



AAFCO
Proficiency Testing Program



Animal Feed Scheme

Analyte Summary Report

Analytes Reported: 103

Fish Meal

Labs Reporting: 195

Test Material Code # 201726

Issue Date : 07/31/2017

Analyte Group Code	Analyte and Method	Total # Tests Submitted	# Tests 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
000	Urea (%)	1	1	0.75000							
001	Loss on Drying (%)	85	83	6.5960	0.57053	6.6664	0.28768	0.03947	4.32%	0.08888	3.01%
002	Protein (%)	197	191	61.117	1.2949	61.199	0.96537	0.08731	1.58%	0.44628	1.28%
003	Fat (%)	136	132	9.3257	0.58467	9.3227	0.38511	0.04190	4.13%	0.15136	2.86%
004	Fiber (%)	99	93	0.63540	0.45557	0.58918	0.40415	0.05239	68.60%	0.10709	4.33%
005	Ash (%)	149	147	21.570	0.48520	21.538	0.28264	0.02914	1.31%	0.22226	2.15%
006	Total sugars (%)	2	1	2.2865							
008	Fiber (%)	29	27	2.2107	1.6154	2.0188	1.3139	0.31607	65.08%	0.25036	3.60%
009	Fiber (%)	30	27	15.621	7.3611	15.497	6.7604	1.6263	43.62%	0.57799	2.54%
010	Moisture (%)	30	28	6.8210	0.42754	6.7853	0.35504	0.08387	5.23%	0.06359	3.00%
011	Loss on Drying (%)	69	68	7.4779	0.51036	7.4848	0.41620	0.06309	5.56%	0.12060	2.95%
012	Starch (%)	13	7	0.47571	0.70354	0.26231	0.19592	0.09256	74.69%	0.06000	4.89%
013	Fat (%)	59	59	10.791	1.1060	10.925	0.93144	0.15158	8.53%	0.30515	2.79%
015	Aluminum (mg / kg (ppm))	13	13	464.49	146.33	477.42	132.59	45.968	27.77%	24.257	6.32%
017	Boron (mg / kg (ppm))	13	11	2.5470	0.99004	2.4668	0.91929	0.34647	37.27%	0.18400	13.96%
019	Calcium (%)	144	141	6.3348	0.60659	6.3749	0.37284	0.03925	5.85%	0.16186	3.03%
021	Cobalt (mg / kg (ppm))	19	18	0.33137	0.31922	0.26535	0.17013	0.05012	64.12%	0.03146	19.53%
022	Copper (mg / kg (ppm))	86	82	5.1815	1.5203	5.0011	1.2045	0.16627	24.08%	0.39018	12.56%
023	Fluorine (mg / kg (ppm))	2	2	89.075	39.138						
024	Iodine (mg / kg (ppm))	2	2	5.0750	6.2579						
025	Iron (mg / kg (ppm))	92	92	497.70	65.448	498.06	52.081	6.7873	10.46%	21.144	6.28%
027	Magnesium (%)	105	103	0.19197	0.01800	0.19201	0.01317	0.00162	6.86%	0.00613	5.13%
028	Manganese (mg / kg (ppm))	93	91	37.995	4.5869	37.950	3.4463	0.45158	9.08%	1.2548	9.25%
031	Phosphorus (%)	139	135	3.5479	0.28989	3.5738	0.20198	0.02173	5.65%	0.08434	3.30%
032	Potassium (%)	101	98	0.79957	0.09106	0.79680	0.05803	0.00733	7.28%	0.01551	4.14%
033	Salt as chloride (%)	56	54	0.92488	0.16572	0.92748	0.07578	0.01289	8.17%	0.02261	4.05%
034	Selenium (mg / kg (ppm))	21	20	1.5307	0.40024	1.5679	0.26398	0.07378	16.84%	0.12521	14.95%
035	Sodium (%)	101	98	0.63641	0.05887	0.63887	0.04366	0.00551	6.83%	0.01428	4.28%
036	Sulfur (%)	35	35	0.71073	0.05653	0.70551	0.04745	0.01003	6.73%	0.01977	4.22%
037	Zinc (mg / kg (ppm))	98	97	116.07	12.800	115.80	11.440	1.4519	9.88%	4.4855	7.82%

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038	Molybdenum (mg / kg (ppm))	12	9	0.29853	0.28735	0.25159	0.21146	0.08811	84.05%	0.01630	19.69%
040	Barium (mg / kg (ppm))	3	3	6.8754	0.12544	6.8754	0.12544	0.07242	1.82%	0.60087	11.97%
041	Vanadium (mg / kg (ppm))	1	1	2.1600							
042	Chloride (%)	3	3	0.55000	0.06083	0.55000	0.06083	0.03512	11.06%	0.01333	4.38%
101	Choline Chloride (mg / kg (ppm))	4	4	1,308.6	984.09	1,308.6	984.09	492.05	75.20%	77.493	5.43%
102	Niacin (mg / kg (ppm))	2	2	37.125	36.946						
103	Pantothenic Acid (mg / kg (ppm))	2	2	15.788	13.552						
104	Riboflavin (mg / kg (ppm))	2	2	3.2825	1.8067						
105	Thiamine (mg / kg (ppm))	1	1	0.18750							
106	Vitamin A (KU / kg)	8	6	21.071	5.2666	21.071	5.9723	3.0477	28.34%	0.88167	
107	Vitamin B12 (µg / kg (ppb))	1	1	137.00							
108	Vitamin D3 (KU / kg)	1		0.00000							
109	Vitamin E (IU/kg)	5	3	13.650	6.5103	13.650	6.5103	3.7587	47.69%	0.96000	
111	Vitamin C, phosphorylated (mg / kg (ppm))	1	1	2,671.5							
112	Pyridoxine (µg / g)	1	1	1.4050							
113	Folic Acid (mg / kg (ppm))	1	1	1.2650							
114	Biotin (mg / kg (ppm))	1	1	0.26550							
120	Alanine (%)	25	24	4.0777	0.34461	4.1293	0.15618	0.03985	3.78%	0.05423	3.23%
121	Arginine (%)	25	25	3.7661	0.44617	3.8205	0.21342	0.05335	5.59%	0.06135	3.27%
122	Aspartic (%)	25	24	5.1558	0.27381	5.1361	0.24739	0.06312	4.82%	0.10712	3.13%
124	Cysteine/Cystine (%)	26	26	0.50432	0.32755	0.42169	0.05513	0.01352	13.07%	0.01484	4.55%
125	Glutamic (%)	25	24	7.5640	0.31950	7.5589	0.34835	0.08888	4.61%	0.13546	2.95%
126	Glycine (%)	25	25	6.0648	0.67957	6.1282	0.32351	0.08088	5.28%	0.11140	3.04%
127	Histidine (%)	24	23	1.1774	0.08892	1.1762	0.07827	0.02040	6.65%	0.01554	3.90%
128	Isoleucine (%)	24	23	2.1575	0.11168	2.1568	0.11105	0.02894	5.15%	0.05938	3.56%
129	Leucine (%)	24	24	3.7242	0.44245	3.7822	0.21790	0.05560	5.76%	0.07998	3.27%
130	L-Lysine (%)	29	29	4.0730	0.42211	4.1035	0.30265	0.07025	7.38%	0.08262	3.23%
131	Methionine (%)	29	29	1.5234	0.32444	1.4940	0.11338	0.02632	7.59%	0.03308	3.77%
132	Phenylalanine (%)	24	22	2.1500	0.11736	2.1481	0.11769	0.03136	5.48%	0.03437	3.56%
133	Proline (%)	24	23	3.4684	0.39571	3.5288	0.22404	0.05840	6.35%	0.05771	3.31%
134	Serine (%)	24	24	2.3561	0.27692	2.3828	0.15046	0.03839	6.31%	0.04845	3.51%
135	Threonine (%)	28	28	2.3102	0.35761	2.3677	0.16101	0.03803	6.80%	0.06273	3.51%
136	Tryptophan (%)	14	14	0.48166	0.04686	0.48077	0.05120	0.01710	10.65%	0.01231	4.47%
137	Tyrosine (%)	22	22	1.5737	0.24375	1.6095	0.14514	0.03868	9.02%	0.04649	3.72%
138	Valine (%)	25	25	2.6186	0.60298	2.5843	0.18483	0.04621	7.15%	0.06214	3.47%
139	Taurine (%)	4	4	0.39863	0.09334	0.39863	0.09334	0.04667	23.42%	0.01425	4.59%
357	Ethoxyquin (mg/kg (ppm))	10	9	36.005	11.041	34.905	9.7982	4.0826	28.07%	1.6751	9.37%
400	Water activity (Units)	9	9	0.51882	0.02705	0.51998	0.02799	0.01166	5.38%	0.00350	

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412	#N/A	1	1	0.15000							
516	Arsenic, total (mg / kg (ppm))	9	8	2.1001	0.73980	2.2825	0.26982	0.11924	11.82%	0.04761	14.13%
518	Cadmium (mg / kg (ppm))	11	11	0.42319	0.09505	0.44087	0.05523	0.02082	12.53%	0.02545	18.10%
520	Chromium (mg / kg (ppm))	12	12	1.8355	0.48549	1.8355	0.55054	0.19866	29.99%	0.39711	14.60%
526	Lead (mg / kg (ppm))	9	8	0.60996	0.19771	0.65750	0.09015	0.03984	13.71%	0.02725	17.04%
529	Mercury (µg / kg (ppb))	3	2	37.250	0.35355	37.250	0.35355	0.25000	0.95%	6.4000	22.00%
539	Nickel (mg / kg (ppm))	4	4	1.1628	0.20383	1.1628	0.20383	0.10192	17.53%	0.46053	15.64%
702	Butyric Acid (4:0) (%)	1	1	0.77475							
703	Valeric Acid (5:0) (%)	1	1	1.2706							
710	Lauric Acid (12:0) (%) (w/w)	3	3	0.02700	0.03291	0.02700	0.03291	0.01900	121.89%	0.00400	
714	Myristic Acid (14:0) (%) (w/w)	2	2	2.0460	2.4098						
716	Palmitic Acid (16:0) (%) (w/w)	2	2	10.645	12.601						
718	Palmitoleic Acid (9c-16:1) (%) (w/w)	4	4	2.1554	2.3063	2.1554	2.3063	1.1532	107.00%	0.00675	
720	Margaric acid (17:0) (%) (w/w)	1	1	0.64000							
722	Stearic Acid (18:0) (%) (w/w)	3	3	1.8878	2.8175	1.8878	2.8175	1.6267	149.25%	0.02300	
724	Oleic Acid (9c-18:1) (%) (w/w)	3	3	11.080	17.064	11.080	17.064	9.8519	154.01%	0.10667	
726	Linoleic Acid (9c,12c-18:2) (%) (w/w)	4	4	3.4493	3.6637	3.4493	3.6637	1.8319	106.22%	0.04250	
728	alpha-Linolenic Acid (9c,12c,15c-18:3) (%) (w/w)	4	4	0.08425	0.04625	0.08425	0.04625	0.02313	54.90%	0.00350	
730	Arachidic Acid (20:0) (%) (w/w)	3	3	0.09600	0.11605	0.09600	0.11605	0.06700	120.89%	0.00533	
732	Gondoic Acid (11c-20:1) (%) (w/w)	1	1	0.10650							
736	Arachidonic Acid (5c,8c,11c,14c-20:4) (%) (w/w)	3	3	0.34567	0.46388	0.34567	0.46388	0.26782	134.20%	0.00400	
738	Mead Acid (11c,14c,17c-20:3) (%) (w/w)	1	1	0.01000							
740	Eicosapentaenoic Acid EPA (5c,8c,11c,14c,17c-20:5) (%) (w/w)	7	7	0.99757	1.4871	0.47135	0.14007	0.06618	29.72%	0.03057	
742	Behenic Acid (22:0) (%) (w/w)	3	3	0.06767	0.05888	0.06767	0.05888	0.03399	87.01%	0.00733	
744	Erucic Acid (13c-22:1) (%) (w/w)	3	3	0.09567	0.07659	0.09567	0.07659	0.04422	80.06%	0.00067	
746	Docosapentaenoic Acid n-3 DPA (DHA)7c,10c,13c,16c,19c-22:5) (%) (w/w)	6	6	0.40317	0.35263	0.40317	0.39988	0.20406	99.19%	0.00433	
748	Lignoceric Acid (24:0) (%) (w/w)	3	3	0.07000	0.08660	0.07000	0.08660	0.05000	123.71%	0.00467	
750	Docosahexaenoic Acid DHA (4c,7c,10c,13c,16c,19c,22:6) (%) (w/w)	7	7	1.1586	1.6063	0.59284	0.16136	0.07624	27.22%	0.04257	
752	Nervonic Acid (24:1) isomers (%) (w/w)	2	2	0.08375	0.03712						
754	Total n-3 Polyunsaturated (Omega-3) Fatty Acids (%) (w/w)	6	6	1.3183	0.18635	1.3183	0.21132	0.10784	16.03%	0.03667	
756	Total n-6 Polyunsaturated (Omega-6) Fatty Acids (%) (w/w)	4	4	1.0413	0.26263	1.0413	0.26263	0.13132	25.22%	0.03750	
758	Total Saturated Fatty Acids (%) (w/w)	3	3	2.1467	0.71092	2.1467	0.71092	0.41045	33.12%	0.18667	
762	Total Monounsaturated Fatty Acids (%) (w/w)	3	3	3.6250	1.0220	3.6250	1.0220	0.59005	28.19%	0.04333	
766	Total Polyunsaturated Fatty Acids (%) (w/w)	3	3	2.8717	1.8812	2.8717	1.8812	1.0861	65.51%	0.27667	
772	Total Fatty Acids (%) (w/w)	2	2	7.4935	0.10394						

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.

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