

*The  
Connecticut  
Agricultural  
Experiment  
Station,  
New Haven*

Analysis of  
Agricultural Feeds  
and Pet Foods  
Sold in Connecticut  
1999

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From January 1, 1999 through December 31, 1999 the Department of Analytical Chemistry at The Connecticut Agricultural Experiment Station analyzed 290 animal feed products sold in Connecticut. The samples represented both products for domestic animals and for commercial agricultural operations. Fifty-three manufacturers were represented. The products were collected by Alton van Dyke and John Schneider of the Connecticut Department of Agriculture and analyzed by Craig Musante and Mamie Pyles under the supervision of Dr. David Stilwell.

Of the total number of samples 41 (14.1%) were found to be unsatisfactory in macronutrients and/or micronutrients. A sample is reported to be unsatisfactory if the found value of a parameter differs from the label guarantee using the percent analytical variation guidelines recommended by the Association of the American Feed Control Officials. The results of our analyses are shown in Tables 1 and 2. All values are in percent unless otherwise indicated; a deficiency in a guaranteed value (G) is indicated by a minus (-) sign next to the found parameter (F) and an excess of a substance by a plus (+) sign. Specifically, nine samples were deficient in protein; nine deficient in fat; eleven deficient in fiber; and thirteen deficient in one or more micronutrients.

**Table 1. Feed Samples Analyzed During 1999.**

Sample description	Protein		Fat		Fiber		Moisture	
	G	F	G	F	G	F	G	F
<b>A. Smythe Trading Corp.</b>								
Amazon Smythe Rabbit Food	17	17.5	3	4.7	14	13.2	12	7.9
<b>Agway, Inc.</b>								
Agway Heifer 18	18	18.4	2.5	3.7	12.4	9.8		
Agway Dairy 16	16	15.6	2.5	4.1	12	12.8		
Agway Complete Calf I (BOV)	15	14.7	2	4.3	10	13.5+		
Agway Bonanza 12 Complete Horse Feed	12.5	14.8	3.5	3.6	24	18.5		
Agway Legends 12P Horse Feed	12	13.5	4.5	4.6	8	7.7		
Agway Sheep & Goat Feed	16	16.6	3	4.1	8	8.4		
Agway High Energy Lamb (BO) Medicated	16	15.8	3.5	4.2	9	8		
Agway R.V. Dry-to-Fresh K Complete Cattle	20.5	20.5	2.7	2.7	6.1	5.9		
Agway R.V. Dry-to-Fresh for Non-Lactating Dairy Cattle	31	30.7	3.2	4.3	6.1	4.6		
Agway Pig Starter Plus, Medicated	17.6	18.2	4.3	4	2.6	2.6		
Agway Hog Feed	14	15	3.5	3.3	5	3.5		
Agway Gro-Pak Medicated	10	12.2	1	3.6	9	4.2		
Agway Egg Layer	16	16.9	3	3	4	2.6		
Agway Chick Grower	14.5	14.5	3.5	3.4	4	3.1		
Agway Game & Turkey Grower	21	21.5	3	3.2	4.5	2.4		
Agway Game & Turkey Finisher & Maintenance	16	16.7	2.5	3.5	4	2.8		
<b>American Crystal</b>								
American Crystal Dried Beet Pulp	6	8.4	0.3	0.5	22	16.8		
Crystal Sugar Dried Beet Pulp with Beet Molasses	6	8	0.3	0.6	19	17.9		
<b>Big Bet Pet Foods, Deep Run Packing</b>								
Big Bet Dinner for Dogs	10	8.6-	5	9.6	1.5	0.46	78	77.4
<b>Big Y Foods</b>								
Big Y Chopped Beef Dinner for Dogs	9	12	4	4.3	1.5	0.7	78	70.8
Big Y Gravy Dinner Dog Food	21	21.3	8	10.2	4	3.4	10	7.1
Big Y Deluxe Dinner Cat Food	12	13.5	5.5	7.2	1	0.8	78	72.9
<b>Blue Seal Feeds, Inc.</b>								
Blue Seal Adult All Natural Dog Food	21	23.6	10	9.7	4	2.56	12	6.8
Blue Seal Bunny 16 Pellets	16	16	2.5	3.22	18	13.1		
Blue Seal Grower-CAL Mash	15	16.2	3	4.3	4	3.1		
Blue Seal Turkey/Pheasant Starter Crumbles Medicated	28	29.95	4.5	4.72	4	2.7		
Blue Seal Sow & Pig	15	17	3	4	7	5.9		
Blue Seal Shepherd 16	16	15.7	2	3.78	10	7.33		
Blue Seal Active Dog Food	26	28.2	12	11	4	1.8	12	7.7
Blue Seal Calf BT Starter Medicated	19	21.9	2.5	4.2	8	5.29		
Blue Seal Vintage Senior Horse Feed	14.5	16	4.5	4.25	12	8.39		
Blue Seal Layer Mash	15	15.3	2.5	2.4	4	3.63		
Blue Seal Vintage Gold Extruded Horse Feed	16	17.9	7.5	7.1	7	5.34		
Blue Seal Practical Pet "26" Dog Food	26	25.4	9	9.4	5	3.76	12	9.38
Blue Seal Chick Starter AM Medicated	20	23	3	2.8	4	3.04		
Blue Seal Ultra 27 Performance Dog Food	27	33	15	15.3	4	2.6	12	6.1
Blue Seal Lamb Finisher Pellets	15	16	2.5	3.1	7	4.34		
Blue Seal Songmaker Supreme	13	14.3	15	20	15	6.5		
Blue Seal Concerto Wild Brid Food	14	13.7	20	28.8	20	12.2		

**Table 1. Feed Samples Analyzed During 1999 (continued).**

Sample description	Protein		Fat		Fiber		Moisture	
	G	F	G	F	G	F	G	F
Blue Seal Nature's Choice Wild Bird Feed	14	15.6	19	27.5	18	11.9		
Blue Seal Sunshine Plus	25	28.5	2	3.7	4	2.4		
Blue Seal Layer Pellets	16	16.2	2.5	3.9	4	2.7		
Blue Seal Shepherd 16	16	16.9	2	3.8	10	6.4		
Blue Seal Vintage Senior Extruded Horse Feed	14.5	16.4	4.5	4.3	12	10.3		
Blue Seal Natural 26 Dog Food	26	26.6	12	11.8	4	2	12	10
Blue Seal Grower Cal Pellets	15	15.2	2.5	3.7	5	3.1		
Blue Seal Lamb Finisher	15	14.1-	2.5	4.3	7	2.7		
Blue Seal Adult Dog Food Krunchies	21	22.5	10	10.6	4	1.9	12	10.2
Blue Seal Demand Horse Pellets with High Fat	16	17.2	6.5	7.8	6.5	4.7		
Blue Seal Strider Horse Feed	11	12	2.5	3.3	7	6.3		
Blue Seal Pig & Sow Pellets	15	16.5	3	4.1	7	4.6		
Blue Seal Trotter Complete Horse Pellets	14	14.1	2	2.9	20	9.8		
Blue Seal Bunny 16 Pellets	16	16.2	2.5	3.1	18	11.1		
Blue Seal Turkey Grower Pellets	20	19.8	4	4.5	5	2.9		
Blue Seal Hunter Horse Pellets with High Fat	14	15.3	6	5.8	9.5	7.8		
Blue Seal Llama Pellets	14	15.8	2.5	3.4	12.5	8.8		
Blue Seal Fat & Finish Pellets	18	17.5	4.5	5.6	3.5	2.6		
Blue Seal Puppy 28	28	28.4	12	14.5	3.5	2	12	8.1
Blue Seal Pelleted Beet Pulp	7	9.7	0.3	0.5	22	13.9		
Blue Seal Ultra 27 All Natural Dog Food	27	29	15	20.7	4	2	12	9.4
<b>Bumble Bee Acquisition Corp., International Home Foods</b>								
Figaro Tuna Cat Food	18	20.75	2	2.1	1	0.14	78	80
<b>C&amp;S Products</b>								
C&S Berry Treat	4	4.8	25	46.7	12	3.1		
<b>Cargill, Animal Nutrition Div.</b>								
K&L M&M Country G-14	17.54	19.6	4.9	5.4	3.23	2.7		
K&L Pullet Grower M+M	17.01	18.9	4.66	5.5	3.47	3		
K&L Layer A-21 M+M	16.01	15.9	4.43	4.9	2.9	2.9		
K&L Dairy Mix	24.5	26.3	5.4	6.7	9	6.9		
K&L Dairy Pellet	22	23.3	4.5	4.9	5	4.4		
K&L Layer A-22 M+M	15.47	16.6	3.62	3.8	3.22	3.6		
K&L Peak 17 M+M 50%	20.08	19.8	7.24	7.9	2.38	2.1		
K&L Kimball Dairy	22.9	22.7	4	3.7	6.5	6.4		
K&L Ellis Dairy Pellet	34.7	34.9	6	6.8	5.5	5.2		
K&L Bahler Pellet	30	29.5	4.5	4-	5.5	4.5		
K&L Peaking 17# 50% + UP	20.08	23	7.24	8.9	2.38	2.8		
K&L Peck Grist	26	28.4	6.2	4.9-	5	4.6		
K&L Dairy	21.5	23.3	6.1	5.6	5	4.8		
<b>Cargill, Nutrena Div.</b>								
Nutrena Chick Starter (ABF) Medicated	20	19.9	3	2.7	4	3.7		
Nutrena Triumph 12 Horse Pellets (ABF)	12	14	2.5	3.3	10	7.3		
Nutrena Horse Kwik Complete	14	15.2	2	3	20	11.9		
Nutrena Life Design Prime 12 (ABF)	12	14	3	4.1	15	13.2		
Nutrena Life Design Senior Horse Feed (ABF)	14	15.8	5	3.9-	16	13.2		
Nutrena Egg Producer Pellets (ABF)	16	16.6	3	5.6	4.5	4.3		

**Table 1. Feed Samples Analyzed During 1999 (continued).**

Sample description	Protein		Fat		Fiber		Moisture	
	G	F	G	F	G	F	G	F
Nutrena Life Design Complete	14	15.4	6	5.4	8	7.4		
Nutrena Life Design Youth (ABF) Horse Feed	16	18.25	4	4.5	7	5.7		
Cargill Rumen By-Pass Fat	95	100				1	0.24	
Nutrena Duck Grower	16	17.6	2	4.3	5	3.8		
Nutrena Catapult Close Up Dry Cow Complete (ABF)	24	25.45	3	2.8	8	4.3		
Nutrena Turkey/Gamebird Grower (ABF)	22	22.3	3	4.7	6	5.3		
River Run Professional Formula Dog Food	27	28.2	18	17.9	4.5	3.7	12	6.7
Nutrena Top Lamb 18 Medicated	18	18.75	2	3.7	10	9.1		
Nutrena Top Lamb-16 Feed (ABF), No Added Copper	16	17.15	2	2.7	11	9.2		
Nutrena K&L Feeds Dairy 16% (FR)	16	15.65	3.6	4	8.75	7.3		
Nutrena Pig Grower	15.8	15.95	3.64	4.5	5.5	4.2		
Nutrena Pig & Hog Feed (ABF)	15	14.95	2.5	4.9	7	5.3		
Nutrena 16% Rabbit Pellets (ABF)	16	17.6	2.5	3.8	16	11.2		
Nutrena Herd Builder Grower 19 (B51)(ABF), Medicated	19	20.8	3.5	5.1	8	7.1		
Nutrena Herd Builder Developer 16 (B34)(ABF), Med.	16	18.15	2.5	2.6	10	6.3		
Cargill Pellets Milk Plus (ABF)	28	33.6	3	5.3	3	3		
Nutrena Vitality Gold Horse Feed	14	14.1	9	8.6	8	6.4		
Nutrena Guinea Pig Feed (ABF)	18	18.15	2.5	2.9	16	8.1		
Nutrena Vitality-10 Sweet Feed (ABF)	10	11.7	6	15.8	7	5.3		
<b>Central Connecticut CoOp</b>								
Central Co-Op 22% Ruminator	22	22.2	3.25	4.5	8.5	3.9		
Central Connecticut CoOp Ruminator Pellets	20	19.5	3	5.7	8.5	4.6		
Central Connecticut CoOp 18% Cage Layer	18	18.6	3.5	4.6	4	2.9		
Central Connecticut CoOp 16% Treat Pellet	16	17.3	3	3.6	8.5	7.7		
Central Connecticut CoOp 12% Treat Pellet	12	12.2	4.36	4.5	7.2	6.7		
Central Connecticut CoOp 16% Hi-Soluble Pellets	16	15.9	4.2	3.8	4.3	4.9		
<b>Cesar, Inc., Kal Kan Foods</b>								
Cesar Select Dinners for Small Dogs	8	11	3.5	6.4	1	0.1	82	74.8
<b>Chesapeake Dehydrators</b>								
Hay Cubes	15	20.3	1.5	2.5	30	18.7		
<b>Compass Foods</b>								
America's Choice Ocean Fish Flavor Cat Food	30	32.4	8	8.1	4.5	3.1	12	5.4
America's Choice Dog Biscuits	20	21.1	5	7.6	3	2.8	12	5.6
America's Choice Savory Cuts in Gravy Dog Food	8	11.8	3	4.9	1	0.26	82	75.5
America's Choice Turkey & Giblet Dinner for Cats	11	10.9	7	10.7	1	0.48	78	73.3
America's Choice Krunchy Kibbles Dog Food	21	23.8	8	8.9	4.5	4.7	12	6.9
<b>Dad's Products Co.</b>								
Kibble Select Premium Dog Food	20	24	7	7.4	4	1.6	20	14.9
<b>Foodhold USA, Inc.</b>								
Premium Balance Gourmet Dog Treats	22	22.5	7	6.5	3	2	11	3.8
Sensational Gourmet Dog Food, Beef & Chicken	10	11.25	6	10	1	0.1	78	78.9
Sensational Gourmet Dog Food, Chunky Chicken	10	9.1-	6	11.7	1	0.2	78	79
Premium Balance Lamb & Rice for Adult Dogs	26	29.8	16	16.6	3	1.1	12	5.6
Sensational Gourmet Cat Food, Mixed Grill	11	11.25	6	8.6	1	0.1	78	77.3

**Table 1. Feed Samples Analyzed During 1999 (continued).**

Sample description	Protein		Fat		Fiber		Moisture	
	G	F	G	F	G	F	G	F
<b>Friskies Pet Care Co.</b>								
Alpo Prime Cuts in Gravy	8	9.95	3	2.7	1.5	1.4	82	80.8
Alpo with Lamb Meal, Rice & Barley Dog Food	22	23.5	12	14.2	5.5	1.5	12	6.3
Mighty Dog Gourmet Dinner	9	10.6	6	11.8	1	0.2	78	71.1
Fancy Feast Liver & Chicken Cat Food	11	13.45	5	8.9	1.5	0.14	78	73.6
Alpo Gourmet Dinner Cat Food	26	29.5	8	7.7	4	1.9	12	5.2
Friskies Gourmet Flavor Cat Food	31	32.8	8	8.6	4.5	2.1	10	4.2
Friskies Ocean Fish Flavor Cat Food	31	32.7	8	12.4	4.5	2	10	4.7
Friskies Poultry Platter Flavor Cat Food	31	32.2	8	11.3	4.5	1.8	10	4.7
Friskies Special Diet Cat Food	29	32	14	13.4	2.5	1.7	10	4.6
<b>Furst McNess Co. of Canada, Ltd</b>								
Alfalfa Cubes	13	15.1	1.8	1.9	30	29.7	12	9.6
<b>Hartz Mountain Corp.</b>								
Hartz Rabbit Food	18	19.2	2	3.5	15	11.5	12	9.8
Hartz Canary & Finch Complete Diet	11	13	3	5.1	8.5	5.1	12	9.1
Hartz Guinea Pig Pellets	24	19.2-	3.5	3.6	12	9.5	12	10.1
<b>Heinz Pet Products</b>								
Recipe Dog Treats	14	15.6	7	7.8	2.5	0.9	12	6.9
Skippy Premium Chunks in Gravy	8	8.95	3	2.9	1.5	0.9	82	78
Ken-L Ration Prem. for Dogs & Puppies with Hearty Meat	7	7.4	3	3.7	1.5	1.3	82	76.6
9-Lives Tuna Select Cat Food	14	15.9	2	3.7	1	0.3	78	72.7
Amore Cod, Halibut & Shrimp for Cats	11	14.7	5	5.9	1	0.4	78	76.7
9-Lives Cat-Nippers, Chicken Nips	20	21.3	7	8.5	1.5	1.3	35	26.6
Pounce, Tuna Flavor for Cats	29	31	8	7.4	3	1.2	10	8.2
Ken'l Ration Moist 'n Beefy Dog Food	16	17.7	7	12	3	1.2	30	28.2
<b>Hills Pet Nutrition, Inc.</b>								
Hills Science Diet Canine Maintenance	21.5	23.8	13	12.1	3	1.7	10	6.8
Hills Treats, Canine Light	15	15	4	7.5	14	10.7	10	7.2
Hills Science Diet Savory Cuts, Ocean Fish	8	12.5	4.2	4	1.5	0.87	80	85
Hills Science Diet Beef, Feline Senior	8.5	9.8	4	5.9	1.7	1.1	78	74.6
Hills Science Diet Ocean Fish in Sauce Cat Food	8.5	11.6	4.5	5.6	1.5	0.87	80	78.6
<b>Iams Co.</b>								
Iams Less Active Dog Food	20	21.9	10	11.8	5	1.8	10	10.4
Iams Minichunks for Normally Active Dogs	26	28.3	15	16.9	5	1.7	10	6.5
Iams Senior Formula Biscuits for Dogs	24	25.5	4	5	4	3.1	11	5.9
Iams Beef & Liver Cat Food	10	11	6.5	7.7	0.8	0.8	78	78.5
Iams Liver & Chicken for Dogs	9	9.3	6	7.9	1	0.76	78	77.9
Iams Senior for Dogs, Beef & Rice Formula	9	9.25	3.5	5.3	1	0.38	78	75.9
Iams Less Active for Dogs, Beef, Liver & Rice	7	8.45	3.5	3.6	1	0.48	78	76.9
Iams Kitten Formula	14.5	18.25	10.5	12.7	1	1.2	68	62.4
<b>K&amp;L Feed Mill, Cargill</b>								
Cargill 14% Sprinter	14	14.7	2.75	4	7.24	7.5		
K&L Layer A-21 #M&M	16	17.6	3.77	4.08	2.7	3.1		
K&L Prepeak 16	17.5	20	4.49	4.6	3.3	2.34		
K&L Layer A-21 (#2260)	16	17.1	3.77	2.8-	2.7	2.5		

**Table 1. Feed Samples Analyzed During 1999 (continued).**

Sample description	Protein		Fat		Fiber		Moisture	
	G	F	G	F	G	F	G	F
K&L Layer A-21 (#2263)	16	16.3	3.77	2.8-	2.7	2.5		
K&L Tiffany Farms Meal	24	23.6	5	5.7	5	4.5		
K&L Almeida Grist	23	23.2	3.4	3.8	6	6.1		
K&L Berk #1	14.8	15.3	3.5	2.8-	2	2.2		
K&L Berk LRF #2	16	15.4	3	1.8-	2	2.1		
K&L Hi Dairy	24.5	25.6	5.4	4.1-	3.5	3.8		
K&L Low Dairy	24	25.4	4	4.3	5	3.1		
K&L 16% Dairy	16	15.8	3	5.9	8.75	6.4		
K&L Ellis Grist	26	26	5.3	5.2	7	6		
<b>Kal Kan Foods</b>								
Whiskas Ground Kitty Stew	8	9.45	4	9.8	1.5	0.4	82	73.9
Whiskas with Lamb & Rice Cat Food	30	30.8	8	7.3	4.5	2.3	12	6.6
<b>Kingston Marketing Co.</b>								
Kingston Meat Cuts in Gravy	8	13.2	3	4.9	1	0.6	82	71.7
Kingston Seafood & Salmon Cat Food	10	11.7	4	5.5	1	0.3	78	70.3
Kingston Gourmet Cat Food, Beef & Liver	10.5	14.45	5	7.3	1	0.9	78	74.8
<b>L&amp;M Animal Farms</b>								
L&M Vita Vittles for Hamsters	13	11.5	4	5.9	6	3.9	11	9.4
<b>Langs Dehy Ltd</b>								
Langs Dehydrated Alfalfa Pellets	16	13.3-			27	26.7	9	7.9
<b>Lebanon Seaboard Corp.</b>								
Song 'n Beauty Sunflower Seed	10	20.9	26	40.3	32	14		
Song 'n Beauty Premium Wild Bird Food	8	11.1	3	8.2	20	5.9		
<b>Manna Pro Corporation</b>								
Small World Finch Blend	14	16.5	10.5	15.9	11	10.1	12	6.7
<b>Nabisco</b>								
Milk-Bone Brand Flavor Snack Biscuits	17	18	5	5	2	1.4	10	5.6
<b>Nature's Gold</b>								
Nature's Gold Ferret Food	32	35	10	13.6	4	2.3	10	8.2
<b>New England Feeds/ Wild Bird Food Co.</b>								
New England 23% Grist	23	23.5	3	4.1	5.5	3.93		
New England Feeds 18 Pellet	18	17.6	3.5	6.8	8.5	6.17		
New England 23.3% Dairy Pellet	23.3	23.8	4.5	4.7	4.5	3.6		
New England 26% Dairy Grist	26	27.6	3.5	4.9	5	8.2+		
<b>Nutro Products, Inc.</b>								
Nutro Tartar-Control Dog Biscuits	20	21.3	5	5	3	1.6	11	6.5
Nutro Max Kitten Chicken & Liver	11	11	6	5.7	1	0.65	78	77.9
Nutro Max Maximum Nutrition Dog Food	9	9.7	7	8.6	1	0.3	78	77.4
Nutro's Natural Choice Lamb, Meal and Rice Dog Food	21	21.95	12	11.6	5	2	10	8.8
<b>Old Mother Hubbard</b>								
Old Mother Hubbard Beef & Tuna Cat Dinner	9	12.1	6.5	7.4	1	0.3	78	75.3
Old Mother Hubbard Beef Cat Dinner	9	11.15	6.5	8.3	1	0.25	78	76.5

**Table 1. Feed Samples Analyzed During 1999 (continued).**

Sample description	Protein		Fat		Fiber		Moisture	
	G	F	G	F	G	F	G	F
<b>Pedigree, Inc.</b>								
Pedigree Choice Cuts in Sauce for Dogs	8	10.9	3	5.4	1	0.45	82	76.2
<b>PMI Feeds, Inc.</b>								
Mazuri Mini-Pig Elder	12	12.8	3	4.5	12	9.54		
Mazuri Mini-Pig Active Adult	16	17	3	5.2	11	9		
Mazuri Guinea Pig Food	18	18.7	4	4.7	16	11.8		
Mazuri Ferret Diet	38	42.8	20.5	19.6	4	2.1	12	9.9
<b>Pro-Pet, LLC/Ohio</b>								
Lil Red Tuna Flavor Cat Food	31	35.6	14	12.7	1	2.2+	9	7.9
Lil Red Original Flavor Cat Food	31	31.3	10	11.1	3	1.5	11	7.8
Big Red Producer's Choice Rabbit Food	15	16.2	2	3.2	18	15.2		
Big Red Producer's Choice 18 Rabbit Food	18	19.2	2	3.4	16	13.9		
Big Red Great Gravy Dog Food	21	22.5	8	9.7	5.5	3.5	11	8.9
Pardner Plus Dog Food	26	25.5	9	8.3	5	4.1	11	7.9
Big Red Rabbit's Choice Rabbit Food	15	18.2	2	3.6	18	17.4		
Big Red Nuggets Dog Food	21	22.9	8	8.7	5.1	3.3	11	8.2
Big Red High Energy Dog Food	26	27.5	11	12	5	2.7	11	8.5
Pardner Dog Food	21	22.2	7	8.7	5.5	4.5	11	7.8
<b>Purina Mills, Inc.</b>								
Purina Layena	16	16.2	2.5	3.5	7	6.7		
Purina Start & Grow	17	20.3	3	4.7	5	4.1		
Purina Wildlife Blend	12	11.7	2	3.9	16	7.9		
Purina Milk Chow, Special (B) 16% (Coarse)	16	14.2-	2	3.9	9	4.5		
Purina Rabbit Chow Complete Blend	16	16.1	1.5	3.3	2	15.3		
Purina Lamb Developer W/O	12	13	1.5	2.7	18	15.4		
Purina Hog Grower Chow OTC 50	16	17.6	2.5	3.7	5	3.3		
Purina Game Bird Maintenance Chow	12.5	13	2.5	3.9	10	4.5		
Purina Horse Chow 100	10	13.3	2	3.3	30	21.4		
Purina Horse Chow 200	14	12.8-	2	3.1	25	19.1		
Purina Pork Finisher BMD 20	12	14	2.5	3.6	7	5.5		
Purina Strategy - Professional Formula GX	14	16.4	6	6.1	8	6.6		
Purina Goat Chow	16	18.5	2.5	4.2	9	5.2		
Purina Equine Adult	12	12.3	3	3.6	25	19.6		
Purina Layena 16	16	16.7	1.5	3.3	7	4		
Purina Dealer's Pride 2100 Original Formula Dog Food	21	22	7	8.1	6	2.8	12	7.8
Purina Dealer's Pride Economy Formula Dog Food	18	19	6	6.5	8	2.2	12	7.3
Meow Mix Cat Food Chick., Turk., Salmon & Ocean Fish	31	33.5	8	8.7	4	1.6	12	6.8
Purina Cat Chow	31.5	34.9	11	13	4.5	1.5	12	6.9
Deli-Cat	32	33.5	8	8.6	4	1.5	12	6
Alley Cat	30	33.8	8	8.2	4.5	2.4	12	7.2
Pro-Visions Pro-Plan Chicken & Rice Dog Food	25	27.7	8	8.6	5.5	3.2	12	8.5
<b>Sheba, Inc., Kal Kan, Inc.</b>								
Sheba Sardine & Shrimp Dinner for Cats	8	10.8	3.5	6.08	1	0.4	82	81.8



**Table 1. Feed Samples Analyzed During 1999 (continued).**

Sample description	Protein		Fat		Fiber		Moisture	
	G	F	G	F	G	F	G	F
<b>Stop &amp; Shop</b>								
Stop & Shop Moist Dinner for Cats, Tuna	24	24.2	8.5	8.3	3.5	2.9	34	22.3
Stop & Shop Lean Kibbles Variety Mix for Dogs	20	22.3	4.7	7.2	4	2.3	18	21.5+
Stop & Shop Horsemeat Chunks for Dogs	10	10.45	5	9.4	1.5	0.3	78	78.3
Stop & Shop Moist Burger Dinner for Dogs	18	18.8	7	7.5	3	1.6	36	24.1
Stop & Shop Tasty Mix Dinner for Cats	31.5	34.5	9	9.1	4	2.7	12	5.4
Stop & Shop Super Supper for Cats	12	13.2	5.5	9.5	1	0.4	78	73.1
<b>Sunflower, Inc</b>								
Feathered Friend Flyers Choice Wild Bird Food	14	15.3	20	23.5	12	12.4	12	8.3
<b>Sweetlife Products Corp., Deep Run Packing</b>								
Sweet Life Hi-Protein Cat Food	31.5	34	10	9.8	4	2.9	12	6.8
Sweet Life Crunchy Dog Food	21	23.8	8	7.5	4.5	4.7	12	6.6
Sweet Life Turkey Chunks Dog Food	9	10.56	6	11.2	1.5	0.4	78	75
<b>Thompson's Pet Pasta Products, Inc.</b>								
Thompson's Pasta Plus Beef & Bacon Dog Food	26	25.6	13	12.4	3	1.9	12	10.2
<b>Triumph Pet Industries</b>								
Triumph Chicken Formula for Dogs	10	12.4	6	8.8	1	0.33	78	75.6
<b>Vitakraft Pet Products Co., Inc.</b>								
Vitakraft Nibble Rings	12.6	16.1	2	2.2	9.2	8.5	9.9	5.9
<b>Wagner Bros. Feed Corp.</b>								
Wagner's Wild Bird Food	9	11.3	4	6.6	10	5	12	9.1
<b>Wal-Mart Stores, Inc.</b>								
Special Kitty	31.5	32.4	9	9.2	4	2.2	12	6.7
Ol' Roy Lamb & Rice Flavored Biscuits	20	22	7.5	8.4	4.5	2.7	12	7.7
Special Kitty Premium Cat Food, Tuna Banquet	10	10.9	6	8	1	1	78	73.7
Ol' Roy Bark'n Bac'n Treats	14	14.2	4	3.7	2	1	30	24.7
Special Kitty Soft & Moist Cat Food, Tuna	24	25.3	8.5	8.6	3.5	2.3	38	24.1
Ol' Roy High Performance Dog Food	26	27.2	14	13.5	4	2.7	12	7.6
Ol' Roy Premium Formula Dog Food	21	21	9	10.4	4	2.9	12	7.9
Ol' Roy Puppy Formula	27	28.7	9	11.4	5	2.2	12	7.2
<b>Wardley Products Corp.</b>								
Wardley Goldfish Pellets	35	44.1	4	4.2	3	2.9	9	3.3
<b>Wauregan Grain Co.</b>								
Wauregan Layer	15	18.8	3	3.01	4	2.41		
Wauregan High Prod. Dairy 2085	20	22.8	3.5	3.68	7.5	7.64		
Wauregan Pacesetter Growth & Development Formula	16	15.6	3	2.2-	11.5	13.7+		
Wauregan Turkey/Game Bird Grower	22	26.6	3.5	1.76-	4.5	2.95		
Wauregan Sheep & Goat	18	22.7	3	3.95	7	6.94		
Wauregan Mustang 14% Horse Pellet	14	17.2	3	3.59	12	14.7+		
Wauregan Milker's Choice 1680	16	17.9	3	4.1	8	12.6+		
Wauregan Pace Setter Horse Feed-Classic Senior	14	15.2	6	3.5-	13	14.5+		
Wauregan Pace Setter-Trail Ride 12	12	14.6	3.5	1.93-	12.5	12.9		
Wauregan Pace Setter Horse Fds-Stableman's Choi. 14	14	18	3	2.7	9	6.49		

**Table 1. Feed Samples Analyzed During 1999 (continued).**

Sample description	Protein		Fat		Fiber		Moisture	
	G	F	G	F	G	F	G	F
Wauregan Pace Setter Horse Feeds-Equine Complete	14	15	3	3.4	16	17.3		
Wauregan Texturized 14%	14	15	3	3.39	8	5.91		
Wauregan Texturized 16%	16	16.5	3	3.08	8	6.41		
Wauregan Rabbit Pellets	20	22	2.5	2.51	18	14.5		
Wauregan 16% Pork Maker Plus	16	18.8	3	3.37	4.5	6.72+		
Wauregan Heifer Grower Pellets Medicated	16	16.3	3	2.7	8	10.7+		
Wauregan Pace-Setter Growth & Development Formula	16	17	3	3.1	11.5	9.6		
Wauregan Rabbit Pellets	20	21.8	2.5	2.7	18	14.4		
Wauregan Pace-Setter Horse Feed Trail Ride 12, Pell.	12	12.9	3.5	3.2	12.5	11		
Wauregan 16% Pork Maker Plus	16	16.8	3	3.5	4.5	4.5		
Wauregan Pace-Setter Horse Feed, Performance Plus	13	13.7	5	4.5	11	11.3		
Wauregan Milker's Choice 1680	16	16.9	3	3.97	8	11.9+		
Wauregan Pace-Setter Horse Fd, Stableman's Choice 14	14	14.8	3	3.2	9	8.2		
Wauregan Rabbit Pellets 16	16	17.5	3	2.9	18	18.5		
Wauregan Sheep & Goat	18	20.7	3	4.1	7	9.4+		
Wauregan Layer	15	16.7	3	2.8	4	3.9		
Wauregan Cracked Corn	8.5	8.8	2.5	3.8	2.5	1.8		
Wauregan Horse Oats	10	10.7	3	5.8	12	11.8		
<b>Windy Hill Pet Food Co.</b>								
Tuffy's Classic Hi-Pro Dog Food	27	28.2	10	12.6	4	2.92	12	7.77
Tuffy's Dinnertime Cat	31	32	7	9.9	4	2.89	12	8.02
Tuffy's Golden Chunks Dog Food	21	20.8	8	11.5	5	2.58	12	7.78
Tuffy's Classic Dog Food for Active Outdoor Dogs	21	21.4	8	7.8	4	3.5	12	7
Kozy Kitten Cat Food	28	31.7	8	9	4.5	3.3	12	4.4
<b>World Brands, Inc</b>								
PAWS Professional Beef Formula for Dogs, Canned	9.5	10.2	6	9.1	1	0.4	78	75.5
PAWS Prof. Performance Formula for More Active Dogs	30	32.2	20	18.9	3	2.2	10	3.8
<b>Young's, Inc.</b>								
Young's NE Healthy Heifer Gro with Urea	100.3	107						
<b>Zeigler Brothers, Inc.</b>								
CT Salmon Brood Feed, ¼"	52	50.5-	16	16.6	1	0.6		
CT Salmon Brood Feed, 5/32"	52	50.8	16	17.7	1	0.4		
CT Salmon Brood Feed, 5/32"	52	50.3-	16	16	1	0.8		
CT Salmon Brood Feed, ¼"	52	51.4	16	16.2	1	0.6		

**Table 2. Micronutrients in Feed Samples Analysed During 1999.**

<b>Sample description</b>	<b>Micronutrients</b>
<b>Agway, Inc.</b>	
Agway Heifer 18	Calcium 1.32; Phosphorus 1; Selenium 0.5ppm
Agway Dairy 16	Calcium 1.6; Phosphorus 0.93; Selenium 0.8ppm
Agway Complete Calf I (BOV)	Calcium 0.87; Phosphorus 0.74; Selenium 0.43ppm
Agway Bonanza 12 Complete Horse Feed	Calcium 1.53; Phosphorus 0.64; Copper 29.5ppm; Zinc 130ppm; Selenium 0.45ppm
Agway Legends 12P Horse Feed	Calcium 1.03; Phosphorus 0.81; Copper 8.2ppm-; Zinc 70ppm-; Selenium 0.7ppm
Agway Sheep & Goat Feed	Calcium 1.09; Phosphorus 0.87; Selenium 0.64ppm
Agway High Energy Lamb (BO) Medicated	Calcium 1.55; Phosphorus 0.63; Selenium 0.9ppm; Sodium 0.21
Agway R.V. Dry-to-Fresh K Complete Cattle	Calcium 1.33; Phosphorus 0.72; Selenium 0.9ppm
Agway R.V. Dry-to-Fresh for Non-Lact. Dairy Cattle	Calcium 1.8; Phosphorus 1; Selenium 0.46ppm-
Agway Hog Feed	Calcium 0.9; Phosphorus 0.6; Zinc 69ppm; Selenium 0.24ppm; Sodium 0.2
Agway Gro-Pak Medicated	Calcium 1.4; Phosphorus 0.62; Selenium 0.55ppm
Agway Egg Layer	Calcium 3.2; Phosphorus 0.63; Sodium 0.18
Agway Chick Grower	Calcium 1.0; Phosphorus 0.75; Sodium 0.17
Agway Game & Turkey Grower	Calcium 1.12; Phosphorus 0.96; Sodium 0.16
Agway Game & Turkey Finisher & Maintenance	Calcium 0.87; Phosphorus 0.86; Sodium 0.18
<b>Big Y Foods</b>	
Big Y Deluxe Dinner Cat Food	Ash 2.8
<b>Blue Seal Feeds, Inc.</b>	
Blue Seal Grower-CAL Mash	Calcium 0.76; Phosphorus 0.71
Blue Seal Turkey/Pheasant Starter Crumbles Med.	Calcium 1.19; Phosphorus 1.04
Blue Seal Vintage Senior Horse Feed	Calcium 0.96; Phosphorus 1.01; Copper 51ppm; Zinc 192ppm; Selenium 0.6ppm
Blue Seal Layer Mash	Calcium 3.25; Phosphorus 0.65
Blue Seal Sunshine Plus	Calcium 0.92; Phosphorus 0.68; Copper 29ppm; Zinc 151ppm; Selenium 2.9ppm
Blue Seal Shepherd 16	Calcium 1; Phosphorus 1; Selenium 0.33ppm
Blue Seal Vintage Senior Extruded Horse Feed	Calcium 1.3; Phosphorus 0.9; Copper 37ppm; Zinc 126ppm; Selenium 0.4ppm
Blue Seal Grower Cal Pellets	Calcium 1; Phosphorus 0.7
Blue Seal Demand Horse Pellets with High Fat	Calcium 0.9; Phosphorus 0.8; Copper 37ppm; Zinc 141ppm; Selenium 0.5ppm
Blue Seal Strider Horse Feed	Calcium 0.8; Phosphorus 0.8; Copper 34ppm; Selenium 0.6ppm
Blue Seal Pig & Sow Pellets	Calcium 0.9; Phosphorus 0.6; Zinc 133ppm; Selenium 0.6ppm
Blue Seal Turkey Grower Pellets	Calcium 1.1; Phosphorus 0.8
Blue Seal Hunter Horse Pellets with High Fat	Calcium 1.07; Phosphorus 0.8; Copper 34ppm; Selenium 1.1ppm
<b>Bumble Bee Acquisition Corp., International Home Foods</b>	
Figaro Tuna Cat Food	Ash 1.3
<b>Cargill, Animal Nutrition Div.</b>	
K&L M&M Country G-14	Calcium 4.2; Phosphorus 0.7; Sodium 0.17
K&L Pullet Grower M+M	Calcium 0.83; Phosphorus 0.59; Sodium 0.13
K&L Layer A-21 M+M	Calcium 3.8; Phosphorus 0.6; Sodium 0.15
K&L Dairy	Calcium 1.2; Phosphorus 0.7; Selenium 0.8ppm; Sodium 0.9
<b>Cargill, Nutrena Div.</b>	
Nutrena Chick Starter (ABF) Medicated	Calcium 1.2; Phosphorus 0.9; Sodium 0.14
<b>Compass Foods</b>	
America's Choice Turkey & Giblet Dinner for Cats	Ash 2

**Table 2. Micronutrients in Feed Samples Analysed During 1999 (continued).**

<b>Sample description</b>	<b>Micronutrients</b>
<b>Foodhold USA, Inc.</b>	
Sensational Gourmet Dog Food, Beef & Chicken	Ash 1.2
Sensational Gourmet Dog Food, Chunky Chicken	Ash 2.6
Sensational Gourmet Cat Food, Mixed Grill	Ash 2.3
<b>Friskies Pet Care Co.</b>	
Fancy Feast Liver & Chicken Cat Food	Ash 1.8
Alpo Gourmet Dinner Cat Food	Calcium 1; Phosphorus 1.3
Friskies Special Diet Cat Food	Ash 6.5
<b>Heinz Pet Products</b>	
9-Lives Tuna Select Cat Food	Ash 2.5
Amore Cod, Halibut & Shrimp for Cats	Ash 2.9
<b>Hills Pet Nutrition, Inc.</b>	
Hills Science Diet Canine Maintenance	Calcium 0.8; Phosphorus 0.75
Hills Treats, Canine Light	Calcium 0.6; Phosphorus 0.5-
Hills Science Diet Savory Cuts, Ocean Fish	Ash 1.3
Hills Science Diet Beef, Feline Senior	Ash 1.2
Hills Science Diet Ocean Fish in Sauce Cat Food	Ash 1.5
<b>Iams Co.</b>	
Iams Beef & Liver Cat Food	Ash 1.5
Iams Kitten Formula	Ash 2.9
<b>K&amp;L Feed Mill, Cargill</b>	
K&L Layer A-21 #M&M	Calcium 4.97; Phosphorus 0.7; Sodium 0.12
K&L Prepeak 16	Calcium 2.73; Phosphorus 0.72; Sodium 0.12
K&L Layer A-21 (#2260)	Calcium 3.69; Phosphorus 0.7; Sodium 0.11
K&L Layer A-21 (#2263)	Calcium 3.3-; Phosphorus 0.7; Sodium 0.1
K&L Tiffany Farms Meal	Calcium 1.15; Phosphorus 0.75; Sodium 1.14
K&L Almeida Grist	Calcium 1.71; Phosphorus 0.8; Sodium 0.9
K&L Berk #1	Calcium 3.5; Phosphorus 0.5; Sodium 0.01
K&L Berk LRF #2	Calcium 3.49; Phosphorus 0.55; Sodium 0.13
K&L Hi Dairy	Calcium 1.67; Phosphorus 0.8; Selenium 0.77ppm; Sodium 0.9
K&L Low Dairy	Calcium 1.7; Phosphorus 0.8; Selenium 0.61ppm; Sodium 1.1
K&L 16% Dairy	Calcium 1.23; Phosphorus 1.14; Selenium 0.5ppm; Sodium 0.47
K&L Ellis Grist	Calcium 4.1+; Phosphorus 1; Selenium 2.1ppm; Sodium 2.89
<b>Kal Kan Foods</b>	
Whiskas Ground Kitty Stew	Ash 1.6
Whiskas with Lamb & Rice Cat Food	Calcium 1.2; Phosphorus 1
<b>Kingston Marketing Co.</b>	
Kingston Seafood & Salmon Cat Food	Ash 3.5
Kingston Gourmet Cat Food, Beef & Liver	Ash 2.1
<b>New England Feeds/ Wild Bird Food Co.</b>	
New England 23% Grist	Calcium 1.2; Phosphorus 0.9; Selenium 0.5ppm
New England Feeds 18 Pellet	Calcium 1.06; Phosphorus 0.93; Magnesium 0.8ppm

**Table 2. Micronutrients in Feed Samples Analysed During 1999 (continued).**

<b>Sample description</b>	<b>Micronutrients</b>
New England 23.3% Dairy Pellet	Calcium 0.94; Phosphorus 0.82; Potassium 1.07; Selenium 0.67ppm
New England 26% Dairy Grist	Calcium 2.45; Phosphorus 0.8; Potassium 0.99; Selenium 0.8ppm
<b>Nutro Products, Inc.</b>	
Nutro Tartar-Control Dog Biscuits	Calcium 1.4; Phosphorus 0.95;
Nutro Max Kitten Chicken & Liver	Ash 2.1
Nutro Max Maximum Nutrition Dog Food	Ash 2.9
<b>Old Mother Hubbard</b>	
Old Mother Hubbard Beef & Tuna Cat Dinner	Ash 2.1
Old Mother Hubbard Beef Cat Dinner	Ash 2.2
<b>PMI Feeds, Inc.</b>	
Mazuri Mini-Pig Elder	Selenium 0.38ppm; Ash 6.8
Mazuri Mini-Pig Active Adult	Selenium 0.29ppm; Ash 7.2
Mazuri Guinea Pig Food	Ash 8.1
Mazuri Ferret Diet	Ash 7.9
<b>Pro-Pet, LLC/Ohio</b>	
Lil Red Tuna Flavor Cat Food	Magnesium 0.11; Ash 3.8
Lil Red Original Flavor Cat Food	Ash 7.3
Big Red Producer's Choice Rabbit Food	Calcium 0.84; Phosphorus 0.8
Big Red Producer's Choice 18 Rabbit Food	Calcium 0.86; Phosphorus 0.87
Big Red Rabbit's Choice Rabbit Food	Calcium 1.05; Phosphorus 0.67
<b>Purina Mills, Inc.</b>	
Purina Layena	Calcium 4.13; Phosphorus 0.75
Purina Start & Grow	Calcium 0.8; Phosphorus 0.7
Purina Wildlife Blend	Calcium 1.25; Phosphorus 0.75
Purina Milk Chow, Special (B) 16% (Coarse)	Calcium 0.7; Phosphorus 0.7; Selenium 0.4ppm-
Purina Rabbit Chow Complete Blend	Calcium 1; Phosphorus 0.6
Purina Lamb Developer W/O	Calcium 0.7; Phosphorus 0.46; Selenium 0.22ppm
Purina Strategy - Professional Formula GX	Calcium 0.86; Phosphorus 0.81; Copper 66ppm; Zinc 283ppm; Selenium 0.6ppm
Purina Goat Chow	Calcium 1.3; Phosphorus 0.86; Copper 10.9 ppm-; Selenium 0.5ppm
Purina Layena 16	Calcium 4.6; Phosphorus 0.7
Meow Mix Cat Chicken, Turkey, Salmon & Ocean Fish	Calcium 1.3; Phosphorus 1.3
Purina Cat Chow	Calcium 1.7; Phosphorus 1.3
Alley Cat	Calcium 1.3; Phosphorus 1.2
<b>Sheba, Inc., Kal Kan, Inc.</b>	
Sheba Sardine & Shrimp Dinner for Cats	Ash 2.5
<b>Stop &amp; Shop</b>	
Stop & Shop Super Supper for Cats	Ash 2.5
<b>Triumph Pet Industries</b>	
Triumph Chicken Formula for Dogs	Ash 1.8
<b>Vitakraft Pet Products Co., Inc.</b>	
Vitakraft Nibble Rings	Calcium 1.4; Phosphorus 1

**Table 2. Micronutrients in Feed Samples Analysed During 1999 (continued).**

Sample description	Micronutrients
<b>Wal-Mart Stores, Inc.</b>	
Special Kitty	Calcium 1.3; Phosphorus 0.9
Special Kitty Premium Cat Food, Tuna Banquet	Ash 2.4
Ol' Roy Puppy Formula	Calcium 1.4; Phosphorus 0.9
<b>Wauregan Grain Co.</b>	
Wauregan Layer	Calcium 0.4-; Phosphorus 0.5
Wauregan High Prod. Dairy 2085	Calcium 1.4; Phosphorus 1; Magnesium 0.4; Potassium 1.14; Sulfur 0.3
Wauregan Pacesetter Growth & Development Form.	Calcium 0.32-; Phosphorus 0.73; Copper 13ppm-; Zinc 79ppm-; Selenium 0.33ppm
Wauregan Mustang 14% Horse Pellet	Calcium 1.5+; Phosphorus 1.03; Copper 27ppm-; Zinc 126ppm; Selenium 0.45ppm
Wauregan Pace-Setter Growth & Development Form.	Calcium 0.96; Phosphorus 0.8; Copper 23ppm-; Zinc 101ppm; Selenium 0.4ppm
Wauregan Pace-Setter Horse Fd Trail Ride 12, Pell.	Calcium 0.95; Phosphorus 0.7; Copper 47ppm; Zinc 229ppm; Selenium 1ppm
Wauregan Pace-Setter Horse Fd, Performance Plus	Calcium 1.4+; Phosphorus 0.7; Copper 25.7ppm-; Zinc 112ppm; Selenium 0.5ppm
Wauregan Pace-Set. Horse Fd, Stableman's Choi. 14	Calcium 0.9; Phosphorus 0.7; Copper 16ppm-; Zinc 90ppm; Selenium 0.4ppm
Wauregan Layer	Calcium 3.6; Phosphorus 0.5
<b>Windy Hill Pet Food Co.</b>	
Kozy Kitten Cat Food	Calcium 1.2; Phosphorus 1.2
<b>Zeigler Brothers, Inc.</b>	
CT Salmon Brood Feed	Magnesium 0.17; Potassium 0.85; Copper 17.5ppm; Zinc 85ppm; Sodium 0.87; Manganese 50ppm; Iron 0.06 Cobalt 5.6ppm
CT Salmon Brood Feed	Magnesium 0.16; Potassium 0.84; Copper 10ppm; Zinc 107ppm; Sodium 0.8; Manganese 50ppm; Iron 0.06; Cobalt 5.0ppm
CT Salmon Brood Feed	Magnesium 0.16; Potassium 0.9; Copper 10ppm; Zinc 98ppm; Sodium 0.9; Iron 542ppm; Cobalt 3ppm; Manganese 51ppm
CT Salmon Brood Feed	Magnesium 0.16; Potassium 0.96; Copper 12ppm; Zinc 115ppm; Sodium 0.8; Iron 605ppm; Cobalt 4ppm; Manganese 461ppm



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