

**2000 ANNUAL REPORT ON COMMERCIAL FEEDS & ANIMAL REMEDIES**

January 1, 2000 to December 31, 2000

**SECRETARY OF AGRICULTURE – LARRY GABRIEL**

**FEED & REMEDY PROGRAM**

Kevin Fridley - Director, Division of Agricultural Services  
Brad Berven - Administrator, Office of Agronomy Services  
Shannon Jordre - Ag Program Specialist - Commercial Feed & Animal Remedy

**LABORATORY**

Nancy Thiex - Oscar E. Olson Biochemistry Labs  
South Dakota State University  
133 Animal Science Complex  
Box 2170  
Brookings, SD 57007-1217  
  
Telephone 605-688-6171

**QUESTIONS**

Questions regarding this publication may be directed to the Department of Agriculture at 605-773-4432. The Department of Agriculture has also established a home page on the internet, which contains a copy of the feed regulations, license application and feed tonnage inspection fee report forms, and e-mail addresses for Department personnel. The address for that web-site is:

<http://www.state.sd.us/state/executive/doa/doa.html>

## 2000 COMMERCIAL FEED & ANIMAL REMEDY ANNUAL REPORT

### TABLE OF CONTENTS

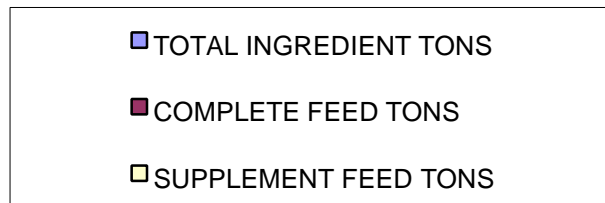
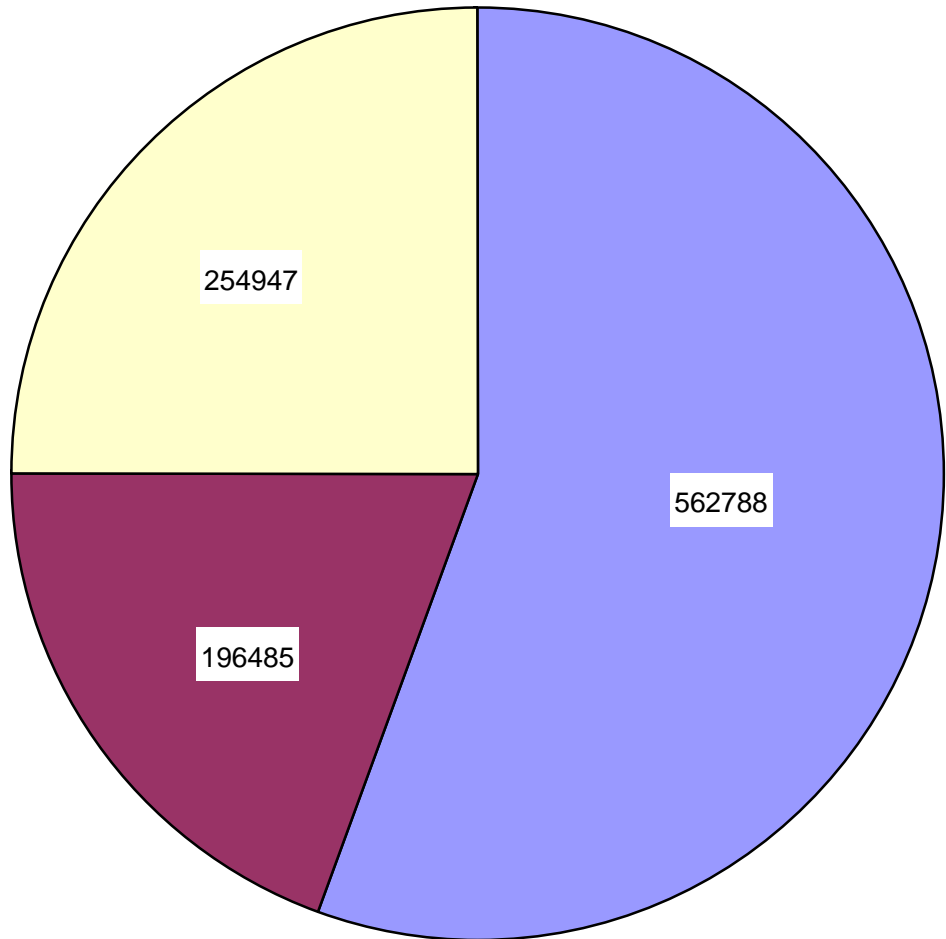
In the last few years we have added several sections to our Annual Report on Commercial Feeds and Animal Remedies. Although many of the pages aren't numbered, the individual sections should not be hard to find. The sections are found in the book in the order described below:

- I. Commercial Feed results
  - A. 2000 Summary of total feed tonnage reported
  - B. List of 2000 feed analytes
  - C. Summary of sample results by manufacturer
  - D. Individual sample results
  
- II. Animal Remedy results
  - A. List of 2000 remedy analytes
  - A. Summary of sample results by manufacturer
  - B. Individual sample results
  
- III. Animal Feed & Drug Contaminants Monitoring Program
  - A. Sulfa Drug Residue in feeds and feed ingredients
  - B. Adulteration by Noxious Weed Seeds
    - 1. Summary of weed seed occurrence in commercial feeds and feed ingredients
    - 2. Individual sample results for weed seed analysis
  - C. Vomitoxin (Deoxynivalenol) in grain and feed ingredients
  - D. Selenium in formula feeds
    - 1. Summary and results of selenium analysis of feeds
  - E. Copper levels in formula feeds
  
- IV. BSE Compliance Policy Guide

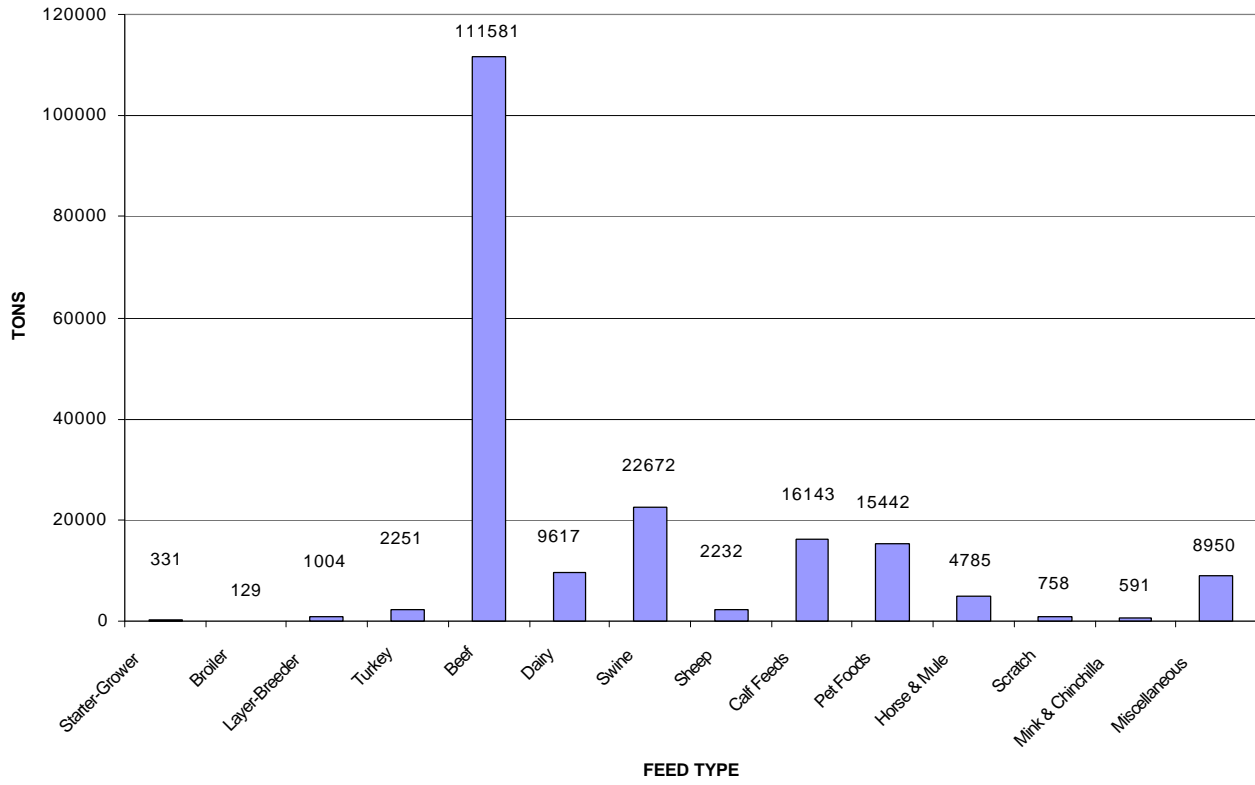
**SOUTH DAKOTA DEPARTMENT OF AGRICULTURE  
COMMERCIAL FEED TONNAGE REPORT  
2000 TOTAL – 1,014,220 TONS**

<b>FORMULA FEED</b>	<b>TONS COMPLETE</b>	<b>TONS SUPPLEMENT</b>	<b>FEED INGREDIENTS (CONTINUED)</b>	<b>TONS</b>
Starter-Grower	331	132	Beet Products	6
Broiler	129	49	Brewery Products	
Layer-Breeder	1004	535	Citrus Products	
Turkey	2251	8442	Corn Products	116
Beef	111581	111711	Cottonseed Products	3
Dairy	9617	35966	Distillers Products	17
Swine	22672	48230	Drugs	2
Sheep	2232	2748	Fats & Oils Products	20
Mineral		10032	Grain Sorghum Products	
Vitamins		570	Lespedeza Products	
Vitamins & Minerals		4086	Linseed & Flax Products	
Calf Feeds	16143		Marine Products	1
Pet Foods	15442		Milk Products	1
Horse & Mule	4785		Minerals	39
Scratch	758		Molasses	6
Liquid Feeds		30718	Oat Products	7
Mink & Chinchilla	591		Peanut Products	
Silage Additive		332	Rice Products	
Miscellaneous	8950	1398	Rye Products	
			Soybean Products	273
<b>TOTAL FORMULA FEED</b>	<b>196485</b>	<b>254947</b>	Urea	
	<b>TONS</b>		Vitamins	2
<b>FEED INGREDIENTS</b>			Wheat Products	10
Alfalfa Products	4078		Yeast Products	
Animal Products	32942		Miscellaneous	14
Bakery Products				
Barley Products	31		<b>TOTAL INGREDIENTS</b>	<b>562</b>

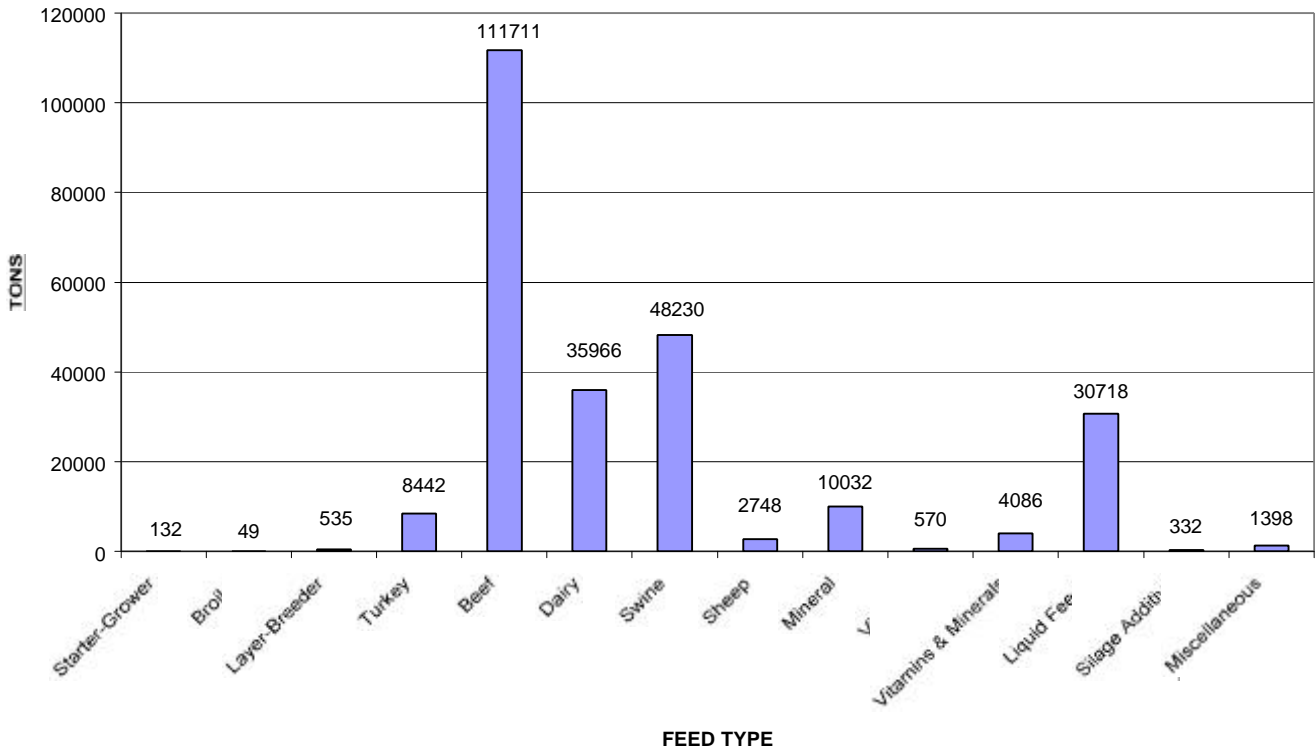
## 2000 FEED TONNAGE 1,014,220 TONS



**2000 COMPLETE FEED**  
**196,485 TONS**

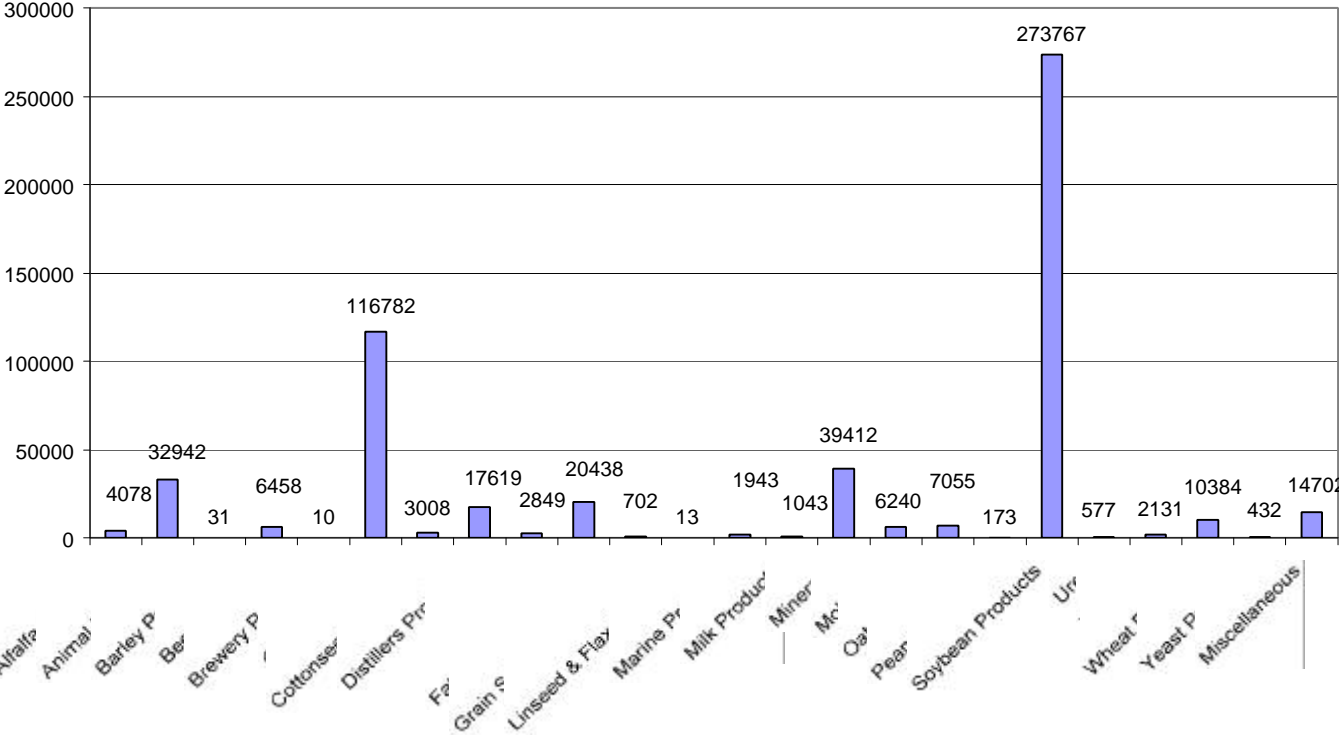


**2000 SUPPLEMENT FEED**  
**254,947 TONS**



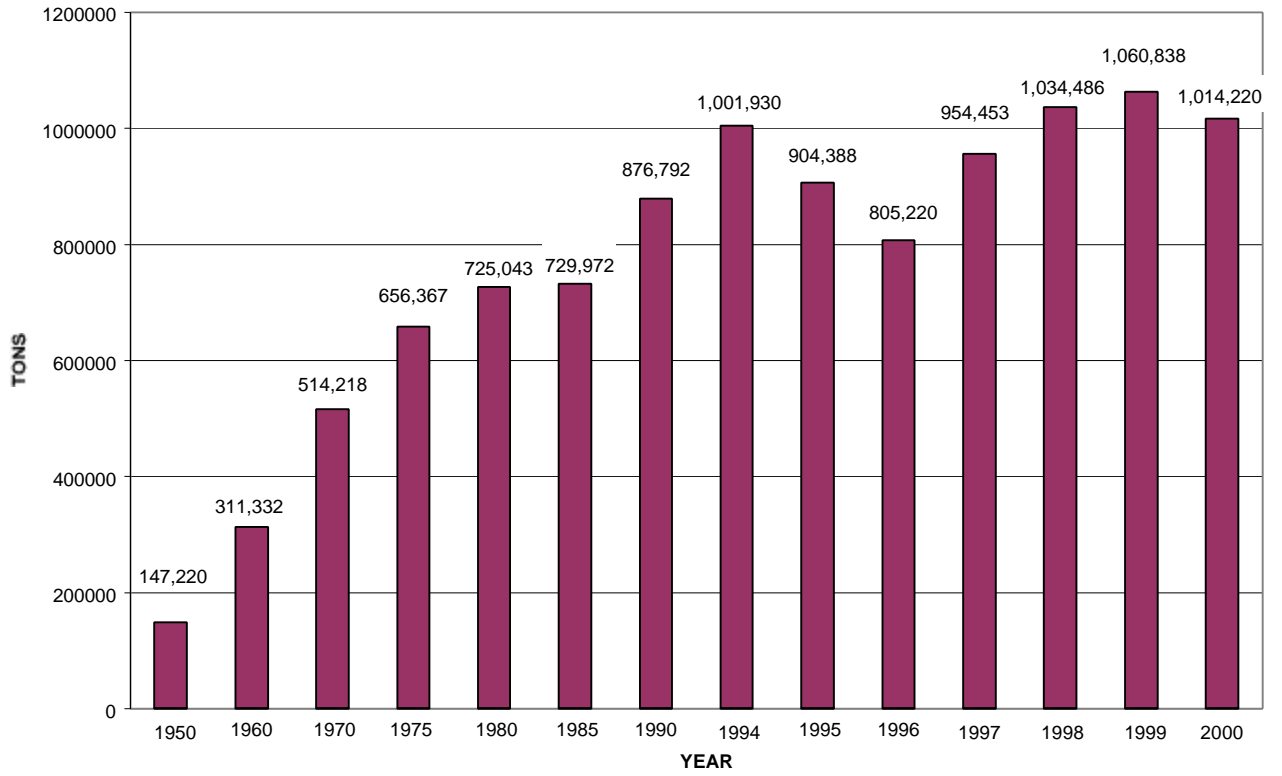
2000 INGREDIENT TONS

562,788 TONS



INGREDIENT TYPE

### TONNAGE HISTORY 1950 - 2000





# Sample Count Report

Feeds Sampled From 01/01/2000 To 12/31/2000

Manufacturer and Location			Sample	Passed	Not
Abys Feed & Seed	Rapid City	SD	1	0	1
Agra Partners LTD	W Des Moines	IA	1	1	0
Agri-Energy	Luverne	MN	1	1	0
Albertsons Inc	Boise	ID	1	1	0
Alpharma Inc	Fort Lee	NJ	1	1	0
American Agco	St Paul	MN	1	1	0
American Protein Corporation	Ames	IA	2	2	0
American Protein Corporation	Lytton	IA	1	1	0
Antler King Trophy Prod.	Black River Falls	WI	1	0	1
AP Ltd.	Des Moines	IA	1	1	0
Arco Dehydrating Company	Lake Park	IA	3	3	0
Babers Vis-Vita Sales	Sioux City	IA	2	2	0
Barnes Hay & Feed Company	Gayville	SD	1	0	1
Bay State Milling	Quincy	MA	1	1	0
Beatrice Cheese Inc.	Waukesha	WI	1	1	0
C & S Products Company	Fort Dodge	IA	2	2	0
Cargill Nutrena Feeds	Minneapolis	MN	8	6	2
Central Bi-Products	Redwood Falls	MN	1	1	0
Central Tractor Farm and Country	DesMoines	IA	1	1	0
CK Processing Company	Muscatine	IA	2	2	0
Commodity Specialists	Minneapolis	MN	1	1	0
Consolidated Nutrition L.C.	Omaha	NE	7	3	4
Consumers Supply Dist Company	Sioux City	IA	2	2	0
Cotton Oil Mill Inc.	Pine Bluff	AK	1	1	0
Cuprem Inc	Kenesaw	NE	1	1	0
D & D Commodities	Stephen	MN	1	1	0
Dakota Mill & Grain	Fort Pierre	SD	1	1	0
Dakota Mill & Grain	Philip	SD	1	1	0
Dakota Mill and Grain	Sturgis	SD	1	1	0
Dakota Pride Coop	Winner	SD	3	2	1
Dakotaland Feeds	Huron	SD	1	1	0
Discount Farm Center Inc	Watertown	SD	1	1	0
DPC Corp	Joplin	MO	1	1	0
Ducoa	Highland	IL	2	2	0
Evolved Habitats	New Roads	LA	1	1	0
Farmers Coop	Gordon	NE	8	8	0
Farmers Coop Elevator Company	Rosholt	SD	1	1	0
Farmland Industries	Kansas City	MO	19	14	5
Farnam Companies Inc	Phoenix	AZ	1	1	0
Federal Beef Processors	Rapid City	SD	1	1	0
Feed Rite	Winnipeg	CN	1	1	0
	Manitoba				

<b>Manufacturer and Location</b>			<b>Sample</b>	<b>Passed</b>	<b>Not</b>
Fleming Companies Inc.	Oklahoma City	OK	2	2	0
Freeport Roller Miles Inc.	Freeport	MN	2	2	0
Friskies Pet Care Products	Glendale	CA	8	8	0
Golden Acres	Esterville	IA	1	1	0
Golden Sun Feeds Inc	Estherville	IA	20	17	3
Golden Sun Feeds Inc	Sioux Falls	SD	1	1	0
Gutwein and Company	Francesville	IN	2	2	0
Hartz Mountain Corp	Secaucus	NJ	1	1	0
Harvest Brands Inc	Pittsburg	KS	4	2	2
Harvest States Feeds	Sioux Falls	SD	4	3	1
Heartland Grain Fuels	Aberdeen	SD	1	1	0
Heinz Pet Products	Lawrence	KS	1	1	0
Heinz Pet Products	Newport	KY	3	3	0
Hill's Pet Nutrition	Topeka	KS	10	10	0
Hub City Feed & Seed	Aberdeen	SD	5	4	1
Hubbard Feed Inc.	Watertown	SD	4	3	1
Hubbard Feeds, Inc.	Mankato	MN	44	36	8
J&R Distributing	Lake Norden	SD	7	3	4
John Morrell	Sioux Falls	SD	1	1	0
JRB Foods Inc	Cuyahoga Falls	OH	1	1	0
Kay Dee Feed Company	Sioux City	IA	8	3	5
Kaytee Products Inc	Chilton	WI	4	4	0
Kent Feeds Inc	Muscatine	IA	2	2	0
Land O Lakes Inc.	Fort Dodge	IA	28	24	4
Land O Lakes/Harvest States	Edgeley	ND	1	1	0
Land O Lakes/Harvest States	Ft. Dodge	IA	29	29	0
Land O'Lakes/Harvest States	Sioux Falls	SD	1	1	0
Manna Pro Corporation	St. Louis	MO	1	1	0
Manning Agricultural Center	Manning	IA	1	0	1
Marion Zoological Inc.	Plymouth	MN	1	1	0
Marshall Pet Diets	Wolcott	NY	1	1	0
Mason City By-Products Inc	Mason City	IA	1	1	0
Mc Carlson Feed	Webster	SD	2	1	1
McFleeg Inc	Watertown	SD	1	1	0
Mid-States Distributing Company	St Paul	MN	12	9	3
Midwest Ag Supply	Watertown	SD	1	1	0
Midwest Agri Commodities	Moorhead	MN	1	0	1
Midwest Agri Commodities	Hillsboro	ND	1	1	0
Midwest Commodities	Marshall	MN	1	1	0
Midwest Trading Corp	Sioux City	IA	1	1	0
Milk Specialties Company	Dundee	IL	2	2	0
Millbrook Feed Mill	Mitchell	SD	4	4	0
Minnesota Valley Alfalfa Producers	Willmar	MN	1	0	1
Muellers Feed Mill	Martin	SD	3	2	1

<b>Manufacturer and Location</b>			<b>Sample</b>	<b>Passed</b>	<b>Not</b>
Nabisco Foods	E Hanover	NJ	2	2	0
Nash Finch	Minneapolis	MN	1	1	0
Natura Pet Products	Santa Clara	CA	1	1	0
Natures Gold	Secaucus	NJ	1	1	0
Nelson & Sons Inc	Murray	UT	6	6	0
North Dakota Mill & Elevator	Grand Forks	ND	1	1	0
Northern Sun/Div.of ADM	Enderlin	ND	1	1	0
Nutra-Flo Company	Sioux City	IA	2	2	0
Nutritec Inc.	Vernon Hills	IL	1	1	0
Nutro Products Inc	City of Industry	CA	4	4	0
O'Reily Feeds	Roseville	MN	1	1	0
Occo Products	Omaha	NE	2	2	0
Omega Protein Inc	Hammond	LA	1	1	0
Pedigree Inc	Vernon	CA	1	1	0
Pet Gold Products	San Diego	CA	1	1	0
Pet Products Plus, Inc.	St Peters	MO	2	2	0
Pfizer Animal Health	Exton	PA	1	1	0
PM Ag Products Inc	Homewood	IL	2	1	1
PMI Nutrition International Inc.	Brantwood	MO	1	1	0
Premier Farmtech	Kansas City	MO	2	2	0
Pro Visions Pet Specialties	St. Louis	MO	1	1	0
Purina Mills	Minneapolis	MN	1	1	0
Purina Mills	Sioux City	IA	1	1	0
Purina Mills	St. Louis	MO	24	18	6
Quality Liquid Feeds Inc	Dodgeville	WI	2	0	2
Ragland Mills Inc	Neosho	MO	6	3	3
Ralston Purina Company	St. Louis	MO	5	5	0
Ramona Warehouse	Ramona	SD	1	1	0
Rancher Feed & Seed	Buffalo Gap	SD	1	1	0
Robinson Labs Inc.	Cannon Falls	MN	1	0	1
Rolf Hagen	Mansfield	MA	1	1	0
Schempp Liquifeeds Inc	Menno	SD	1	1	0
Scrypton Systems Inc	Annapolis	MD	1	0	1
SD Soybean Processors	Volga	SD	3	3	0
South Shore Elevator Co.	Waubay	SD	1	1	0
Southwest Grain	Belle Fourche	SD	1	1	0
Sterling Technology	Toronto	SD	4	3	1
Sun Seed Company Inc	Bowling Green	OH	2	1	1
Swift and Co.	Worthington	MN	1	1	0
Tech Mix Inc	Stewart	MN	1	1	0
The Iams Company	Dayton	OH	6	6	0
The Wardley Corporation	Secaucas	NJ	1	1	0
Tractor Supply Company	Nashville	TN	4	3	1
Tradition Feed Products Company	Mankato	MN	14	10	4
Truman Farmers Elevator	Truman	MN	1	1	0

Manufacturer and Location			Sample	Passed	Not
Valley Splendor	Fargo	ND	1	1	0
Vigorena Feeds	Mankato	MN	1	0	1
Vigortone Ag Products Inc	Cedar Rapids	IA	2	2	0
VitaKraft Pet Products	Bound Brook	NJ	1	1	0
Wal Mart Stores Inc	Bentonville	AR	3	3	0
Walter Zaugg	Bardonia	NY	1	1	0
Waltham	Vernon	CA	1	1	0
West Plains Grain	Hay Springs	NE	1	1	0
Western QLF	Dunlap	IA	1	1	0
Westway Trading	New Orleans	LA	1	0	1
Westway Trading Corp	South Omaha	NE	1	1	0
Woody's Performance Horse Feed	Dickinson	ND	3	3	0
Yaggies Inc	Yankton	SD	1	1	0
Zip Feed Mills	Sioux Falls	SD	3	3	0
<b>Totals:</b>			465	389	76

**Percent Passed:** 83.7%

**Percent Not** 16.3%

COMMERCIAL FEEDS SAMPLED -- 2000  
LIST OF ANALYTES

<u>NUTRIENT ANALYTES</u>	<u>NUMBER OF SAMPLES</u>
Crude Protein	353
Calcium	170
Salt	160
Vitamin A	143
Crude Fat	133
Crude Fiber	112
Moisture	96
Phosphorus	90
Ash	43
Selenium	43
Lysine	37
Iodine	35
Equivalent Crude Protein	34
Magnesium	22
Methionine	21
Potassium	17
Sodium	16
Total Sugars as Invert (TSI)	14
Acid Detergent Fiber (ADF)	12
Taurine	11
Linoleic Acid	4
Zinc	4
Arginine	3
Arsenic	2
Cadmium	2
Chromium	2
Cobalt	2
Copper	2
Cystine	2
Glycine	2
Histidine	2
Iron	2
Lead	2
Leucine	2
Isoleucine	2
Lactose	2
Molybdenum	2
Phenylalanine	2
Threonine	2
Tryptophan	2
Amino Acids (complete screen)	1
Total Nitrogen	1
 <u>DRUG ANALYTES</u>	
Chlortetracycline	29
Lasalocid	23
Monensin	16
Oxytetracycline	13
Sulfamethazine	10
Amprolium	9
Decoquinat	8
Carbadox	3
Sulfathiazole	2
Tylosin	2
Apramycin	1
Roxarsone	1
Tetrachlorvinphos	1
Tiamulin	1
 <u>OTHER ANALYTES</u>	

Noxious Weed Seeds	28
Aflatoxins	3
Density	1
pH	1
Total Solids	1

# Feed Summary Report

Feeds Sampled  
01-01-2000 to 12-31-2000

Manufacturer Location	Product	Analyte	Found	Claim	
<b>Abys Feed &amp; Seed</b> Rapid City, SD	<b>*** Hen Scratch</b>		<b>00F-04538</b>		
	Crude Protein, %		9.35	10.5	DEFICIENT
<b>Agra Partners LTD</b> West Des Moines, IA	<b>Whole Menhaden Fish Meal</b>		<b>00F-05686</b>		
	Crude Fat, %		6.20	6	
	Crude Protein, %		63.6	60	
<b>Agri-Energy</b> Luverne, MN	<b>DDGS (Grain Distiller)</b>		<b>00F-00913</b>		
	Crude Fiber, %		7.15	12	
	Crude Fat, %		12.0	8	
	Oven Moisture, %		12.7	12.5	
	Crude Protein, %		26.9	25	
<b>Albertsons Inc</b> Boise, ID	<b>Albertson's Gourmet Cat Food</b>		<b>00F-10835</b>		
	Ash, %		2.87	3	
	Oven Moisture, %		76.1	78	
	Crude Protein, %		11.2	10	
	Taurine - Total, %		0.058	0.05	
<b>Alpharma Inc</b> Fort Lee, NJ	<b>ChlorMax 50</b>		<b>00F-05334</b>		
	Chlortetracycline, g/lb		51.2	50	
<b>American Agco</b> St Paul, MN	<b>Wild Bird Food</b>		<b>00F-04941</b>		
	Crude Fiber, %		8.37	10	
	Crude Protein, %		12.4	10	
<b>American Protein Corporation</b> Ames, IA	<b>Lifeline Calf Nutritional Colostrum Supplement</b>		<b>00F-05134</b>		
	Crude Protein, %		45.5	40	
	<b>Life Line Nutritional Colostrum Supplement</b>		<b>00F-10622</b>		
	Crude Protein, %		45.2	40	
<b>American Protein Corporation</b> Lytton, IA	<b>Steamed Bone Meal</b>		<b>00F-03460</b>		
	Ash, %		59.6	88	
	Calcium, %		22.8	22-26	
	Crude Fat, %		17.4	12	
	Phosphorus, %		10.2	11	
	Crude Protein, %		18.3	12	
<b>Antler King Trophy Prod.</b> Black River Falls, WI	<b>*** Antler King Trophy Deer/Elk Pellets</b>		<b>00F-05796</b>		
	Calcium, %		1.29	1.15-1.65	
	Crude Fiber, %		9.51	14	
	Phosphorus, %		0.780	1	DEFICIENT
	Potassium, %		1.05	1	
	Crude Protein, %		20.4	18.5	

\*\*\* = Misbranded

Manufacturer Location	Product	Analyte	Found	Claim	
<b>AP Ltd.</b>					
<b>Des Moines, IA</b>					
	<b>Urea</b>		<b>00F-05315</b>		
		Total Nitrogen, %	46.4	46	
<b>Arco Dehydrating Company</b>					
<b>Lake Park, IA</b>					
	<b>17% Alfalfa Pellets</b>		<b>00F-05319</b>		
		Crude Fiber, %	27.3	30	
		Crude Protein, %	17.6	17	
	<b>Arco Alfalfa Meal</b>		<b>00F-05688</b>		
		Crude Fiber, %	29.0	30	
		Crude Protein, %	17.2	17	
	<b>Alfalfa Meal</b>		<b>01F-00040</b>		
		Crude Fiber, %	28.2	30	
		Crude Protein, %	19.1	17	
<b>Babers Vis-Vita Sales</b>					
<b>Sioux City, IA</b>					
	<b>50% Meat and Bone Meal</b>		<b>00F-05399</b>		
		Calcium, %	8.76	8.4-10	
		Crude Fat, %	12.4	6	
		Phosphorus, %	4.18	4	
		Crude Protein, %	55.0	50	
	<b>Linseed Meal</b>		<b>01F-00033</b>		
		Crude Fiber, %	8.89	10	
		Crude Protein, %	34.9	34	
<b>Barnes Hay &amp; Feed Company</b>					
<b>Gayville, SD</b>					
	<b>*** Bulk Alfalfa Pellets</b>		<b>00F-04540</b>		
		Crude Fiber, %	35.2	30	EXCESSIVE
		Crude Protein, %	15.8	15	
<b>Bay State Milling</b>					
<b>Quincy, MA</b>					
	<b>Wingold Bakers Bran</b>		<b>00F-03461</b>		
		Crude Fiber, %	11.5	12	
		Crude Protein, %	19.0	14.5	
<b>Beatrice Cheese Inc.</b>					
<b>Waukesha, WI</b>					
	<b>Sweet Dairy Edible Dried Whey</b>		<b>00F-05311</b>		
		Ash, %	9.30	9	
		Lactose, %	66.9	65	
		Crude Protein, %	10.8	11	
<b>C &amp; S Products Company</b>					
<b>Fort Dodge, IA</b>					
	<b>Sweet Corn Squirrelog</b>		<b>00F-03504</b>		
		Fat: Acid Hydrolysis, %	6.13	6.5	
		Crude Protein, %	9.91	8	
	<b>High Energy Suet</b>		<b>00F-03817</b>		
		Crude Fiber, %	8.00	12	
		Crude Fat, %	41.5	30	
<b>Cargill Nutrena Feeds</b>					
<b>Minneapolis, MN</b>					
	<b>Aureomycin HG Crumbles</b>		<b>00F-03136</b>		
		Crude Fiber, %	14.7	25	
		Chlortetracycline, g/lb	3.92	4	
		Crude Protein, %	10.4	9	
	<b>Aureo S70</b>		<b>00F-03137</b>		
		Crude Fiber, %	13.7	25	
		Chlortetracycline, g/lb	1.69	2	
		Crude Protein, %	13.9	9	
		Sulfamethazine, g/lb	1.83	2	

#\* = Misbranded



Manufacturer Location	Product	Analyte	Found	Claim		
	<b>*** Nutrena Mag No. 14 Mineral (STL)</b>		<b>00F-04630</b>			
		Calcium, %	7.39	5-6	EXCESSIVE	
		Phosphorus, %	3.19	3.5		
		Salt (Sodium X 2.54), %	13.5	15-16		
		Sodium, %	5.31	6-7.8		
		Vitamin A, IU/lb	89100.	70000		
		<b>Nutrena Chick Starter (AMP) (NS)</b>		<b>00F-05289</b>		
		Crude Protein, %	20.3	20		
	<b>*** Right Now Emerald Plain Mineral (ATL)</b>			<b>00F-05291</b>		
			Calcium, %	17.5		
			Phosphorus, %	6.09		
			Salt (ChlorideX1.65), %	13.1	14-16	
			Salt (Sodium X 2.54), %	12.4		
			Selenium, ug/g (ppm)	19.8		
			Sodium, %	4.86		
	Vitamin A, IU/lb	122000.				
	<b>Trace Mineral Salt Block</b>		<b>00F-05690</b>			
	Salt (Sodium X 2.54), %	89.7	94-98.5			
	Sodium, %	35.3	37-38.75			
	<b>Nutrena Right Now Bronze Plains Min</b>		<b>01F-00032</b>			
	Calcium, %	11.0	11-13			
	Magnesium, %	3.58	3			
	Potassium, %	2.10	2			
	Salt (Sodium X 2.54), %	11.4	11.5-12.5			
	Selenium, ug/g (ppm)	31.4	30			
	Sodium, %	4.49	4.5-5.5			
	Vitamin A, IU/lb	125000.	100000			
	<b>TM Crumbles Terramycin</b>		<b>01F-00083</b>			
	Oxytetracycline, g/lb	1.51	2			
<b>Central Bi-Products</b>						
<b>Redwood Falls, MN</b>						
	<b>Gro-Mor Feather Meal</b>		<b>00F-05879</b>			
	Ash, %	1.94	6			
	Crude Protein, %	86.2	80			
<b>Central Tractor Farm and Country Inc</b>						
<b>DesMoines, IA</b>						
	<b>Dyagro Assorted dog biscuits</b>		<b>00F-04517</b>			
	Crude Fat, %	5.93	6			
	Oven Moisture, %	6.52	10			
	Crude Protein, %	23.9	20			
<b>CK Processing Company</b>						
<b>Muscatine, IA</b>						
	<b>Dry Molasses - Econolass</b>		<b>00F-05400</b>			
	Crude Fiber, %	18.6	20			
	Crude Protein, %	9.23	6			
	Total Sugars(Invert), %	33.6	38			
	<b>Econolass - Molasses Product</b>		<b>00F-07370</b>			
	Crude Fiber, %	17.8	20			
	Crude Protein, %	8.77	6			
	Total Sugars(Invert), %	33.8	38			
<b>Commodity Specialists</b>						
<b>Minneapolis, MN</b>						
	<b>Corn Distillers Dried Grains with Solubles</b>		<b>00F-01415</b>			
	Ash, %	3.59	8			
	Crude Fiber, %	7.63	15			
	Crude Fat, %	10.6	10			
	Crude Protein, %	27.1	25			

#\* = Misbranded

Manufacturer Location	Product	Analyte	Found	Claim	
<b>Consolidated Nutrition L.C.</b>					
<b>Omaha, NE</b>					
	<b>Patriot Horse Feed</b>		<b>00F-05336</b>		
		Crude Fat, %	4.95	5	
		Crude Protein, %	14.3	14	
	<b>Metabalance 10/15 10496AYW</b>		<b>00F-07114</b>		
		Chlortetracycline, g/ton	318.	400	
		Crude Fat, %	10.3	10	
		Crude Protein, %	22.7	22	
	<b>*** Beef concentrate 51467CDB</b>		<b>00F-07115</b>		
		Calcium, %	7.66	8-9.6	
		Crude Fiber, %	8.91	15	
		Equiv Crude Protein, %	20.8	20	
		Monensin, g/ton	466.	500	
		Potassium, %	2.07	2.5	DEFICIENT
		Crude Protein, %	40.3	40	
		Salt (Sodium X 2.54), %	3.10	3.5-4.5	
		Vitamin A, IU/lb	79000.	40000	
	<b>*** 36% Horse Supplement 80026AAA</b>		<b>00F-07116</b>		
		Calcium, %	3.08	3.2-4.2	
		Phosphorus, %	1.42	2	DEFICIENT
		Crude Protein, %	36.2	36	
		Salt (Sodium X 2.54), %	2.68	2.9-3.9	
		Vitamin A, IU/lb	9980.	20000	DEFICIENT
	<b>Meta Balance 10/15</b>		<b>00F-11560</b>		
		Chlortetracycline, g/ton	304.	400	
		Crude Fat, %	9.92	10	
		Crude Protein, %	23.5	22	
	<b>*** Meta Balance 5/10</b>		<b>00F-11561</b>		
		Chlortetracycline, g/ton	173.	400	DEFICIENT
		Crude Fat, %	11.7	12	
		Crude Protein, %	25.1	24	
	<b>*** Heifer Developer 36 30109CBS Medicated</b>		<b>00F-11562</b>		
		Acid Detergent Fiber, %	10.9	10	
		Calcium, %	2.84	3.4-4.4	DEFICIENT
		Monensin, g/ton	146.	150	
		Crude Protein, %	37.6	36	
		Vitamin A, IU/lb	57900.	25000	
<b>Consumers Supply Dist Company</b>					
<b>Sioux City, IA</b>					
	<b>Soybean Meal</b>		<b>00F-08724</b>		
		Ash, %	5.98	7	
		Oven Moisture, %	10.6	12.5	
		Crude Protein, %	46.2	44	
	<b>Fish Meal 60%</b>		<b>01F-00037</b>		
		Crude Fat, %	10.8	6.5	
		Crude Protein, %	62.6	60	
<b>Cotton Oil Mill Inc.</b>					
<b>Pine Bluff, AK</b>					
	<b>Cotton Seed Hulls</b>		<b>00F-05318</b>		
		Aflatoxins, ppb	N.D.	20	
		Crude Fiber, %	42.6	50	
<b>Cuprem Inc</b>					
<b>Kenesaw, NE</b>					
	<b>CL Cow Replacer</b>		<b>00F-05352</b>		
		Ash, %	6.94	8	
		Fat: Roese Gottlieb, %	20.1	20	
		Vacuum Moisture, %	4.67	4.5	
		Crude Protein, %	30.5	30	

\*\*\* = Misbranded

Manufacturer Location	Product	Analyte	Found	Claim	
<b>D &amp; D Commodities</b>					
<b>Stephen, MN</b>					
	<b>Premium Rabbit Food</b>		<b>00F-03866</b>		
		Crude Fiber, %	17.6	20	
		Oven Moisture, %	7.48	12	
		Crude Protein, %	17.8	18	
<b>Dakota Mill &amp; Grain</b>					
<b>Philip, SD</b>					
	<b>Dakota Mill &amp; Grain Sweet Chop Feed</b>		<b>00F-07471</b>		
		Crude Protein, %	10.4	9	
<b>Dakota Mill and Grain</b>					
<b>Sturgis, SD</b>					
	<b>Sweet Chop Feed</b>		<b>00F-04972</b>		
		Crude Protein, %	9.14	8	
<b>Dakota Pride Coop</b>					
<b>Winner, SD</b>					
	<b>Cracked Corn</b>		<b>00F-05284</b>		
		Crude Protein, %	8.43	8	
	<b>*** Beef Grower Formulated B1200</b>		<b>00F-05286</b>		
		Calcium, %	15.0	13-15	
		Lasalocid, g/ton	653.	1200	DEFICIENT
		Phosphorus, %	2.53	2.5	
		Potassium, %	2.48	2.5	
		Salt (ChlorideX1.65), %	14.6	13-15	
		Salt (Sodium X 2.54), %	11.5	13-15	DEFICIENT
		Vitamin A, IU/lb	62200.	80000	
	<b>Soybean Meal</b>		<b>00F-05287</b>		
		Ash, %	6.12	8	
		Crude Protein, %	46.3	46.5	
<b>Dakotaland Feeds</b>					
<b>Huron, SD</b>					
	<b>Soybean Meal 46.5%</b>		<b>00F-12562</b>		
		Ash, %	5.68	8	
		Crude Protein, %	47.4	46.5	
<b>Discount Farm Center Inc</b>					
<b>Watertown, SD</b>					
	<b>Arrowhead Brand Soybean Meal Solvent Extracted</b>		<b>00F-00910</b>		
		Ash, %	5.52	8	
		Crude Protein, %	44.0	44	
<b>DPC Corp</b>					
<b>Joplin, MO</b>					
	<b>DPC Corp Field and Show Horse Treats</b>		<b>00F-12211</b>		
		Crude Fat, %	4.86	5	
		Crude Protein, %	16.7	10	
<b>Ducoa</b>					
<b>Highland, IL</b>					
	<b>TM-50 (Type A Med.) Terramycin</b>		<b>00D-03395</b>		
		Oxytetracycline, g/lb	47.2	50	
	<b>TM-50</b>		<b>00F-05312</b>		
		Oxytetracycline, g/lb	44.0	50	
<b>Evolved Habitats</b>					
<b>New Roads, LA</b>					
	<b>Deer Cane Liquid</b>		<b>01F-00043</b>		
		Calcium, %	0.03	0.05-0.13	
		Vacuum Moisture, %	72.4		
		Salt (Sodium X 2.54), %	25.0	26-31	
		Sodium, %	9.85	10.5-12.5	

\*\*\* = Misbranded

Manufacturer Location	Product	Analyte	Found	Claim	
<b>Farmers Coop</b>					
<b>Gordon, NE</b>					
	<b>50% Meat and Bone Meal Tankage</b>		<b>00F-04636</b>		
		Calcium, %	8.75	6-8.8	
		Crude Fat, %	10.4	10	
		Phosphorus, %	4.06	4	
		Crude Protein, %	51.5	50	
	<b>17% Dehydrated Alfalfa</b>		<b>00F-04643</b>		
		Crude Fiber, %	28.2	27	
		Crude Protein, %	18.0	17	
	<b>3-Way Grain Mix</b>		<b>00F-04645</b>		
		Crude Protein, %	12.0	9	
	<b>20% Lay Feed</b>		<b>00F-04646</b>		
		Calcium, %	3.89	3-3.5	
		Crude Fiber, %	5.21	10.5	
		Crude Protein, %	19.8	20	
	<b>Soybean Meal 44% Protein</b>		<b>00F-04647</b>		
		Crude Protein, %	45.1	44	
	<b>Coop Horse Feed 14</b>		<b>00F-05995</b>		
		Crude Fiber, %	5.35	10	
		Crude Protein, %	15.2	14	
	<b>Hen Scratch Ranchway Feeds</b>		<b>00F-05997</b>		
		Crude Protein, %	11.2	9.5	
	<b>Ranchway Hen Scratch</b>		<b>00F-10831</b>		
		Crude Protein, %	11.0	9.5	
<b>Farmland Industries</b>					
<b>Kansas City, MO</b>					
	<b>Pasture Liquid 37</b>		<b>00F-00826</b>		
		Equiv Crude Protein, %	30.0	32	DEFICIENT
		Crude Protein, %	36.5	37	EXCESSIVE
		Salt (Sodium X 2.54), %	5.13	4.5-5.5	
		Vitamin A, IU/lb	38000.	36000	
	<b>OTC-4 Crumbles</b>		<b>00F-00827</b>		
		Calcium, %	6.06	4.5-5.5	
		Crude Fiber, %	14.8	29	
		Oxytetracycline, g/lb	3.07	4	
		Crude Protein, %	14.2	8	
	<b>** Farmland Mineral-Pro-Phos 6 Mag Mineral Aureo</b>		<b>00F-05282</b>		
		Calcium, %	15.1	13.5-16	
		Chlortetracycline, g/ton	3530.	3500	
		Iodine, ppm	120.	88	
		Magnesium, %	9.68	10	
		Phosphorus, %	5.86	6	
		Salt (Sodium X 2.54), %	11.3	11-13	
		Selenium, ug/g (ppm)	15.9	22	DEFICIENT
		Vitamin A, IU/lb	154000.	140000	
	<b>Feedlot 40-28 Concentrate B600</b>		<b>00F-05283</b>		
		Calcium, %	8.55	7-8	
		Crude Fiber, %	7.20	15	
		Equiv Crude Protein, %	27.0	28	
		Lasalocid, g/ton	547.	600	
		Potassium, %	2.58	2.5	
		Crude Protein, %	41.4	40	
		Salt (Sodium X 2.54), %	4.62	4-5	
		Vitamin A, IU/lb	43100.	30000	
	<b>Herd Maker Milk Replacer (MP) 21-15</b>		<b>00F-05285</b>		
		Crude Fat, %	16.9		
		Oxytetracycline, g/ton	196.		
		Crude Protein, %	23.3		
		Vitamin A, IU/lb	26800.		

\*\* = Misbranded

Manufacturer Location	Product	Analyte	Found	Claim	
	<b>Nursery Grower #20 ASP</b>		<b>00F-05288</b>		
		Chlortetracycline, g/ton	105.	100	
		Crude Fat, %	5.20	5	
		Crude Protein, %	20.3	18	
		Sulfamethazine, g/ton	108.	100	
	<b>WSPS-Christiansen Salt Mix Feed Per own specs</b>		<b>00F-05320</b>		
		Salt (Sodium X 2.54), %	84.7	86.75-91.75	
		Selenium, ug/g (ppm)	21.8	22	
	<b>Pro-Phos 6 Mag Mineral</b>		<b>00F-05321</b>		
		Calcium, %	15.4	13.5-16	
		Iodine, ppm	57.0	88	
		Magnesium, %	9.07	10	
		Phosphorus, %	5.91	6	
		Salt (Sodium X 2.54), %	11.4	11-13	
		Selenium, ug/g (ppm)	21.8	22	
		Vitamin A, IU/lb	179000.	140000	
	<b>50% Meat and Bone Meal</b>		<b>00F-05322</b>		
		Calcium, %	8.25	9-10.2	
		Crude Fat, %	11.1	8	
		Phosphorus, %	3.92	4.1	
		Crude Protein, %	52.0	50	
	<b>*** Corn Distillers Dried Grains with Solubles</b>		<b>00F-05323</b>		
		Crude Fiber, %	6.62	10	
		Crude Fat, %	10.1	9	
		Oven Moisture, %	11.0	12	
		Crude Protein, %	24.7	27	DEFICIENT
	<b>44% Solvent Extracted Soybean Meal</b>		<b>00F-05324</b>		
		Crude Protein, %	44.6	44	
	<b>*** Golden Triangle Mineral Western Pro Phos 8 Cu+ Mag Min</b>		<b>00F-05346</b>		
		Calcium, %	13.4	11.5-13.5	
		Phosphorus, %	7.68	8	
		Salt (ChlorideX1.65), %	8.81	10-12	DEFICIENT
		Salt (Sodium X 2.54), %	8.88	10-12	DEFICIENT
<b>Farmland Industries Inc</b>					
<b>Kansas City, MO</b>					
	<b>Soybean meal 44%</b>		<b>00F-08078</b>		
		Crude Protein, %	44.4	44	
	<b>Llama Feed</b>		<b>00F-08079</b>		
		Calcium, %	2.08	2-2.5	
		Crude Fiber, %	7.97	10	
		Crude Protein, %	17.0	15	
	<b>*** Hi-Ratio Mineral</b>		<b>00F-08080</b>		
		Calcium, %	20.3	19-22.5	
		Phosphorus, %	4.09	4	
		Salt (Sodium X 2.54), %	17.9	19-22.5	
		Vitamin A, IU/lb	65700.	100000	DEFICIENT
	<b>Beef Crumbles AS-700-2+2</b>		<b>00F-08554</b>		
		Calcium, %	4.93	4-5	
		Crude Fiber, %	19.5	29	
		Chlortetracycline, g/lb	1.81	2	
		Crude Protein, %	13.7	10	
		Sulfamethazine, g/lb	1.74	2	
	<b>Pro-Phos 12 Mineral Aureo</b>		<b>00F-08555</b>		
		Calcium, %	12.2	11.5-13.5	
		Chlortetracycline, g/ton	2570.	3500	
		Iodine, ppm	67.5	88	
		Phosphorus, %	11.3	12	
		Salt (Sodium X 2.54), %	11.4	11-13	
		Selenium, ug/g (ppm)	23.4	22	
		Vitamin A, IU/lb	149000.	190000	

\*\*\* = Misbranded

Manufacturer Location	Product	Analyte	Found	Claim	
	<b>CoPass Beef 36-13 R400</b>		<b>00F-08556</b>		
		Calcium, %	3.72	2.75-3.75	
		Crude Fiber, %	15.7	18	
		Equiv Crude Protein, %	12.2	13	
		Monensin, g/ton	360.	400	
		Crude Protein, %	37.3	36	
		Salt (Sodium X 2.54), %	4.64	4-5	
		Vitamin A, IU/lb	21600.	30000	
	<b>** Beef Grower Formulator B-1200</b>		<b>00F-08557</b>		
		Calcium, %	14.9	13-15	
		Lasalocid, g/ton	738.	1200	DEFICIENT
		Phosphorus, %	2.34	2.5	
		Potassium, %	2.58	2.5	
		Salt (Sodium X 2.54), %	13.8	13-15	
		Vitamin A, IU/lb	89100.	80000	
<b>Farnam Companies Inc</b>					
<b>Phoenix, AZ</b>					
	<b>B-kalm Feed Supplement Paste</b>		<b>00F-05137</b>		
		Crude Protein, %	26.1	25	
		Tryptophan - Total, %		29.4	
<b>Federal Beef Processors</b>					
<b>Rapid City, SD</b>					
	<b>Meat and Bone Meal</b>		<b>00F-04016</b>		
		Calcium, %	11.4	10-12	
		Crude Fat, %	7.40	6	
		Phosphorus, %	5.02	4.5	
		Crude Protein, %	49.4	46	
<b>Feed Rite</b>					
<b>Winnipeg Manitoba, CN</b>					
	<b>Dimension 2000 20% Steam Rolled Calf Starter</b>		<b>00F-08728</b>		
		Decoquinatate, g/ton	46.7	45	
		Crude Protein, %	20.5	20	
<b>Fleming Companies Inc.</b>					
<b>Oklahoma City, OK</b>					
	<b>Best Yet Cat Food</b>		<b>00F-12782</b>		
		Fat: Acid Hydrolysis, %	12.1	11	
		Oven Moisture, %	7.04	12	
		Crude Protein, %	33.0	31.5	
	<b>Best Yet Dog Food</b>		<b>00F-12783</b>		
		Fat: Acid Hydrolysis, %	9.79	9	
		Oven Moisture, %	7.52	12	
		Crude Protein, %	23.2	21	
<b>Freeport Roller Miles Inc.</b>					
<b>Freeport, MN</b>					
	<b>Country Prime Cat Food</b>		<b>00F-00908</b>		
		Fat: Acid Hydrolysis, %	11.0	10	
		Oven Moisture, %	7.56	12	
		Crude Protein, %	34.9	31.5	
	<b>Gro-Mor Poultry By-Product Meal</b>		<b>00F-00914</b>		
		Calcium, %	8.13	9-10	
		Crude Fat, %	8.35	8	
		Oven Moisture, %	4.99	10	
		Phosphorus, %	4.18	4.5	
		Crude Protein, %	60.7	59	
<b>Friskies Pet Care Products</b>					
<b>Glendale, CA</b>					
	<b>Friskies Ocean Fish Flavor (Dry)</b>		<b>00F-01859</b>		
		Crude Fat, %	8.39	8	
		Oven Moisture, %	5.39	10	
		Crude Protein, %	32.3	31	
		Taurine - Total, %	0.118	0.1	

\*\* = Misbranded

Manufacturer Location	Product	Analyte	Found	Claim	
	<b>Friskies Mighty Dog Prime Cuts</b>		<b>00F-02820</b>		
		Oven Moisture, %	78.5	78	
		Crude Protein, %	11.0	10	
	<b>Friskies Special Diet Ocean White Fish Dinner</b>		<b>00F-02822</b>		
		Ash, %	2.70	2.8	
		Crude Fat, %	8.07	6.5	
		Oven Moisture, %	78.0	78	
		Crude Protein, %	11.1	10	
		Taurine - Total, %	0.078	0.05	
	<b>Alpo Dog Food Chunky W/Beef</b>		<b>00F-03128</b>		
		Crude Fat, %	7.21	6	
		Oven Moisture, %	75.7	78	
		Crude Protein, %	11.8	9	
	<b>Friskies Chef Blend</b>		<b>00F-03513</b>		
		Fat: Acid Hydrolysis, %	10.3	8	
		Oven Moisture, %	5.46	12	
		Crude Protein, %	32.3	30	
	<b>Friskies Turkey and Giblets Dinner</b>		<b>00F-04618</b>		
		Ash, %	2.40	3	
		Crude Fat, %	8.10	5	
		Oven Moisture, %	76.6	78	
		Crude Protein, %	11.8	10	
		Taurine - Total, %	0.074	0.05	
	<b>Friskies Kitty Teasers</b>		<b>00F-04622</b>		
		Fat: Acid Hydrolysis, %	8.76	9	
		Oven Moisture, %	32.3	34	
		Crude Protein, %	19.0	19	
	<b>Alpo with Chopped Beef</b>		<b>00F-04955</b>		
		Crude Fat, %	5.91	5	
		Oven Moisture, %	77.2	78	
		Crude Protein, %	10.2	9	
<b>Golden Acres</b>					
<b>Esterville, IA</b>					
	<b>Game Bird Feed</b>		<b>00F-05333</b>		
		Amprolium, %	0.0153	0.0175	
		Crude Fat, %	6.48	6	
		Lysine - Total, %	1.76	1.65	
		Methionine - Total, %	0.530	0.55	
		Crude Protein, %	31.4	30	
<b>Golden Sun Feeds Inc</b>					
<b>Esterville, IA</b>					
	<b>Liquid Feed</b>		<b>00F-01316</b>		
		Equiv Crude Protein, %	25.4	29	
		Crude Protein, %	32.8	32	
		Salt (Sodium X 2.54), %	5.84	4.5-5.5	
		Vitamin A, IU/lb	49500.	36000	
	<b>*** 28% Range Block</b>		<b>00F-01317</b>		
		Calcium, %	1.80	1.5-2	
		Crude Protein, %	28.5	28	
		Salt (ChlorideX1.65), %	15.0	17-20	DEFICIENT
		Salt (Sodium X 2.54), %	14.4	17-20	DEFICIENT
		Vitamin A, IU/lb	127000.	100000	
	<b>Hi-Phos "12" Mineral</b>		<b>00F-03000</b>		
		Calcium, %	13.0	11-13	
		Iodine, ppm	33.0	30	
		Phosphorus, %	11.5	12	
		Salt (Sodium X 2.54), %	7.68	7.5-9	
		Vitamin A, IU/lb	233000.	200000	
	<b>Golden Lean 40</b>		<b>00F-03001</b>		
		Calcium, %	3.12	3-4	
		Lysine - Total, %	2.48	2.5	
		Crude Protein, %	41.6	40	
		Salt (Sodium X 2.54), %	2.64	2.5-3	

\*\*\* = Misbranded

Manufacturer Location	Product	Analyte	Found	Claim	
	<b>*** Golden Range 20</b>		<b>00F-03002</b>		
		Crude Fiber, %	14.8	13	EXCESSIVE
		Crude Protein, %	21.3	20	
		Salt (Sodium X 2.54), %	1.84	1.5-2	
		Vitamin A, IU/lb	20600.	20000	
	<b>Show Time Beef Maximizer</b>		<b>00F-05332</b>		
		Crude Protein, %	16.4	14.5	
	<b>Golden Egg</b>		<b>00F-05335</b>		
		Calcium, %	3.95	3-4	
		Lysine - Total, %	1.13	0.9	
		Methionine - Total, %	0.321	0.33	
		Crude Protein, %	21.0	20	
	<b>*** 50% Beefmaker Block</b>		<b>00F-05337</b>		
		Calcium, %	2.64	2.5-3	
		Equiv Crude Protein, %	26.5	30	
		Phosphorus, %	1.93	2	
		Crude Protein, %	50.9	50	
		Salt (ChlorideX1.65), %	12.5	16.5-19.5	DEFICIENT
		Salt (Sodium X 2.54), %	14.4	16.5-19.5	DEFICIENT
		Vitamin A, IU/lb	75400.	100000	
	<b>28% Range Block</b>		<b>00F-05338</b>		
		Calcium, %	2.34	2-2.5	
		Crude Fiber, %	3.89	10	
		Lasalocid, g/ton	234.	250	
		Crude Protein, %	27.4	28	
		Salt (Sodium X 2.54), %	18.2	18.5-20.5	
		Vitamin A, IU/lb	111000.	100000	
	<b>Calf n Bulk 80 R Med</b>		<b>00F-08725</b>		
		Calcium, %	2.58	2.5-3	
		Crude Fiber, %	9.28	12	
		Monensin, g/ton	84.3	80	
		Crude Protein, %	28.8	27	
		Salt (Sodium X 2.54), %	1.84	1.5-2	
		Vitamin A, IU/lb	22300.	30000	
	<b>Calf Mox 13 90 Bov</b>		<b>00F-08726</b>		
		Crude Fiber, %	20.0	22	
		Lasalocid, g/ton	84.2	90	
		Crude Protein, %	13.8	13	
		Salt (Sodium X 2.54), %	1.53	1.5-2	
	<b>Zinc Mineral</b>		<b>00F-08727</b>		
		Calcium, %	12.0	11-13	
		Phosphorus, %	11.2	12	
		Salt (Sodium X 2.54), %	8.08	7.5-9	
		Vitamin A, IU/lb	539000.	500000	
		Zinc, %	4.18	4.4	
	<b>Golden Sun Feeds Hi Plains Breeder Mineral</b>		<b>01F-00025</b>		
		Calcium, %	12.3	11-13	
		Iodine, ppm	51.0	60	
		Phosphorus, %	8.68	9	
		Selenium, ug/g (ppm)	31.5	30	
		Vitamin A, IU/lb	395000.	400000	
	<b>Golden Sun Feeds AS700 4G</b>		<b>01F-00030</b>		
		Calcium, %	6.24	5-6.5	
		Crude Fiber, %	10.2	28	
		Chlortetracycline, g/lb	1.90	2	
		Crude Protein, %	10.5	5	
		Salt (Sodium X 2.54), %	3.60	3.8-4.3	
		Sulfamethazine, g/lb	1.99	2	
	<b>Golden Sun Feed CTC 10G</b>		<b>01F-00031</b>		
		Chlortetracycline, g/lb	10.6	10	

\*\*\* = Misbranded



Manufacturer Location	Product	Analyte	Found	Claim	
	<b>Grower 40/20 500Bov</b>		<b>01F-00044</b>		
		Calcium, %	5.55	5.5-6.5	
		Equiv Crude Protein, %	19.1	20	
		Lasalocid, g/ton	475.	500	
		Crude Protein, %	39.7	40	
		Salt (Sodium X 2.54), %	2.82	2.25-2.75	
		Vitamin A, IU/lb	40400.	40000	
	<b>Breeder Mineral</b>		<b>01F-00045</b>		
		Calcium, %	12.4	11-13	
		Iodine, ppm	100.	60	
		Phosphorus, %	11.6	12	
		Vitamin A, IU/lb	439000.	400000	
	<b>Hi Phos "12" Mineral</b>		<b>01F-00046</b>		
		Calcium, %	11.8	11-13	
		Iodine, ppm	26.0	30	
		Phosphorus, %	11.2	12	
		Salt (Sodium X 2.54), %	7.96	7-9	
		Vitamin A, IU/lb	207000.	200000	
	<b>Ground 40/20 400R</b>		<b>01F-00047</b>		
		Calcium, %	4.92	5.5-6.5	
		Equiv Crude Protein, %	18.0	20	
		Monensin, g/ton	408.	400	
		Crude Protein, %	39.2	40	
		Salt (Sodium X 2.54), %	1.95	2.25-2.75	
		Vitamin A, IU/lb	38300.	40000	
	<b>Grower 40/20 1000 Bov</b>		<b>01F-00048</b>		
		Calcium, %	4.90	5.5-6.5	
		Equiv Crude Protein, %	19.7	20	
		Lasalocid, g/ton	963.	1000	
		Crude Protein, %	39.9	40	
		Salt (Sodium X 2.54), %	2.28	2.25-2.75	
		Vitamin A, IU/lb	35700.	40000	
<b>Golden Sun Feeds Inc</b>					
<b>Sioux Falls, SD</b>					
	<b>Calf N Bulk 80 R Medicated</b>		<b>00F-00339</b>		
		Calcium, %	2.86	2.5-3	
		Crude Fiber, %	11.3	12	
		Monensin, g/ton	81.1	80	
		Crude Protein, %	27.2	27	
		Salt (Sodium X 2.54), %	1.61	1.5-2	
		Vitamin A, IU/lb	28200.	30000	EXCESSIVE
<b>Gutwein and Co</b>					
<b>Francesville, IN</b>					
	<b>Morning Song Wild Bird Food</b>		<b>00F-05891</b>		
		Crude Fiber, %	4.40	10	
		Crude Protein, %	10.0	7	
	<b>Gutwein and Company Bulk Bird Seed</b>		<b>00F-12207</b>		
		Crude Fiber, %	2.70	14	
		Crude Protein, %	9.74	9	

#\* = Misbranded

Manufacturer Location	Product	Analyte	Found	Claim	
<b>Hartz Mountain Corp</b>					
<b>Secaucus, NJ</b>					
	<b>Hartz Cockatiel Diet</b>		<b>00F-03127</b>		
		Alanine - Total, %	0.901	0.9	
		Arginine - Total, %	0.676	0.4	
		Aspartic Acid-Total, %	0.812	0.6	
		Crude Fiber, %	7.02	10	
		Cystine - Total, %	0.400	0.2	
		Glutamic Acid-Total, %	2.54	2.2	
		Glycine - Total, %	0.424	0.33	
		Histidine - Total, %	0.275	0.2	
		Isoleucine - Total, %	0.447	0.4	
		Leucine - Total, %	1.18	1.1	
		Lysine - Total, %	0.287	0.2	
		Methionine - Total, %	0.292	0.25	
		Oven Moisture, %	9.70	12	
		Phenylalanine-Total, %	0.611	0.5	
		Proline - Total, %	0.735	0.65	
		Crude Protein, %	13.0	11	
		Serine - Total, %	0.621	0.7	
		Threonine - Total, %	0.361	0.3	
		Tyrosine - Total, %	0.420	0.3	
		Valine - Total, %	0.597	0.4	
<b>Harvest Brands Inc</b>					
<b>Pittsburg, KS</b>					
	<b>*** 37% Range Block</b>		<b>00F-03138</b>		
		Calcium, %	4.70	6-7	DEFICIENT
		Equiv Crude Protein, %	17.4	18.5	
		Crude Protein, %	39.8	37	
		Salt (Sodium X 2.54), %	17.4	16-19	
		Vitamin A, IU/lb	29600.	30000	
	<b>Stockade 3 Way Block</b>		<b>00F-04495</b>		
		Calcium, %	5.25	4-5	
		Crude Fiber, %	7.38	10	
		Phosphorus, %	3.90	4	
		Potassium, %	2.71	2	
		Crude Protein, %	4.61	2.5	
		Salt (Sodium X 2.54), %	15.8	16-19	
		Selenium, ug/g (ppm)	8.72	7.2	
		Total Sugars(Invert), %	20.1	20	
		Vitamin A, IU/lb	40000.	50000	
	<b>*** Cane Pro</b>		<b>00F-05316</b>		
		Calcium, %	4.95	3.5-4.5	
		Equiv Crude Protein, %	14.0	16.75	
		Magnesium, %	2.16	2	
		Crude Protein, %	25.2	25	
		Salt (Sodium X 2.54), %	18.2	15-18	
		Total Sugars(Invert), %	8.98	14	DEFICIENT
		Vitamin A, IU/lb	22200.	30000	
	<b>Stockade 3 way Block</b>		<b>00F-12208</b>		
		Calcium, %	4.86	4-5	
		Crude Fiber, %	7.66	10	
		Salt (Sodium X 2.54), %	16.4	16-19	
		Total Sugars(Invert), %	18.4	20	
		Vitamin A, IU/lb	47200.	50000	
<b>Harvest States Feeds</b>					
<b>Sioux Falls, SD</b>					
	<b>Triple 12 Cattle Min Plus CTC 5600 Medicated</b>		<b>00F-01652</b>		
		Calcium, %	14.7	12-14	
		Chlortetracycline, g/lb	2.92	2.8	
		Iodine, ppm	140.	100	
		Magnesium, %	3.02	2.75	
		Phosphorus, %	11.1	12	
		Salt (Sodium X 2.54), %	13.5	12-14	
		Selenium, ug/g (ppm)	49.8	35	
		Vitamin A, IU/lb	179000.	150000	

## = Misbranded

Manufacturer Location	Product	Analyte	Found	Claim	
	<b>*** Triple 12 Cattle Min. Plus</b>		<b>00F-01653</b>		
		Calcium, %	12.0	12-14	
		Iodine, ppm	88.7	100	
		Magnesium, %	2.36	2.75	
		Phosphorus, %	11.4	12	
		Salt (Sodium X 2.54), %	13.9	12-14	
		Selenium, ug/g (ppm)	25.0	35	DEFICIENT
		Vitamin A, IU/lb	68800.	150000	
		DEFICIENT			
	<b>44% Soybean Meal Solvent Extracted</b>		<b>00F-05975</b>		
		Ash, %	5.71	8	
		Crude Protein, %	45.8	44	
	<b>Koxy Krumbles</b>		<b>00F-05978</b>		
		Amprolium, %	1.12	1.25	
<b>Heartland Grain Fuels</b>					
<b>Aberdeen, SD</b>					
	<b>Dried Distillers Grain (DDG)</b>		<b>00F-11754</b>		
		Crude Fiber, %	7.53	11	
		Fat: Acid Hydrolysis, %	12.1	11	
		Oven Moisture, %	13.1	12.5	
		Crude Protein, %	28.0	28	
<b>Heinz Pet Products</b>					
<b>Lawrence, KS</b>					
	<b>Kibbles N Bits Original Flavor</b>		<b>00F-12559</b>		
		Fat: Acid Hydrolysis, %	8.88	8	
		Oven Moisture, %	14.5	18	
		Crude Protein, %	20.3	19	
<b>Heinz Pet Products</b>					
<b>Newport, KY</b>					
	<b>9 Lives Saucy Tuna Entree</b>		<b>00F-01858</b>		
		Ash, %	2.66	3	
		Oven Moisture, %	75.3	78	
		Crude Protein, %	14.0	12	
		Taurine - Total, %	0.049	0.05	
	<b>Puss'n Boots Supreme</b>		<b>00F-04942</b>		
		Oven Moisture, %	75.4	78	
		Crude Protein, %	10.8	9	
	<b>Skippy Cycle Lite</b>		<b>00F-10832</b>		
		Crude Fiber, %	1.79	5	
		Crude Fat, %	2.50	2	
		Oven Moisture, %	80.1	82	
		Crude Protein, %	5.88	4	
<b>Hill's Pet Nutrition</b>					
<b>Topeka, KS</b>					
	<b>Hills Science Diet Treats Canine Maintenance</b>		<b>00F-03322</b>		
		Fat: Acid Hydrolysis, %	9.89	8.5	
		Crude Protein, %	20.6	19	
	<b>Science Diet Small Bites Adult Dog Food</b>		<b>00F-03870</b>		
		Fat: Acid Hydrolysis, %	13.1	13	
		Oven Moisture, %	8.88	10	
		Crude Protein, %	23.4	21.5	
	<b>Science Diet Canine Growth - Puppies</b>		<b>00F-05890</b>		
		Crude Fat, %	6.45	5	
		Oven Moisture, %	70.2	74	
		Crude Protein, %	8.69	8	
	<b>Hills Science Diet Light Low Magnesium</b>		<b>00F-07364</b>		
		Ash, %	5.19	6.2	
		Crude Fiber, %	6.55	9.5	
		Fat: Acid Hydrolysis, %	7.83	7-9.5	
		Magnesium, %	0.07	0.07	
		Oven Moisture, %	9.22	11	
		Crude Protein, %	37.4	35	

#\* = Misbranded

Manufacturer Location	Product	Analyte	Found	Claim	
	<b>Hills Science Diet Feline Growth Kitten/Cat Food</b>		<b>00F-11755</b>		
		Ash, %	2.57	3.5	
		Crude Fat, %	9.03	8	
		Oven Moisture, %	70.6	72	
		Crude Protein, %	15.4	13	
		Taurine - Total, %	0.105	0.1	
	<b>Hills Science Diet Canine Growth Puppies/Dog</b>		<b>00F-11756</b>		
		Crude Fat, %	6.32	5	
		Oven Moisture, %	70.4	74	
		Crude Protein, %	8.64	8	
	<b>Hill's Pet Nut Inc Science Diet Adult Cat</b>		<b>00F-12052</b>		
		Fat: Acid Hydrolysis, %	21.1	20	
		Crude Protein, %	32.2	30	
	<b>Science Diet Treats Canine Maintenance</b>		<b>00F-12053</b>		
		Fat: Acid Hydrolysis, %	9.43	8.5	
		Oven Moisture, %	7.72	10	
		Crude Protein, %	21.0	19	
	<b>Science Diet Adult Canine Maint. Beef</b>		<b>00F-13237</b>		
		Oven Moisture, %	78.0	78	
		Crude Protein, %	5.46	5.5	
	<b>Science Diet Jerky Plus</b>		<b>01F-00087</b>		
		Ash, %	4.52	6	
		Fat: Acid Hydrolysis, %	7.70	7	
		Karl Fisher Moisture, %	20.6	23	
		Crude Protein, %	18.8	16	
<b>Hub City Feed &amp; Seed</b>					
<b>Aberdeen, SD</b>					
	<b>*** Soybean Meal</b>		<b>00F-00822</b>		
		Ash, %	5.68	8	DEFICIENT
		Crude Protein, %	45.7	47	DEFICIENT
	<b>Sun Cured Alfalfa Pellets</b>		<b>00F-00828</b>		
		Crude Protein, %	15.6	15	
	<b>Sun Cured Alfalfa Pellets</b>		<b>00F-03465</b>		
		Crude Protein, %	16.2	15	
	<b>Soybean Meal 46% Protein</b>		<b>00F-04673</b>		
		Ash, %	5.57	8	
		Crude Protein, %	46.8	46	
	<b>Soybean Meal 46% Protein</b>		<b>00F-05310</b>		
		Ash, %	5.64	8	
		Crude Protein, %	45.9	46	
<b>Hubbard Feed Inc.</b>					
<b>Watertown, SD</b>					
	<b>*** Ascend #2480</b>		<b>00F-01095</b>		
		Acid Detergent Fiber, %	6.53	12	
		Crude Fat, %	7.09	5	
		Crude Protein, %	36.7	38	DEFICIENT
		Vitamin A, IU/lb	36100.	30000	
	<b>Commercial Feed Lot 40-12 R400</b>		<b>00F-01099</b>		
		Calcium, %	6.09	5.5-6.6	
		Crude Fiber, %	9.95	14	
		Equiv Crude Protein, %	12.1	12	
		Monensin, g/ton	350.	400	
		Crude Protein, %	39.6	40	
		Salt (Sodium X 2.54), %	3.35	3-4	
		Vitamin A, IU/lb	33500.	40000	
	<b>Hubbard Commercial Feedlot 40-22 B500 Medicated</b>		<b>00F-03956</b>		
		Calcium, %	7.39	6.5-7.8	
		Crude Fiber, %	8.24	14	
		Equiv Crude Protein, %	22.0	22	
		Lasalocid, g/ton	461.	500	
		Potassium, %	2.04	2	
		Crude Protein, %	40.7	40	
		Salt (Sodium X 2.54), %	4.17	4-5	
		Vitamin A, IU/lb	39000.	40000	

#\* = Misbranded

Manufacturer Location	Product	Analyte	Found	Claim	
	<b>Hubbard Commercial Feedlot 32</b>		<b>00F-05878</b>		
		Calcium, %	4.64	4-5	
		Crude Fiber, %	10.3	14	
		Crude Protein, %	33.6	32	
		Salt (Sodium X 2.54), %	3.47	3-4	
		Vitamin A, IU/lb	35200.	40000	
<b>Hubbard Feeds, Inc. Mankato, MN</b>					
	<b>20% Hi Plains Cake</b>		<b>00F-01221</b>		
		Calcium, %	2.58	2.1-2.6	
		Crude Fiber, %	8.38	12	
		Crude Protein, %	19.9	20	
		Vitamin A, IU/lb	22400.	22000	
	<b>Custom Mix 1 35 3 John Brunskill</b>		<b>00F-01222</b>		
		Crude Fiber, %	11.5	12	
		Lasalocid, g/ton	239.	250	
		Crude Protein, %	30.7	30	
		Vitamin A, IU/lb	29400.	30000	
	<b>Super Gain 14</b>		<b>00F-01223</b>		
		Crude Fiber, %	8.64	15	
		Crude Protein, %	14.8	14	
	<b>Range N Grow AS35</b>		<b>00F-01224</b>		
		Crude Fiber, %	12.6	19.5	
		Chlortetracycline, g/ton	41.5	35	
		Crude Protein, %	13.9	12	
		Sulfamethazine, %	39.4	35	
	<b>Hubbard Commercial Feedlot 40-22 B400</b>		<b>00F-01225</b>		
		Calcium, %	7.62	6.5-7.5	
		Crude Fiber, %	6.71	14	
		Equiv Crude Protein, %	21.3	22	
		Lasalocid, g/ton	374.	400	
		Crude Protein, %	39.3	40	
		Salt (ChlorideX1.65), %	6.26	4-5	EXCESSIVE
		Salt (Sodium X 2.54), %	4.42	4-5	
		Vitamin A, IU/lb	45600.	40000	
	<b>Custom Mix Lean Beef R406T120</b>		<b>00F-04944</b>		
		Calcium, %	7.52	6.7-8	
		Crude Fiber, %	5.21	10	
		Equiv Crude Protein, %	13.6	13	
		Monensin, g/ton	403.	400	
		Potassium, %	3.89	3	
		Crude Protein, %	36.2	36	
		Salt (Sodium X 2.54), %	4.20	2.8-3.8	
		Tylosin, g/ton	108.	120	
		Vitamin A, IU/lb	30000.	40000	
	<b>Zipmycin OTC 4 Granules</b>		<b>00F-04945</b>		
		Calcium, %	4.98	4.5-5.4	
		Crude Fiber, %	12.5	29	
		Oxytetracycline, g/lb	4.63	4	
		Crude Protein, %	11.4	5	
	<b>34% Prime Lamb Supplement</b>		<b>00F-04946</b>		
		Calcium, %	6.46	5-6	
		Lasalocid, g/ton	152.	150	
		Crude Protein, %	33.5	34	
		Salt (Sodium X 2.54), %	2.52	2.1-2.6	
		Vitamin A, IU/lb	18900.	20000	
	<b>P10 Mineral</b>		<b>00F-04947</b>		
		Calcium, %	21.4	20-22	
		Phosphorus, %	9.72	10	
		Salt (Sodium X 2.54), %	12.4	12-14	
		Selenium, ug/g (ppm)	35.2	35	
		Vitamin A, IU/lb	38500.	50000	
	<b>Soybean Meal</b>		<b>00F-04948</b>		
		Crude Protein, %	47.1	46.5	

\*#\* = Misbranded

Manufacturer Location	Product	Analyte	Found	Claim	
	<b>*** Soy Pass</b>		<b>00F-04949</b>		
		Ash, %	6.56	9	
		Oven Moisture, %	10.5	13	
		Crude Protein, %	44.7	46.5	DEFICIENT
	<b>Hubbard Lean Cut Plus</b>		<b>00F-05141</b>		
		Calcium, %	3.95	3.1-4.1	
		Phosphorus, %	2.04	2	
		Crude Protein, %	40.5	41	
	<b>*** Hubbard Gregory Beef Pak B1440 Mineral 1/3#</b>		<b>00F-05290</b>		
		Calcium, %	13.5	12-14.1	
		Lasalocid, g/ton	952.	1440	DEFICIENT
		Phosphorus, %	3.48		
		Salt (ChlorideX1.65), %	10.8	11.5-13.7	
		Salt (Sodium X 2.54), %	11.9	11.5-13.7	
		Vitamin A, IU/lb	112000.		
	<b>Min Tech Cattle Prep (Hubbard)</b>		<b>00F-05782</b>		
		Calcium, %	15.1	11.8-14.1	
		Iodine, ppm	62.0	100	
		Phosphorus, %	11.9	12	
		Salt (Sodium X 2.54), %	12.4	12.1-14.5	
		Selenium, ug/g (ppm)	18.6	20	
		Vitamin A, IU/lb	280000.	300000	
	<b>*** Hubbard Min Tech Sweet Phos 15 Mineral</b>		<b>00F-05783</b>		
		Calcium, %	14.2	12.3-14.7	
		Iodine, ppm	65.0	85	
		Phosphorus, %	14.9	15	
		Salt (Sodium X 2.54), %	9.19	8.9-10.7	
		Selenium, ug/g (ppm)	13.6	20	DEFICIENT
		Vitamin A, IU/lb	141000.	180000	
	<b>Multu M Cattle Prep</b>		<b>00F-05788</b>		
		Calcium, %	14.4	12-14.4	
		Iodine, ppm	199.	185	
		Phosphorus, %	11.4	12	
		Salt (Sodium X 2.54), %	13.0	12-14	
		Selenium, ug/g (ppm)	27.2	35	
		Vitamin A, IU/lb	371000.	300000	
	<b>Soybean Meal 46%</b>		<b>00F-05789</b>		
		Oven Moisture, %	10.5	13	
		Crude Protein, %	46.4	46	
	<b>*** Medicated Swine Starter Complete Hubbard Lean Start</b>		<b>00F-05790</b>		
		Crude Fat, %	5.18	5	
		Oxytetracycline, g/ton	54.3	100	DEFICIENT
		Crude Protein, %	21.8	19.5	
	<b>*** Hubbard 30% Cottonseed Cake</b>		<b>00F-05791</b>		
		Crude Fiber, %	10.1	12	
		Crude Protein, %	31.4	30	
		Vitamin A, IU/lb	13400.	30000	DEFICIENT
	<b>Hubbard Lean Start Pack - Pig Starter Supp.</b>		<b>00F-05792</b>		
		Crude Fat, %	5.73	5.7	
		Lysine - Total, %	2.64	2.9	
		Crude Protein, %	35.0	35	
		Zinc, ppm	667.	400	
	<b>Hubbard SuperGain 14</b>		<b>00F-05970</b>		
		Crude Fiber, %	8.86	15	
		Crude Protein, %	14.7	14	
	<b>Hubbard Moltum Cattle Prep-NSE</b>		<b>00F-05973</b>		
		Calcium, %	14.0	12-14.4	
		Phosphorus, %	11.4	12	
		Salt (Sodium X 2.54), %	15.3	12-14.4	
		Vitamin A, IU/lb	367000.	300000	

\*\*\* = Misbranded

Manufacturer Location	Product	Analyte	Found	Claim
	<b>Hubbard Commercial Feedlot 40-16</b>		<b>00F-05974</b>	
		Calcium, %	5.97	5.5-6.5
		Crude Fiber, %	7.63	14
		Equiv Crude Protein, %	16.7	16
		Crude Protein, %	41.1	40
		Salt (Sodium X 2.54), %	3.37	2.8-3.8
		Vitamin A, IU/lb	34800.	40000
	<b>Hubbard Super Gain 14C50 Medicated 3054-8</b>		<b>00F-05992</b>	
		Crude Fiber, %	9.06	15
		Chlortetracycline, g/ton	57.0	50
		Crude Protein, %	15.6	14
	<b>Hubbard Min-Tech Sweet Mag 14</b>		<b>00F-05993</b>	
		Calcium, %	9.13	7.5-9
		Magnesium, %	12.4	14
		Phosphorus, %	4.16	4
		Salt (Sodium X 2.54), %	22.9	21-25.2
		Vitamin A, IU/lb	58000.	50000
	<b>Hubbard Min-Tech Sweet Phos 12</b>		<b>00F-05994</b>	
		Calcium, %	14.1	12.3-14.7
		Phosphorus, %	11.9	12
		Salt (Sodium X 2.54), %	12.0	12.1-14.5
		Vitamin A, IU/lb	242000.	180000
	<b>Hubbard 16% Hog Grower 5790-8</b>		<b>00F-05996</b>	
		Crude Protein, %	15.9	16
<b>***</b>	<b>20% Western Cake 3148</b>		<b>00F-06273</b>	
		Calcium, %	3.20	2-3
		Crude Fiber, %	7.27	10
		Equiv Crude Protein, %	5.69	6
		Magnesium, %	1.24	1
		Crude Protein, %	19.6	20
		Salt (Sodium X 2.54), %	1.10	1-2
		Vitamin A, IU/lb	11200.	30000
		DEFICIENT		
	<b>Range N Grow AS 35</b>		<b>00F-06274</b>	
		Crude Fiber, %	12.6	19.5
		Chlortetracycline, mg/lb	34.7	35
		Crude Protein, %	13.0	12
		Sulfamethazine, mg/lb	32.6	35
	<b>20% Hi Plains Cake B150</b>		<b>00F-06275</b>	
		Calcium, %	2.76	2.3-2.8
		Crude Fiber, %	9.81	12
		Lasalocid, g/ton	139.	150
		Crude Protein, %	21.7	20
		Vitamin A, IU/lb	19700.	19800
	<b>Super Gain 14C50</b>		<b>00F-06276</b>	
		Crude Fiber, %	9.12	15
		Chlortetracycline, g/ton	40.2	50
		Crude Protein, %	15.7	14
	<b>Hubbard Super Gain 14</b>		<b>00F-07469</b>	
		Crude Fiber, %	8.64	15
		Crude Protein, %	14.7	14
	<b>Hubbard Range N Gro</b>		<b>00F-07470</b>	
		Crude Fiber, %	12.2	19.5
		Crude Protein, %	14.2	12
	<b>Lean Start 22-60</b>		<b>00F-08729</b>	
		Calcium, %	2.63	2.3-2.8
		Crude Fat, %	7.02	6.8
		Lysine - Total, %	2.79	3.2
		Crude Protein, %	41.6	40
	<b>Pheasant Grower Am 0175</b>		<b>00F-08730</b>	
		Amprolium, %	0.0149	0.0175
		Lysine - Total, %	1.27	1.2
		Methionine - Total, %	0.415	0.4
		Crude Protein, %	24.9	24

\*\*\* = Misbranded

Manufacturer Location	Product	Analyte	Found	Claim	
	<b>Mineral Pellets Purple Ribbon</b>		<b>00F-09153</b>		
		Calcium, %	9.56	10-12	
		Iodine, ppm	47.5	66	
		Phosphorus, %	10.1	10	
		Salt (Sodium X 2.54), %	14.0	12.5-15	
		Selenium, ug/g (ppm)	30.4	35	
		Vitamin A, IU/lb	71200.	100000	
	<b>Karmel Ration</b>		<b>00F-09155</b>		
		Crude Protein, %	17.5	18	
	<b>Hubbard Super Gain 14</b>		<b>00F-09286</b>		
		Crude Fiber, %	9.32	15	
		Crude Protein, %	14.9	14	
	<b>*** Hubbard Min-Tech Sweet Phos 12 LS Mineral</b>		<b>00F-09292</b>		
		Calcium, %	12.8	12.5-15	
		Iodine, %	29.5	50	DEFICIENT
		Phosphorus, %	12.8	12	
		Salt (Sodium X 2.54), %	4.82	3.5-4.5	
		Selenium, ug/g (ppm)	16.8	20	
		Vitamin A, IU/lb	198000.	180000	
	<b>*** Hubbard Super Phos Mineral</b>		<b>00F-09293</b>		
		Calcium, %	13.1	13-15.1	
		Iodine, ppm	57.5	66	
		Phosphorus, %	14.4	15	
		Salt (ChlorideX1.65), %	6.42	9.5-11.4	DEFICIENT
		Salt (Sodium X 2.54), %	8.06	9.5-11.4	DEFICIENT
		Selenium, ug/g (ppm)	27.5	35	
		Vitamin A, IU/lb	158000.	100000	
	<b>Hubbard P-10 Mineral</b>		<b>01F-00020</b>		
		Calcium, %	18.2	20-22	
		Phosphorus, %	9.60	10	
		Salt (Sodium X 2.54), %	13.4	12-14	
		Selenium, ug/g (ppm)	29.4	35	
		Vitamin A, IU/lb	45700.	50000	
	<b>Soybean Meal</b>		<b>01F-00023</b>		
		Crude Protein, %	47.5	46.5	
	<b>Pork Builder 40%</b>		<b>01F-00024</b>		
		Calcium, %	2.99	2.6-3.6	
		Lysine - Total, %	3.27	2.7	
		Crude Protein, %	42.8	40	
		Salt (Sodium X 2.54), %	1.47	1.6-2.1	
	<b>Northern Plains Super Phos Mineral</b>		<b>01F-00034</b>		
		Calcium, %	13.4	13-15.1	
		Iodine, ppm	45.0	66	
		Phosphorus, %	13.9	15	
		Salt (Sodium X 2.54), %	9.79	9.5-11.4	
		Selenium, ug/g (ppm)	31.9	35	
		Vitamin A, IU/lb	180000.	100000	
<b>J&amp;R Distributing</b>					
<b>Lake Norden, SD</b>					
	<b>J and R Early Weaner with Mecadox</b>		<b>00F-00272</b>		
		Carbadox, g/ton	41.0	50	
		Crude Fat, %	7.24	5	
		Crude Protein, %	21.9	22	
	<b>J and R Pig 150 Base Mix</b>		<b>00F-00273</b>		
		Calcium, %	9.34	9.25-9.75	
		Lysine - Total, %	3.81	3.6	
		Phosphorus, %	4.77	5	
		Crude Protein, %	24.5	18	
		Salt (ChlorideX1.65), %	7.56	7-7.5	
		Salt (Sodium X 2.54), %	6.08	7-7.5	
		DEFICIENT			
	<b>*** Lean Cut Swine Finisher Concentrate</b>		<b>00F-00274</b>		
		Calcium, %	3.31	3.5-4.5	
		Phosphorus, %	1.42	2	DEFICIENT
		Crude Protein, %	44.4	41	
		Salt (Sodium X 2.54), %	2.68	3-5	

\*\*\* = Misbranded



Manufacturer Location	Product	Analyte	Found	Claim	
	*** J and R Red Hot Nursery-A Medicated		00F-00275		
		Apramycin, g/ton	106.2	150	DEFICIENT
		Crude Fat, %	9.94	6.5	
		Crude Protein, %	22.5	23	
	*** J and R Red Hot Nursery Medicated with Denagard		00F-00276		
		Chlortetracycline, g/ton	394.	400	
		Crude Fat, %	9.08	6.5	
		Crude Protein, %	22.0	23	DEFICIENT
		Tiamulin, g/ton	40.6	35	
	J and R Starter Concentrate (Meal)-SMBA1134		00F-00874		
		Calcium, %	2.71	2.25-3.25	
Crude Fat, %		8.72	8		
Lysine - Total, %		3.47			
Crude Protein, %		42.9	35		
	Salt (Sodium X 2.54), %	1.63	1.75-3		
*** Lean Cut Swine Finisher Concentrate - SMBU1190		00F-00875			
	Calcium, %	3.78	3.5-4.5		
	Lysine - Total, %	3.14			
	Phosphorus, %	1.64	2	DEFICIENT	
	Crude Protein, %	44.1	41		
	Salt (ChlorideX1.65), %	1.43	3-5	DEFICIENT	
	Salt (Sodium X 2.54), %	2.42	3-5	DEFICIENT	
<b>John Morrell</b>					
<b>Sioux Falls, SD</b>					
	<b>Meat and bone meal</b>		00F-04951		
	Crude Fat, %	14.2	8		
	Crude Protein, %	49.9	50		
<b>JRB Foods Inc</b>					
<b>Cuyahoga Falls, OH</b>					
	<b>Catty Shack Beef and Bacon Flavor</b>		00F-06271		
	Crude Fat, %	12.7	10		
	Oven Moisture, %	28.3	30		
	Crude Protein, %	27.6	25		
<b>Kay Dee Feed Company</b>					
<b>Sioux City, IA</b>					
	<b>*** K-Ration 50 Block</b>		00F-00825		
	Calcium, %	4.24	2.5-3.5	EXCESSIVE	
	Equiv Crude Protein, %	26.2	29		
	Phosphorus, %	1.90	2		
	Crude Protein, %	49.5	50		
	Salt (Sodium X 2.54), %	19.3	16.5-19.8		
	Vitamin A, IU/lb	107000.	100000	EXCESSIVE	
	<b>K-20 20% All Natural Protein Block</b>		00F-03463		
	Calcium, %	4.33	3-4		
	Crude Protein, %	20.2	20		
	Salt (Sodium X 2.54), %	11.5	12-14		
	Vitamin A, IU/lb	36900.	30000		
	<b>Super Rauger Kaydets 12</b>		00F-03466		
	Calcium, %	16.0	12.5-15		
	Iodine, ppm	76.0	100		
	Phosphorus, %	11.7	12		
	Salt (Sodium X 2.54), %	15.6	15-18		
	Selenium, ug/g (ppm)	24.6	28		
	Vitamin A, IU/lb	292000.	250000		
	<b>*** Super Ranges Kaydets Calving, Lactating, Rebreeding</b>		00F-04542		
	Calcium, %	13.8	12.5-15		
	Phosphorus, %	10.3	12	DEFICIENT	
	Salt (ChlorideX1.65), %	21.0	15-18	EXCESSIVE	
	Salt (Sodium X 2.54), %	21.9	15-18	EXCESSIVE	
	Vitamin A, IU/lb	559000.	350000		

\*\*\* = Misbranded

Manufacturer Location	Product	Analyte	Found	Claim	
	<b>*** Kaydee Range Grazer 20</b>		<b>00F-04543</b>		
		Crude Protein, %	20.6	20	
		Salt (ChlorideX1.65), %	11.1	14.25-17	DEFICIENT
		Salt (Sodium X 2.54), %	12.4	14.25-17	DEFICIENT
		Vitamin A, IU/lb	38700.	20000	
	<b>*** Super Range 12 Kaydets</b>		<b>00F-04644</b>		
		Calcium, %	14.0	12-15	
		Phosphorus, %	11.4	12	
		Salt (ChlorideX1.65), %	19.6	15-18	
		Salt (Sodium X 2.54), %	20.3	15-18	EXCESSIVE
		Selenium, ug/g (ppm)	26.7	28	
		Vitamin A, IU/lb	120000.	250000	DEFICIENT
	<b>A n Dee</b>		<b>00F-05780</b>		
	Calcium, %	10.0	8-9.6		
	Crude Fiber, %	3.14	11		
	Crude Protein, %	11.1	10		
	Salt (Sodium X 2.54), %	0.97	1-2		
	Vitamin A, IU/lb	1550000.	2000000		
<b>*** Kaydets 8.2</b>		<b>00F-05781</b>			
	Calcium, %	22.1	19-22.55		
	Iodine, ppm	52.8	100	DEFICIENT	
	Phosphorus, %	8.09	8.2		
	Salt (Sodium X 2.54), %	10.4	9-10.8		
	Selenium, ug/g (ppm)	24.0	28		
	Vitamin A, IU/lb	149000.	150000		
<b>Kaytee Products Inc</b>					
<b>Chilton, WI</b>					
	<b>Parakeet Food</b>		<b>00F-03867</b>		
		Oven Moisture, %	9.84	12	
		Crude Protein, %	14.3	14	
	<b>Fiesta (Canary and Finch)</b>		<b>00F-06272</b>		
		Crude Fiber, %	7.41	10	
		Crude Fat, %	14.7	12	
		Oven Moisture, %	8.36	12	
		Crude Protein, %	17.2	16	
	<b>Supreme Daily Blend Guinea Pig Mix</b>		<b>00F-07362</b>		
		Crude Fiber, %	9.79	14	
		Oven Moisture, %	9.74	12	
		Crude Protein, %	17.9	18	
	<b>Kaytee Supreme Daily Blend Rabbit Pellets</b>		<b>00F-07363</b>		
		Crude Fiber, %	14.1	15-18	
		Oven Moisture, %	8.87	12	
		Crude Protein, %	16.8	16	
<b>Kent Feeds Inc</b>					
<b>Muscatine, IA</b>					
	<b>Pork 40 Supplement</b>		<b>00F-00911</b>		
		Calcium, %	4.24	2.8-3.8	
		Lysine - Total, %	2.03	2.2	
		Crude Protein, %	39.2	40	
	<b>12:12:12 Mineral</b>		<b>00F-00912</b>		
		Calcium, %	12.3	11-13.2	
		Phosphorus, %	11.1	12	
		Salt (Sodium X 2.54), %	13.2	11-13.2	
		Selenium, ug/g (ppm)	33.1	28	
		Vitamin A, IU/lb	605000.	400000	
<b>Land O Lakes Inc.</b>					
<b>Fort Dodge, IA</b>					
	<b>Rabbit Feed</b>		<b>00F-01416</b>		
		Crude Fiber, %	14.3	13-16	
		Crude Protein, %	20.0	17	
	<b>"Provide" Horse Feed</b>		<b>00F-01417</b>		
		Crude Fiber, %	3.74	10.5	
		Crude Protein, %	14.4	14	

\*\*\* = Misbranded

Manufacturer Location	Product	Analyte	Found	Claim	
	<b>Land O Lakes Beef Grower 38N</b>		<b>00F-04672</b>		
		Calcium, %	4.81	4.1-5.1	
		Crude Fiber, %	5.23	15	
		Crude Protein, %	39.9	38	
		Salt (Sodium X 2.54), %	3.51	3.5-4.5	
		Vitamin A, IU/lb	48600.	40000	
	<b>Haylage Balancer R1000H</b>		<b>00F-07109</b>		
		Calcium, %	8.36	8.2-9.9	
		Iodine, ppm	30.0	20	
		Monensin, g/ton	794.	1000	
		Salt (Sodium X 2.54), %	9.85	10.9-13.1	
		Selenium, ug/g (ppm)	5.95	4	
		Vitamin A, IU/lb	56800.	80000	
	<b>Pork Supreme</b>		<b>00F-07110</b>		
		Calcium, %	16.6	15.8-18.9	
		Phosphorus, %	10.4	9.99	
		Salt (Sodium X 2.54), %	8.34	7.5-9	
		Selenium, ug/g (ppm)	4.97	6	
		Vitamin A, IU/lb	111000.	100000	
	<b>Heifers Edge Supplement Bov</b>		<b>00F-07111</b>		
		Acid Detergent Fiber, %	7.87	8	
		Calcium, %	2.01	2-2.5	
		Lasalocid, g/ton	262.	275	
		Crude Protein, %	37.3	38	
		Salt (Sodium X 2.54), %	1.39	1.5-2	
		Vitamin A, IU/lb	46400.	61500	
	<b>Tylan-10 Type B</b>		<b>00F-07112</b>		
		Calcium, %	10.6	9.5-11.4	
		Crude Fiber, %	27.6	35.5	
		Tylosin, g/lb	9.64	10	
	<b>Base Builder Mineral</b>		<b>00F-07326</b>		
		Calcium, %	13.4	13.4-16.1	
		Phosphorus, %	12.6	12.5	
		Salt (Sodium X 2.54), %	15.3	15.6-18.7	
		Selenium, ug/g (ppm)	28.1	35.2	
		Vitamin A, IU/lb	348000.	300000	
	<b>*** Future Cow Starter Bov</b>		<b>00F-07327</b>		
		Acid Detergent Fiber, %	5.77	9.5	
		Lasalocid, g/ton	71.1	90	
		Crude Protein, %	17.2	18	DEFICIENT
		Vitamin A, IU/lb	15400.	20000	
	<b>Start pak</b>		<b>00F-07328</b>		
		Crude Protein, %	17.5	17.7	
	<b>*** Pork Muscle Pak</b>		<b>00F-07365</b>		
		Calcium, %	7.31	6.1-7.3	
		Lysine - Total, %	15.3	16	
		Methionine - Total, %	0.093	0.22	DEFICIENT
		Selenium, ug/g (ppm)	14.9	15	
		Tryptophan - Total, %	N.M.	0.56	
	<b>Premium 1:1 Mineral</b>		<b>00F-07366</b>		
		Calcium, %	14.7	15.4-18.4	
		Iodine, ppm	45.0	43	
		Magnesium, %	2.84	2	
		Phosphorus, %	14.4	15	
		Selenium, ug/g (ppm)	19.6	15	
		Vitamin A, IU/lb	245000.	200000	
	<b>Coxxi Stop Medicated</b>		<b>00F-07367</b>		
		Crude Fiber, %	5.03	32	
		Decoquinatate, %	0.118	0.125	
		Crude Protein, %	10.8	8.2	
	<b>Beef Grower 38N Medicated</b>		<b>00F-07368</b>		
		Calcium, %	4.48	4.1-5.1	
		Crude Fiber, %	4.80	15	
		Lasalocid, g/ton	452.	500	
		Crude Protein, %	37.3	38	
		Salt (Sodium X 2.54), %	3.63	3.5-4.5	
		Vitamin A, IU/lb	32400.	40000	

#\* = Misbranded

Manufacturer Location	Product	Analyte	Found	Claim	
	<b>Crumbles 4G Medicated</b>		<b>00F-07369</b>		
		Crude Fiber, %	20.0	36	
		Oxytetracycline, g/lb	3.45	4	
		Crude Protein, %	11.8	7	
		Vitamin A, IU/lb	161000.	200000	
	<b>Medi-Flex CX - Medicated</b>		<b>00F-07371</b>		
		Carbadox, g/lb	2.29	2.5	
	<b>Bos Builder 5 Mineral Block</b>		<b>00F-07372</b>		
		Calcium, %	15.8	14.6-17.4	
		Phosphorus, %	7.44	8	
		Salt (Sodium X 2.54), %	14.6	14.6-17.4	
		Selenium, ug/g (ppm)	32.9	35.2	
		Vitamin A, IU/lb	165000.	200000	
	<b>15-10 Mineral</b>		<b>00F-07374</b>		
		Calcium, %	16.0	14-16	
		Iodine, ppm	44.5	40	
		Magnesium, %	2.70	2.5	
		Phosphorus, %	10.0	10	
		Salt (Sodium X 2.54), %	4.21	3-4	
	<b>Triple 12 Cattle Mineral Plus</b>		<b>00F-07375</b>		
		Calcium, %	13.1	12-14	
		Iodine, ppm	92.0	113	
		Magnesium, %	2.69	2.75	
		Phosphorus, %	15.4	12	
		Salt (Sodium X 2.54), %	13.7	12-14	
		Selenium, ug/g (ppm)	40.7	36	
		Vitamin A, IU/lb	146000.	150000	
	<b>*** Dairy 35 Hi Fat</b>		<b>00F-07376</b>		
		Acid Detergent Fiber, %	9.67	9.5	
		Crude Fat, %	8.77	8.5	
		Crude Protein, %	36.6	35	
		Salt (Sodium X 2.54), %	2.54	2-2.5	
		Vitamin A, IU/lb	14200.	25000	DEFICIENT
	<b>*** Mix-Liq</b>		<b>00F-07377</b>		
		Fat: Roesse Gottlieb, %	3.39	5	DEFICIENT
		Vacuum Moisture, %	33.1	38	
		Salt (ChlorideX1.65), %	2.08	2-2.5	
		Salt (Sodium X 2.54), %	5.10	2-2.5	
		EXCESSIVE			
	<b>Land O Lakes Lamb Marketer</b>		<b>00F-07475</b>		
		Calcium, %	3.61	4-5	
		Chlortetracycline, g/ton	149.	200	
		Crude Protein, %	37.2	38	
		Salt (ChlorideX1.65), %	4.31	3.5-4.5	
		Salt (Sodium X 2.54), %	2.95	3.5-4.5	DEFICIENT
		Vitamin A, IU/lb	18600.	20000	
	<b>Country Choice Turkey and Game Grower</b>		<b>00F-08722</b>		
		Lysine - Total, %	1.11	1.2	
		Methionine - Total, %	0.427	0.45	
		Crude Protein, %	22.6	22	
	<b>Medi-Flex-CX Medi</b>		<b>00F-08723</b>		
		Carbadox, %	0.517	0.55	
	<b>Land O Lakes Tetra Crumbles OP</b>		<b>00F-12045</b>		
		Crude Fiber, %	7.92	15	
		Oxytetracycline, g/lb	3.87	4	
		Crude Protein, %	13.6	12	
		Vitamin A, IU/lb	104000.	100000	
	<b>Land O Lakes Triple 12 Cattle Mineral</b>		<b>00F-12046</b>		
		Calcium, %	14.0	12-14	
		Phosphorus, %	11.1	12	
		Salt (Sodium X 2.54), %	13.0	12-14	
		Vitamin A, IU/lb	157000.	150000	

\*\*\* = Misbranded

Manufacturer Location	Product	Analyte	Found	Claim	
	<b>Land O Lakes Creep (Calf)</b>		<b>00F-12047</b>		
		Crude Fiber, %	14.2	18	
		Crude Protein, %	15.3	14	
	<b>Land O Lakes Ranger 20 N Blox</b>		<b>00F-12048</b>		
		Crude Protein, %	22.5	20	
		Salt (Sodium X 2.54), %	13.8	11-13	
		Vitamin A, IU/lb	20200.	20000	
<b>Land O Lakes/Harvest States</b>					
<b>Edgeley, ND</b>					
	<b>Beef Grower 38-13 B500</b>		<b>00F-00338</b>		
		Calcium, %	3.81	4.1-5.1	
		Crude Fiber, %	7.84	15	
		Equiv Crude Protein, %	12.7	13	
		Lasalocid, g/ton	496.	500	
		Crude Protein, %	38.1	38	
		Salt (Sodium X 2.54), %	3.69	3.5-4.5	
		Vitamin A, IU/lb	46000.	40000	EXCESSIVE
<b>Land O Lakes/Harvest States</b>					
<b>Ft. Dodge, IA</b>					
	<b>Triple 12 Mineral</b>		<b>00F-00824</b>		
		Calcium, %	13.1	12-14	
		Phosphorus, %	11.2	12	
		Salt (Sodium X 2.54), %	13.4	12-14	
		Vitamin A, IU/lb	204000.	150000	
	<b>Bos Builder S Mineral</b>		<b>00F-00907</b>		
		Calcium, %	17.1	16.4-19.7	
		Phosphorus, %	7.62	8	
		Salt (Sodium X 2.54), %	20.7	19.7-23.6	
		Selenium, ug/g (ppm)	36.0	35.2	
		Vitamin A, IU/lb	173000.	200000	
	<b>Calf Creep B60</b>		<b>00F-01096</b>		
		Crude Fiber, %	14.0	18	
		Lasalocid, g/ton	54.6	60	
		Crude Protein, %	15.1	14	
	<b>Beef Balancer R1200 Medicated</b>		<b>00F-03392</b>		
		Calcium, %	9.07	8-9	
		Crude Fiber, %	8.26	11	
		Monensin, g/ton	1110.	1200	
		Crude Protein, %	11.0	8	
		Salt (Sodium X 2.54), %	5.15	5-6	
	<b>Calf Primer TCR1 DC</b>		<b>00F-03393</b>		
		Acid Detergent Fiber, %	18.7	28.5	
		Crude Fiber, %	14.1	23.5	
		Decoquinatate, mg/lb	7.09	7.5	
		Crude Protein, %	16.5	16	
	<b>Triple 12 Cattle Mineral Meal</b>		<b>00F-03394</b>		
		Calcium, %	14.4	12-14	
		Iodine, ppm	96.0	113	
		Phosphorus, %	11.4	12	
		Salt (Sodium X 2.54), %	12.0	12-14	
		Vitamin A, IU/lb	168000.	150000	
	<b>Lamb Creep B90 Medicated</b>		<b>00F-03462</b>		
		Crude Fiber, %	15.0	18	
		Equiv Crude Protein, %	1.01	2	
		Lasalocid, g/ton	97.0	90	
		Crude Protein, %	19.4	18	
	<b>Tetra Krumbles DP</b>		<b>00F-04674</b>		
		Oxytetracycline, g/lb	3.14	4	
		Vitamin A, IU/lb	144000.	100000	
	<b>Krumbles Aid S700</b>		<b>00F-04675</b>		
		Chlortetracycline, g/lb	1.90	2	
		Sulfamethazine, %	0.445	0.44	
		Vitamin A, IU/lb	223000.	250000	

\*#\* = Misbranded

Manufacturer Location	Product	Analyte	Found	Claim
	<b>Triple 12 Cattle Mineral CTC 5600</b>		<b>00F-04676</b>	
		Calcium, %	13.3	12-14
		Chlortetracycline, g/lb	2.37	2.8
		Iodine, ppm	90.0	113
		Magnesium, %	2.65	2.8
		Phosphorus, %	11.1	12
		Salt (Sodium X 2.54), %	11.3	12-14
		Vitamin A, IU/lb	201000.	150000
	<b>Triple 12 Cattle Mineral Plus</b>		<b>00F-04677</b>	
		Calcium, %	13.8	12-14
		Iodine, ppm	175.	113
		Magnesium, %	3.20	2.75
		Phosphorus, %	11.1	12
		Salt (Sodium X 2.54), %	12.9	12-14
		Selenium, ug/g (ppm)	43.9	36
		Vitamin A, IU/lb	217000.	150000
	<b>Triple 12 Cattle Mineral</b>		<b>00F-05308</b>	
		Calcium, %	14.3	12-14
		Iodine, ppm	69.0	113
		Magnesium, %	3.06	2.5
		Phosphorus, %	11.4	12
		Salt (Sodium X 2.54), %	12.5	12-14
		Vitamin A, IU/lb	155000.	150000
	<b>Country Choice Egg Maker</b>		<b>00F-05309</b>	
		Calcium, %	3.30	3.1
		Lysine - Total, %	0.895	0.77
		Methionine - Total, %	0.339	0.33
		Crude Protein, %	19.7	18
	<b>Yackley Hi-En Calf Creep #3</b>		<b>00F-05350</b>	
		Crude Fiber, %	9.12	15
		Crude Protein, %	15.1	14
	<b>Hi-En Bull Challenger</b>		<b>00F-05510</b>	
		Crude Fiber, %	11.8	15
		Crude Protein, %	16.2	14
	<b>Beef Grower 38-13 B500</b>		<b>00F-05511</b>	
		Calcium, %	4.63	4.1-5.1
		Crude Fiber, %	5.27	15
		Equiv Crude Protein, %	13.4	13
		Lasalocid, g/ton	469.	500
		Crude Protein, %	39.1	38
		Salt (Sodium X 2.54), %	3.66	3.5-4.5
		Vitamin A, IU/lb	35100.	40000
	<b>Six in One</b>		<b>00F-05512</b>	
		Calcium, %	4.25	3.5-4.5
		Lysine - Total, %	2.63	2.75
		Crude Protein, %	37.3	38
		Salt (ChlorideX1.65), %	2.72	
		Salt (Sodium X 2.54), %	2.82	2-2.5
	<b>Krumble Aide DP</b>		<b>00F-05513</b>	
		Chlortetracycline, g/lb	3.53	4
		Vitamin A, IU/lb	179000.	200000
	<b>Sweet Start TM Supreme Bov Medicated</b>		<b>00F-05794</b>	
		Acid Detergent Fiber, %	4.43	5.5
		Lasalocid, g/ton	90.0	90
		Crude Protein, %	18.4	18
		Vitamin A, IU/lb	22800.	20000
	<b>L.G. Finisher 3 BMD Medic.</b>		<b>00F-05795</b>	
		Crude Protein, %	13.5	12
	<b>Country Choice TM Turkey and Pheasant Starter</b>		<b>00F-05797</b>	
		Amprolium, %	0.0167	0.0175
		Lysine - Total, %	1.63	1.65
		Methionine - Total, %	0.480	0.52
		Crude Protein, %	28.2	28

#\* = Misbranded

Manufacturer Location	Product	Analyte	Found	Claim	
	<b>Bruce Feedlot Base R800 Medicated</b>		<b>00F-05881</b>		
		Calcium, %	13.1	12-13	
		Monensin, g/ton	835.	800	
		Potassium, %	2.42	2.5	
		Crude Protein, %	11.0	9.5	
		Vitamin A, IU/lb	74000.	70000	
	<b>Triple 12 cattle mineral plus</b>		<b>00F-05882</b>		
		Calcium, %	13.6	12-14	
		Iodine, ppm	83.0	116	
		Magnesium, %	2.50	2.75	
		Phosphorus, %	12.2	12	
		Salt (Sodium X 2.54), %	11.5	12-14	
		Selenium, ug/g (ppm)	67.4	36	
		Vitamin A, IU/lb	113000.	150000	
	<b>Country Choice Egg Maker</b>		<b>00F-05976</b>		
		Calcium, %	4.28	3.1-4.1	
		Lysine - Total, %	0.843	0.77	
		Methionine - Total, %	0.319	0.33	
		Crude Protein, %	18.1	18	
	<b>Triple 12 Cattle Mineral</b>		<b>00F-05977</b>		
		Calcium, %	14.2	12-14	
		Iodine, ppm	70.0	113	
		Magnesium, %	2.85	2.75	
		Phosphorus, %	11.6	12	
		Salt (Sodium X 2.54), %	12.7	12-14	
		Vitamin A, IU/lb	168000.	150000	
	<b>Million-Ade</b>		<b>00F-05979</b>		
		Vitamin A, IU/lb	1010000.	1000000	
	<b>Krumble-Ade S-700</b>		<b>00F-05980</b>		
		Chlortetracycline, g/lb	1.96	2	
		Sulfamethazine, %	0.469	0.44	
		Vitamin A, IU/lb	224000.	250000	
	<b>Land O Lakes Krumbles ADE S-700</b>		<b>00F-07472</b>		
		Chlortetracycline, g/lb	1.76	2	
		Sulfamethazine, %	0.419	0.44	
		Vitamin A, IU/lb	208000.	250000	
	<b>Land O Lakes Harvest States Cattle Mineral CTC 5600</b>		<b>00F-07473</b>		
		Calcium, %	11.6	10-12	
		Chlortetracycline, g/ton	5180.	5600	
		Phosphorus, %	6.05	6	
		Salt (Sodium X 2.54), %	17.7	18-20	
		Vitamin A, IU/lb	194000.	150000	
<b>Land O'Lakes/Harvest States</b>					
<b>Sioux Falls, SD</b>					
	<b>Land O'Lakes Soybean Meal</b>		<b>00F-07474</b>		
		Crude Protein, %	45.0	44	
<b>Manna Pro Corporation</b>					
<b>St. Louis, MO</b>					
	<b>Calf Manna Concentrated Ration</b>		<b>00F-09290</b>		
		Acid Detergent Fiber, %	6.98	10	
		Crude Protein, %	26.3	25	
		Vitamin A, IU/lb	18000.	20000	
<b>Manning Agricultural Center</b>					
<b>Manning, IA</b>					
	<b>*** Whole Menhaden Fish Meal</b>		<b>00F-04634</b>		
		Crude Fat, %	8.53	6	
		Crude Protein, %	58.2	60	DEFICIENT
<b>Marion Zoological Inc.</b>					
<b>Plymouth, MN</b>					
	<b>Chili Spice Paradise Food</b>		<b>00F-01805</b>		
		Ash, %	6.32	6	
		Oven Moisture, %	8.48	10	
		Crude Protein, %	23.4	23	

#\* = Misbranded

Manufacturer Location	Product	Analyte	Found	Claim	
<b>Marshall Pet Diets</b>					
<b>Wolcott, NY</b>					
	<b>Marshall Premium Ferret Diet</b>		<b>00F-05694</b>		
		Crude Fat, %	19.7	18	
		Oven Moisture, %	4.14	10	
		Crude Protein, %	40.9	38	
<b>Mason City By-Products Inc</b>					
<b>Mason City, IA</b>					
	<b>50% Meat and Bone Meal</b>		<b>00F-00823</b>		
		Calcium, %	9.58	8-9.6	
		Crude Fat, %	12.2	6	
		Phosphorus, %	4.48	4	
		Crude Protein, %	53.0	50	
<b>Mc Carlson Feed</b>					
<b>Webster, SD</b>					
	<b>*** Corn Distillers Grain</b>		<b>00F-05403</b>		
		Crude Fiber, %	7.52	12	
		Crude Fat, %	11.7	9	
		Crude Protein, %	25.0	27	DEFICIENT
	<b>Soybean Meal</b>		<b>00F-05404</b>		
		Ash, %	5.48	8	
		Crude Protein, %	43.7	44	
<b>McFleeg Inc</b>					
<b>Watertown, SD</b>					
	<b>Poultry Millenium Pre-Starter</b>		<b>00F-05888</b>		
		Crude Protein, %	11.5	9	
<b>Mid-States Distributing Company</b>					
<b>St Paul, MN</b>					
	<b>DuraLife Horse Block Stl</b>		<b>00F-03946</b>		
		Calcium, %	6.09	6	
		Phosphorus, %	3.71	3.25	
		Crude Protein, %	19.0	18	
	<b>Dura-life High Protein Cat Food</b>		<b>00F-03950</b>		
		Fat: Acid Hydrolysis, %	10.6	9	
		Oven Moisture, %	4.53	12	
		Crude Protein, %	32.6	31.5	
	<b>Dura-Life Medium Flavored Dog Biscuits</b>		<b>00F-03951</b>		
		Fat: Acid Hydrolysis, %	7.48	6	
		Oven Moisture, %	9.68	10	
		Crude Protein, %	22.1	20	
	<b>Dura-Life Puppy Food</b>		<b>00F-11757</b>		
		Fat: Acid Hydrolysis, %	10.6	9	
		Oven Moisture, %	7.78	12	
		Crude Protein, %	27.9	27	
	<b>*** Duralife 27% Pheasant Starter</b>		<b>00F-13234</b>		
		Amprolium, %	0.0133	0.0175	DEFICIENT
		Lysine - Total, %	1.79	1.2	
		Crude Protein, %	27.8	27	
	<b>*** Duralife Calf Starter-Grower</b>		<b>00F-13235</b>		
		Acid Detergent Fiber, %	9.21	8.5	
		Crude Protein, %	14.6	16	
		DEFICIENT			
	<b>16% Layer Poultry Feed</b>		<b>00F-13236</b>		
		Calcium, %	3.66	3.5-3.7	
		Lysine - Total, %	0.748	0.6	
		Crude Protein, %	16.7	16	
	<b>Duralife High Protein cat food</b>		<b>00F-13242</b>		
		Crude Fat, %	9.47	9	
		Oven Moisture, %	8.42	12	
		Crude Protein, %	31.4	31.5	
	<b>Dura-Life 14% Sweet Performance Horse Feed</b>		<b>01F-00082</b>		
		Crude Protein, %	14.9	14	

\*\*\* = Misbranded



Manufacturer Location	Product	Analyte	Found	Claim	
	<b>Dura-Life Rabbit Food (20#)(BK/NR)</b>		<b>01F-00084</b>		
		Crude Fiber, %	17.9	17	
		Crude Protein, %	16.7	16	
	<b>*** Dura-Life Chick Starter/Grower Feed</b>		<b>01F-00085</b>		
		Crude Protein, %	17.8	19	DEFICIENT
	<b>Duralife Medium Dog Biscuits</b>		<b>01F-00086</b>		
		Fat: Acid Hydrolysis, %	7.80	6	
		Oven Moisture, %	9.29	10	
		Crude Protein, %	22.8	20	
<b>Midwest Ag Supply Watertown, SD</b>					
	<b>Midwest Ag Supply HI-A 12-12-12</b>		<b>00F-05883</b>		
		Calcium, %	15.3	12-14.5	
		Phosphorus, %	12.5	12	
		Salt (Sodium X 2.54), %	11.6	12-13	
		Selenium, ug/g (ppm)	16.9	10	
		Vitamin A, IU/lb	172000.	200000	
<b>Midwest Agri Commodities Moorhead, MN</b>					
	<b>*** CSB Concentrated Separated By Product</b>		<b>00F-04953</b>		
		Ash, %	19.2	20	
		Vacuum Moisture, %	31.7	35	
		Crude Protein, %	11.4	12	DEFICIENT
<b>Midwest Agri Commodities Hillsboro, ND</b>					
	<b>Beet Molasses</b>		<b>00F-05326</b>		
		Total Sugars(Invert), %	53.7	48	
<b>Midwest Commodities Marshall, MN</b>					
	<b>Steep Water</b>		<b>00F-04952</b>		
		Vacuum Moisture, %	53.3	50	
		Crude Protein, %	17.7	16	
<b>Midwest Trading Corp Sioux City, IA</b>					
	<b>Cane Molasses</b>		<b>00F-05327</b>		
		Density, lb/gal	10.72	11.75	
		Vacuum Moisture, %	28.8		
		pH	5.18	5-5.5	
		Total Solids, %	71.20	72	
		Total Sugars(Invert), %	44.4	46	
<b>Milk Specialties Company Dundee, IL</b>					
	<b>Advance Calf Medic Medicated Calf Milk Replacer</b>		<b>00F-03952</b>		
		Ash, %	10.2	10	
		Fat: Acid Hydrolysis, %	23.9	25	
		Oxytetracycline, g/ton	819.	800	
		Crude Protein, %	20.4	20	
		Sodium, %	1.38	1	EXCESSIVE
		Vitamin A, IU/lb	93300.	100000	
	<b>Milk Specialties Advance Calf Medic Medicated</b>		<b>00F-12210</b>		
		Ash, %	10.2	10	
		Fat: Roese Gottlieb, %	27.4	25	
		Oxytetracycline, g/ton	713.	800	
		Crude Protein, %	21.4	20	
		Sodium, %	1.58	1-1.5	
		Vitamin A, IU/lb	77800.	100000	

\*\*\* = Misbranded

Manufacturer Location	Product	Analyte	Found	Claim	
<b>Millbrook Feed Mill Mitchell, SD</b>					
	<b>Milbrook Feeds Top Dollar 10</b>		<b>00F-05687</b>		
		Crude Fat, %	5.87	6	
		Crude Protein, %	11.5	9.5	
	<b>Milbrook Feeds 3820 Beef Pro Supplement</b>		<b>00F-05689</b>		
		Calcium, %	8.72	7-9	
		Crude Fiber, %	5.78	10	
		Equiv Crude Protein, %	19.0	20	
		Monensin, g/ton	310.	360	
		Potassium, %	3.64	3.5	
		Crude Protein, %	38.8	33	
		Salt (Sodium X 2.54), %	4.92	4-6	
		Vitamin A, IU/lb	30500.	40000	
	<b>Silver Post Breeder 15-9-12 Range Mineral</b>		<b>01F-00039</b>		
		Calcium, %	13.5	14-16	
		Iodine, ppm	56.0	75	
		Magnesium, %	2.38	2	
		Phosphorus, %	8.38	8.9	
		Potassium, %	2.14	2	
		Salt (Sodium X 2.54), %	13.8	11-13	
		Selenium, ug/g (ppm)	46.7	50	
		Vitamin A, IU/lb	233000.	250000	
	<b>Hog Concentrate 40</b>		<b>01F-00041</b>		
		Calcium, %	2.89	3.1-3.7	
		Lysine - Total, %	3.02	2.5	
		Crude Protein, %	40.9	40	
		Salt (Sodium X 2.54), %	1.76	2-2.5	
<b>Minnesota Valley Alfalfa Producers Willmar, MN</b>					
	<b>*** Reground Alfalfa Leaf Meal</b>		<b>00F-02397</b>		
		Crude Fiber, %	20.2	16	EXCESSIVE
		Crude Protein, %	22.8	25	
					DEFICIENT
<b>Muellers Feed Mill Martin, SD</b>					
	<b>*** 12% Hi-NRG Stretcher</b>		<b>00F-03518</b>		
		Calcium, %	1.83	3-4	DEFICIENT
		Crude Protein, %	12.8	12	
		Salt (Sodium X 2.54), %	13.3	13-15	
		Vitamin A, IU/lb	28200.	20000	
	<b>Range Mineral</b>		<b>00F-03519</b>		
		Calcium, %	13.2	12-14.5	
		Phosphorus, %	11.6	12	
		Salt (Sodium X 2.54), %	14.7	15-16	
		Vitamin A, IU/lb	55400.	50000	
	<b>Mueller Deccox Crumbles</b>		<b>00F-05140</b>		
		Crude Fiber, %	8.68	29	
		Decoquinatate, g/ton	789.	908	
		Crude Protein, %	15.6	15	
<b>Nabisco Foods E Hanover, NJ</b>					
	<b>Milk Bone Original Dog Treats</b>		<b>00F-03132</b>		
		Crude Fat, %	8.98	8	
		Oven Moisture, %	5.87	12	
		Crude Protein, %	14.9	12	
	<b>Milk Bone Dog Treats</b>		<b>00F-03512</b>		
		Fat: Acid Hydrolysis, %	8.74		
		Crude Fat, %	7.59	8	
		Oven Moisture, %	6.42	12	
		Crude Protein, %	16.2	12	

#\* = Misbranded

Manufacturer Location	Product	Analyte	Found	Claim
<b>Nash Finch</b>				
<b>Minneapolis, MN</b>				
	<b>Our Family Dog Biscuits Multi-Flavor</b>		<b>00F-10834</b>	
		Fat: Acid Hydrolysis, %	7.05	7
		Oven Moisture, %	6.20	12
		Crude Protein, %	22.2	20
<b>Natura Pet Products</b>				
<b>Santa Clara, CA</b>				
	<b>Innova Dog Food</b>		<b>00F-05692</b>	
		Fat: Acid Hydrolysis, %	14.3	14
		Oven Moisture, %	8.20	10
		Crude Protein, %	25.3	24
<b>Natures Gold</b>				
<b>Secaucus, NJ</b>				
	<b>Cockatiel Fruit Delight</b>		<b>00F-04940</b>	
		Arginine - Total, %	0.821	0.8
		Crude Fiber, %	9.68	12
		Cystine - Total, %	0.243	0.2
		Crude Fat, %	12.8	7
		Glycine - Total, %	0.591	0.55
		Histidine - Total, %	0.290	0.25
		Isoleucine - Total, %	0.417	0.5
		Leucine - Total, %	1.11	0.8
		Lysine - Total, %	0.559	0.5
		Methionine - Total, %	0.281	0.25
		Oven Moisture, %	9.62	10
		Phenylalanine-Total, %	0.608	0.5
		Crude Protein, %	14.5	12
		Threonine - Total, %	0.410	0.4
		Valine - Total, %	0.555	0.5
<b>Nelson &amp; Sons Inc</b>				
<b>Murray, UT</b>				
	<b>Silver Cup Steel Head 1.5</b>		<b>00F-03024</b>	
		Ash, %	9.20	12
		Fat: Acid Hydrolysis, %	19.1	
		Crude Fat, %	16.6	18
		Crude Protein, %	45.1	45
		Sodium, %	0.28	0-2
	<b>Silver Cup Starter Fish Food</b>		<b>00F-03025</b>	
		Ash, %	10.8	12
		Crude Fat, %	15.8	14
		Crude Protein, %	55.5	52
		Sodium, %	0.97	0-2
	<b>Silver Cup 3.5 Trout</b>		<b>00F-03026</b>	
		Ash, %	6.95	12
		Crude Fat, %	10.6	10
		Crude Protein, %	39.1	40
		Sodium, %	0.46	0-2
	<b>Silver Cup Steel Head 2.5</b>		<b>00F-03027</b>	
		Ash, %	8.67	12
		Fat: Acid Hydrolysis, %	17.7	
		Crude Fat, %	15.2	16
		Crude Protein, %	45.5	45
		Sodium, %	0.26	0-2
	<b>Silver Cup Trout 4.5 34.05 mg/lb</b>		<b>00F-03028</b>	
		Ash, %	6.25	12
		Crude Fat, %	11.1	10
		Crude Protein, %	40.3	40
		Sodium, %	0.20	0-2
	<b>Silver Cup #2 Trout Fry</b>		<b>00F-03029</b>	
		Ash, %	9.66	12
		Crude Fat, %	17.1	14
		Crude Protein, %	54.8	48
		Sodium, %	0.57	0-2

\*## = Misbranded

Manufacturer Location	Product	Analyte	Found	Claim
<b>North Dakota Mill &amp; Elevator Grand Forks, ND</b>				
	<b>Wheat Meal</b>		<b>01F-00035</b>	
		Ash, %	4.70	6.5
		Crude Protein, %	18.6	14.5
<b>Northern Sun/Div.of ADM Enderlin, ND</b>				
	<b>Sunflower Meal</b>		<b>00F-03520</b>	
		Crude Protein, %	35.0	35
<b>Nutra-Flo Company Sioux City, IA</b>				
	<b>Ultra Phos Mono Calcium Phosphate</b>		<b>00F-04631</b>	
		Calcium, %	16.7	14.2-17
		Phosphorus, %	19.8	21
	<b>Ultra Phos Monocalcium phosphate 18 1/2 Plus</b>		<b>00F-05139</b>	
		Calcium, %	20.4	19-22.8
		Phosphorus, %	18.1	18.5
<b>Nutritech Inc. Vernon Hills, IL</b>				
	<b>Nutritech Vita Treats</b>		<b>00F-12209</b>	
		Ash, %	5.60	6
		Crude Protein, %	15.7	14.4
<b>Nutro Products Inc City of Industry, CA</b>				
	<b>Nutros Chicken and Lamb Entree Cat Food</b>		<b>00F-03868</b>	
		Ash, %	1.79	2.5
		Crude Fat, %	7.31	5
		Oven Moisture, %	76.7	78
		Crude Protein, %	10.5	10
		Taurine - Total, %	0.078	0.05
	<b>Nutro Tartar Control-Biscuits</b>		<b>00F-03869</b>	
		Crude Fat, %	5.46	5
		Oven Moisture, %	5.70	11
		Crude Protein, %	24.2	20
	<b>Nutro Natural Choice Cat Food</b>		<b>00F-05693</b>	
		Ash, %	7.25	6.75
		Fat: Acid Hydrolysis, %	15.8	15
		Linoleic Acid 18:2, %	4.500	4
		Oven Moisture, %	6.46	10
		Crude Protein, %	31.2	30
		Taurine - Total, %	0.191	0.16
	<b>Nutro-Max Mini Chunk</b>		<b>00F-07361</b>	
		Fat: Acid Hydrolysis, %	16.7	16
		Linoleic Acid 18:2, %	3.190	3.5
		Oven Moisture, %	6.52	10
		Crude Protein, %	26.8	26
<b>O'Reilly Feeds Roseville, MN</b>				
	<b>COB</b>		<b>00F-05135</b>	
		Crude Protein, %	11.2	10
<b>Occo Products Omaha, NE</b>				
	<b>Mol Oil 95:5</b>		<b>00F-03003</b>	
		Fat: Roese Gottlieb, %	6.64	5
		Linoleic Acid 18:2, %	2.090	2.5
		Total Sugars(Invert), %	42.5	42
	<b>Mol Oil 95:5</b>		<b>00F-05313</b>	
		Fat: Roese Gottlieb, %	5.54	5
		Linoleic Acid 18:2, %	2.910	2.5
		Total Sugars(Invert), %	45.1	42

\*#\* = Misbranded

Manufacturer Location	Product	Analyte	Found	Claim	
<b>Omega Protein Inc</b>					
<b>Hammond, LA</b>					
	<b>Fish Meal</b>		<b>00F-04950</b>		
		Crude Fat, %	9.55	6	
		Crude Protein, %	65.3	60	
<b>Pedigree Inc</b>					
<b>Vernon, CA</b>					
	<b>Pedigree for Dogs</b>		<b>00F-10833</b>		
		Crude Fat, %	8.01	6	
		Oven Moisture, %	79.7	78	
		Crude Protein, %	10.1	8	
<b>Pet Gold Products</b>					
<b>San Diego, CA</b>					
	<b>Petgold Premium Masters Diet Puppy Formula Canned Dog</b>		<b>00F-05424</b>		
		Ash, %	2.08	3	
		Crude Fat, %	5.57	5	
		Oven Moisture, %	73.4	78	
		Crude Protein, %	11.5	8	
<b>Pet Products Plus, Inc.</b>					
<b>St Peters, MO</b>					
	<b>Excel - Mini Chunks Dog Food</b>		<b>00F-04532</b>		
		Fat: Acid Hydrolysis, %	14.1	15	
		Oven Moisture, %	7.08	10	
		Crude Protein, %	28.9	26	
	<b>Sensible Choice Natural Blend Dog Food Adult</b>		<b>00F-05425</b>		
		Fat: Acid Hydrolysis, %	13.6		
		Crude Fat, %	13.6	15	
		Oven Moisture, %	7.12	10	
		Crude Protein, %	28.1	26	
<b>Pfizer Animal Health</b>					
<b>Exton, PA</b>					
	<b>OXTC 100</b>		<b>01F-00036</b>		
		Oxytetracycline, g/lb	96.7	100	
<b>PM Ag Products Inc</b>					
<b>Homewood, IL</b>					
	<b>Safe-Guard 20% Natural Protein Deworming Block for Beef</b>		<b>00F-05317</b>		
		Ash, %	31.2	30	
		Calcium, %	3.31	2-3	
		Crude Fiber, %	11.5	12	
		Crude Protein, %	19.9	20	
		Salt (Sodium X 2.54), %	14.1	13.5-16	
		Vitamin A, IU/lb	18900.	20000	
	<b>** Sweet Lix Pressed Block Type C Medicated</b>		<b>00F-12678</b>		
		Crude Fiber, %	8.96	12.5	
		Iodine, ppm	51.0	43	
		Salt (ChlorideX1.65), %	17.2	19.5-23	DEFICIENT
		Salt (Sodium X 2.54), %	16.4	19.5-23	DEFICIENT
		Selenium, ug/g (ppm)	10.8	13	
<b>PMI Nutrition International Inc.</b>					
<b>Brantwood, MO</b>					
	<b>Lab Diet S025 Guinea Pig Diet</b>		<b>00F-01657</b>		
		Crude Fiber, %	13.4	16	
		Crude Protein, %	19.7	18	
<b>Premier Farmtech</b>					
<b>Kansas City, MO</b>					
	<b>FarmTech TM-50</b>		<b>00F-08081</b>		
		Oxytetracycline, g/lb	46.7	50	
	<b>Deccox Cattle Cocci D-500</b>		<b>00F-08082</b>		
		Crude Fiber, %	31.7	30	
		Decoquinatate, %	0.483	0.5	

#\* = Misbranded

Manufacturer Location	Product	Analyte	Found	Claim	
<b>Pro Visions Pet Specialties</b>					
<b>St. Louis, MO</b>					
	<b>Purina Pro Plan Advanced Hairball Control for cats</b>		<b>00F-07818</b>		
		Fat: Acid Hydrolysis, %	15.0	14	
		Oven Moisture, %	8.05	12	
		Crude Protein, %	35.3	35	
<b>Purina Mills</b>					
<b>Minneapolis, MN</b>					
	<b>Cattle Mineral 12:12 VA</b>		<b>00F-04739</b>		
		Calcium, %	15.4	12-14	
		Phosphorus, %	11.1	12	
		Salt (Sodium X 2.54), %	3.36	3-4	
		Vitamin A, IU/lb	199000.	150000	
<b>Purina Mills</b>					
<b>Sioux City, IA</b>					
	<b>Purina Commercial Feedlot 40-25 RM400 Medicated</b>		<b>00F-04740</b>		
		Calcium, %	5.73	6.5-7.5	
		Crude Fiber, %	11.2	15	
		Equiv Crude Protein, %	25.0	25	
		Monensin, g/ton	424.	400	
		Crude Protein, %	40.6	40	
		Salt (Sodium X 2.54), %	4.10	3.5-4.5	
		Vitamin A, IU/lb	38100.	30000	
<b>Purina Mills</b>					
<b>St. Louis, MO</b>					
	<b>Purina Dairy Phos Mineral</b>		<b>00F-01655</b>		
		Magnesium, %	2.16	2	
		Phosphorus, %	15.8	16	
		Crude Protein, %	54.0	40	
		Selenium, ug/g (ppm)	4.53	4.4	
	<b>Purina Game Bird Flight Conditioner</b>		<b>00F-01656</b>		
		Crude Fiber, %	6.52	12	
		Crude Protein, %	20.4	19	
	<b>*** Purina Cattle Mineral 12:12</b>		<b>00F-04670</b>		
		Calcium, %	15.9	12-14	EXCESSIVE
		Phosphorus, %	11.4	12	
		Salt (Sodium X 2.54), %	3.77	3-4	
		Vitamin A, IU/lb	239000.	150000	
	<b>*** Purina Meat Builder</b>		<b>00F-04671</b>		
		Lysine - Total, %	1.03	0.95	
		Methionine - Total, %	0.386	0.35	
		Crude Protein, %	19.2	20	DEFICIENT
	<b>*** Purina Deer and Game Block</b>		<b>00F-05349</b>		
		Calcium, %	2.59	1.75-2.25	EXCESSIVE
		Crude Protein, %	19.5	16	
		Salt (ChlorideX1.65), %	5.29	1-2	EXCESSIVE
		Salt (Sodium X 2.54), %	5.02	1-2	EXCESSIVE
	<b>Purina Hog Chow 40 W/O</b>		<b>00F-05703</b>		
		Calcium, %	4.35	3.5-4.5	
		Lysine - Total, %	2.24	2.33	
		Crude Protein, %	39.2	40	
		Salt (Sodium X 2.54), %	2.47	1.75-2.25	
	<b>Purina Acculine Chicken Blend</b>		<b>00F-05704</b>		
		Calcium, %	2.85	2.3-2.7	
		Lysine - Total, %	2.00	2	
		Methionine - Total, %	0.758	0.64	
		Crude Protein, %	34.9	35	
	<b>Purina Cattle Mineral 12:12VA</b>		<b>00F-05705</b>		
		Calcium, %	15.2	12-14	
		Phosphorus, %	11.8	12	
		Salt (Sodium X 2.54), %	3.11	3-4	
		Vitamin A, IU/lb	191000.	150000	

\*\*\* = Misbranded

Manufacturer Location	Product	Analyte	Found	Claim	
	<b>Purina Chow Pheasant Starter</b>		<b>00F-05706</b>		
		Amprolium, %	0.0161	0.0175	
		Lysine - Total, %	1.53	1.5	
		Methionine - Total, %	0.564	0.55	
		Crude Protein, %	27.8	28	
	<b>Beggin Strips</b>		<b>00F-08492</b>		
		Oven Moisture, %	18.5	24	
		Crude Protein, %	15.9	15	
	<b>*** Purina Accuration 2 HL</b>		<b>00F-09287</b>		
		Calcium, %	2.48	1.5-2	EXCESSIVE
		Equiv Crude Protein, %	17.1	16	
		Crude Fat, %	9.69	9	
		Crude Protein, %	32.1	32	
		Salt (ChlorideX1.65), %	3.88	4.5-5.5	DEFICIENT
		Salt (Sodium X 2.54), %	3.66	4.5-5.5	DEFICIENT
	<b>CS Cattle Mineral 12:12 SC,ADE 38MK</b>		<b>00F-09288</b>		
		Calcium, %	13.8	12-14	
		Phosphorus, %	12.3	12	
		Salt (Sodium X 2.54), %	2.97	3-4	
		Selenium, ug/g (ppm)	49.2	57	
		Vitamin A, IU/lb	166000.	150000	
	<b>Purina Mills Start and Grow 6042</b>		<b>00F-09289</b>		
		Lysine - Total, %	0.917	0.85	
		Methionine - Total, %	0.266	0.3	
		Crude Protein, %	18.7	17	
	<b>*** Purina Valu-Added Supr Lix 2HL</b>		<b>00F-12560</b>		
		Calcium, %	1.87	2	
		Equiv Crude Protein, %	14.4	29.5	
		Fat: Roese Gottlieb, %	6.01	5	
		Oven Moisture, %	28.7	30	
		Crude Protein, %	19.1	32	DEFICIENT
	<b>Purina Accuration 2 HL(med) RM130</b>		<b>00F-12561</b>		
		Calcium, %	1.73	1.5-2	
		Fat: Acid Hydrolysis, %	8.46	9	
		Monensin, g/ton	138.	130	
		Crude Protein, %	33.6	32	
		Salt (Sodium X 2.54), %	4.17	4.5-5.5	
	<b>Commercial Feedlot 40-25 (med) RM400</b>		<b>00F-12563</b>		
		Calcium, %	5.80	6.5-7.5	
		Crude Fiber, %	8.86	15	
		Equiv Crude Protein, %	25.8	25	
		Monensin, g/ton	395.	400	
		Crude Protein, %	42.6	40	
		Salt (Sodium X 2.54), %	4.62	3.5-4.5	
		Vitamin A, IU/lb	30000.	30000	
	<b>Hog Chow 40 W/O</b>		<b>00F-12564</b>		
		Calcium, %	3.92	3.5-4.5	
		Lysine - Total, %	2.47	2.33	
		Crude Protein, %	40.0	40	
		Salt (Sodium X 2.54), %	2.54	1.75-2.25	
	<b>*** Purina Accuration 2HL Beef Feed 3394</b>		<b>00F-12679</b>		
		Calcium, %	2.38	1.5-2	EXCESSIVE
		Equiv Crude Protein, %	19.0	16	EXCESSIVE
		Crude Fat, %	9.77	9	
		Crude Protein, %	34.5	32	
		Salt (Sodium X 2.54), %	4.64	4.5-5.5	
	<b>Purina Sheep Mineral #3350</b>		<b>00F-12680</b>		
		Calcium, %	12.5	10-12	
		Phosphorus, %	9.42	10	
		Salt (Sodium X 2.54), %	14.0	14-16.8	
		Selenium, ug/g (ppm)	31.2	32	
		Vitamin A, IU/lb	286000.	200000	
	<b>Purina Athlete 3563</b>		<b>00F-12681</b>		
		Crude Fat, %	14.8	14	
		Crude Protein, %	15.5	14	

\*\*\* = Misbranded

Manufacturer Location	Product	Analyte	Found	Claim	
	<b>Purina Acculine Chicken Blend</b>		<b>01F-00016</b>		
		Calcium, %	2.30	2.3-2.7	
		Lysine - Total, %	2.25	2	
		Methionine - Total, %		0.64	
		Crude Protein, %	34.7	35	
	<b>Purina Omolene #300</b>		<b>01F-00017</b>		
		Crude Protein, %	16.3	16	
	<b>Purina Layer A Crumbles</b>		<b>01F-00018</b>		
		Calcium, %	3.80	3.6-4.6	
		Lysine - Total, %	0.808	0.55	
		Methionine - Total, %		0.25	
		Crude Protein, %	15.5	16	
	<b>Purina Strategy</b>		<b>01F-00019</b>		
		Crude Fat, %	7.19	6	
		Crude Protein, %	13.8	14	
<b>Quality Liquid Feeds Inc</b>					
<b>Dodgeville, WI</b>					
	<b>*** QLF Pasture Plus 20C</b>		<b>00F-03464</b>		
		Equiv Crude Protein, %	22.0	15	EXCESSIVE
		Lactose, %	14.1	4	
		Oven Moisture, %	35.0	33	
		Potassium, %	2.63	2	
		Crude Protein, %	29.8	20	
		Total Sugars(Invert), %	33.2	35	
		Vitamin A, IU/lb	15300.	20000	
	<b>*** Custom Mix - Liq</b>		<b>00F-05798</b>		
		Vacuum Moisture, %	33.8	36	
		Crude Protein, %	7.68	11	DEFICIENT
		Salt (Sodium X 2.54), %	8.03	7-7.5	
		Vitamin A, IU/lb	42700.	40000	
<b>Ragland Mills Inc</b>					
<b>Neosho, MO</b>					
	<b>*** Ragland 12% Hy Phos Mineral</b>		<b>00F-05699</b>		
		Calcium, %	13.0	12.5-15	
		Iodine, ppm	220.	300	
		Phosphorus, %	11.1	12	
		Salt (Sodium X 2.54), %	9.77	10.5-12.6	
		Vitamin A, IU/lb	27300.	40000	DEFICIENT
	<b>Ragland All Stock 4% Phosphorus Mineral Bulk</b>		<b>00F-05700</b>		
		Calcium, %	17.8	15-18	
		Iodine, ppm	110.	125	
		Phosphorus, %	3.74	4	
		Salt (Sodium X 2.54), %	26.8	25-30	
	<b>*** Ragland Special Sheep and Goat Block</b>		<b>00F-05892</b>		
		Calcium, %	4.90	3.5-4.5	
		Crude Protein, %	18.4	18	
		Salt (Sodium X 2.54), %	18.2	17-20	
		Vitamin A, IU/lb	29600.	50000	DEFICIENT
	<b>*** Rancho Fly Block with Rabon-Oral Larvicide</b>		<b>00F-13229</b>		
		Acid Detergent Fiber, %	11.6	12.2	
		Calcium, %	4.03	4.5-5.5	
		Crude Fiber, %	8.18	11	
		Iodine, ppm	54.0	30	
		Crude Protein, %	6.37	5	
		Salt (Sodium X 2.54), %	16.5	18-21	
		Tetrachlorvinphos, %	0.20	0.3	DEFICIENT
		Vitamin A, IU/lb	18000.	30000	DEFICIENT
	<b>Ragland 4% Phosphorus Mineral Blk</b>		<b>00F-13230</b>		
		Calcium, %	15.9	15-18	
		Iodine, ppm	136.	125	
		Phosphorus, %	4.21	4	
		Salt (Sodium X 2.54), %	27.1	25-30	

## = Misbranded



Manufacturer Location	Product	Analyte	Found	Claim	
	<b>High Performance Horse Block</b>		<b>00F-13231</b>		
		Calcium, %	4.79	4-5	
		Crude Protein, %	16.8	16	
		Salt (Sodium X 2.54), %	15.4	14-16	
		Vitamin A, IU/lb	15300.	20000	
<b>Ralston Purina Company</b>					
<b>St. Louis, MO</b>					
	<b>Bonz Steak Bone Shaped Dog Snack</b>		<b>00F-01100</b>		
		Fat: Acid Hydrolysis, %	6.51	5	
		Oven Moisture, %	10.4	12	
		Crude Protein, %	14.6	11	
	<b>Purina Kibbles and Chunk</b>		<b>00F-01857</b>		
		Crude Fat, %	10.3	8	
		Oven Moisture, %	10.7	14	
		Crude Protein, %	23.5	21	
	<b>Purina Bonz for Small and Medium Dogs</b>		<b>00F-12558</b>		
		Fat: Acid Hydrolysis, %	6.14	5	
		Oven Moisture, %	10.5	12	
		Crude Protein, %	14.4	11	
	<b>Wisker Lickins</b>		<b>00F-13232</b>		
		Crude Fat, %	10.2	8.5	
		Oven Moisture, %	33.7	36	
		Crude Protein, %	25.7	24	
	<b>Chewy TBonz</b>		<b>00F-13233</b>		
		Fat: Acid Hydrolysis, %	5.21	4-7	
		Oven Moisture, %	21.6	26	
		Crude Protein, %	14.7	12	
<b>Ramona Warehouse</b>					
<b>Ramona, SD</b>					
	<b>Ramone Horse Feed</b>		<b>00F-04973</b>		
		Crude Fat, %	7.03	5	
		Crude Protein, %	14.9	13	
<b>Rancher Feed &amp; Seed</b>					
<b>Buffalo Gap, SD</b>					
	<b>Hen Feed</b>		<b>00F-05142</b>		
		Crude Protein, %	9.70	10	
<b>Robinson Labs Inc.</b>					
<b>Cannon Falls, MN</b>					
	<b>*** Buckscience Bi Agra</b>		<b>01F-00042</b>		
		Calcium, %	16.9	16.5-18.5	
		Phosphorus, %	7.68	8	
		Salt (Sodium X 2.54), %	27.3	28.5-30	
		Selenium, ug/g (ppm)	6.36	10	DEFICIENT
		Vitamin A, IU/lb	31900.	50000	
		DEFICIENT			
<b>Rolf Hagen</b>					
<b>Mansfield, MA</b>					
	<b>Nutrafin Goldfish Food</b>		<b>00F-04943</b>		
		Fat: Acid Hydrolysis, %	5.64	5	
		Oven Moisture, %	5.56	8	
		Crude Protein, %	37.5	32	
<b>Schempp Liquifeeds Inc</b>					
<b>Menno, SD</b>					
	<b>Sun Drop Liquifeed</b>		<b>00F-06426</b>		
		Ash, %	7.69		
		Equiv Crude Protein, %	26.4	31	
		Vacuum Moisture, %	43.0		
		Crude Protein, %	33.1		
		Total Sugars(Invert), %	26.2		

\*\*\* = Misbranded

Manufacturer Location	Product	Analyte	Found	Claim	
<b>Scrypton Systems Inc</b>					
<b>Annapolis, MD</b>					
	<b>** All Natural Bird Seed Supplement Capsicum Pepper</b>		<b>00F-10620</b>		
		Crude Fiber, %	27.0	21	EXCESSIVE
		Crude Fat, %	13.8	13	
		Oven Moisture, %	8.15	6	EXCESSIVE
		Crude Protein, %	14.1	16	DEFICIENT
<b>SD Soybean Processors</b>					
<b>Volga, SD</b>					
	<b>Soybean Meal</b>		<b>00F-03521</b>		
		Crude Protein, %	45.1	46	
	<b>Soybean Meal 44%</b>		<b>00F-05401</b>		
		Oven Moisture, %	10.9	12	
		Crude Protein, %	44.4	44	
	<b>Soybean Meal</b>		<b>00F-11558</b>		
		Crude Protein, %	46.9	46	
<b>South Shore Elevator Co.</b>					
<b>Waubay, SD</b>					
	<b>Custom Feed for Gordon Stormo</b>		<b>00F-01094</b>		
		Lasalocid, g/ton	31.4	38	
<b>Southwest Grain</b>					
<b>Belle Fourche, SD</b>					
	<b>Hen Scratch</b>		<b>00F-01418</b>		
		Crude Protein, %	13.8	12.5	
<b>Sterling Technology</b>					
<b>Toronto, SD</b>					
	<b>Nursemate Colostrum Supplement</b>		<b>00F-04500</b>		
		Fat: Roese Gottlieb, %	58.8	20	
		Crude Protein, %	23.5	22	
		Vitamin A, IU/syringe	48800.	42000	
	<b>Nurse Mate</b>		<b>00F-05351</b>		
		Fat: Roese Gottlieb, %	61.4	20	
		Crude Protein, %	23.8	22	
		Vitamin A, IU/syringe	59700.	42000	
	<b>Sterling Tech Nurse Mate ASAP Baby Pigs</b>		<b>00F-07819</b>		
		Fat: Roese Gottlieb, %	62.7	20	
		Crude Protein, %	23.5	24	
	<b>** Sterling Tech Nurse Mate ASAP Calves</b>		<b>00F-07820</b>		
		Fat: Roese Gottlieb, %	61.6	20	
		Crude Protein, %	23.6	22	
		Vitamin A, IU/syringe	3550.	42000	
		DEFICIENT			
<b>Sun Seed Company Inc</b>					
<b>Bowling Green, OH</b>					
	<b>** Sunseed Sunscription Vita Parakeet Formula</b>		<b>00F-01806</b>		
		Arginine - Total, %	0.658	1	DEFICIENT
		Crude Fiber, %	6.06	20	
		Crude Fat, %	4.80	5	
		Lysine - Total, %	0.292	0.6	DEFICIENT
		Methionine - Total, %	0.282	0.25	
		Oven Moisture, %	11.6	12	
		Crude Protein, %	12.9	11.5	
	<b>Granola Bar Cajun Cashew</b>		<b>00F-03323</b>		
		Crude Fiber, %	6.92	15	
		Crude Fat, %	13.6	8	
		Oven Moisture, %	7.26	12	
		Crude Protein, %	13.0	13	

\*\* = Misbranded

Manufacturer Location	Product	Analyte	Found	Claim
<b>Swift and Co.</b>				
<b>Worthington, MN</b>				
	<b>50% Meat and Bone Meal</b>		<b>00F-03957</b>	
		Calcium, %	8.54	8.7-10.3
		Crude Fat, %	11.6	8
		Phosphorus, %	3.84	4
		Crude Protein, %	51.8	50
<b>Tech Mix Inc</b>				
<b>Stewart, MN</b>				
	<b>Tech Mix Inc. Calf Restart One</b>		<b>00F-12050</b>	
		Crude Protein, %	12.0	10
		Sodium, %	1.46	1.5
		Vitamin A, IU/lb	70000.	50000
<b>The Iams Company</b>				
<b>Dayton, OH</b>				
	<b>Iams Salmon Formula</b>		<b>00F-02821</b>	
		Ash, %	2.08	1.9
		Crude Fat, %	8.20	6.5
		Oven Moisture, %	75.2	78
		Crude Protein, %	10.4	10
		Taurine - Total, %	0.010	0.07
	<b>Iams Adult Beef and Rice Formula</b>		<b>00F-03133</b>	
		Crude Fat, %	6.45	6
		Oven Moisture, %	76.3	78
		Crude Protein, %	9.86	9
	<b>Puppy formula Premium Puppy Food</b>		<b>00F-04735</b>	
		Crude Fat, %	10.5	9
		Oven Moisture, %	69.6	71
		Crude Protein, %	13.2	13
	<b>Iams Mini Chunks</b>		<b>00F-09913</b>	
		Fat: Acid Hydrolysis, %	15.4	15
		Oven Moisture, %	8.20	10
		Crude Protein, %	26.8	26
	<b>Iams Senior Formula Cat Food</b>		<b>00F-09914</b>	
		Fat: Acid Hydrolysis, %	14.9	14
		Oven Moisture, %	6.94	10
		Crude Protein, %	34.0	32
	<b>Iam's Puppy Biscuits</b>		<b>00F-10160</b>	
		Crude Fat, %	14.4	14
		Oven Moisture, %	4.96	11
		Crude Protein, %	30.4	27
<b>The Wardley Corporation</b>				
<b>Secaucus, NJ</b>				
	<b>Wardley Cichlid TEN</b>		<b>00F-01804</b>	
		Oven Moisture, %	6.59	9
		Crude Protein, %	45.3	40
<b>Tractor Supply Company</b>				
<b>Nashville, TN</b>				
	<b>Dumor 37% Range Block</b>		<b>00F-05893</b>	
		Acid Detergent Fiber, %	6.27	6
		Calcium, %	6.03	5-6
		Equiv Crude Protein, %	18.4	18.5
		Crude Protein, %	37.0	37
		Salt (Sodium X 2.54), %	15.1	15-17
		Vitamin A, IU/lb	37900.	30000
	<b>Producers Pride Calf Starter</b>		<b>00F-13226</b>	
		Crude Fiber, %	11.1	12.5
		Crude Protein, %	18.0	16.2
	<b>Producers Pride 10% Beef Pellet</b>		<b>00F-13227</b>	
		Crude Fiber, %	14.9	15
		Crude Protein, %	12.4	10

\*#\* = Misbranded

Manufacturer Location	Product	Analyte	Found	Claim	
*** Dumor 37% Range Block			<b>00F-13228</b>		
		Acid Detergent Fiber, %	6.22	6	
		Calcium, %	7.02	5-6	EXCESSIVE
		Equiv Crude Protein, %	18.9	18.5	
		Crude Protein, %	36.2	37	
		Salt (Sodium X 2.54), %	16.8	15-17	
	Vitamin A, IU/lb	32400.	30000		
<b>Tradition Feed Products Company</b>					
<b>Mankato, MN</b>					
Aureo S700 Crumbles			<b>00F-00340</b>		
		Crude Fiber, %	7.65	29	
		Chlortetracycline, g/lb	2.52	2	
		Crude Protein, %	12.3	7	
		Sulfamethazine, g/lb	1.99	2	
*** Beef Pack B1440			<b>00F-04539</b>		
	Lasalocid, g/ton	804.	1440		DEFICIENT
Tradition Rabbit Familyettes			<b>00F-04541</b>		
		Crude Fiber, %	14.9	14-16	
		Crude Protein, %	19.5	18	
*** Deccox Crumbles D1136			<b>00F-04632</b>		
		Crude Fiber, %	9.98	10	
		Decoquinatate, mg/lb	1010.	1136	
		Crude Protein, %	15.7	14	
		Vitamin A, IU/lb	116000.	200000	DEFICIENT
*** Amprol Crumbles 1.25%			<b>00F-04633</b>		
	Amprolium, %	0.719	1.25		DEFICIENT
Tradition Pullet Developer			<b>00F-04648</b>		
		Lysine - Total, %	0.827	0.6	
		Methionine - Total, %	0.282	0.28	
		Crude Protein, %	17.1	14	
*** Pro Gold 12			<b>00F-04974</b>		
	Crude Fat, %	4.11	5		DEFICIENT
	Crude Protein, %	13.9	14		
Chlortetracycline Crumbles 4			<b>00F-09154</b>		
		Calcium, %	7.28	5.5-6.6	
		Crude Fiber, %	14.4	25	
		Chlortetracycline, g/lb	3.40	4	
		Crude Protein, %	14.0	5	
Opticare Chlortetracycline Crumbles 4			<b>00F-09294</b>		
		Calcium, %	7.11	5.5-6.6	
		Crude Fiber, %	10.2	25	
		Chlortetracycline, g/lb	3.70	4	
		Crude Protein, %	12.4	5	
14% Pullet Developer			<b>00F-10828</b>		
	Crude Protein, %	15.8	14		
17% Egg Layer Granules			<b>00F-10829</b>		
	Crude Protein, %	17.9	17		
Rabbit Familyettes Rabbit Complete			<b>00F-10830</b>		
		Crude Fiber, %	14.7	14	
		Crude Protein, %	19.5	18	
Chlortetracycline Crumbles			<b>01F-00021</b>		
		Calcium, %	6.39	5.5-6.6	
		Crude Fiber, %	16.6	25	
		Chlortetracycline, g/lb	3.47	4	
		Crude Protein, %	11.4	5	
Hubbard Pheasant Grower			<b>01F-00022</b>		
		Amprolium, %	0.0153	0.0175	
		Lysine - Total, %	1.43	1.2	
		Methionine - Total, %		0.4	
		Crude Protein, %	24.7	24	

\*\*\* = Misbranded

Manufacturer Location	Product	Analyte	Found	Claim	
<b>Truman Farmers Elevator</b>					
<b>Truman, MN</b>					
	<b>Cheese Meal</b>		<b>01F-00038</b>		
		Fat: Roese Gottlieb, %	27.4	30	
		Lysine - Total, %	3.12	2.9	
		Crude Protein, %	41.6	40	
<b>Valley Splendor</b>					
<b>Fargo, ND</b>					
	<b>Valley Splendor Finch Mix</b>		<b>00F-03945</b>		
		Crude Fiber, %	6.43	15	
		Crude Fat, %	18.6	12	
		Crude Protein, %	17.3	10	
<b>Vigorena Feeds</b>					
<b>Mankato, MN</b>					
	<b>** Vigorena Min-Tech Gain-Pro Ruminant Mineral BAMB120</b>		<b>00F-03954</b>		
		Calcium, %	16.0	13.4-16	
		Magnesium, %	3.16	3.3	
		Phosphorus, %	6.77	7.9	DEFICIENT
		Salt (Sodium X 2.54), %	19.1	18-21.6	
		Vitamin A, IU/lb	151000.	100000	
<b>Vigortone Ag Products Inc</b>					
<b>Cedar Rapids, IA</b>					
	<b>Vigortone FC No. 32S Plus</b>		<b>00F-05784</b>		
		Calcium, %	14.3	13-16	
		Phosphorus, %	7.02	7	
		Salt (Sodium X 2.54), %	19.3	18-21	
		Selenium, ug/g (ppm)	25.0	26.4	
		Vitamin A, IU/lb	274000.	300000	
	<b>Western Feed No. 39-2188</b>		<b>00F-05785</b>		
		Iodine, ppm	6560.	6900	
		Salt (Sodium X 2.54), %	87.0	94-98	
<b>VitaKraft Pet Products</b>					
<b>Bound Brook, NJ</b>					
	<b>Vita Kraft - Hedgehog food</b>		<b>00F-05691</b>		
		Ash, %	5.57	6.1	
		Fat: Acid Hydrolysis, %	15.3	15.4	
		Oven Moisture, %	8.30	11	
		Crude Protein, %	17.2	17.1	
<b>Wal Mart Stores Inc</b>					
<b>Bentonville, AR</b>					
	<b>Ol'Roy Premium Beef Chunks Dinner</b>		<b>00F-01856</b>		
		Crude Fat, %	7.64	6	
		Oven Moisture, %	77.4	78	
		Crude Protein, %	9.90	10	
	<b>Ol' Roy Brand Premium Chopped Beef Dinner Dog Food</b>		<b>00F-11758</b>		
		Crude Fat, %	7.42	6	
		Oven Moisture, %	76.3	78	
		Crude Protein, %	10.3	10	
	<b>Special Kitty Premium Cat Food - Turkey and Giblets Banquet</b>		<b>00F-11759</b>		
		Ash, %	3.44	3	
		Crude Fat, %	8.28	7	
		Oven Moisture, %	74.4	78	
		Crude Protein, %	11.4	11	
		Taurine - Total, %	0.058	0.05	
<b>Walter Zaugg</b>					
<b>Bardonia, NY</b>					
	<b>Star Steamed Bone Meal</b>		<b>00F-05143</b>		
		Calcium, %	28.9	27.5-33	
		Phosphorus, %	12.3	13	
		Crude Protein, %	8.66	5	

\*\* = Misbranded

Manufacturer Location	Product	Analyte	Found	Claim	
<b>Waltham</b>					
<b>Vernon, CA</b>					
	<b>Whiskas Seafood Chowder</b>		<b>00F-11540</b>		
		Ash, %	2.20	3	
		Oven Moisture, %	80.2	82	
		Crude Protein, %	8.51	7.5	
		Taurine - Total, %	0.057	0.05	
<b>West Plains Grain</b>					
<b>Hay Springs, NE</b>					
	<b>Extruded Supplement - Soybean Meal</b>		<b>00F-04635</b>		
		Crude Fiber, %	3.47	13	
		Crude Fat, %	19.6	18	
		Crude Protein, %	40.2	36	
<b>Western QLF</b>					
<b>Dunlap, IA</b>					
	<b>Tank #3 Liquid Feed NutriB 50 HM</b>		<b>00F-07113</b>		
		Calcium, %	8.03	7.3-8.7	
		Equiv Crude Protein, %	46.6	46	
		Vacuum Moisture, %	33.1	32	
		Monensin, g/ton	441.	450	
		Potassium, %	3.11	3.5	
		Crude Protein, %	51.8	50	
		Total Sugars(Invert), %	10.1	7	
		Vitamin A, IU/lb	37400.	40000	
<b>Westway Trading</b>					
<b>New Orleans, LA</b>					
	<b>*** Mol-Mix Prime 32% Liquid Feed Supplement</b>		<b>00F-05402</b>		
		Equiv Crude Protein, %	20.6	26	
		Oven Moisture, %	34.7	33	
		Potassium, %	2.75	2	
		Crude Protein, %	31.6	32	
		Total Sugars(Invert), %	26.8	35	
		Vitamin A, IU/lb	63900.	25000	DEFICIENT
<b>Westway Trading Corp</b>					
<b>South Omaha, NE</b>					
	<b>Wes Las Cane Molasses</b>		<b>00F-03522</b>		
		Vacuum Moisture, %	26.5	27	
		Total Sugars(Invert), %	45.6	43	
<b>Woody's Performance Horse Feed Products</b>					
<b>Dickinson, ND</b>					
	<b>Hen Scratch</b>		<b>00F-05136</b>		
		Crude Protein, %	9.20	9.5	
	<b>Woody's Horseman's Complete</b>		<b>00F-05786</b>		
		Crude Fiber, %	16.2	24	
		Crude Protein, %	13.6	12	
	<b>Woody's Futurity Blend 14</b>		<b>00F-05787</b>		
		Lysine - Total, %	0.691	0.61	
		Methionine - Total, %	0.254	0.12	
		Crude Protein, %	16.8	14	
<b>Yaggies Inc</b>					
<b>Yankton, SD</b>					
	<b>Yaggies Decoxx 10</b>		<b>00F-05314</b>		
		Decoquinatate, %	0.525	0.5	

\*\*\* = Misbranded

Manufacturer Location	Product	Analyte	Found	Claim
<b>Zip Feed Mills</b>				
<b>Sioux Falls, SD</b>				
	<b>Zip Sheep Nat-Pro Block 24%</b>		<b>00F-00909</b>	
	Crude Protein, %		25.5	24
	Salt (Sodium X 2.54), %		10.5	10.7-12.8
	Vitamin A, IU/lb		55000.	50000
	<b>Zip Chick Grower AM.006</b>		<b>00F-05138</b>	
	Amprolium, %		0.0059	0.006
	Crude Protein, %		16.9	14
	<b>Zip Purple Ribbon Mineral Pellets 846</b>		<b>00F-05345</b>	
	Calcium, %		10.7	10-12
	Phosphorus, %		9.89	10
	Salt (Sodium X 2.54), %		13.1	13-15

#\* = Misbranded

# Sample Count Report

Remedies Sampled From 01/01/2000 To 12/31/2000

08-Mar-01

Manufacturer and Location			Sample	Passed	Not
Agri Laboratories LTD	St. Joseph	MO	2	2	0
AgriPharm Dealer Distribution of America	Porterville	CA	1	1	0
Aspen Veterinary Resources	Kansas City	MO	1	1	0
Boehringer Ingelheim Animal Health	St Joseph	MO	6	6	0
Carter Wallace Inc	Cranbury	NJ	1	1	0
Durvet Inc	Blue Springs	MO	2	2	0
Elanco Animal Health	Indianapolis	IN	5	5	0
Farnam Companies Inc	Phoenix	AZ	1	1	0
Fermenta Animal Health Company	Kansas City	MO	1	1	0
Fort Dodge Animal Health	Fort Dodge	IA	8	5	3
Hartz Mountain Corp	Secaucus	NJ	4	3	1
Kaeco Group Inc	Savannah	MO	1	1	0
Merck & Company Inc	Rahway	NJ	2	2	0
Pacific Animal Health	Irwindale	CA	1	1	0
Pfizer Animal Health	Exton	PA	16	16	0
Pharmacia & Upjohn Company	Kalamazoo	MI	1	1	0
Protein Technology	Santa Rosa	CA	1	1	0
RX Veterinary Products	Grapevine	TX	3	3	0
Solvay Animal Health Inc	Mendota Heights	MN	1	0	1
St Aubrey Veterinary Labs	Hauppauge	NY	2	1	1
Stamina Plus	Cody	WY	1	1	0
TRC Animal Health	Phoenix	AZ	2	2	0
Vedco Inc	St Joseph	MO	3	2	1
Western Vet Supply Inc	Grapevine	TX	2	2	0
<b>Totals:</b>			68	61	7

**Percent Passed:** 89.7%

**Percent Not** 10.3%



COMMERCIAL REMEDIES SAMPLED -- 2000  
LIST OF ANALYTES

<u>DRUG ANALYTES</u>	<u>NUMBER OF SAMPLES</u>
Oxytetracycline	17
Piperazine	5
Tylosin	5
Pyrantel Base	4
Dichlorvos	3
Sulfadimethoxine	3
Tetracycline Hydrochloride	3
Chlortetracycline	2
Sulfamethazine	2
Amprolium	1
Nitrofurazone	1
Penicillin	1
Pyrantel Tartrate	1

OTHER ANALYTES

Vitamin A	8
Crude Protein	4
Glycine	4
Salt	3
Calcium	2
Dextrose	2
Glucose	2
Iron	2
Potassium	2
Potassium Citrate	2
Potassium Phosphate	2
Sodium	2
Ash	1
Chloride	1
Crude Fat	1
Iodine	1
Magnesium	1
Manganese Ascorbate	1
Omega-3 Fatty Acids	1
Phosphorus	1

# Remedy Summary Report

Remedies Sampled  
01-01-2000 to 12-31-2000

Manufacturer Location	Product	Analyte	Found	Claim
<b>Agri Laboratories LTD</b> St. Joseph, MO				
	<b>Ferrodex 100</b>		<b>00D-05886</b>	
		Iron, mg/mL	103.	100
	<b>Agrimycin 200</b>		<b>00D-05887</b>	
		Oxytetracycline, mg/mL	194.	200
<b>AgriPharm Dealer Distribution of America</b> Porterville, CA				
	<b>NFZ Puffer</b>		<b>00D-05990</b>	
		Nitrofurazone, %	0.189	0.2
<b>Aspen Veterinary Resources</b> Kansas City, MO				
	<b>CMPK Solution</b>		<b>00D-03508</b>	
		Calcium, %	1.61	1.8-2.2
		Dextrose Monohydrate, %	14.0	15
<b>Boehringer Ingelheim Animal Health</b> St Joseph, MO				
	<b>Atgard Swine Wormer</b>		<b>00D-04498</b>	
		Dichlorvos, gm/packet	11.6	11.5
	<b>Oxy-Tet 100</b>		<b>00D-04520</b>	
		Oxytetracycline, mg/mL	87.8	100
	<b>Anchor Vitamin A-D-500</b>		<b>00D-04544</b>	
		Vitamin A, I.U./mL	488000.	500000
	<b>Anchor OXY-Tet 100</b>		<b>00D-05696</b>	
		Oxytetracycline, mg/mL	98.1	100
	<b>Boehringer Ingelheim Biomycin 200</b>		<b>00D-07476</b>	
		Oxytetracycline, mg/ml	207.	200
	<b>Atgard - Swine Wormer</b>		<b>00D-13241</b>	
		Dichlorvos, gm/packet	12.4	11.5
<b>Carter Wallace Inc</b> Cranbury, NJ				
	<b>Lassie Liquid Wormer</b>		<b>00D-01861</b>	
		Pyrantel Base, mg/mL	2.01	2.27
<b>Durvet Inc</b> Blue Springs, MO				
	<b>Oral Cal MPK</b>		<b>00D-04496</b>	
		Calcium, g/500 mL	10.1	10
		Dextrose Monohydrate, g/500 mL	68.6	75
		Magnesium, g/500 mL	2.83	2.8
		Phosphorus, g/500 mL	6.02	6
		Potassium, g/500 mL	0.560	0.5
	<b>Sustain III</b>		<b>00D-13240</b>	
		Sulfamethazine, g/bolus	7.68	8.02
<b>Elanco Animal Health</b> Indianapolis, IN				
	<b>Elanco Tylan 50 Injection</b>		<b>00D-04497</b>	
		Tylosin, mg/ml	51.7	50
	<b>Elanco Tylan 200 Injection</b>		<b>00D-05697</b>	
		Tylosin, mg/mL	194.	200
	<b>Tylan 50 Injection</b>		<b>00D-05885</b>	
		Tylosin, mg/mL	51.4	50

Manufacturer Location	Product	Analyte	Found	Claim	
	<b>Tylan 50 Injection</b>		<b>00D-09910</b>		
		Tylosin, mg/mL	50.1	50	
	<b>Elanco Tylan 50 Injection</b>		<b>00D-13239</b>		
		Tylosin, mg/mL	48.5	50	
<b>Farnam Companies Inc Phoenix, AZ</b>	<b>Wonder Wormer</b>		<b>00D-10159</b>		
		Piperazine, %	42.0	42	
<b>Fermenta Animal Health Company Kansas City, MO</b>	<b>Task R 5 - Dichlorvos</b>		<b>00D-04525</b>		
		Dichlorvos, mg/capsule	71.5	68	
<b>Fort Dodge Animal Health Fort Dodge, IA</b>	<b>** Hog and Cattle Vitamins and Electrolytes</b>		<b>00D-01098</b>		
		Vitamin A, I.U./lb	4180000.	5000000	DEFICIENT
	<b>Aureomycin Chlortetracycline</b>		<b>00D-03135</b>		
		Chlortetracycline, g/lb	25.6	25	
	<b>Hog and Cattle Vitamins and Electrolytes</b>		<b>00D-03531</b>		
		Vitamin A, I.U./lb	4340000.	5000000	
	<b>** Vitamins and Electrolytes Soluble for Poultry</b>		<b>00D-03533</b>		
		Vitamin A, I.U./lb	3700000.	5000000	DEFICIENT
	<b>** Vitamins and Electrolytes soluble for poultry</b>		<b>00D-04734</b>		
		Vitamin A, I.U./lb	3300000.	5000000	DEFICIENT
	<b>Fort Dodge Polyotic</b>		<b>00D-07816</b>		
		Tetracycline HCl, g/pkg	10.5	10	
	<b>Aureomycin Chlortetracycline</b>		<b>00D-09912</b>		
		Chlortetracycline, g/lb	27.4	25	
	<b>Polyotic Tetracycline Hydrochloride</b>		<b>00D-10158</b>		
		Tetracycline HCl, mg/tablet	448.	500	
<b>Hartz Mountain Corp Secaucus, NJ</b>	<b>Hartz Carob Flavored Liquid Wormer</b>		<b>00D-04623</b>		
		Piperazine, mg/5mL	262.	250	
	<b>Hartz Carob Flavored Liquid Wormer</b>		<b>00D-04642</b>		
		Piperazine, mg/5mL	265.	250	
	<b>** Hartz Glucosamine Joint Therapy</b>		<b>00D-04653</b>		
		Crude Fat, %	6.77		
		Manganese Ascorbate, mg/tablet	24.8	33	
		Omega-3 Fatty Acids, mg/tablet	0.6285	12.5	DEFICIENT
		Vitamin A, I.U./tablet	244.	250	
	<b>Hartz once a Month Wormer</b>		<b>00D-05347</b>		
		Piperazine, mg/capsule	83.6	80	
<b>Kaeco Group Inc Savannah, MO</b>	<b>Kaeco Equine Wormer Pellet</b>		<b>00D-07815</b>		
		Pyrantel Tartrate, %	1.15	1.25	
<b>Merck &amp; Company Inc Rahway, NJ</b>	<b>Corid 20% Soluble Powder</b>		<b>00D-04650</b>		
		Amprolium, %	20.1	20	
	<b>Heartgard Plus Chewables</b>		<b>00D-07814</b>		
		Pyrantel Base, mg/tablet	55.5	57	
<b>Pacific Animal Health Irwindale, CA</b>	<b>Pacific Animal Health Combicillin Ag</b>		<b>00D-03015</b>		
		Penicillin, u/mL	168000.	150000	

\*\* = Misbranded

Manufacturer Location	Product	Analyte	Found	Claim
<b>Pfizer Animal Health</b>				
<b>Exton, PA</b>				
	<b>Terramycin Soluble Powder</b>		<b>00D-01097</b>	
	Oxytetracycline, g/pkg		9.65	10
	<b>Terramycin Soluble Powder</b>		<b>00D-03507</b>	
	Oxytetracycline, g/pkg		10.2	10
	<b>Re-sorb Oral Hydration Electrolyte Product For Scouring</b>		<b>00D-03510</b>	
	Glucose, g/pkg		44.8	44
	Glycine, g/pkg		5.62	6.36
	Potassium Citrate, g/pkg		0.24	0.12
	Potassium Phosphate, g/pkg		4.12	4.2
	Salt (Sodium X 2.54), g/pkg		7.89	8.82
	<b>Terramycin Soluble Powder</b>		<b>00D-03532</b>	
	Oxytetracycline, g/pkg		10.5	10
	<b>Terramycin Soluble Powder</b>		<b>00D-03949</b>	
	Oxytetracycline, g/pkg		10.4	10
	<b>Terramycin soluble powder</b>		<b>00D-04499</b>	
	Oxytetracycline, g/pkg		10.0	10
	<b>Albon R (Sulfadimethoxine)</b>		<b>00D-04524</b>	
	Sulfadimethoxine, g/bolus		14.4	15
	<b>Terramycin</b>		<b>00D-05702</b>	
	Oxytetracycline, mg/tablet		239.	250
	<b>Terramycin Soluble Powder</b>		<b>00D-05889</b>	
	Oxytetracycline, g/pkg		9.99	10
	<b>Terramycin-343</b>		<b>00D-06307</b>	
	Oxytetracycline, g/pkg		105.	102.4
	<b>Terramycin Soluble Powder</b>		<b>00D-07477</b>	
	Oxytetracycline, g/pkg		9.94	10
	<b>Terramycin - 343</b>		<b>00D-08084</b>	
	Oxytetracycline, g/pkg		92.6	102.4
	<b>Terramycin Soluble Powder</b>		<b>00D-09291</b>	
	Oxytetracycline, g/pkg		10.3	10
	<b>Liquamycin LA-200</b>		<b>00D-09911</b>	
	Oxytetracycline, mg/mL		196.	200
	<b>Pfizer Entrolyte H.E.</b>		<b>00D-10623</b>	
	Chloride, %		1.66	1.7
	Glycine, %		2.34	2.3
	Potassium, %		0.920	0.95
	Protein, %		20.32	19
	Salt (ChlorideX1.65), %		1.37	1.2-1.7
	Sodium, %		2.30	2.2-2.7
	<b>Pfizer Resorb</b>		<b>00D-12051</b>	
	Glucose, g/pkg		44.6	44
	Glycine, g/pkg		9.09	6.36
	Potassium Citrate, g/pkg		0.26	0.12
	Potassium Phosphate, g/pkg		4.23	4.2
	Salt (Sodium X 2.54), g/pkg		8.48	8.82
<b>Pharmacia &amp; Upjohn Company</b>				
<b>Kalamazoo, MI</b>				
	<b>Panmycin 500 bolus</b>		<b>00D-05701</b>	
	Tetracycline HCl, mg/bolus		516.	500
<b>Protein Technology</b>				
<b>Santa Rosa, CA</b>				
	<b>Escherichia Coli Antibody</b>		<b>00D-05296</b>	
	Crude Protein, %		77.9	70

Manufacturer Location	Product	Analyte	Found	Claim	
<b>RX Veterinary Products</b>					
<b>Grapevine, TX</b>					
	<b>Iodine Wound Spray 2.44% RXV</b>		<b>00D-05989</b>		
		Iodine, %	2.16	2.44	
<b>RX Veterinary Products</b>					
<b>Porterville, CA</b>					
	<b>Sulfadimethoxine Soluble Powder</b>		<b>00D-04649</b>		
		Sulfadimethoxine, oz/pkg	3.16	3.34	
	<b>RXV Sulfadimethoxine</b>		<b>00D-07478</b>		
		Sulfadimethoxine, oz/pkg	3.21	3.34	
<b>Solvay Animal Health Inc</b>					
<b>Mendota Heights, MN</b>					
	<b>*** Hog and Cattle Vitamins and Electrolytes</b>		<b>00D-05884</b>		
		Vitamin A, I.U./lb	2680000.	5000000	DEFICIENT
<b>St Aubrey Veterinary Labs</b>					
<b>Hauppauge, NY</b>					
	<b>St. Aubrey Premium Liquid Wormer</b>		<b>00D-01860</b>		
		Piperazine, mg/mL	51.8	50	
	<b>*** St. Aubrey Premium Brewers Yeast and Garlic tablets</b>		<b>00D-05423</b>		
		Protein, %	37.15	41	DEFICIENT
<b>Stamina Plus</b>					
<b>Cody, WY</b>					
	<b>Stamina Plus Calf Electrolyte Plus</b>		<b>00D-12049</b>		
		Glycine, %	3.68	3.8	
		Sodium, %	3.58	3.5	
<b>TRC Animal Health</b>					
<b>Phoenix, AZ</b>					
	<b>Rotectin 2</b>		<b>00D-05695</b>		
		Pyrantel Base, g/syringe	3.49	3.6	
	<b>Rotectin 2</b>		<b>00D-13238</b>		
		Pyrantel Base, mg/mL	181.	180	
<b>Vedco Inc</b>					
<b>St Joseph, MO</b>					
	<b>*** Energy Drench</b>		<b>00D-04526</b>		
		Ash, %	6.82	4	EXCESSIVE
		Protein, %	8.31	9	DEFICIENT
	<b>Hematinic Iron Hydrogenated Dextran Injection</b>		<b>00D-04527</b>		
		Iron, mg/mL	100.	100	
	<b>Vedco Oxytet - 343</b>		<b>00D-07817</b>		
		Oxytetracycline, g/pkg	95.7	102.4	
<b>Western Vet Supply Inc</b>					
<b>Grapevine, TX</b>					
	<b>Supra Sulfa III SMSR 6.80.8</b>		<b>00D-04518</b>		
		Sulfamethazine, g/bolus	29.6	30	
	<b>Vitamin A and D "500"</b>		<b>00D-04519</b>		
		Vitamin A, I.U./mL	489000.	500000	

\*\*\* = Misbranded

## SUMMARY OF WEED SEED OCCURRENCE IN COMMERCIAL FEEDS

Commercial Feeds Sampled January 1, 2000 - December 31, 2000

Total samples analyzed for weed seed contamination:	12
Number of samples analyzed reported as PASSED:	11
Number of samples analyzed reported NOT PASSED:	1
Percent of samples reported NOT PASSED:	8%
Number of samples actually containing weed seeds:	5
Number of samples containing no weed seeds:	7

Sampling was confined to products that looked like they may contain noxious weed seeds. Some of the samples that passed did contain some weed seeds. However, the factor that determines if a sample passes or not is seed viability. The weed seeds need to be viable to be violative. Samples containing noxious weed seeds but reported as PASSED contained less than 4.5 viable *restricted* weed seeds per pound or no viable *prohibited* weed seeds. In some cases, there were no viable weed seeds in the sample.

Type of feed analyzed for weed seeds	Number analyzed	Number NOT PASSED	Percent NOT PASSED
Texturized feed, scratch feeds	5	1	20%
Customer formula feeds	3	0	--
Wild bird feeds	4	0	--

In 1999 we analyzed 28 samples for weed seed contamination and reported 2 samples as NOT PASSED, a 7% non-compliance rate. Since 1989 we have analyzed approximately 463 samples for weed seeds, reporting about 88 of them as NOT PASSED, for a non-compliance rate of about 19% during that time period.

## WEED SEED ANALYSIS OF COMMERCIAL FEEDS

Commercial Feeds Sampled Jan. 1, 2000 - Dec. 31, 2000

\* Results marked by an asterisk indicate that the number of restricted noxious weed seeds found in that sample was below the tolerance of 4.5 restricted noxious weed seeds per pound. In these instances, viability was not determined.

### **Aby's Feed & Seed**

Rapid City, SD

Hen Scratch Passed  
Found: Field pennycress 2/lb, Wild oat 5/lb, Jointed goatgrass  
Only 1 Wild oat seed germinated

### **Dakota Mill & Grain**

Fort Pierre, SD

Custom Feed Passed  
None found

### **Farmers Coop**

Gordon, NE

Horse Feed Passed  
Found: Field pennycress 3/lb\*

Hen Scratch Passed  
None found

Hen Scratch Passed  
None found

### **Farmers Coop Elevator**

Rosholt, SD

Custom Feed Passed  
None found

### **Farmers Elevator Company**

Mission Hill, SD

Custom Cattle Feed Passed  
None found

### **Gutwein & Co.**

Francesville, IN

Morning Song Wild Bird Food Passed  
None found

Bulk Wild Bird Food Passed  
None found

### **Hartz Mountain Company**

Secaucus, NJ

Hartz Cockatiel Diet Passed  
Found: Wild oat 4/lb, Wild buckwheat 31/lb, Barnyardgrass 4/lb  
Bedstraw 1/lb, Green & Yellow foxtail, Pigweed, Kochia  
Wild oats only restricted seed found\*

**Kaytee Products Inc.**

Chilton, WI

Fiesta Canary & Finch Bird Food

Passed

Found: Wild mustard 9/lb, less than 4.5 seeds/lb germinated

**Ranchers Feed & Seed**

Buffalo Gap, SD

Hen Scratch

Not Passed

Found: Wild oat 50/lb, 25 Wild oats germinated



## **ANIMAL FEED & DRUG CONTAMINANTS MONITORING PROGRAM**

### **Sulfonamide (Sulfa) Drugs**

Sulfamethazine and sulfathiazole are the two most common sulfonamide drugs used in animal production, although many other sulfonamide drugs are available. Because they are effective and relatively inexpensive, they have been widely used. They are most effective when used early in the course of a disease when bacterial organisms are rapidly multiplying because they act by blocking enzymes necessary for protein synthesis during bacterial reproduction. They are not very effective in cases where the infection is firmly established because the animal must be able to mount an immune response for the sulfonamide therapy to be successful.

The sulfa drugs are available in a wide variety of dosage forms, as well as Type A Medicated Articles and Type B and C medicated feeds. In feeds, sulfamethazine and sulfathiazole are used primarily to prevent or treat bacterial infections. The sulfa drugs are distributed throughout the entire body, including muscle, bone, blood and milk. Bacterial resistance may gradually develop and in some cases is widespread. Misuse of any of the sulfa products has the potential to cause tissue residues.

Several years ago the National Center for Toxicological Research tentatively concluded that sulfamethazine is a carcinogen. Since that time much of its use has been curtailed. Due to the carcinogenicity issue, sulfa residues in animal tissues intended for human consumption became a concern, especially in swine. In 1975, the United States Department of Agriculture began a national monitoring program. In 1977, they found sulfa residue in 12.6% of swine sampled. In 1990, sulfa residue was detected in less than 1.0% of swine sampled.

The Food & Drug Administration (FDA) in 1990 removed a portion of the Food, Drug and Cosmetic Act, 21 CFR 510.450 which had allowed the interim sale of sulfa drugs not covered by an approved new animal drug application (NADA). This served to curtail the availability of some of these products, principally water-soluble forms of sulfa.

The South Dakota Department of Agriculture has also operated a program designed to monitor feeds and feed ingredients for contamination by sulfonamides. This program has been successful in that few samples containing significant levels of sulfa contamination have been found. In the six years between January 1, 1991 and December 31, 1996, we analyzed 319 samples for sulfa drug residues, and detected residues in 19 samples, or 6.0% of the samples. None of these samples contained more than 2.0 ppm sulfa residue, and most contained 1.0 ppm or less. Nine positives were detected in 1991, and the rate has gone down since then. No residues were found in 1995 or 1996, although sample numbers were reduced during this time, as well.

FDA's action level for residues in feed is 2 ppm in the complete feed. Feed ingredients may contain residues greater than 2 ppm, but the total ration must have a residue concentration below 2 ppm. None of the residues found by our monitoring program during this time period were violative. Of the 19 samples positive for sulfa residue, two were samples of cattle concentrates, seven were samples of meat and bone meal, and ten were hog feeds and concentrates.

### SAMPLING PROGRAM

Although the incidence of sulfa residues in animal tissues has been reduced, the problem has not been eliminated entirely. However, our results indicate that we can maintain an effective animal feed monitoring program while monitoring fewer samples. To achieve this we will concentrate our sulfa residue monitoring program on those feeds and feed ingredients believed to have a higher probability of contamination and/or potential to cause meat or milk residues. Of primary concern are feeds that were mixed immediately following a batch of feed containing sulfonamide drugs, meat and bone meal, and other finished feeds not labeled to contain sulfa.

We do not intend to collect additional samples, but plan on getting more use out of the samples that are taken. Although we have not done many sulfa residue analyses in the last several years we would like to maintain that analytic capability, as well as continue to be able to monitor samples for sulfa residues.

Specific instructions for our continued sulfa-residue monitoring program are as follows:

1. The lab will only analyze for sulfa residues when requested by the inspector or the Office of Agronomy Services.
2. Determine if the feed sampled fits into one of the priority categories. These categories are:
  - commercial and/or custom-mixed feeds at feed mills which may show cross-contamination from a previously mixed batch of feed. Check production records prior to sampling for this purpose
  - meat and bone meal,
3. Other products which may be sampled are:
  - feeds and supplements for finishing hogs and cattle,
  - feeds and supplements for lactating dairy cows, and
  - other products which the inspector suspects may contain sulfa residues.
4. Make a note in the "Remarks" section of the Report on Sample requesting sulfa residue analysis.

Care should be taken when handling sulfonamide products. Some people are allergic and may experience adverse reactions when exposed to these drugs. In general, the more concentrated the product being handled, the more care that should be taken during handling. Avoid skin contact as well as ingestion. In case of eye contact, flush with water. In case of ingestion, obtain medical attention. Induce vomiting if the person is conscious. Always wash with soap and water after direct skin exposure to these drugs or feeds containing these drugs.

## ANIMAL FEED &amp; DRUG CONTAMINANTS MONITORING PROGRAM

Adulteration by Noxious Weed Seeds

Noxious weeds are a problem in South Dakota. One method being used to try to control the distribution of noxious weeds in the state is to reduce or eliminate noxious weed seeds from animal feeds. Several sections of the South Dakota Commercial Feed Law and Regulations address the issue of commercial feeds containing noxious weed seeds.

Section 39-14-53 of the South Dakota Commercial Feed Law states “a commercial feed shall be deemed to be adulterated if it contains viable weed seeds in amounts exceeding the limits which the Secretary of Agriculture shall establish by rule pursuant to the provisions of Chapter 1-26.”

These rules are further addressed in the Administrative Rules of South Dakota (ARSD), Chapter 12:53:01:10, which states:

All screenings or by-products of grains and seeds containing prohibited or Restricted weed seeds, as defined in chapter 12:36:03, when used in commercial feed or sold as such to the ultimate consumer, must be ground fine enough or otherwise treated to destroy the viability of the weed seeds. The finished product may contain no viable prohibited weed seeds per pound and not more than 4.5 viable restricted weeds seeds per pound.

Regulation 9(b) of the commercial feed regulations (and the Uniform Feed Bill and Regulations) essentially repeats this.

Chapter 12:36:03 of the South Dakota Seed Law, SDCL 38-12A, defines those noxious weed seeds that are prohibited and restricted. They are listed as follows:

## 12:36:03:01 Prohibited noxious weed seeds.

- |                      |                          |
|----------------------|--------------------------|
| (1) Field bindweed   | (5) Perennial sowthistle |
| (2) Leafy spurge     | (6) Canada thistle       |
| (3) Hoary cress      | (7) Quackgrass           |
| (4) Russian knapweed | (8) Horse nettle         |

## 12:36:03:02 Restricted noxious weed seeds.

- |                      |                        |
|----------------------|------------------------|
| (1) Wild oats        | (7) Annual bluegrass   |
| (2) Dodder           | (8) Spotted knapweed   |
| (3) Wild mustard     | (9) Giant foxtail      |
| (4) Hedge bindweed   | (10) Musk thistle      |
| (5) Wild carrot      | (11) Plumeless thistle |
| (6) Field pennycress |                        |

Based on our test results, we find feed samples containing noxious weed seeds. We are not analyzing a representative cross-section of the commercial feed supply, however, we are only analyzing those products which appear to contain noxious weed seeds. Additionally, the weed seeds need to be **viable** in order for the product to be violative. From 1989 through 1998 the South Dakota Department of Agriculture analyzed 423 feed samples for noxious weed seeds. 85 of those samples (20%) were reported NOT PASSED, because they contained viable noxious weed seeds in excess of the standards specified above.

## SAMPLING PROGRAM

While many feeds and feed ingredients have little or no contamination by weed seeds, other feeds and ingredients have a higher probability of containing noxious weed seeds. By concentrating our sampling and analysis on those feeds and feed ingredients that have a higher chance of containing noxious weed seeds, we may get better compliance with the regulations and decrease the amount of contaminated feed distributed. Grain screenings, custom formula feeds, texturized feeds, and wild bird food are products of primary concern at this time.

Rather than collect extra samples for weed seed analysis, we will analyze a number of our routine samples for weed seeds, in addition to the routine analytes. We will continue monitoring commercial feeds for contamination by viable noxious weed seeds.

Specific instructions to field staff for our weed seed monitoring program are as follows:

1. The lab will only analyze for weed seeds when requested by the Inspector or the Office of Agronomy Services.
2. Visually inspect each sample collected.
3. Determine if the product sampled fits into one of the priority categories. These categories are:
  - Grain screenings,
  - Custom formula feeds, especially those containing whole grains or screenings,
  - Texturized and other feeds containing whole grains, and
  - Wild bird food.
4. Other products may be submitted for analysis if there appears to be a high probability of weed seed contamination.
5. When collecting a sample for weed seed analysis and label analysis, please collect an additional pound of feed for the weed seed analysis.
6. Make a note in the "Remarks" section of the Report of Sample form requesting analysis for weed seed.

If the sample is reported NOT PASSED after analysis, it will be handled like any other violative sample. Any product remaining of the lot sampled will be placed under Stop Sale Order as an adulterated product. The product can be released from Stop Sale Order only for remanufacturing to render the weed seeds non-viable or disposal.

## ANIMAL FEED AND DRUG CONTAMINANTS MONITORING PROGRAM

Vomitoxin

Vomitoxin is the common name for the mycotoxin *deoxynivalenol* (DON). DON is one of a closely related group of mycotoxins known as the trichothecene mycotoxins. The name Vomitoxin was chosen because if enough contaminated grain or feed is eaten by an animal that animal may begin to vomit.

If vomitoxin is present in sufficient quantity, it will usually result in feed refusal by the animals. Swine seem to be the most sensitive animals, chickens seems to be the least sensitive. Cattle are in the middle of that scale. Consumption of enough contaminated feed could be toxic to the animal consuming it. Because this toxin stimulates vomiting, though, death is rare. Most animals will quit eating before they consume enough feed to cause death. The toxin may also suppress the animal's immune system, allowing a secondary infection to mask the actual problem.

These mycotoxins are produced by fungi, and the *Fusarium* family is primarily responsible for the production of vomitoxin. Cool, wet weather seems to stimulate the production of the trichothecene mycotoxins (compared to aflatoxin, which is usually found during drought conditions). Because the trichothecene mycotoxins are closely related, the presence of one toxin (such as vomitoxin) indicates that other mycotoxins may also be present. Because it is difficult to analyze mycotoxins, a toxin that can be identified and quantitated such as vomitoxin may be blamed for problems caused by other toxins that are harder to identify.

*Fusarium* growth requires a minimum of 22-25% moisture, so the toxin should not continue to be produced in properly stored grain or feed. Toxin already present, however, will not decrease even though the fungus may have quit growing. This points out the importance of maintaining clean bins, trucks and feed bunks. Although there is no direct correlation between mold or scab on grain or feed and the amount of vomitoxin, the presence of mold indicates that vomitoxin may be present.

Because vomitoxin occurs sporadically and in localized areas, it has not been extensively researched and there are no federal regulations concerning the use of contaminated grain. The Food and Drug Administration (FDA) has published some guidelines pertaining to the use of contaminated grain, however. They are:

1. 1 ppm DON (vomitoxin) on finished wheat products, e.g. flour, bran and germ, that may potentially be consumed by humans. FDA is not stating an advisory level for wheat intended for milling because normal manufacturing practices and additional technology available to millers can substantially reduce DON levels in the finished wheat product from those found in the original raw wheat. Because there is significant variability in manufacturing processes, an advisory level for raw wheat is not practical.
2. 10 ppm DON on grains and grain by-products destined for ruminating beef and feedlot cattle older than 4 months and for chickens with the added recommendation that these ingredients not exceed 50% of the diet of cattle or chickens.
3. 5 ppm DON on grains and grain by-products destined for swine with the added recommendation that these ingredients not exceed 20% of their diet.
4. 5 ppm DON on grains and grain by-products destined for all other animals with the added recommendation that these ingredients not exceed 40% of their diet.

The first guideline applies only to finished *wheat* products intended for human food. It does not apply to other grains such as corn, oats or barley, for example. Guidelines 2-4 apply to any type of grain or grain by-product intended for use as animal feed.

Limited data suggests that as little as 1 ppm vomitoxin may result in reduced feed intake of swine. Poultry and ruminants tolerate levels significantly higher than this.

During August 1993, the Department of agriculture collected 29 samples of small grains from the northern and central parts of the state. Individual sample results ranged from 0.7 to 20 ppm, with vomitoxin detected in every sample. The average of these samples was 7.6 ppm. This contrasts greatly with data collected in 1991 and 1992, when parts of South Dakota were affected by vomitoxin in small grain and corn. Analysis of those crops found vomitoxin to be widespread, but at low levels. Of 53 samples analyzed during that time, only two samples contained more than 2 ppm DON and the highest level detected was 2.6 ppm. Since 1993, vomitoxin has not been much of a problem in the state. However, occasionally ingredients are transported here from areas where vomitoxin has occurred. In these cases, it is important to be aware that vomitoxin sometimes concentrates in grain by-products routinely used as feed ingredients.

#### SAMPLING PROGRAM

While the Department of Agriculture has not established a schedule for routine sampling of commodities to monitor vomitoxin occurrence, the inspection staff is instructed to obtain samples for analysis whenever contamination is suspected. Individual producers and businesses may also follow these same guidelines. Sampling procedures are:

1. Collect a representative sample of the material. Two pounds is the minimum sample size needed.
2. Collect and submit samples in heavy paper bags. DO NOT USE PLASTIC BAGS!
3. Make sure each sample is carefully wrapped and identified.
4. Include your name, complete address, and telephone number with the samples.
5. Mail samples with high moisture early in the week so they don't get left in the post office over a weekend. This may cause sample degradation.

Most labs will phone or FAX results if that service is requested. If you have any questions concerning lab procedure or practice, please contact the lab prior to sending your sample. Analysis can be done in-state by Olson Biochemistry Labs, SDSU, P.O. Box 2170, Brookings, SD 57007 (phone 605-688-5466). The Department of Agriculture also maintains a list of commercial labs in the upper Midwest that provide mycotoxin analysis.

---

Issuing Office: South Dakota Department of Agriculture  
Office of Agronomy Services

Issue Date: October 21, 1991

Review Date: October 14, 1999

## MYCOTOXIN OCCURRENCE IN FEED INGREDIENTS

Ingredients Sampled January 1, 2000 - December 31, 2000

Although we did not have any widespread mycotoxin problems during 2000, we did analyze several ingredient samples for mycotoxins. Specifically, eight samples were analyzed for vomitoxin (deoxynivalenol or DON). The results of these analyses are listed below:

Product	Lab Number	Manufacturer	Result
Cotton seed hulls	00F-05318	Cotton Oil Mill, Pine Bluff, AR	Aflatoxin, ND*
Whole cottonseed	00F-07225	Investigational sample	Aflatoxin, 0.030 ppm
Whole cottonseed	00F-07226	Investigational sample	Aflatoxin, ND*

\* ND = Not Detected

Sample 00F-07225 contained aflatoxin levels in excess of what the Food & Drug Administration allows for use in lactating dairy cattle, but may be fed to other categories of cattle.

Mycotoxin monitoring will continue as needed.

## ANIMAL FEED AND DRUG CONTAMINANTS MONITORING PROGRAM

**Selenium**

Selenium is a necessary trace mineral in animal diets. Too little selenium in the diet may cause a deficiency-related response, but too much selenium may be toxic. Nutritional muscular dystrophy is the most common deficiency-related problem. The most common problem related to toxicity is alkali disease, also known as blind staggers.

The primary source of dietary selenium is the soil where the crop or grass grows. Much of the United States contains soils low in selenium and the forage and grain grown in these locations do not contain enough selenium to meet the dietary requirements of livestock. Animals raised in selenium-deficient areas often require some sort of supplementation to prevent deficiencies and related problems. Most South Dakota soils, on the other hand, contain adequate to excessive amounts of selenium and toxicity related problems are more common here than deficiency related problems.

Selenium supplementation of animal diets was first approved by the Food and Drug Administration (FDA) in 1974, allowing for limited, low level supplementation in only a couple animal species. Since that time, FDA has approved supplementation at higher levels and in more species. Specifics are discussed in the Code of Federal Regulations, Chapter 21, Section 573.920 (21 CFR 573.920).

Since 1987, when the current regulation was adopted, selenium supplementation has been allowed in the complete feed of swine, chickens, turkeys, sheep, cattle, and ducks at a level not exceeding 0.3 parts per million (ppm). It is allowed for limit feeding at a maximum intake of 3 milligrams per head per day (mg/hd/day) in cattle and 0.7 mg/hd/day in sheep. It may also be fed free-choice in salt-mineral mixtures to cattle and sheep at the same amounts described for limit feeding.

21 CFR 573.920 goes further to specify some premix, manufacturing and labeling requirements, the most important of which is the mandatory label warning statement, which is: *Caution: Follow label directions. The addition of this premix containing selenium is not permitted.*

Usually this statement means that the maximum amount of selenium allowed has been added to a product. In complete feeds containing added selenium at a rate of 0.3 ppm, this means that a ton of feed contains 272.4 mg of selenium. Sometimes the label of mineral/trace mineral premixes will contain a statement explaining this. For example, "adding 50 pounds of this product to one ton of feed will provide 272.4 mg (0.3 ppm) of selenium."

Several years ago, selenium supplementation of animal feeds came under scrutiny due to environmental concerns. Our concern is environmental selenium. Considering the amount of selenium that livestock in South Dakota may consume from their drinking water and locally grown forages and grain, we do not feel that excess selenium (beyond the amount guaranteed) should be encouraged. This is one of the reasons we have been monitoring selenium in feeds, and we are prepared to take regulatory action on samples that exceed the guarantee by more than the analytical variation. However, our analytical data seem to indicate that feed manufacturers are doing a pretty good job in getting the right amount of selenium into their feed products. For 262 samples analyzed between 1993 and 1997 we found a 90% compliance rate. Of the samples reported NOT PASSED during that time, most were deficient.



## SAMPLING PROGRAM

The purpose of this monitoring program is to look at the accuracy of feed labels regarding selenium content of the product. This includes evaluating claims that the product contains the maximum amount of selenium when it may contain more than is allowed or less than is expected. The results may also reflect mixer ability and efficiency in those cases where the correct amount of selenium was added to a feed but the analytical results were not as expected.

Specific instructions to field staff for our selenium monitoring program are as follows:

1. Products targeted for monitoring are those products containing a guarantee for selenium, the mandatory selenium warning statement, or claims relating to selenium and its benefits. Additionally, some products without claims or guarantees, but with a source of selenium listed as an ingredient, may be analyzed.
2. Collect a representative sample of the material in question, as well as a product label, if possible.
3. Request a selenium analysis in the "Remarks" section of the Inspectors Report on Sample Form.

Sodium selenite is the form of selenium most often used in the production of animal feeds. Care should be taken when handling selenium premixes. Most feed mills will use a premix containing 0.06% selenium to manufacture complete feeds. Feed mills manufacturing premixes may also use a 1.0% selenium premix. Avoid Skin and eye contact, as well as ingestion and inhalation. Wash with soap and water after exposure to concentrated premixes and prior to eating, drinking or using tobacco. "Pure" sodium selenite contains 45% selenium and should be avoided; it is toxic and should not be handled without protective clothing and a respirator.

**SELENIUM ANALYSIS OF COMMERCIAL FEEDS  
SUMMARY**

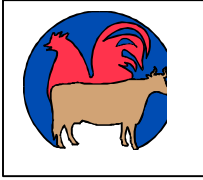
Commercial Feeds Sampled January 1, 2000 - December 31, 2000

<u>Lab number</u>	<u>Manufacturer</u>	<u>Claim (ppm)</u>	<u>Found (ppm)</u>	<u>Not passed (NP)</u>
01F-00020	Hubbard Feeds	35.0	29.4	
01F-00025	Golden Sun Feeds	30.0	31.5	
01F-00032	Nutrena Feeds	30.0	31.4	
01F-00034	Hubbard Feeds	35.0	31.9	
01F-00039	Millbrook Feeds	50.0	46.7	
01F-00042	Robinson Labs	10.0	6.36	
00F-00907	Land O'Lakes/Harvest States	35.2	36.0	
00F-01652	Land O'Lakes/Harvest States	35.0	49.8	
00F-01653	Land O'Lakes/Harvest States	35.0	25.0	Deficient
00F-01655	Purina Mills	4.40	4.53	
00F-02919	J & R Distributing	6.60	6.59	
00F-03466	Kay Dee Feed Co	28.0	24.6	
00F-04495	Harvest Brands	7.20	8.72	
00F-04644	Kay Dee Feed Co	28.0	26.7	
00F-04677	Land O'Lakes/Harvest States	36.0	43.9	
00F-04947	Hubbard Feeds	35.0	35.2	
00F-05282	Farmland Industries	22.0	16.0	Deficient
00F-05291	Nutrena Feeds	20.0	19.8	
00F-05320	Farmland Industries	22.0	21.8	
00F-05321	Farmland Industries	22.0	21.8	
00F-05781	Kay Dee Feed Co	28.0	24.0	
00F-05782	Hubbard Feeds	20.0	18.6	
00F-05783	Hubbard Feeds	20.0	13.6	Deficient
00F-05784	Vigortone Ag Products	26.4	25.0	
00F-05788	Hubbard Feeds	35.0	27.2	
00F-05882	Land O'Lakes/Harvest States	36.0	67.4	
00F-05883	Midwest Ag Supply	10.0	16.9	
00F-07109	Land O'Lakes	4.0	5.95	
00F-07110	Land O'Lakes	6.0	4.97	
00F-07326	Land O'Lakes	35.2	28.1	
00F-07365	Land O'Lakes	15.0	14.9	
00F-07366	Land O'Lakes	15.0	19.6	
00F-07372	Land O'Lakes	35.2	32.9	
00F-07375	Land O'Lakes	36.0	40.7	
00F-08555	Farmland Industries	22.0	23.4	
00F-09153	Hubbard Feeds	35.0	30.4	
00F-09292	Hubbard Feeds	20.0	16.8	
00F-09293	Hubbard Feeds	35.0	27.5	
00F-09288	Purina Mills	57.0	49.2	
00F-12678	PM Ag Products	13.0	10.8	
00F-12680	Purina Mills	32.0	31.2	

During 2000, 41 samples were analyzed for selenium, with 4 samples reported NOT PASSED, a 90% compliance rate. In the seven years prior to 2000 we analyzed 334 samples for selenium, reporting 303 PASSED and 31 NOT PASSED, a 91% compliance rate.

The analytical variation (AV) established by AAFCO for selenium is 25%. Although selenium is required to be guaranteed as a minimum, we may also report a sample as containing excessive selenium if it is more than 25% higher than the guarantee and, when fed according to directions on the product label, it provides more selenium to the animal than is allowed by the selenium feed additive regulation, 21 CFR 573.920. The basis for this policy is the high naturally-occurring selenium levels that can be found in central and western South Dakota. Considering the amount of selenium that livestock may receive from water and locally grown forages and grain, we do not feel that excess selenium in a commercial feed should be encouraged.

We will continue to monitor selenium levels in animal feeds.



## HOW DO I KNOW IF SELENIUM IS A PROBLEM ON MY FARM OR RANCH?

Visually there are several things to look for that will indicate that forage or water may contain toxic concentrations of selenium. Several plant species have been found to thrive in seleniferous soils and are referred to as selenium indicator plants. Three species of these plants are found in South Dakota, Twogrooved poisonvetch (*Astragalus bisulcatus*), Racemed poisonvetch (*Astragalus racemosus*), and Prince's plume (*Stanleya pinnata*). These plants are reasonably reliable indicators of areas of high selenium concentration in soils.

Areas that are saline or have saline seeps have the potential to have high levels of selenium in forage and water. Not all saline areas will be seleniferous nor will all saline water contain high levels of selenium. Areas where saline seeps discharge water high in selenium have been documented in western South Dakota by the Department of Agriculture.

Another indicator is to observe livestock that may or may not be exposed to toxic levels of selenium. Research has shown that horses will begin to lose the long hairs in the mane and tail from high doses of selenium. Cattle may have a rough hair coat and exhibit symptoms such as reduced reproductive performance, poor weight gain, or hoof or horn changes or loss. Lameness can result from advanced cases of selenosis. Cattle that have been exposed to high levels of selenium have been observed to graze on their knees, as the front feet become sore.

Observations of indicator plants and saline areas provide a producer with an indication of a problem with selenium but the only way to determine if a threat to livestock exists is to sample the water and forage and have it tested by a reputable laboratory. The O.E. Olsen Biochemistry Laboratory on the campus of South Dakota State University provides analysis of forage and water for a fee, as do many other public and private laboratories. A laboratory analysis of water and forage provide a livestock producer with detailed information to make management decisions regarding a livestock operation.

Forage or feed suspected to be high in selenium can be analyzed to determine total selenium. Research has shown that forage or feed that contain 2-5 ppm selenium poses a marginal threat to livestock. Livestock that are continually fed forages containing marginal levels of selenium may experience chronic selenium toxicity. Forage above 5 ppm selenium is said to cause acute toxic conditions in livestock and should be avoided.

**WATER SUPPLIES IN SELENIFEROUS AREAS ARE ALSO A SOURCE WHERE TOXIC LEVELS OF SELENIUM CAN BE FOUND. LIVESTOCK THAT USE STOCK DAMS, STREAMS, OR SEEP DISCHARGES IN A SELENIFEROUS AREA FOR A WATER SUPPLY ARE AT RISK OF CHRONIC OR ACUTE SELENIUM TOXICITY. LIVESTOCK SHOULD BE EXCLUDED FROM WATER SUPPLIES THAT HAVE A SELENIUM CONCENTRATION OF 0.5 PPM OR GREATER.**

## What should I Do If I have a Potential for Selenium Toxicity?



Excluding the livestock from water or feed that contains toxic levels of selenium is a priority. Adverse effects of selenium will usually reverse if the source of selenium is reduced and the toxicity has not progressed to a point where it is irreversible.

Seleniferous forages usually occur in a localized area. If these areas can be identified and livestock can be excluded, loss of livestock productivity can be avoided. If feed such as hay or other feed crops have been determined to be high in selenium the feed can still be used if it is blended with feed known to be low in selenium.

Managing selenium in livestock production means that a consideration of the total selenium intake is considered. Selenium can be consumed by livestock in water and feed supplies. Controlling selenium intake will reduce the risk of selenosis and avoid undue economic loss.

## ANIMAL FEED & DRUGS CONTAMINANTS MONITORING PROGRAM

### Copper

Copper is an essential trace mineral in animal diets. Too little copper in the diet may result in a deficiency, but too much copper may be toxic. Sheep are susceptible to copper toxicity problems, while cattle tend to be more susceptible to deficiency related problems. Monogastric animals, such as swine, tolerate much higher levels of copper than do ruminants.

The amount of copper required in the diet varies from species to species and even from animal to animal. High levels of other minerals, particularly molybdenum, sulfur and zinc, may reduce the availability of copper in the diet. Five to eight parts per million (ppm) of copper may be adequate if interference from other minerals is at a minimum, but may not be adequate if significant amounts of these other minerals are present. The amount of copper present in the soil where the crop or grass is grown largely determines the amount of copper the animal consumes. Problems with absorption in the gut of the animal are a common source of deficiency-related problems.

Copper is necessary for the formation of red blood cells, bone, elastin in the cardiovascular system, and hair and wool pigmentation. Quite a bit of research has been done to determine the effects of feeding high levels of copper to growing swine. Studies have shown that copper levels of 250 ppm may result in an improved growth rate. As a result, copper levels similar to this may be found in many feeds intended for growing swine.

Unlike selenium, there are no specific regulations regarding the use of copper in animal feeds. The following copper compounds are approved for feed use: copper carbonate, copper chloride, copper gluconate, copper hydroxide, copper orthophosphate, copper oxide, copper pyrophosphate, and copper sulfate. These compounds are all considered GRAS (generally recognized as safe) and, according to the Code of Federal Regulations 21 CFR 582.80, are allowed for use in animal feeds "when added at levels consistent with good feeding practice". In the case of copper, the term "good feeding practice" would usually be considered a level necessary to meet nutritional requirements.

Copper sulfate is probably the most common source of copper used in feed manufacturing. Copper sulfate is blue in color and water-soluble. If copper sulfate is subjected to prolonged storage under humid conditions it may cake, which could make it difficult to get a homogeneous mixture in the feed mixer.

In South Dakota, copper deficiency in cattle is more common than copper toxicity in sheep, primarily because much of the forage is relatively low in copper. Typical causes of copper toxicity in sheep are mixer carry-over caused by mixing a sheep feed following a swine or cattle feed or simply by feeding the sheep a product formulated for another species of livestock.

There are some copper sulfate products on the market intended for adding to watering systems, instead of feeds. Copper sulfate also has some applications as a pesticide, for algae control.

## SAMPLING PROGRAM

Because it is important to provide a sufficient amount of copper to swine and cattle and a safe level of copper to sheep, it is important that copper be used carefully in feed manufacturing. Therefore, the purpose of this sampling plan is to monitor the amount of copper contained in cattle and sheep feeds. In swine feeds, where high levels of copper are desired, an additional concern is monitoring copper levels in feeds when the label of advertising makes a claim regarding copper. In addition to letting us determine "typical" levels of copper in feeds, "atypical" results may point out deficiencies in mixing or cleanout procedures by the manufacturer.

Specific instructions to field staff for our copper monitoring program are as follows:

1. Products targeted for monitoring are all sheep feeds and those cattle and swine feeds containing copper guarantees and/or claims specific to the copper content of the feed. All sheep feeds collected under our routine sampling program should be submitted for a copper analysis.
2. Collect a representative sample of the feed in question, as well as a product label, if possible.
3. Request a copper analysis in the "Remarks" section of the Inspectors Report on Sample form.

Copper sulfate and copper oxide, in concentrated form, are found as fine dust. Eye and skin contact should be avoided. Wear long sleeves, gloves and goggles when handling. A respirator should also be worn for respiratory protection. No special precautions are necessary for handling trace mineral premixes that contain copper.

---

—

Issuing Office: South Dakota Department of Agriculture  
Office of Agronomy Services

Issue Date: October 1, 1993

Review Date: November 3, 1999

# BSE COMPLIANCE ASSISTANCE

This material has been prepared by the South Dakota Department of Agriculture, Office of Agronomy Services, for use by the feed industry and livestock producers in South Dakota. The intent of this document is to help affected parties understand, and comply with, the federal rule prohibiting mammalian-to-ruminant feeding.

- Labeling
- Equipment cleanout
- Ingredients from single species slaughter facilities
- Recordkeeping
- Livestock producers
- Questions

On June 5, 1997, the Food & Drug Administration (FDA) published a final rule prohibiting the use of mammalian protein (i.e. animal protein products such as meat and bone meal) in feeds for ruminant animals. The intent of the rule is to help ensure that bovine spongiform encephalopathy (BSE) or “mad cow disease” does not become established in the United States and spread through the feed supply to other animals.

Ruminant animals include cattle, sheep, goats, bison, deer, elk, and other related animals having a four-compartment stomach. Mammalian protein is defined as protein from all mammals, and we refer to these mammalian protein ingredients as “prohibited material”.

There are some exemptions from this rule. Porcine (pork) and equine (horse) protein that originate from single-species slaughter plants have been exempted from this ban and may be used in ruminant feeds. Also exempt are blood and milk products, gelatin and processed meat products which have been cooked and offered for human consumption (such as plate waste, for example). Fat, tallow, amino acids and dicalcium phosphate produced as a by-product of gelatin manufacturing are not considered animal proteins and are not covered by this rule. Poultry and fish are not mammals so proteins originating from these species may continue to be used in ruminant feeds. We refer to these ingredients, including porcine and equine protein from single-species slaughter facilities, as “non-prohibited material”.

This rule applies to rendering facilities, protein blenders and ingredient brokers, feed manufacturers, trucking companies transporting feeds and feed ingredients, and any person or business that feeds ruminant animals.

For a feed mill, or a livestock producer mixing their own feed, the category of prohibited materials would also include any concentrate feeds which contain a prohibited mammalian protein. For example, a producer or small feed mill may not use meat and bone meal to manufacture feed, but instead will take a product such as a 40% hog concentrate and further mix that to the finished feed. If this concentrate contains a prohibited material, the concentrate, as well as the complete feed, must be treated as prohibited material.

This rule went into effect August 4, 1997, and FDA allowed an additional 60 days to exhaust labeling and products from the marketplace for feeds and ingredients produced before June 5, 1997. All products and labels are supposed to have complied with this rule by October 3, 1997. There are three principal areas in which compliance is needed --



labeling, equipment cleanout and recordkeeping. Each area has different requirements and will be discussed separately.

A firm using only animal protein products from exempt sources, such as pork or horse, or not using animal protein at all, is not required to use any special labeling or equipment cleanout procedures. Even these companies, however, need to be aware of the rule, particularly as it applies to trucks transporting ingredients.

### Labeling

Any feed or ingredient (except pet foods) that contains prohibited material will need to have the statement “Do not feed to cattle or other ruminants” placed prominently on the front of the label. This statement may be applied to existing label stock by the use of a rubber stamp or a sticker, and should be printed in a different color, or in some other way offset, from the other label information.

The collective term “animal protein products” may still be used in the ingredient statement, but ruminant feeds may not contain any of the prohibited materials. Any feed for non-ruminants (except pet foods) that contains prohibited materials will need to carry the mandatory warning statement on the label.

Labels for feeds containing no prohibited materials will not need the mandatory warning statement.

Every shipment of feed, whether bagged or bulk, medicated or non-medicated, delivered to the customer or picked up at the feed mill, must be labeled. This new rule adds the requirement that anyone feeding ruminant animals must save copies of invoices and labeling of every feed they receive containing animal protein. Feed that does not have an invoice or label from the manufacturer or distributor does not comply with the law, and keeps the feed user from complying with this rule, as well.

### Equipment cleanout

Firms manufacturing feeds for multiple species, and using both prohibited and non-prohibited materials are required to have written cleanout procedures that will be used between batches of feed containing the prohibited and non-prohibited materials. These cleanout procedures are similar in concept to those used in the manufacture of medicated feeds. Cleanout is necessary for all mill systems, including ingredient unloading and conveying, mixing, pellet mills, bulk loadout, bagging equipment, and bulk delivery trucks. The three basic types of cleanout procedure are physical cleanout, flushing and sequencing.

Physical cleanout consists of using any physical means (vacuuming, sweeping, washing, or other suitable method) that is appropriate for the given situation and does not cross-contaminate other parts of the feed mill. For example, use of compressed air would probably not be appropriate in many situations. Material recovered during the cleanout needs to be discarded or saved for use in non-ruminant feed, depending on the circumstances.

Flushing consists of following a feed or ingredient containing prohibited material with a sufficient volume of wheat midds, soybean meal, or other high use ingredient through the entire system, or at least that portion of the system that has been used. For example, if a

truckload of prohibited material was received and unloaded in the truck dump, it would need to be followed by a sufficient quantity of some other non-prohibited material to completely flush the unloading and conveying systems. Once the prohibited material is in storage and feed containing the prohibited material is being made, the flush would need to involve all equipment from the mixer downstream, including delivery trucks if the product is loaded-out bulk. FDA recommends that the volume of material used to flush the equipment should equal the operating volume of the shared equipment. Flush material will need to be properly identified, stored and used in a manner that will prevent cross-contamination of other feeds. When used to make feed, the flush material is considered “prohibited”, and must be handled accordingly.

Sequencing is similar to planned flushing. For example, following the manufacture of a swine feed containing prohibited material, another swine, horse or poultry feed containing non-prohibited material would be made and run through all of the same equipment, flushing the system. After a sequence like this, a ruminant feed could be made.

Firms that do not use prohibited materials will not need to worry about equipment cleanout for the purposes of this rule. Cleanout following the manufacture of medicated feeds will still be necessary, however.

#### Ingredients from single species slaughter facilities

Firms purchasing and using non-prohibited ingredients (horse and/or pork) only from single species slaughter facilities are not required to utilize the mandatory warning statement or special cleanout procedures. These firms will need records sufficient to document that they are obtaining all of their animal protein from single species slaughter facilities. They should also make sure that ingredient haulers are complying with cleanout requirements for trucks.

#### Recordkeeping

For firms using prohibited materials, the rule requires records sufficient to track ingredients and finished products from receipt, through processing and distribution. Firms not using prohibited materials will need to document that they are using only non-prohibited materials, but will not necessarily need to meet the other recordkeeping requirements of this rule. Feed customers feeding ruminant animals must keep records of the feed they purchase and use. In particular, these records must include invoices and labeling of all feeds containing animal protein.

Records must be available for inspection and copying by state and federal investigators, and must be maintained for one year after distribution of the product for feed manufacturers and distributors. Feed users must maintain the records for at least a year after the feed is received. In some cases, existing business records may be sufficient to comply with this rule. For example, most livestock producers already save invoices to document feed costs for tax purposes.

#### Livestock producers

Livestock producers feeding ruminant animals, in feeding operations of all sizes, will need to comply with all aspects of this rule. Specifically, if producers mix their own feed, and feed both ruminants and non-ruminants, they will need to comply with the cleanout and recordkeeping requirements specified by the rule. Although the labeling requirements may not apply if the producer does not sell feed, sufficient records must be kept to document compliance with the regulation. For example, producers mixing their own feed may wish to establish a mixer log book, in which they record the dates they mixed feed containing animal protein, the ingredients in that feed, and the animals to which it was fed.

Ruminant feeders purchasing feed must keep copies of invoices for all feeds received that contain animal protein sources. A copy of the product label for each feed containing animal protein must also be kept. In many cases, particularly for bulk feeds/ingredients, the invoice may contain the required “label” information. If the invoice contains all of the necessary labeling information, such as the list of ingredients, withdrawal statement, etc., it is not necessary to keep a copy of the product label on file.

To determine if the feed contains animal proteins, look at the ingredient list for the terms *animal protein products, meat and bone meal, meat meal, bone meal, feather meal, blood meal, fish meal*, etc. Mention of any type of animal (fish, poultry) or animal product (milk or dairy product, meat) would identify the product as containing an animal protein.

These records must be maintained for at least a year after the date the feed is received, and must be made available for inspection and copying by federal or state investigators. We would recommend that the labels be attached to the corresponding invoice and filed that way. Feeds and feed ingredients not containing animal proteins are not subject to the regulation.

### Questions

Questions may be directed to the South Dakota Dept. of Agriculture at 605-773-4432 or the Food and Drug Administration at 301-594-1724.