



AAFCO
Association of American Feed Control Officials



Pet Food Ingredient Scheme

Soybean Meal

Test Material Code # 202641

Method Summary Report

(Precision Report Follows)

Labs Reporting: 90

Methods Reported: 214

Issue Date : 03/31/2026

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 (Rob R-bar)	Thompson Horwitz %RSD
001.07	Loss on Drying, 104°C 3 hr, in malt (%)	56	55	11.53	0.2149	11.54	0.1982	0.0334	1.72%	0.1204	2.77%
001.00	Loss on Drying, Vac 95°C 5 hr (%)	1	1	11.48							
001.03	Loss on Drying, Low temp. methods (%)	1	1	12.49							
001.99	Loss on Drying, Miscellaneous (%)	1	1	11.60							
002.06	Protein, Crude, Combustion Nitrogen Analyzer (%)	77	76	46.60	0.3854	46.60	0.2889	0.0414	0.62%	0.2404	1.46%
002.01	Protein, Crude, Auto Kjeh-Foss (%)	3	3	46.03	0.6813	46.03	0.6813	0.3933	1.48%	0.3525	1.47%
002.99	Protein, Crude, Miscellaneous (%)	2	2	46.38	0.3253						
002.05	Protein, Crude, Copper, Boric Acid (%)	1	1	46.36							
002.08	Protein, Crude, Cu/Ti (%)	1	1	46.42							
002.11	Protein, Crude, NIR (%)	1	1	47.22							
003.10	Fat, Crude, Randall, Pet Ether (%)	21	20	1.369	0.2546	1.374	0.2238	0.0626	16.29%	0.0812	3.81%
003.14	Fat, Crude, Ankom (%)	17	17	1.700	0.2050	1.702	0.2264	0.0686	13.30%	0.0795	3.69%
003.00	Fat, Crude, Diethyl Ether Ext., Direct (%)	10	10	1.256	0.2203	1.256	0.2498	0.0988	19.90%	0.0709	3.87%
003.09	Fat, Crude, Randall, Diethyl Ether Ext (%)	10	10	1.579	0.7022	1.377	0.1114	0.0440	8.09%	0.0436	3.81%
003.01	Fat, Crude, Diethyl Ether Ext (13th ed.), Indirect (%)	2	2	1.670	0.0141						
003.13	Fat, Crude, Randall, Hexane Ext. (%)	2	2	1.893	0.3359						
003.99	Fat, Crude, Miscellaneous (%)	2	2	1.153	0.2157						
003.12	Fat, Crude, Hexane Ext (%)	1	1	1.940							
004.07	Fiber, Crude, ANKOM (%)	21	21	3.967	0.2980	3.975	0.2628	0.0717	6.61%	0.1556	3.25%
004.00	Fiber, Crude, Asbestos Free (%)	6	6	3.701	0.3870	3.820	0.1217	0.0621	3.19%	0.1468	3.27%
004.06	Fiber, Crude, Fibertec (%)	1	1	4.045							
005.00	Ash, 2h @ 600°C (%)	54	53	5.972	0.2182	5.962	0.2182	0.0375	3.66%	0.0943	3.06%
005.03	Ash, Microwave furnace (%)	10	10	6.076	0.1875	6.108	0.1150	0.0454	1.88%	0.1168	3.05%
005.05	Ash, 3h @ 550°C (%)	8	7	6.404	0.4549	6.404	0.5159	0.2437	8.06%	0.0767	3.02%
005.99	Ash, Miscellaneous (%)	2	2	5.648	0.0955						
006.00	Total Sugars, As sucrose (%)	1	1	10.86							
006.03	Total Sugars, Invert w/o Invrns (%)	1	1	12.20							
008.08	Fiber, Acid Detergent, Filter Bag - ANKOM (%)	11	11	5.483	1.133	5.294	0.8079	0.3045	15.26%	0.3607	3.11%
008.02	Fiber, Acid Detergent, Crucible (%)	3	3	5.952	0.1351	5.952	0.1351	0.0780	2.27%	0.2803	3.06%

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009.09	Fiber, Neutral Detergent, Filter Bag - ANKOM (%)	9	9	8.625	1.155	8.433	0.7915	0.3298	9.39%	0.3799	2.90%
009.07	Fiber, Neutral Detergent, AOAC -ENZ Pretreat (%)	1	1	8.115							
010.99	Moisture, Miscellaneous (%)	5	5	11.47	0.6141	11.47	0.6141	0.2746	5.36%	0.1786	2.77%
010.11	Moisture, NIR (%)	1	1	11.18							
011.01	Loss on Drying, HT, 135°C 2hr (%)	22	21	12.05	0.4292	12.08	0.4020	0.1097	3.33%	0.1677	2.75%
011.02	Loss on Drying, HT, 130°C for 2 hours (%)	2	2	12.26	0.0530						
011.99	Loss on Drying, HT, High Temp. Methods Miscellaneous (%)	2	2	11.43	0.2263						
012.01	Starch, Enzymatic-Colorimetric Method (Megazyme) (%)	4	3	0.8710	0.1507	0.8710	0.1507	0.0870	17.30%	0.0602	4.08%
012.04	Starch, Enzymatic-Enzyme Membrane Technology (YSI) (%)	2	2	1.983	1.743						
012.00	Starch, Polarimetric (Ewers) (%)	1	1	4.600							
012.03	Starch, Enzymatic-Colorimetric Method, Miscellaneous (%)	1	1	0.8561							
013.02	Fat, Pretreat, Mojonier, Bak Ext, Acid hydrolysis (%)	14	14	3.489	0.4117	3.458	0.3879	0.1296	11.22%	0.1538	3.32%
013.00	Fat, Pretreat, Acid hydrolysis (%)	10	10	2.792	0.2408	2.756	0.1349	0.0533	4.89%	0.1332	3.43%
013.13	Fat, Pretreat, Ankom- Acid Hydrolysis (%)	4	4	2.306	0.9027	2.306	0.9027	0.4513	39.15%	0.1379	3.53%
013.10	Fat, Pretreat, Soxtec-Acid Hydrolysis (%)	2	2	2.748	0.0460						
014.02	Fiber, Total Dietary, ANKOM Enz-Grav (%)	2	2	16.69	0.9369						
015.41	Aluminum, ICP, Dry ash (ppm)	1	1	18.19							
015.43	Aluminum, ICP, Microwave (ppm)	2	1	19.91							
015.53	Aluminum, ICP-MS, Microwave (ppm)	1	1	22.88							
017.43	Boron, ICP, Microwave (ppm)	2	2	34.94	1.335						
017.41	Boron, ICP, Dry ash (ppm)	1	1	33.80							
017.53	Boron, ICP-MS, Microwave (ppm)	1	1	42.29							
019.44	Calcium, ICP, Dry ash (%)	30	29	0.2484	0.0087	0.2484	0.0089	0.0021	3.60%	0.0100	4.93%
019.43	Calcium, ICP, Microwave (%)	26	25	0.2462	0.0105	0.2450	0.0091	0.0023	3.73%	0.0056	4.94%
019.41	Calcium, ICP, Dry ash (%)	5	5	0.2536	0.0116	0.2536	0.0116	0.0052	4.58%	0.0081	4.92%
019.53	Calcium, ICP-MS, Microwave (%)	3	3	0.2449	0.0130	0.2449	0.0130	0.0075	5.30%	0.0126	4.94%
019.31	Calcium, AAS, Dry ash (%)	2	2	0.2444	0.0079						
019.42	Calcium, ICP, Open vessel (%)	2	2	0.2459	0.0045						
019.99	Calcium, Miscellaneous (%)	2	2	0.2425	0.0177						
019.00	Calcium, Ox-Mn04 Vol. (%)	1	1	0.2200							
019.08	Calcium, EDTA (%)	1	1	0.2050							
021.41	Cobalt, ICP, Dry ash (ppm)	3	3	5.113	7.697	5.113	7.697	4.444	150.54%	0.0947	12.51%
021.43	Cobalt, ICP, Microwave (ppm)	3	3	0.6701	0.2165	0.6701	0.2165	0.1531	32.31%	0.4767	16.99%
021.53	Cobalt, ICP-MS, Microwave (ppm)	1	1	0.4278							
022.44	Copper, ICP, Dry ash (ppm)	28	28	11.94	0.9042	12.04	0.7590	0.1793	6.30%	0.5552	11.00%
022.43	Copper, ICP, Microwave (ppm)	28	27	13.02	1.365	13.23	0.5883	0.1415	4.45%	0.2879	10.85%
022.41	Copper, ICP, Dry ash (ppm)	3	3	13.28	0.4305	13.28	0.4305	0.2486	3.24%	0.9003	10.84%
022.42	Copper, ICP, Open vessel (ppm)	3	3	13.12	0.8071	13.12	0.8071	0.5707	6.15%	0.0605	10.86%
022.53	Copper, ICP-MS, Microwave (ppm)	2	2	14.62	0.4457						
022.31	Copper, AAS, Dry ash (ppm)	1	1	14.20							

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022.99	Copper, Miscellaneous (ppm)	1	1	12.00							
025.43	Iron, ICP, Microwave (ppm)	14	13	111.1	8.025	111.2	8.770	3.040	7.88%	3.856	7.87%
025.41	Iron, ICP, Dry ash (ppm)	5	5	115.1	6.499	115.1	6.499	2.907	5.64%	6.170	7.83%
025.42	Iron, ICP, Open vessel (ppm)	3	3	108.3	4.232	108.3	4.232	2.993	3.91%	1.344	7.90%
025.31	Iron, AAS, Dry ash (ppm)	2	2	118.9	13.26						
025.53	Iron, ICP-MS, Microwave (ppm)	1	1	122.9							
025.99	Iron, Miscellaneous (ppm)	1	1	114.5							
027.44	Magnesium, ICP, Dry ash (%)	29	28	0.2728	0.0122	0.2741	0.0100	0.0024	3.65%	0.0050	4.86%
027.43	Magnesium, ICP, Microwave (%)	28	27	0.2733	0.0125	0.2726	0.0115	0.0028	4.21%	0.0052	4.86%
027.41	Magnesium, ICP, Dry ash (%)	5	5	0.2797	0.0046	0.2797	0.0046	0.0021	1.66%	0.0055	4.85%
027.31	Magnesium, AAS, Dry ash (%)	2	2	0.2756	0.0062						
027.42	Magnesium, ICP, Open vessel (%)	2	2	0.2763	0.0119						
027.53	Magnesium, ICP-MS, Microwave (%)	1	1	0.3011							
027.99	Magnesium, Miscellaneous (%)	1	1	0.2800							
028.44	Manganese, ICP, Dry ash (ppm)	29	29	33.82	0.9751	33.87	0.8805	0.2044	2.60%	0.5477	9.41%
028.43	Manganese, ICP, Microwave (ppm)	29	28	34.29	1.369	34.18	1.106	0.2613	3.24%	0.9775	9.40%
028.41	Manganese, ICP, Dry ash (ppm)	4	4	34.54	1.295	34.54	1.295	0.6475	3.75%	1.478	9.39%
028.42	Manganese, ICP, Open vessel (ppm)	3	3	33.31	0.9190	33.31	0.9190	0.5306	2.76%	0.4835	9.44%
028.31	Manganese, AAS, Dry ash (ppm)	2	2	35.15	2.903						
028.53	Manganese, ICP-MS, Microwave (ppm)	2	2	116.5	110.6						
028.99	Manganese, Miscellaneous (ppm)	1	1	33.50							
031.44	Phosphorus, ICP, Dry ash (%)	30	30	0.6286	0.0220	0.6285	0.0194	0.0044	3.09%	0.0195	4.29%
031.43	Phosphorus, ICP, Microwave (%)	29	28	0.6509	0.0242	0.6485	0.0206	0.0049	3.17%	0.0100	4.27%
031.41	Phosphorus, ICP, Dry ash (%)	5	5	0.6613	0.0206	0.6613	0.0206	0.0092	3.12%	0.0216	4.26%
031.01	Phosphorus, Photometric (%)	4	4	0.6248	0.0354	0.6248	0.0354	0.0177	5.66%	0.0471	4.29%
031.42	Phosphorus, ICP, Open vessel (%)	2	2	0.6406	0.0232						
031.99	Phosphorus, Miscellaneous (%)	2	2	0.6625	0.1096						
031.03	Phosphorus, Autoanalyzer (%)	1	1	0.6470							
031.53	Phosphorus, ICP-MS, Microwave (%)	1	1	0.7299							
032.43	Potassium, ICP, Microwave (%)	29	29	2.207	0.0932	2.206	0.0851	0.0197	3.86%	0.0421	3.55%
032.44	Potassium, ICP, Dry ash (%)	29	28	2.171	0.0945	2.176	0.0853	0.0202	3.92%	0.0381	3.56%
032.41	Potassium, ICP, Dry ash (%)	5	5	2.212	0.0379	2.212	0.0379	0.0169	1.71%	0.0516	3.55%
032.42	Potassium, ICP, Open vessel (%)	2	2	2.169	0.1314						
032.53	Potassium, ICP-MS, Microwave (%)	2	2	7.543	7.260						
032.99	Potassium, Miscellaneous (%)	2	2	2.193	0.0743						
032.31	Potassium, AAS, Dry ash (%)	1	1	2.265							
033.01	Salt as chloride, Poten Cl (%)	4	3	0.0481	0.0188	0.0481	0.0188	0.0133	39.00%		6.31%
033.00	Salt as chloride, Sol Cl (%)	1	1	0.0029							
033.99	Salt, Miscellaneous (%)	1	1	0.0100							
034.53	Selenium, Total (Se), ICP-MS, Microwave (ppm)	2	2	0.0933	0.0223						

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034.43	Selenium, Total (Se), ICP, Microwave (ppm)	1		0.0000							
035.41	Sodium, ICP, Dry ash (%)	32	16	0.0109	0.0038	0.0100	0.0000	0.0000	0.00%	0.0005	8.00%
035.43	Sodium, ICP, Microwave (%)	12	9	0.0146	0.0082	0.0200	0.0000	0.0000	0.00%		7.21%
035.42	Sodium, ICP, Open vessel (%)	2	2	0.0095	0.0118						
035.53	Sodium, ICP-MS, Microwave (%)	2	2	0.0238	0.0335						
035.31	Sodium, AAS, Dry ash (%)	1	1	0.0105							
035.99	Sodium, Miscellaneous (%)	2	1	0.0100							
036.43	Sulfur, ICP, Microwave (%)	9	9	0.3789	0.0251	0.3781	0.0267	0.0111	7.07%	0.0081	4.63%
036.42	Sulfur, ICP, Open vessel (%)	4	4	0.3757	0.0032	0.3757	0.0032	0.0016	0.85%	0.0036	4.63%
036.04	Sulfur, LECO (%)	2	2	0.3485	0.0177						
036.99	Sulfur, Miscellaneous (%)	1	1	0.3400							
037.43	Zinc, ICP, Microwave (ppm)	31	29	54.67	3.100	54.89	2.303	0.5347	4.20%	0.8881	8.75%
037.44	Zinc, ICP, Dry ash (ppm)	27	27	55.44	2.002	55.54	1.973	0.4747	3.55%	1.415	8.74%
037.41	Zinc, ICP, Dry ash (ppm)	6	6	56.42	1.906	56.42	2.162	1.103	3.83%	1.797	8.72%
037.42	Zinc, ICP, Open vessel (ppm)	3	3	57.10	3.830	57.10	3.830	2.211	6.71%	1.118	8.70%
037.31	Zinc, AAS, Dry ash (ppm)	2	2	57.89	1.824						
037.53	Zinc, ICP-MS, Microwave (ppm)	1	1	56.58							
037.99	Zinc, Miscellaneous (ppm)	1	1	54.50							
038.43	Molybdenum, ICP, Microwave (ppm)	4	4	3.215	0.6015	3.215	0.6015	0.3007	18.71%	0.3319	13.42%
038.53	Molybdenum, ICP-MS, Microwave (ppm)	3	3	3.873	0.1813	3.873	0.1813	0.1047	4.68%	0.1854	13.05%
038.41	Molybdenum, ICP, Dry ash (ppm)	1	1	3.038							
040.53	Barium, ICP-MS, Microwave (ppm)	1	1	5.726							
041.53	Vanadium, ICP-MS, Microwave (ppm)	1	1	0.0777							
042.99	Chloride, Miscellaneous (%)	1	1	0.0300							
042.00	Chloride, Titrimetric (%)	1		0.0600							
101.99	Choline Chloride, Miscellaneous (ppm)	1	1	3,260							
102.01	Niacin, Microbiological (ppm)	1	1	24.85							
103.01	Pantothenic Acid, Microbiological (ppm)	1	1	10.80							
104.00	Riboflavin, Fluorometric (ppm)	1	1	2.755							
106.00	Vitamin A, Color (KU / kg)	1		0.3000							
106.03	#N/A	1		0.0000							
109.02	Vitamin E, LC (IU / kg)	1	1	3.325							
109.03	#N/A	1	1	2.330							
112.01	Pyridoxine, LC (µg / g)	1	1	4.960							
113.01	Folic Acid, Micro (ppm)	1	1	3.630							
120.05	Alanine, Pre-col AQC Der (%)	3	3	1.968	0.0980	1.968	0.0980	0.0566	4.98%	0.0680	3.61%
120.00	Alanine, Post-col Ninhydrin Der (%)	1	1	2.025							
120.02	Alanine, Post-col OPA Der (%)	1	1	2.010							
121.05	Arginine, Pre-col AQC Der (%)	3	3	3.432	0.2504	3.432	0.2504	0.1445	7.29%	0.0603	3.32%
121.00	Arginine, Post-col Ninhydrin Der (%)	1	1	3.280							

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121.02	Arginine, Post-col OPA Der (%)	1	1	3.390							
122.05	Aspartic, Pre-col AQC Der (%)	3	3	5.092	0.4109	5.092	0.4109	0.2372	8.07%	0.2647	3.13%
122.00	Aspartic, Post-col Ninhydrin Der (%)	1	1	5.350							
122.02	Aspartic, Post-col OPA Der (%)	1	1	5.265							
124.05	Cysteine/Cystine, PAO Pre-col AQC Der (%)	3	3	0.6678	0.1333	0.6678	0.1333	0.0770	19.96%	0.0177	4.25%
124.02	Cysteine/Cystine, PAO Post-col OPA Der (%)	2	2	0.6800	0.1061						
125.05	Glutamic, Pre-col AQC Der (%)	3	3	8.301	0.8379	8.301	0.8379	0.4838	10.09%	0.3863	2.91%
125.00	Glutamic, Post-col Ninhydrin Der (%)	1	1	8.495							
125.02	Glutamic, Post-col OPA Der (%)	1	1	8.105							
126.05	Glycine, Pre-col AQC Der (%)	3	3	1.974	0.1353	1.974	0.1353	0.0781	6.86%	0.0537	3.61%
126.00	Glycine, Post-col Ninhydrin Der (%)	1	1	1.985							
126.02	Glycine, Post-col OPA Der (%)	1	1	1.950							
127.05	Histidine, Pre-col AQC Der (%)	3	3	1.473	0.4780	1.473	0.4780	0.2760	32.44%	0.0497	3.77%
127.00	Histidine, Post-col Ninhydrin Der (%)	1	1	1.210							
127.02	Histidine, Post-col OPA Der (%)	1	1	1.210							
128.05	Isoleucine, Pre-col AQC Der (%)	3	3	2.145	0.0703	2.145	0.0703	0.0406	3.28%	0.0830	3.57%
128.00	Isoleucine, Post-col Ninhydrin Der (%)	1	1	2.160							
128.02	Isoleucine, Post-col OPA Der (%)	1	1	2.060							
129.05	Leucine, Pre-col AQC Der (%)	3	3	3.530	0.0108	3.530	0.0108	0.0062	0.30%	0.1023	3.31%
129.00	Leucine, Post-col Ninhydrin Der (%)	1	1	3.610							
129.02	Leucine, Post-col OPA Der (%)	1	1	3.505							
130.05	L-Lysine, Pre-col AQC Der (%)	3	3	2.887	0.1435	2.887	0.1435	0.0829	4.97%	0.2100	3.41%
130.00	L-Lysine, Post-col Ninhydrin Der (%)	1	1	2.880							
130.02	L-Lysine, Post-col OPA Der (%)	1	1	2.830							
131.05	Methionine, PAO Pre-col AQC Der (%)	3	3	0.6787	0.0743	0.6787	0.0743	0.0429	10.95%	0.0313	4.24%
131.02	Methionine, PAO Post-col OPA Der (%)	2	2	0.6500	0.0141						
132.05	Phenylalanine, Pre-col AQC Der (%)	3	3	2.435	0.1392	2.435	0.1392	0.0804	5.72%	0.0653	3.50%
132.00	Phenylalanine, Post-col Ninhydrin Der (%)	1	1	2.375							
132.02	Phenylalanine, Post-col OPA Der (%)	1	1	2.350							
133.05	Proline, Pre-col AQC Der (%)	3	3	2.328	0.0231	2.328	0.0231	0.0133	0.99%	0.0287	3.52%
133.00	Proline, Post-col Ninhydrin Der (%)	1	1	2.335							
133.99	Proline, Miscellaneous (%)	1	1	2.895							
134.05	Serine, Pre-col AQC Der (%)	3	3	2.390	0.0950	2.390	0.0950	0.0548	3.97%	0.0343	3.51%
134.00	Serine, Post-col Ninhydrin Der (%)	1	1	2.350							
134.02	Serine, Post-col OPA Der (%)	1	1	2.400							
135.05	Threonine, Pre-col AQC Der (%)	3	3	1.830	0.0720	1.830	0.0720	0.0416	3.94%	0.0437	3.65%
135.00	Threonine, Post-col Ninhydrin Der (%)	1	1	1.865							
135.02	Threonine, Post-col OPA Der (%)	1	1	1.850							
136.01	Tryptophan, Alka-Hydrol Rev Phase LC UV (%)	1	1	0.6900							
136.02	Tryptophan, Alka-Hydrol Post-col OPA De (%)	1	1	0.4850							

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136.05	Tryptophan, Pre-col AQC Der (%)	1	1	0.8375							
137.05	Tyrosine, Pre-col AQC Der (%)	3	3	1.598	0.1589	1.598	0.1589	0.0918	9.94%	0.0467	3.73%
137.00	Tyrosine, Post-col Ninhydrin Der (%)	1	1	1.470							
137.02	Tyrosine, Post-col OPA Der (%)	1	1	1.670							
138.05	Valine, Pre-col AQC Der (%)	3	3	2.203	0.0895	2.203	0.0895	0.0517	4.06%	0.0907	3.55%
138.00	Valine, Post-col Ninhydrin Der (%)	1	1	2.225							
138.02	Valine, Post-col OPA Der (%)	1	1	2.150							
139.02	Taurine, Post-col OPA Der (%)	1		0.0100							
400.01	Water Activity, Aqualab chilled mirror (Units)	7	7	0.6217	0.0161	0.6217	0.0183	0.0086	2.94%	0.0158	
400.99	Water Activity, Miscellaneous (Units)	4	3	0.6172	0.0105	0.6172	0.0105	0.0061	1.71%	0.0015	
516.53	Arsenic, Total (As), ICP-MS, Microwave (ppm)	2	2	0.0146	0.0006						
516.43	Arsenic, Total (As), ICP, Microwave (ppm)	1	1	0.0160							
518.43	Cadmium, ICP, Microwave (ppm)	2	2	0.0708	0.0471						
518.53	Cadmium, ICP-MS, Microwave (ppm)	2	2	0.0459	0.0016						
518.41	Cadmium, ICP, Dry ash (ppm)	1	1	0.0322							
520.43	Chromium, Total (Cr), ICP, Microwave (ppm)	3	3	0.7612	0.0656	0.7612	0.0656	0.0378	8.61%	0.0101	16.67%
520.41	Chromium, Total (Cr), ICP, Dry ash (ppm)	1	1	0.6159							
520.53	Chromium, Total (Cr), ICP-MS, Microwave (ppm)	1	1	0.6951							
526.43	Lead, ICP, Microwave (ppm)	2	2	0.1248	0.1503						
526.41	Lead, ICP, Dry ash (ppm)	1	1	0.1934							
526.53	Lead, ICP-MS, Microwave (ppm)	1	1	0.0140							
529.99	Mercury, Miscellaneous (ppb)	2	1	0.0010							
539.41	Nickel, ICP, Dry ash (ppm)	1	1	1.840							
539.43	Nickel, ICP, Microwave (ppm)	1	1	1.976							
539.53	Nickel, ICP-MS, Microwave (ppm)	1	1	1.974							

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
Association of American Feed Control Officials



Pet Food Ingredient Scheme
Soybean Meal
Test Material Code # 202641

Method Precision Report

Methods Reported: 42
Labs Reporting: 90
Issue Date : 03/31/2026

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 %rstd	Reproducibility %RSD	sR/sr
001.07	Loss on Drying, 104°C 3 hr, in malt (%)	56	52	11.53	0.2149	0.1514	0.1221	0.1945	1.31%	1.06%	1.69%	1.593
002.06	Protein, Crude, Combustion Nitrogen Analyzer (%)	77	70	46.60	0.3854	0.2518	0.2501	0.3549	0.54%	0.54%	0.76%	1.419
003.00	Fat, Crude, Diethyl Ether Ext., Direct (%)	10	9	1.256	0.2203	0.2171	0.0523	0.2233	17.62%	4.24%	18.12%	4.271
003.09	Fat, Crude, Randall, Diethyl Ether Ext (%)	10	9	1.579	0.7022	0.0807	0.0302	0.0862	5.94%	2.22%	6.35%	2.854
003.10	Fat, Crude, Randall, Pet Ether (%)	21	19	1.369	0.2546	0.2045	0.0634	0.2141	14.57%	4.52%	15.26%	3.376
003.14	Fat, Crude, Ankom (%)	17	16	1.700	0.2050	0.1963	0.0612	0.2056	11.66%	3.63%	12.21%	3.361
004.00	Fiber, Crude, Asbestos Free (%)	6	5	3.701	0.3870		0.1063			2.76%		
004.07	Fiber, Crude, ANKOM (%)	21	20	3.967	0.2980	0.2289	0.1199	0.2584	5.71%	2.99%	6.45%	2.156
005.00	Ash, 2h @ 600°C (%)	54	51	5.972	0.2182	0.2039	0.0893	0.2226	3.42%	1.50%	3.73%	2.494
005.03	Ash, Microwave furnace (%)	10	9	6.076	0.1875	0.0610	0.0933	0.1115	0.99%	1.52%	1.82%	1.194
005.05	Ash, 3h @ 550°C (%)	8	7	6.404	0.4549	0.4525	0.0664	0.4573	7.07%	1.04%	7.14%	6.884
008.08	Fiber, Acid Detergent, Filter Bag - ANKOM (%)	11	9	5.483	1.133	0.7195	0.3159	0.7858	13.84%	6.08%	15.12%	2.488
009.09	Fiber, Neutral Detergent, Filter Bag - ANKOM (%)	9	8	8.625	1.155	0.5139	0.3636	0.6295	6.20%	4.39%	7.60%	1.731
010.99	Moisture, Miscellaneous (%)	5	5	11.47	0.6141	0.6060	0.1410	0.6222	5.29%	1.23%	5.43%	4.412
011.01	Loss on Drying, HT, 135°C 2hr (%)	22	20	12.05	0.4292	0.3335	0.1625	0.3710	2.76%	1.34%	3.07%	2.283
013.00	Fat, Pretreat, Acid hydrolysis (%)	10	9	2.792	0.2408	0.0994	0.0962	0.1384	3.65%	3.53%	5.08%	1.438
013.02	Fat, Pretreat, Mojonner, Bak Ext, Acid hydrolysis (%)	14	13	3.489	0.4117	0.2897	0.1579	0.3299	8.49%	4.63%	9.67%	2.090
019.41	Calcium, ICP, Dry ash (%)	5	5	0.2536	0.0116	0.0110	0.0052	0.0122	4.34%	2.07%	4.80%	2.326
019.43	Calcium, ICP, Microwave (%)	26	23	0.2462	0.0105	0.0073	0.0045	0.0086	3.01%	1.86%	3.53%	1.901
019.44	Calcium, ICP, Dry ash (%)	30	28	0.2484	0.0087	0.0072	0.0056	0.0091	2.89%	2.25%	3.66%	1.631
022.43	Copper, ICP, Microwave (ppm)	28	26	13.02	1.365	0.5623	0.3018	0.6381	4.24%	2.28%	4.82%	2.115
022.44	Copper, ICP, Dry ash (ppm)	28	27	11.94	0.9042	0.6253	0.5095	0.8066	5.19%	4.23%	6.69%	1.583
025.41	Iron, ICP, Dry ash (ppm)	5	5	115.1	6.499	5.519	4.854	7.350	4.79%	4.22%	6.38%	1.514
025.43	Iron, ICP, Microwave (ppm)	14	12	111.1	8.025	7.086	2.702	7.584	6.44%	2.46%	6.89%	2.806
027.41	Magnesium, ICP, Dry ash (%)	5	5	0.2797	0.0046	0.0034	0.0044	0.0056	1.23%	1.58%	2.00%	1.266
027.43	Magnesium, ICP, Microwave (%)	28	25	0.2733	0.0125	0.0109	0.0038	0.0115	4.00%	1.41%	4.24%	3.002
027.44	Magnesium, ICP, Dry ash (%)	29	26	0.2728	0.0122	0.0104	0.0043	0.0112	3.78%	1.57%	4.10%	2.603
028.43	Manganese, ICP, Microwave (ppm)	29	27	34.29	1.369	1.009	0.8508	1.320	2.96%	2.49%	3.87%	1.551

Test Material Code # 202641

Issue Date : 03/31/2026

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
028.44	Manganese, ICP, Dry ash (ppm)	29	26	33.82	0.9751	0.6938	0.5473	0.8837	2.05%	1.62%	2.61%	1.615
031.41	Phosphorus, ICP, Dry ash (%)	5	5	0.6613	0.0206	0.0186	0.0125	0.0225	2.82%	1.89%	3.39%	1.793
031.43	Phosphorus, ICP, Microwave (%)	29	26	0.6509	0.0242	0.0204	0.0077	0.0218	3.15%	1.19%	3.36%	2.833
031.44	Phosphorus, ICP, Dry ash (%)	30	28	0.6286	0.0220	0.0160	0.0125	0.0203	2.56%	1.99%	3.25%	1.628
032.41	Potassium, ICP, Dry ash (%)	5	5	2.212	0.0379	0.0252	0.0400	0.0473	1.14%	1.81%	2.14%	1.182
032.43	Potassium, ICP, Microwave (%)	29	26	2.207	0.0932	0.0815	0.0341	0.0884	3.71%	1.55%	4.02%	2.592
032.44	Potassium, ICP, Dry ash (%)	29	27	2.171	0.0945	0.0792	0.0340	0.0862	3.63%	1.56%	3.95%	2.532
035.41	Sodium, ICP, Dry ash (%)	32	15	0.0109	0.0038	0.0000	0.0000	0.0000	0.00%	0.00%	0.00%	
035.43	Sodium, ICP, Microwave (%)	12	8	0.0146	0.0082	0.0075	0.0001	0.0075	47.24%	0.57%	47.25%	83.57
036.43	Sulfur, ICP, Microwave (%)	9	8	0.3789	0.0251	0.0261	0.0056	0.0267	6.85%	1.48%	7.01%	4.742
037.41	Zinc, ICP, Dry ash (ppm)	6	6	56.42	1.906	1.643	1.368	2.138	2.91%	2.42%	3.79%	1.563
037.43	Zinc, ICP, Microwave (ppm)	31	27	54.67	3.100	2.068	0.9551	2.278	3.76%	1.74%	4.14%	2.385
037.44	Zinc, ICP, Dry ash (ppm)	27	26	55.44	2.002	1.712	1.196	2.088	3.10%	2.16%	3.78%	1.747
400.01	Water Activity, Aqualab chilled mirror (Units)	7	7	0.6217	0.0161	0.0127	0.0141	0.0190	2.04%	2.27%	3.05%	1.343

Notes: Precision Calculations provided for methods with 5 or more labs contributing to calculations.