

*The
Connecticut
Agricultural
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**Analysis of
Animal Feed
Products Sold in
Connecticut 2008**

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INTRODUCTION

In the State of Connecticut The Agricultural Commodities Division of The Department of Agriculture is responsible for the regulation and inspection of animal feeding products and pet foods. These products are delivered to The Department of Analytical Chemistry at The Connecticut Agricultural Experiment Station for analysis to ensure label compliance (1).

METHODS

From January 1, 2008 through December 31, 2008, The Department of Analytical Chemistry at The Connecticut Agricultural Experiment Station analyzed 119 animal feeding products for sale in Connecticut. These products were collected by The Department of Agriculture and delivered to the Department of Analytical Chemistry by Agricultural Commodities Inspectors John Schneider and Wayne Nelson. The products were collected at manufacturing facilities and wholesale dealers from bulk storage/delivery, as well as from retail stores in bags, boxes, and cans. The animal feeding products, along with their manufacturer/dealer, can be found in Table 1.

After delivery to The Connecticut Agricultural Experiment Station the animal feeding products were sub sampled and prepared for analysis. The samples were analyzed for protein, fat, fiber, ash, and moisture using methods described in Official Methods of Analysis (2). Micronutrients were determined using ICP-OES (Inductively Coupled Plasma-Optical Emission Spectroscopy, Thermo Jarell Ash Atom Scan 16, Franklin MA). The animal feed products were analyzed by Mamie Pyles and John Ranciato under the supervision of Craig Musante.

RESULTS AND DISCUSSION

Animal feed products are reported to be unsatisfactory if the amount of a guaranteed substance is found to differ from the label guarantee according to the percent analytical

variation guidelines as established by the Association of the American Feed Control Officials (AAFCO) (3).

The number of samples deemed unsatisfactory in one or more macronutrients was 25 (21%). Specifically 6 (5%) were deficient in protein; 9 (7.6%) were deficient in fat; 7 (5.9%) contained an excess of fiber; and 3 (2.5%) contained an excess of ash. Table 1. shows the results for the analysis of macronutrients, where the label guaranteed nutrient value is denoted as (%G) and the laboratory determined nutrient value is denoted as (%F). Deficiencies and excesses of a guaranteed nutrient are expressed as a minus (-) sign or a plus (+) sign next to the laboratory determined value (%F).

Table 2. contains the results for micronutrients following the nomenclature found in Table 1. Micronutrient values are expressed as percent unless otherwise noted. Of the 44 samples analyzed for micronutrients, 3 (6.8%) were found to be unsatisfactory in one or more guaranteed nutrient value.

When the laboratory determined value of a nutrient is found to be unsatisfactory that sample is always reanalyzed. Table 3. contains the results (average and standard deviation) for samples found to be unsatisfactory. The number of reanalyzes of an unsatisfactory sample ranges from a minimum of two up to six replicates.

Eleven samples of animal feed were analyzed for melamine, its analogs and related compounds. None of the samples exceeded the 2.5 ug/g action level for melamine (and analogs) in foods, as set by the FDA.

REFERENCES

1. The Connecticut Department of Agriculture; Agricultural Commodities Division, <http://www.ct.gov/doag/site/default.asp>.

2. Official Methods of Analysis. 1980 13th edition, W. Horowitz, ed. Association of Official Analytical Chemists, Washington, D.C.

3. 2003 Official Publication Association of American Feed Control Officials; 2003, <http://www.aafco.org>.

Table 1. Results of Analysis of Animal Feed Products for Macronutrients									
Manufacturer	Sample Description	Protein %G %F	Fat %G %F	Fiber %G %F	Moisture %G %F	Ash %G %F			
ADI PET, Inc.									
	Waggin Train Chicken Jerky Tenders	70 96.1	1 3.8	0.3 0.1	14 6.4				
Albertson's Inc.									
	Happy Tails Complete Nutrition Cat Food	34 34.2	13 13.9	4.5 2	12 4.3				
	Happy tails Gourmet Salmon Supreme Dinner	12 17.8	4 4	1.5 0.16	78 76.9				
	Happy Tails with Beef + Liver Dog Food	8 9.8	3 4.8	1 0.78	82 79.1				
Audobon Park Co									
	IGA Wild Bird Food	9 7.7-	4 6.6	14 4.5					
Beowolf Natural Feeds, Inc.									
	Back to Basics Super Premium Dog Food - Chicken	23 18.8-	19 20.5	4 3.7	10 5.1	5.9 7.3+			
Birdola Products									
	Birdola Woodpecker Blend	19 25.9	30.6 21.3-	22.6 7.5					
Blue Buffalo Company LTP									
	Blue Spa Select Tempting Tuna Grill	10 11.8	3.5 11.8	1 0.6	78 69.4	2.1 2.6			
	Blue Dog Bakery Natural Soft Dog Treats	6 6.9	8 11	2 0.35	15 11.7				
Blue Seal Feeds, Inc.									
	Organics - organic chicken + chicken Liver for cats	10 12	6 12.1	1.5 1.8	78 71.4				

America's Choice Preferred Pet Dog Food with Beef + Bacon + Cheese	8	11.1	6	6.6	1.5	1.1	78	78.9	
America's Choice Preferred Pet Dog Biscuits-Meat Best	15	17.4	5	4.6	3.5	1.9	12	6.3	
Gutwein + Co. Inc									
Morning Song Wild Finch Food	14	9.5-	10	4.9-	12	6.6			
Hills Pet Nutrition, Inc.									
Hill's Science Diet-A dg H Savory Chicken Entrée - Dogs	5.5	9.9	3	3	1	0.51	78	75.89	1.4 1.1
Hill's Science Diet Advanced Protection Adult Cat	30	32.4	17.5	20.8	2	1.1	8	4.8	6.5 5.7
Iams Co.									
Eukauba Senior Chunks in Gravy	9	14.4	3	4.9	1.5	0.39	82	79.8	
IGA, Incorporated									
IGA Choice Cat Food	31.5	32.5	11	12.2	4.5	2.8	12	5.5	
IGA Dog Food with lamb + Rice	21	20.5	12	12.5	4	3.2	12	6	
IGA Chopped Beef Dinner For Dogs + Puppies	9	17.7	5	8.28	1.5	2.6+	78	76.5	
JPI									
American Kennel Club Lamb + Rice Training Treats	15	15.8	5	12	3	0.73	30	29	
Kaytee Products Inc.									
Kaytee Complete Chinchilla Food	16	14.6-	2.5	3.6	22	14.3	12	6.7	
Lafaber Cor									
Lafarea's premium Daily Diet for Parrots	14	13.6	5	10.8	3	1.6	10.5	7.5	

Newman's Own Turkey + Brown Rice Formula Food	9	13.9			1	0.7	78	77.7
Newman's Own Adult Dog Formula	21	21.6			4.5	3.3	10	5.5
Nutro Products, Inc.								
Nutro Max Adult for active Adult Dogs	26	25.8			4	1.9	10	6.8
Old Mother Hubbard								
Wellness Chicken + Sweet Potatoes	8	8.9			1	1	78	74.4
Wellness Turkey Formula For Cats	10	16.7			1	1.2	78	75
Old Mother Hubbard Cupboard Creations-Duck+Sweet Potato-for Dogs	8	13			1	0.79	82	79.4
Penn Pak								
Bird Ration Wild Bird Feed	8	9.3			18	1.7		
Pet Play, Inc.								
Petite Cuisine New England Crabcake Entire	13	14.45			1	0.13	85	81
Pine tree Farms, INC								
Birdwatchers Best Berry Essence Suet	6	7.1			12	17.7+	10	3.6
PMI Nutrition International								
Mazuri Small Bird Maintenance Diet	14.5	14.7			5	2.5	11	4.8
Nutri-Source Deer Feed For Growth+Maintenance	20	19.6			13	11.6		
Nutri-Source Mini Pig Food	16	17.1			11	9.4		
Premium Nutritional Products								
Zu preem Avian Maintenance Fruit Blend Flavor - Parakeet	14	16.4			2.5	1.7	10	5.6

Pro-Pet LLC												
Big Red Guinea Pig Food	18	17.4	4	4.8	15	7	11	4.9				
Lil' Red Chicken+Tuna Dinner	10	11	5	10.3	1	0.1	78	72.8	3	2.6		
Royal Canin USA												
Royal Canin Min Adult Dog	27	29.2	16	19.3	3.7	1.7	10	5.3				
S + M Nufee, LLC												
Feline Greenies - Savory Salmon Flavor	35	37.4	14	16.7	5	1.5	11	5.9				
Sergeant's Pet Care Products Inc.												
Sergeant's People's Crackers	20	21.5	7	6.8	4	1.9	12	5.6				
Shaw's Supermarkets Inc.												
Shaw's Wild Bird Seed Mix	9	10.7	3	10.6	14	4.7						
Sunseed Company, INC												
Sunseep Vita + Plus Ferret Formula	36	38.5	19	15.4-	4.5	1.4	12	4.3				
Targeted Pet treats LLC												
Better Than Ears	13	15.4	3	0.81-	4	1	25	12				
Taste of Nature, Inc.												
Nathan's Hot Dog Treats	20	20.8	20	32.03	5	4.6	30	30.5				
Tetra Sales												
Tetra Min Tropical Flakes	47	48.3	10	10.4	3	0.84	6	6				
The Hartz Mountain Corp.												
LM Animal Farms - Vita Vittles - Hamster Diet	12	10.2-	4	5.8	11	4.9	12	7.8				
Wardley's Essentials Tropical Fish Flakes	45	46.5	7	8.7	4	1.1	9	6.6				

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