hr (%)	2	2	9.921	0.0766						
001.03	Loss on Drying, Low temp. methods (%)	2	2	9.983	0.0389						
002.06	Protein, Crude, Combustion Nitrogen Analyzer (%)	45	43	47.46	0.2759	47.45	0.2817	0.0537	0.59%	0.1519	1.45%
002.01	Protein, Crude, Auto Kjell-Foss (%)	4	3	47.29	0.3242	47.29	0.3242	0.1872	0.69%	0.0093	1.45%
002.04	Protein, Crude, Copper Catalyst (%)	3	3	47.31	0.3030	47.31	0.3030	0.1750	0.64%	0.0900	1.45%
002.08	Protein, Crude, Cu/Ti (%)	2	2	47.29	0.1945						
002.11	Protein, Crude, NIR (%)	2	2	44.07	1.071						
002.00	Protein, Crude, Crude (%)	1	1	47.23							
002.05	Protein, Crude, Copper, Boric Acid (%)	1	1	47.29							
003.10	Fat, Crude, Randall, Pet Ether (%)	11	11	1.064	0.3019	1.085	0.2449	0.0923	22.57%	0.1311	3.95%
003.14	Fat, Crude, Ankom (%)	11	11	1.091	0.2380	1.091	0.2699	0.1017	24.73%	0.2157	3.95%
003.00	Fat, Crude, Diethyl Ether Ext., Direct (%)	3	3	1.655	0.9845	1.655	0.9845	0.5684	59.49%	0.1081	3.71%
003.06	Fat, Crude, Pet Ether (%)	3	3	1.107	0.1631	1.107	0.1631	0.0942	14.74%	0.0933	3.94%
003.09	Fat, Crude, Randall, Diethyl Ether Ext (%)	3	3	1.240	0.1148	1.240	0.1148	0.0663	9.26%	0.0769	3.87%
003.13	Fat, Crude, Randall, Hexane Ext. (%)	3	3	1.313	0.4702	1.313	0.4702	0.2715	35.80%	0.0837	3.84%
003.01	Fat, Crude, Diethyl Ether Ext (13th ed.), Indirect (%)	1	1	1.320							
003.11	Fat, Crude, NIR (%)	1	1	3.885							
003.12	Fat, Crude, Hexane Ext (%)	1	1	0.9400							
003.99	Fat, Crude, Miscellaneous (%)	1	1	2.700							
004.07	Fiber, Crude, ANKOM (%)	17	17	4.218	1.136	4.087	0.7002	0.2123	17.13%	0.1541	3.24%
004.00	Fiber, Crude, Asbestos Free (%)	6	6	4.187	0.5145	4.187	0.5835	0.2977	13.93%	0.2460	3.22%
004.06	Fiber, Crude, Fibertec (%)	3	3	4.012	0.3329	4.012	0.3329	0.1922	8.30%	0.0633	3.25%
004.03	Fiber, Crude, Fritted Glass (%)	1	1	3.810							
005.00	Ash, 2h @ 600°C (%)	36	35	5.642	0.4401	5.615	0.2911	0.0615	5.18%	0.1125	3.08%
005.05	Ash, 3h @ 550°C (%)	6	6	5.685	0.2073	5.685	0.2351	0.1200	4.14%	0.1875	3.08%
005.99	Ash, Miscellaneous (%)	2	2	8.363	4.084						
005.11	Ash, NIR (%)	1	1	3.620							

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006.00	Total Sugars, As sucrose (%)	1	1	18.30							
008.08	Fiber, Acid Detergent, Filter Bag - ANKOM (%)	6	6	5.879	0.5297	5.909	0.5298	0.2704	8.97%	0.4225	3.06%
008.02	Fiber, Acid Detergent, Crucible (%)	2	2	5.881	1.095						
009.09	Fiber, Neutral Detergent, Filter Bag - ANKOM (%)	6	6	10.76	2.280	10.76	2.586	1.320	24.04%	0.7311	2.80%
009.04	Fiber, Neutral Detergent, Neutral Det-No ENZ Pretreat (%)	1	1	14.21							
009.07	Fiber, Neutral Detergent, AOAC -ENZ Pretreat (%)	1	1	9.636							
010.99	Moisture, Miscellaneous (%)	3	3	8.447	2.726	8.447	2.726	1.574	32.28%	0.0933	2.90%
010.11	Moisture, NIR (%)	1	1	10.80							
011.01	Loss on Drying, 135°C 2hr (%)	21	20	10.85	0.5912	10.90	0.5321	0.1487	4.88%	0.1203	2.79%
011.02	Loss on Drying, 130°C for 2 hours (%)	3	3	10.89	0.2026	10.89	0.2026	0.1170	1.86%	0.1367	2.79%
011.99	Loss on Drying, High Temp. Methods Miscellaneous (%)	1	1	11.52							
012.03	Starch, Enzymatic-Colorimetric Method, Miscellaneous (%)	3	3	3.415	1.667	3.415	1.667	0.9626	48.83%	0.1936	3.32%
012.01	Starch, Enzymatic-Colorimetric Method (Megazyme) (%)	2	2	1.909	0.3326						
012.00	Starch, Polarimetric (Ewers) (%)	1	1	5.470							
012.04	Starch, Enzymatic-Enzyme Membrane Technology (YSI) (%)	1	1	1.650							
013.00	Fat, Acid Pretreat, Acid hydrolysis (%)	8	8	2.635	0.4907	2.557	0.3557	0.1572	13.91%	0.3758	3.47%
013.02	Fat, Acid Pretreat, Mojonniier, Bak Ext (%)	6	6	2.853	0.3116	2.853	0.3533	0.1803	12.38%	0.3143	3.42%
013.10	Fat, Acid Pretreat, Soxtec-Acid Hydrolysis (%)	3	3	1.060	0.3437	1.060	0.3437	0.1984	32.42%	0.1000	3.96%
013.13	Fat, Acid Pretreat, Ankom- Acid Hydrolysis (%)	1	1	4.153							
015.41	Aluminum, ICP, Dry ash (ppm)	2	2	48.65	22.56						
015.43	Aluminum, ICP, Microwave (ppm)	2	2	28.56	5.031						
015.53	Aluminum, ICP-MS, Microwave (ppm)	1	1	41.35							
017.43	Boron, ICP, Microwave (ppm)	2	2	33.66	0.9263						
017.41	Boron, ICP, Dry ash (ppm)	1	1	33.99							
019.41	Calcium, ICP, Dry ash (%)	8	8	0.2685	0.0141	0.2677	0.0142	0.0063	5.30%	0.0093	4.88%
019.43	Calcium, ICP, Microwave (%)	8	8	0.2614	0.0112	0.2621	0.0110	0.0049	4.20%	0.0040	4.89%
019.44	Calcium, ICP, Dry ash (%)	7	7	0.2596	0.0189	0.2597	0.0210	0.0099	8.08%	0.0103	4.90%
019.31	Calcium, AAS, Dry ash (%)	4	3	0.2707	0.0200	0.2707	0.0200	0.0142	7.40%	0.0000	4.87%
019.42	Calcium, ICP, Open vessel (%)	2	2	0.2636	0.0020						
019.99	Calcium, Miscellaneous (%)	2	2	0.2463	0.0230						
019.53	Calcium, ICP-MS, Microwave (%)	1	1	0.2550							
021.41	Cobalt, ICP, Dry ash (ppm)	2	2	0.1454	0.1391						
021.53	Cobalt, ICP-MS, Microwave (ppm)	2	2	0.0824	0.0051						
021.43	Cobalt, ICP, Microwave (ppm)	1	1	0.1700							
021.31	Cobalt, AAS, Dry ash (ppm)	1		0.7500							
022.41	Copper, ICP, Dry ash (ppm)	8	8	13.99	0.8385	14.08	0.7407	0.3274	5.26%	0.4273	10.74%
022.43	Copper, ICP, Microwave (ppm)	8	8	14.24	1.727	14.24	1.958	0.8655	13.75%	0.6038	10.73%
022.31	Copper, AAS, Dry ash (ppm)	3	2	15.42	1.588	15.42	1.588			2.429	10.60%
022.42	Copper, ICP, Open vessel (ppm)	2	2	15.33	0.2475						
022.99	Copper, Miscellaneous (ppm)	2	2	13.65	0.2121						

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022.33	Copper, AAS, Microwave (ppm)	1	1	14.60							
022.53	Copper, ICP-MS, Microwave (ppm)	1	1	13.90							
025.41	Iron, ICP, Dry ash (ppm)	8	7	103.5	2.410	<b>103.4</b>	2.528	1.194	2.45%	3.016	7.96%
025.43	Iron, ICP, Microwave (ppm)	6	5	103.6	5.232	103.6	5.232	2.925	5.05%	4.822	7.96%
025.31	Iron, AAS, Dry ash (ppm)	4	4	107.9	17.81	107.9	17.81	8.907	16.50%	5.432	7.91%
025.42	Iron, ICP, Open vessel (ppm)	2	2	103.3	0.2828						
025.99	Iron, Miscellaneous (ppm)	2	2	99.00	3.537						
025.53	Iron, ICP-MS, Microwave (ppm)	1	1	103.0							
027.41	Magnesium, ICP, Dry ash (%)	9	8	0.2653	0.0174	<b>0.2661</b>	0.0179	0.0079	6.73%	0.0046	4.88%
027.43	Magnesium, ICP, Microwave (%)	8	8	0.2648	0.0147	<b>0.2640</b>	0.0149	0.0066	5.63%	0.0056	4.89%
027.44	Magnesium, ICP, Dry ash (%)	6	6	0.2598	0.0038	<b>0.2598</b>	0.0044	0.0022	1.68%	0.0035	4.90%
027.31	Magnesium, AAS, Dry ash (%)	3	3	0.2689	0.0073	0.2689	0.0073	0.0042	2.70%	0.0036	4.87%
027.42	Magnesium, ICP, Open vessel (%)	2	2	0.2660	0.0057						
027.99	Magnesium, Miscellaneous (%)	2	2	0.2628	0.0180						
027.53	Magnesium, ICP-MS, Microwave (%)	1	1	0.2760							
028.41	Manganese, ICP, Dry ash (ppm)	8	8	29.08	1.530	<b>29.08</b>	1.734	0.7665	5.96%	0.8708	9.63%
028.43	Manganese, ICP, Microwave (ppm)	8	7	29.38	3.053	<b>29.38</b>	3.462	1.636	11.78%	0.5329	9.62%
028.31	Manganese, AAS, Dry ash (ppm)	3	3	28.05	2.685	28.05	2.685	1.899	9.57%	0.1813	9.69%
028.42	Manganese, ICP, Open vessel (ppm)	2	2	29.10	2.691						
028.99	Manganese, Miscellaneous (ppm)	2	2	26.68	0.2475						
028.53	Manganese, ICP-MS, Microwave (ppm)	1	1	28.60							
031.43	Phosphorus, ICP, Microwave (%)	9	9	0.6758	0.0326	<b>0.6791</b>	0.0286	0.0119	4.22%	0.0157	4.24%
031.41	Phosphorus, ICP, Dry ash (%)	9	8	0.6709	0.0432	<b>0.6803</b>	0.0231	0.0102	3.39%	0.0129	4.24%
031.44	Phosphorus, ICP, Dry ash (%)	6	6	0.6408	0.0116	<b>0.6425</b>	0.0047	0.0024	0.74%	0.0150	4.28%
031.01	Phosphorus, Photometric (%)	4	4	0.6703	0.0082	0.6703	0.0082			0.0000	4.25%
031.42	Phosphorus, ICP, Open vessel (%)	2	2	0.6647	0.0287						
031.99	Phosphorus, Miscellaneous (%)	2	2	0.6808	0.1213						
031.03	Phosphorus, Autoanalyzer (%)	1	1	0.6834							
031.53	Phosphorus, ICP-MS, Microwave (%)	1	1	0.7105							
032.41	Potassium, ICP, Dry ash (%)	9	9	2.040	0.1484	<b>2.045</b>	0.1563	0.0651	7.64%	0.0589	3.59%
032.43	Potassium, ICP, Microwave (%)	9	9	2.017	0.0752	<b>2.017</b>	0.0852	0.0355	4.23%	0.0371	3.60%
032.44	Potassium, ICP, Dry ash (%)	6	6	1.983	0.0255	<b>1.983</b>	0.0289	0.0147	1.46%	0.0417	3.61%
032.99	Potassium, Miscellaneous (%)	3	3	2.025	0.0966	2.025	0.0966	0.0558	4.77%	0.0240	3.60%
032.31	Potassium, AAS, Dry ash (%)	2	2	2.005	0.1909						
032.42	Potassium, ICP, Open vessel (%)	2	2	2.010	0.0431						
032.53	Potassium, ICP-MS, Microwave (%)	1	1	2.105							
033.01	Salt as chloride, Poten Cl (%)	5	4	0.0399	0.0235	0.0399	0.0235	0.0136	58.98%	0.0058	6.50%
033.05	Salt as chloride, Ion Sel Electrode (%)	1	1	0.0185							
033.00	Salt as chloride, Sol Cl (%)	1		0.1000							
034.53	Selenium, ICP-MS, Microwave (ppm)	3	3	0.4258	0.2410	0.4258	0.2410	0.1392	56.61%	0.0090	18.19%

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034.04	Selenium, AA, Hydride (ppm)	2	2	0.2183	0.0103						
034.41	Selenium, ICP, Dry ash (ppm)	2	2	0.1615	0.0446						
034.43	Selenium, ICP, Microwave (ppm)	1	1	0.3165							
034.52	Selenium, ICP-MS, Open vessel (ppm)	1	1	0.1000							
035.41	Sodium, ICP, Dry ash (%)	13	13	0.0275	0.0208	0.0266	0.0216	0.0075	81.31%	0.0080	6.90%
035.43	Sodium, ICP, Microwave (%)	8	5	0.0055	0.0030	0.0055	0.0030	0.0017	54.01%	0.0009	8.76%
035.31	Sodium, AAS, Dry ash (%)	2	2	0.0091	0.0069						
035.42	Sodium, ICP, Open vessel (%)	2	1	0.0074							
035.99	Sodium, Miscellaneous (%)	1		0.0100							
036.43	Sulfur, ICP, Microwave (%)	6	6	0.3844	0.0190	0.3844	0.0216	0.0110	5.61%	0.0058	4.62%
036.42	Sulfur, ICP, Open vessel (%)	4	4	0.3621	0.0098	0.3621	0.0098	0.0049	2.69%	0.0174	4.66%
036.53	Sulfur, ICP-MS, Microwave (%)	1	1	0.3845							
036.99	Sulfur, Miscellaneous (%)	1	1	0.3600							
037.41	Zinc, ICP, Dry ash (ppm)	8	8	60.70	4.145	60.70	4.700	2.077	7.74%	1.958	8.62%
037.43	Zinc, ICP, Microwave (ppm)	8	7	58.09	4.089	58.09	4.637	2.191	7.98%	1.223	8.68%
037.31	Zinc, AAS, Dry ash (ppm)	4	3	61.25	3.401	61.25	3.401	1.963	5.55%	0.3820	8.61%
037.42	Zinc, ICP, Open vessel (ppm)	2	2	55.59	11.18						
037.99	Zinc, Miscellaneous (ppm)	2	2	52.75	1.768						
037.33	Zinc, AAS, Microwave (ppm)	1	1	60.00							
037.53	Zinc, ICP-MS, Microwave (ppm)	1	1	60.80							
038.41	Molybdenum, ICP, Dry ash (ppm)	2	2	8.055	0.3819						
038.43	Molybdenum, ICP, Microwave (ppm)	2	2	9.408	0.0106						
038.53	Molybdenum, ICP-MS, Microwave (ppm)	2	2	10.43	0.1895						
040.53	Barium, ICP-MS, Microwave (ppm)	1	1	2.757							
041.53	Vanadium, ICP-MS, Microwave (ppm)	1	1	0.0875							
101.02	Choline Chloride, LC (ppm)	2	2	3,472	653.0						
101.01	Choline Chloride, Chem (ppm)	1	1	2,120							
102.02	Niacin, LC (ppm)	2	2	15.77	0.4667						
102.01	Niacin, Microbiological (ppm)	1	1	47.75							
103.02	Pantothenic Acid, LC (ppm)	2	2	51.83	56.89						
103.01	Pantothenic Acid, Microbiological (ppm)	1	1	10.40							
104.00	Riboflavin, Fluorometric (ppm)	2	2	5.863	0.6470						
104.03	Riboflavin, LC (ppm)	2	2	4.050	4.455						
105.00	Thiamine, LC (ppm)	2	2	3.025	1.237						
105.01	Thiamine, Fluorometer (ppm)	1	1	6.935							
107.00	Vitamin B12, Microbiological (ppb)	1	1	18.15							
109.02	Vitamin E, LC (IU / kg)	1	1	1.000							
112.01	Pyridoxine, LC (µg / g)	2	2	20.07	22.39						
113.01	Folic Acid, Micro (ppm)	1	1	3.410							
114.01	Biotin, Microbiological (ppm)	1	1	0.4405							

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114.99	Biotin, Miscellaneous (ppm)	1		5.000							
120.00	Alanine, Post-col Ninhydrin Der (%)	5	5	2.071	0.0816	2.071	0.0816	0.0365	3.94%	0.0224	3.58%
120.05	Alanine, Pre-col AQC Der (%)	2	2	1.824	0.2630						
121.00	Arginine, Post-col Ninhydrin Der (%)	6	6	3.342	0.1234	3.342	0.1399	0.0714	4.19%	0.0353	3.34%
121.05	Arginine, Pre-col AQC Der (%)	2	2	2.898	0.3783						
122.00	Aspartic, Post-col Ninhydrin Der (%)	5	5	5.226	0.2007	5.226	0.2007	0.0897	3.84%	0.0374	3.12%
122.05	Aspartic, Pre-col AQC Der (%)	2	2	4.333	1.085						
124.00	Cysteine/Cystine, PAO Post-col Ninhydry (%)	6	6	0.6044	0.0346	0.6044	0.0393	0.0200	6.50%	0.0088	4.31%
124.05	Cysteine/Cystine, PAO Pre-col AQC Der (%)	2	2	0.5563	0.0407						
125.00	Glutamic, Post-col Ninhydrin Der (%)	5	5	8.295	0.7903	8.295	0.7903	0.3534	9.53%	0.0725	2.91%
125.05	Glutamic, Pre-col AQC Der (%)	2	2	6.447	1.991						
126.00	Glycine, Post-col Ninhydrin Der (%)	5	4	1.993	0.0338	1.993	0.0338	0.0169	1.70%	0.0057	3.61%
126.05	Glycine, Pre-col AQC Der (%)	2	2	1.858	0.0173						
127.00	Histidine, Post-col Ninhydrin Der (%)	6	6	1.235	0.1205	1.221	0.1024	0.0523	8.39%	0.0086	3.88%
127.05	Histidine, Pre-col AQC Der (%)	2	2	1.010	0.1351						
128.00	Isoleucine, Post-col Ninhydrin Der (%)	6	6	2.072	0.1095	2.072	0.1242	0.0634	5.99%	0.0318	3.58%
128.05	Isoleucine, Pre-col AQC Der (%)	2	2	1.518	0.3069						
129.00	Leucine, Post-col Ninhydrin Der (%)	6	6	3.547	0.1091	3.547	0.1237	0.0631	3.49%	0.0430	3.31%
129.05	Leucine, Pre-col AQC Der (%)	2	2	3.164	0.0859						
130.00	L-Lysine, Post-col Ninhydrin Der (%)	6	6	2.824	0.1722	2.824	0.1953	0.0997	6.91%	0.0520	3.42%
130.05	L-Lysine, Pre-col AQC Der (%)	2	2	2.372	0.2938						
131.00	Methionine, PAO Post-col Ninhydrin Der (%)	6	6	0.6289	0.0600	0.6269	0.0633	0.0323	10.09%	0.0193	4.29%
131.05	Methionine, PAO Pre-col AQC Der (%)	2	2	0.6175	0.0601						
132.00	Phenylalanine, Post-col Ninhydrin Der (%)	6	6	2.316	0.1372	2.332	0.1151	0.0588	4.94%	0.0408	3.52%
132.05	Phenylalanine, Pre-col AQC Der (%)	2	2	2.283	0.0248						
133.00	Proline, Post-col Ninhydrin Der (%)	5	4	2.315	0.0237	2.315	0.0237	0.0137	1.02%	0.0265	3.53%
133.05	Proline, Pre-col AQC Der (%)	2	2	2.080	0.0078						
134.00	Serine, Post-col Ninhydrin Der (%)	5	5	2.343	0.2167	2.343	0.2167	0.0969	9.25%	0.0224	3.52%
134.05	Serine, Pre-col AQC Der (%)	2	2	2.045	0.5590						
135.00	Threonine, Post-col Ninhydrin Der (%)	6	6	1.864	0.0564	1.863	0.0639	0.0326	3.43%	0.0233	3.64%
135.05	Threonine, Pre-col AQC Der (%)	2	2	1.481	0.4724						
135.99	Threonine, Miscellaneous (%)	1	1	1.695							
136.00	Tryptophan, Alka-Hydrol Post-col Ninhyd (%)	4	4	0.6293	0.0916	0.6293	0.0916	0.0458	14.55%	0.0078	4.29%
136.05	Tryptophan, Pre-col AQC Der (%)	2	2	0.9025	0.3430						
136.99	Tryptophan, Miscellaneous (%)	1	1	0.6150							
137.00	Tyrosine, Post-col Ninhydrin Der (%)	4	4	1.563	0.1581	1.563	0.1581	0.0791	10.12%	0.0786	3.74%
137.05	Tyrosine, Pre-col AQC Der (%)	2	2	1.163	0.5409						
138.00	Valine, Post-col Ninhydrin Der (%)	6	6	2.182	0.1487	2.182	0.1686	0.0860	7.73%	0.0327	3.56%
138.05	Valine, Pre-col AQC Der (%)	2	2	1.886	0.0502						
139.00	Taurine, Post-col Ninhydrin Der (%)	1	1	0.0950							

Method Code	Analyte and Method	Total # Labs Submitting	# Labs in Robust Calcs	Raw Mean	Raw SD	Assigned Value Robust Mean	AAFCO ffp Robust SD	Uncertainty (U) Robust	% RSD - Robust	Average Range (R-bar)	Thompson Horwitz %RSD
139.05	Taurine, Pre-col AQC Der (%)	1	1	0.0023							
400.01	Water Activity, Aqualab chilled mirror (Units)	2	2	0.5830	0.0067						
400.99	Water Activity, Miscellaneous (Units)	2	2	0.5765	0.0021						
516.53	Arsenic, Total, ICP-MS, Microwave (ppm)	3	2	0.0555	0.0022	0.0555	0.0022			0.0048	22.00%
516.00	Arsenic, Total, AA, Hydride (ppm)	1	1	0.0500							
516.43	Arsenic, Total, ICP, Microwave (ppm)	2	1	0.8760							
518.53	Cadmium, ICP-MS, Microwave (ppm)	3	3	0.0579	0.0061	0.0579	0.0061	0.0035	10.52%	0.0017	22.00%
518.41	Cadmium, ICP, Dry ash (ppm)	2	2	0.0424	0.0030						
518.43	Cadmium, ICP, Microwave (ppm)	1		0.1600							
520.41	Chromium, ICP, Dry ash (ppm)	2	2	0.3124	0.0355						
520.53	Chromium, ICP-MS, Microwave (ppm)	2	2	0.5193	0.5123						
520.43	Chromium, ICP, Microwave (ppm)	1	1	0.2800							
526.53	Lead, ICP-MS, Microwave (ppm)	3	3	0.0398	0.0089	0.0398	0.0089	0.0063	22.41%	0.0052	22.00%
526.41	Lead, ICP, Dry ash (ppm)	1	1	0.0260							
539.41	Nickel, ICP, Dry ash (ppm)	2	2	2.784	0.0191						
539.53	Nickel, ICP-MS, Microwave (ppm)	2	2	3.661	0.1852						

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. Robust Assigned Values indicated in bold font.



**AAFCO**  
Proficiency Testing Program



**Pet Food Ingredient Scheme**  
**Brewer's Yeast**  
**Test Material Code # 202042**

**Method Precision Report**

**# Methods Reported: 16**  
**# Labs Reporting: 54**  
**Issue Date : 06/30/2020**

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 (%)	14	13	9.957	0.3667	0.2188	0.1244	0.2517	2.18%	1.24%	2.51%	2.023
002.06	Protein, Crude, Combustion Nitrogen Analyzer (%)	45	42	47.46	0.2759	0.2460	0.1287	0.2776	0.52%	0.27%	0.58%	2.157
003.10	Fat, Crude, Randall, Pet Ether (%)	11	10	1.064	0.3019	0.1907	0.1242	0.2276	16.85%	10.97%	20.10%	1.833
003.14	Fat, Crude, Ankom (%)	11	10	1.091	0.2380	0.2104	0.1538	0.2606	18.88%	13.80%	23.38%	1.695
004.07	Fiber, Crude, ANKOM (%)	17	16	4.218	1.136	0.6394	0.1275	0.6519	16.03%	3.20%	16.35%	5.115
005.00	Ash, 2h @ 600°C (%)	36	32	5.642	0.4401	0.2386	0.1029	0.2599	4.25%	1.83%	4.63%	2.525
011.01	Loss on Drying, 135°C 2hr (%)	21	18	10.85	0.5912	0.5081	0.0932	0.5166	4.66%	0.85%	4.73%	5.541
022.41	Copper, ICP, Dry ash (ppm)	8	8	13.99	0.8385	0.7769	0.4459	0.8958	5.55%	3.19%	6.40%	2.009
027.41	Magnesium, ICP, Dry ash (%)	9	8	0.2653	0.0174	0.0171	0.0042	0.0176	6.45%	1.60%	6.65%	4.163
027.43	Magnesium, ICP, Microwave (%)	8	8	0.2648	0.0147	0.0143	0.0048	0.0151	5.40%	1.80%	5.69%	3.156
028.41	Manganese, ICP, Dry ash (ppm)	8	8	29.08	1.530	1.409	0.8429	1.641	4.84%	2.90%	5.64%	1.948
031.43	Phosphorus, ICP, Microwave (%)	9	8	0.6758	0.0326	0.0189	0.0123	0.0225	2.76%	1.80%	3.29%	1.833
032.41	Potassium, ICP, Dry ash (%)	9	8	2.040	0.1484	0.1457	0.0355	0.1500	7.21%	1.76%	7.42%	4.223
032.43	Potassium, ICP, Microwave (%)	9	9	2.017	0.0752	0.0709	0.0353	0.0792	3.51%	1.75%	3.93%	2.243
035.41	Sodium, ICP, Dry ash (%)	13	13	0.0275	0.0208	0.0197	0.0095	0.0219	71.55%	34.56%	79.46%	2.299
037.41	Zinc, ICP, Dry ash (ppm)	8	8	60.70	4.145	3.986	1.605	4.297	6.57%	2.64%	7.08%	2.677

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