



**AAFCO**  
Proficiency Testing Program



**Animal Feed Scheme**  
**Catfish Feed**  
**Test Material Code # 201928**

**Analyte Summary Report**

**# Labs Reporting: 191**  
**# Analytes Reported: 109**  
**Issue Date : 09/30/2019**

Analyte Group Code	Analyte and Method	Total # Tests Submitted	# Tests 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
000	Urea (%)	1	1	0.2000							
001	Loss on Drying (%)	77	75	7.394	0.4395	7.456	0.2774	0.0400	3.72%	0.0990	2.96%
002	Protein, Crude (%)	194	189	32.89	0.5190	32.87	0.3304	0.0300	1.01%	0.1756	1.74%
003	Fat, Crude (%)	145	142	4.172	0.5098	4.101	0.2663	0.0279	6.49%	0.1021	3.23%
004	Fiber, Crude (%)	101	101	6.943	0.9119	6.942	0.7246	0.0901	10.44%	0.2046	2.99%
005	Ash (%)	145	141	6.265	0.3748	6.254	0.0953	0.0100	1.52%	0.0520	3.04%
006	Total Sugars (%)	4	4	6.330	1.627	6.330	1.627	0.8134	25.70%	0.3165	3.03%
008	Fiber, Acid Detergent (%)	48	47	10.24	1.051	10.16	0.9709	0.1770	9.55%	0.3842	2.82%
009	Fiber, Neutral Detergent (%)	49	48	22.85	2.530	22.60	2.178	0.3929	9.64%	0.5478	2.10%
010	Moisture (%)	23	22	7.911	0.8459	7.860	0.8026	0.2139	10.21%	0.1058	2.93%
011	Loss on Drying (%)	70	69	8.302	0.3680	8.307	0.3513	0.0529	4.23%	0.0856	2.91%
012	Starch (%)	37	36	11.77	1.824	11.85	1.778	0.3705	15.01%	0.2245	2.76%
013	Fat, Acid Pretreat (%)	58	57	6.547	1.183	6.664	0.8099	0.1341	12.15%	0.1818	3.01%
015	Aluminum (mg / kg (ppm))	15	14	150.7	18.95	152.7	15.94	5.324	10.44%	4.284	7.51%
017	Boron (mg / kg (ppm))	17	16	17.65	2.403	17.69	2.630	0.8220	14.87%	0.4695	10.38%
019	Calcium (%)	121	117	0.4289	0.0709	0.4205	0.0334	0.0039	7.95%	0.0124	4.56%
021	Cobalt (mg / kg (ppm))	23	22	0.9482	0.4470	0.9556	0.4906	0.1307	51.34%	0.0759	16.11%
022	Copper (mg / kg (ppm))	93	89	13.27	2.194	13.14	1.263	0.1674	9.61%	0.6443	10.86%
024	Iodine (mg / kg (ppm))	1	1	0.3500							
025	Iron (mg / kg (ppm))	86	84	264.6	67.32	257.0	28.41	3.875	11.05%	8.912	6.94%
027	Magnesium (%)	77	73	0.3803	0.0219	0.3805	0.0207	0.0030	5.44%	0.0059	4.63%
028	Manganese (mg / kg (ppm))	89	87	76.15	6.321	76.44	5.524	0.7403	7.23%	1.981	8.33%
031	Phosphorus (%)	116	115	1.083	0.0771	1.086	0.0478	0.0056	4.40%	0.0229	3.95%
032	Potassium (%)	82	80	1.462	0.1065	1.464	0.0771	0.0108	5.27%	0.0341	3.78%
033	Salt as chloride (%)	46	42	0.1431	0.0480	0.1356	0.0318	0.0061	23.46%	0.0064	5.40%
034	Selenium (mg / kg (ppm))	22	21	0.4774	0.3024	0.3988	0.1028	0.0280	25.77%	0.0790	18.37%
035	Sodium (%)	90	88	0.1300	0.1324	0.1071	0.0122	0.0016	11.43%	0.0044	5.60%
036	Sulfur (%)	39	38	0.3609	0.0445	0.3654	0.0275	0.0056	7.53%	0.0085	4.65%
037	Zinc (mg / kg (ppm))	99	97	102.7	14.26	101.2	8.208	1.042	8.11%	4.250	7.98%
038	Molybdenum (mg / kg (ppm))	18	17	1.799	0.2478	1.771	0.2107	0.0639	11.89%	0.1161	14.68%

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040	Barium (mg / kg (ppm))	2	2	15.07	1.262						
041	Vanadium (mg / kg (ppm))	1	1	1.230							
042	Chloride (%)	1	1	0.0790							
102	Niacin (mg / kg (ppm))	1	1	111.5							
103	Pantothenic Acid (mg / kg (ppm))	1	1	13.25							
104	Riboflavin (mg / kg (ppm))	4	4	3.004	1.234	3.004	1.234	0.6168	41.07%	0.2425	13.56%
105	Thiamine (mg / kg (ppm))	4	4	6.039	2.178	6.039	2.178	1.089	36.06%	0.4625	12.20%
106	Vitamin A (KU / kg)	11	6	1.226	1.610	0.7876	0.6831	0.3486	86.73%	0.2725	
107	Vitamin B12 (µg / kg (ppb))	1		0.0040							
108	Vitamin D3 (KU / kg)	4	3	1.618	1.640	1.618	1.640	0.9469	101.35%	0.0943	
109	Vitamin E (IU / kg)	14	12	28.32	13.14	24.77	6.297	2.272	25.42%	2.011	
112	Pyridoxine (µg / g)	2	2	3.548	2.047						
114	Biotin (mg / kg (ppm))	1	1	296.8							
118	Peroxide value (meq/kg)	1	1	4.000							
120	Alanine (%)	31	30	1.489	0.0800	1.494	0.0716	0.0163	4.79%	0.0240	3.77%
121	Arginine (%)	30	29	2.564	0.2517	2.595	0.1146	0.0266	4.42%	0.0384	3.46%
122	Aspartic (%)	31	30	3.089	0.2712	3.136	0.1206	0.0275	3.84%	0.0474	3.37%
124	Cysteine/Cystine (%)	30	29	0.4918	0.0750	0.5001	0.0434	0.0101	8.68%	0.0146	4.44%
125	Glutamic (%)	31	30	5.875	0.3911	5.922	0.2759	0.0630	4.66%	0.1052	3.06%
126	Glycine (%)	31	30	1.592	0.2399	1.613	0.0874	0.0200	5.42%	0.0240	3.72%
127	Histidine (%)	31	31	0.7936	0.0964	0.8035	0.0564	0.0127	7.02%	0.0217	4.13%
128	Isoleucine (%)	31	30	1.165	0.1090	1.176	0.0796	0.0182	6.77%	0.0281	3.90%
129	Leucine (%)	31	30	2.304	0.1531	2.328	0.0621	0.0142	2.67%	0.0345	3.52%
130	L-Lysine (%)	33	32	1.442	0.1120	1.443	0.0761	0.0168	5.27%	0.0233	3.78%
131	Methionine (%)	33	32	0.4398	0.0758	0.4494	0.0399	0.0088	8.87%	0.0163	4.51%
132	Phenylalanine (%)	31	30	1.539	0.1350	1.540	0.0902	0.0206	5.86%	0.0297	3.75%
133	Proline (%)	30	29	1.797	0.3450	1.756	0.1771	0.0411	10.08%	0.0393	3.67%
134	Serine (%)	31	30	1.530	0.1156	1.532	0.1023	0.0233	6.68%	0.0373	3.75%
135	Threonine (%)	31	29	1.101	0.0704	1.103	0.0558	0.0130	5.06%	0.0180	3.94%
136	Tryptophan (%)	20	19	0.4127	0.0795	0.3995	0.0546	0.0156	13.66%	0.0078	4.59%
137	Tyrosine (%)	26	25	1.010	0.1601	1.009	0.1509	0.0377	14.95%	0.0285	3.99%
138	Valine (%)	31	30	1.421	0.1348	1.435	0.1044	0.0238	7.28%	0.0314	3.79%
139	Taurine (%)	5	3	0.0913	0.0380	0.0913	0.0380	0.0220	41.63%	0.0067	5.73%
162	Glucose (%)	1		0.1500							
163	Lactose (%)	1		0.1500							
164	Maltose (%)	1		0.1500							
165	Sucrose (%)	1	1	3.600							
166	Raffinose (%)	1	1	1.035							
167	Stachyose (%)	1	1	1.385							
373	Oxytetracycline (mg/kg (ppm))	3	2	1.378	0.8659	1.378	0.8659	0.6122	62.84%	0.2375	15.24%

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393	Ractopamine Hydrochloride (mg/kg (ppm))	4	2	2.802	3.936	2.802	3.936	2.783	140.48%	0.0555	13.70%
400	Water Activity (Units)	10	10	0.5082	0.0462	0.5108	0.0337	0.0133	6.60%	0.0028	
412	Starch, Dietary (%)	1	1	10.50							
516	Arsenic, Total (mg / kg (ppm))	9	8	0.1284	0.0173	0.1284	0.0196	0.0087	15.28%	0.0168	21.79%
518	Cadmium (mg / kg (ppm))	12	11	0.1765	0.0770	0.1563	0.0175	0.0066	11.21%	0.0080	21.15%
520	Chromium (mg / kg (ppm))	12	11	3.167	0.8255	3.167	0.9361	0.3528	29.55%	0.1608	13.45%
526	Lead (mg / kg (ppm))	9	8	0.1590	0.1393	0.1276	0.0707	0.0312	55.40%	0.0152	21.81%
529	Mercury (µg / kg (ppb))	3	1								
539	Nickel (mg / kg (ppm))	6	6	3.424	0.2567	3.375	0.1688	0.0862	5.00%	0.2099	13.32%
702	Butyric Acid (4:0) (%)	1		0.0000							
704	Caproic Acid (6:0) (%)	1		0.0000							
706	Caprylic acid (8:0) (%) (w/w)	1		0.0000							
708	Capric acid (10:0) (%) (w/w)	1		0.0000							
710	Lauric Acid (12:0) (%) (w/w)	4	1								
714	Myristic Acid (14:0) (%) (w/w)	3	3	0.0310	0.0057	0.0310	0.0057	0.0033	18.32%	0.0040	
716	Palmitic Acid (16:0) (%) (w/w)	3	3	0.9353	0.1166	0.9353	0.1166	0.0673	12.47%	0.0287	
718	Palmitoleic Acid (9c-16:1) (%) (w/w)	4	4	0.0586	0.0122	0.0586	0.0122	0.0061	20.88%	0.0038	
722	Stearic Acid (18:0) (%) (w/w)	3	3	0.1812	0.0266	0.1812	0.0266	0.0154	14.70%	0.0090	
724	Oleic Acid (9c-18:1) (%) (w/w)	3	3	1.472	0.2809	1.472	0.2809	0.1622	19.08%	0.0547	
726	Linoleic Acid (9c,12c-18:2) (%) (w/w)	5	5	2.032	0.2645	2.032	0.2645	0.1183	13.02%	0.0178	
728	alpha-Linolenic Acid (9c,12c,15c-18:3) (%) (w/w)	4	4	0.1303	0.0146	0.1303	0.0146	0.0073	11.24%	0.0010	
730	Arachidic Acid (20:0) (%) (w/w)	3	2	0.0245	0.0149	0.0245	0.0149	0.0105	60.61%	0.0010	
732	Gondoic Acid (11c-20:1) (%) (w/w)	3	3	0.0453	0.0057	0.0453	0.0057	0.0033	12.55%	0.0000	
736	Arachidonic Acid (5c,8c,11c,14c-20:4) (%) (w/w)	2	1	0.0100							
738	Mead Acid (11c,14c,17c-20:3) (%) (w/w)	1	1	0.0325							
740	Eicosapentaenoic Acid EPA (5c,8c,11c,14c,17c-20:5) (%) (w/w)	3	2	0.0053	0.0004	0.0053	0.0004	0.0002	6.67%	0.0005	
742	Behenic Acid (22:0) (%) (w/w)	2	2	0.0233	0.0025						
744	Erucic Acid (13c-22:1) (%) (w/w)	2		0.0000							
746	Docosapentaenoic Acid n-3 DPA (7c,10c,13c,16c,19c-22:5) (%) (w/w)	3	1								
748	Lignoceric Acid (24:0) (%) (w/w)	1	1	0.0115							
750	Docosahexaenoic Acid DHA (4c,7c,10c,13c,16c,19c-22:6) (%) (w/w)	3	2	0.0100	0.0000	0.0100	0.0000	0.0000	0.00%	0.0010	
752	Nervonic Acid (24:1) isomers (%) (w/w)	2		0.0000							
754	Total n-3 Polyunsaturated (Omega-3) Fatty Acids (%) (w/w)	3	3	0.1638	0.0107	0.1638	0.0107	0.0062	6.52%	0.0003	
756	Total n-6 Polyunsaturated (Omega-6) Fatty Acids (%) (w/w)	3	3	2.230	0.1776	2.230	0.1776	0.1025	7.96%	0.0133	
758	Total Saturated Fatty Acids (%) (w/w)	1	1	1.405							
762	Total Monounsaturated Fatty Acids (%) (w/w)	1	1	1.880							
766	Total Polyunsaturated Fatty Acids (%) (w/w)	1	1	2.420							
770	Total Fat (equivalent to NLEA) (%) (w/w)	1	1	6.000							
772	Total Fatty Acids (%) (w/w)	2	2	5.209	0.7513						

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.

**Test Material Code # 201928**

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