

1997 ANNUAL REPORT ON COMMERCIAL FEEDS & ANIMAL REMEDIES

January 1, 1997 to December 31, 1997

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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 world wide web, 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/doa/das>

1997 COMMERCIAL FEED & ANIMAL REMEDY ANNUAL REPORT

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**SOUTH DAKOTA DEPARTMENT OF AGRICULTURE
COMMERCIAL FEED TONNAGE REPORT
1997 TOTAL – 954,453 TONS**

FORMULA FEED	TONS COMPLETE	TONS SUPPLEMENT	FEED INGREDIENTS (CONTINUED)	TONS
Starter-Grower	1400.285	1014.16	Beet Products	25.0
Broiler	470.056	219.6	Brewery Products	
Layer-Breeder	958.687	1605.65	Citrus Products	
Turkey	3153.32	8228.08	Corn Products	94942.85
Beef	89145.75	144189.5	Cottonseed Products	5217.77
Dairy	11141.37	22834.21	Distillers Products	11381.86
Swine	40305.96	87082.27	Drugs	2981.11
Sheep	3809.896	2416.827	Fats & Oils Products	11977.01
Mineral		15802.32	Grain Sorghum Products	29.63
Vitamins		521.481	Lespedeza Products	
Vitamins & Minerals		1191.415	Linseed & Flax Products	301.55
Calf Feeds	6719.768		Marine Products	1450.0
Pet Foods	12362.98		Milk Products	1102.422
Horse & Mule	4518.916		Minerals	34433.87
Scratch	438.9		Molasses	3732.76
Liquid Feeds		42716.18	Oat Products	1292.96
Mink & Chinchilla	224.18		Peanut Products	
Silage Additive		46.9	Rice Products	
Miscellaneous	7313.891	5101.675	Rye Products	
TOTAL FORMULA FEED	181963.975	332970.349	Soybean Products	172882.2
FEED INGREDIENTS	TONS		Urea	890.29
Alfalfa Products	6452.715		Vitamins	1521.10
Animal Products	25052.4		Wheat Products	50930.0
Bakery Products			Yeast Products	172.895
Barley Products	34.0		Miscellaneous	12714.61
			TOTAL INGREDIENTS	439519.093

COMMERCIAL FEEDS SAMPLED -- 1997
LIST OF ANALYTES

<u>NUTRIENT ANALYTE</u>	<u>OFFICIAL SAMPLES**</u>
Crude Protein	412
Non-Protein Nitrogen	2
Equiv Crude Protein	84
Crude Fat (Ether Extract)	93
Fat: Acid Hydrolysis	16
Fat: Roese Gottlieb	6
Crude Fiber	116
Acid Detergent Fiber	21
Oven Moisture	46
Karl Fisher Moisture	10
Vacuum Moisture	28
Ash	33
Calcium	231
Iodine	25
Iron	1
Magnesium	15
Phosphorus	100
Potassium	41
Salt (Chloride X 1.65)	43
Salt (Sodium X 2.54)	191
Selenium	51
Sodium	8
Zinc	2
Total Sugars as Invert	16
Vitamin A	200
Arginine - Total	1
Glycine - Total	1
Lysine - Total	39
Methionine - Total	11
Threonine - Total	1
Tryptophan - Total	1
Taurine - Free	8

DRUG ANALYTE

Amprolium	10
Arsanilic Acid	1
Carbadox	14
Chlortetracycline	44
Decoquinatate	17
Lasalocid	53
Melengestrol Acetate	1
Monensin	30
Oxytetracycline	18
Pyrantel Tartrate	3
Sulfamethazine	15
Sulfathiazole	5
Tylosin	13

OTHER ANALYTES

Noxious Weed Seeds	21
pH	5
Urea	2

** Official samples also includes samples classified as investigational and informational.

Sample Count Report

Feeds Sampled From 1/1/97 To 12/31/97

Manufacturer and Location			Sample Count	Passed	Not Passed
Abys Feed & Seed	Rapid City	SD	3	3	0
ADM Animal Health & Nutrition	Des Moines	IA	1	1	0
ADM Processing Company	Decatur	IL	5	5	0
Ag Pro Coop	Gordon	NE	2	2	0
Ag Processing Inc	Dawson	MN	3	3	0
Ag Processing Inc	Sergeant Bluff	IA	1	1	0
Ag Science Inc	Ames	IA	1	0	1
Ag Services	Claremont	SD	1	1	0
Alfalfa Feeds Inc	DeSmet	SD	1	0	1
Alpharma Inc	Fort Lee	NJ	1	1	0
American Agco	St Paul	MN	1	1	0
American Protein Corporation	Ames	IA	1	1	0
American Protein Corporation	Lytton	IA	3	2	1
Arco Dehydrating Company	Lake Park	IA	1	1	0
Atkinson Feed & Supply	Atkinson	NE	1	1	0
Babers Vis-Vita Sales	Sioux City	IA	2	2	0
Big Valley Milling Inc	Montevideo	MN	1	0	1
Buckeye Feed Mills Inc	Dalton	OH	1	1	0
C & S Products Company Inc	Ft. Dodge	IA	1	1	0
Cammack Ranch Supply	Union Center	SD	2	2	0
Cargill - Molasses Division	Minneapolis	MN	1	1	0
Cargill - Nutrena Feed Division	Big Lake	MN	1	0	1
Cargill - Nutrena Feed Division	Minneapolis	MN	12	10	2
Cargill - Nutrena Feed Division	Morrill	NE	1	1	0
Cargill - Nutrena Feed Division	Sioux City	IA	3	3	0
Cargill Inc	Minneapolis	MN	1	1	0
Cenex/Land O Lakes	Ft. Dodge	IA	14	7	7
Central Bi-Products	Redwood Falls	MN	2	2	0
Commodity Specialists	Minneapolis	MN	2	2	0
ConAgra Flour Milling	New Prague	MN	2	2	0
Consolidated Nutrition L.C.	Omaha	NE	4	3	1
Consumers Supply Dist Company	Sioux City	IA	4	4	0
Country General	Grand Island	NE	5	5	0
Dakota Mill & Grain	Fort Pierre	SD	3	0	3
Dakota Pork Industries Inc	Huron	SD	1	1	0
Dakota Pride	Winner	SD	1	1	0
Darby Creek Ag/Shur-Tone Feeds	Milford Center	OH	1	1	0
Darling International	Sioux City	IA	2	2	0
Diamond Pet Foods	Meta	MO	3	3	0
Ducoa	Highland	IL	1	1	0
DuCoa	Wilmar	MN	1	1	0
East-Man Feeds	Sioux Falls	SD	1	0	1
Elanco Animal Health	Greenfield	IN	1	1	0
Farmers Coop Company	Brookings	SD	2	1	1
Farmers Coop Elevator Company	Rosholt	SD	1	1	0
Farmers Union Coop Elevator	Kennebec	SD	1	0	1
Farmland Industries Inc	Corson	SD	2	2	0
Farmland Industries Inc	Huron	SD	11	10	1

Manufacturer and Location			Sample Count	Passed	Not Passed
Farmland Industries Inc	Kansas City	MO	22	20	2
Federal Beef Processors	Rapid City	SD	1	0	1
Form-A-Feed Inc	Stewart	MN	1	1	0
Fremar Feeds	Freeman	SD	1	0	1
Friskies Pet Care Products	Glendale	CA	5	5	0
Frontier Mills Inc	Yankton	SD	2	2	0
Golden Sun Feeds Inc	Estherville	IA	22	12	10
Golden Sun Feeds Inc	Sioux Falls	SD	11	10	1
Grand Laboratories Inc	Freeman	SD	1	1	0
GTA Feeds	Edgeley	ND	6	4	2
GTA Feeds	Gettysburg	SD	7	4	3
GTA Feeds	Sioux Falls	SD	60	45	15
GTA Feeds	Willmar	MN	5	3	2
Hartz Mountain Corp	Secaucus	NJ	2	2	0
Harvest States Coop	Claire City	SD	1	0	1
Heartland Grain Fuels	Aberdeen	SD	1	1	0
Heartland Inc	Bismarck	ND	1	1	0
Heinz Pet Products	Newport	KY	2	2	0
Hi-Plains Nutrition Service	Whitewood	SD	7	5	2
Howard Farmers Coop Assn	Howard	SD	1	1	0
Hub City Feed & Seed	Aberdeen	SD	18	13	5
Hubbard Feed Inc.	Watertown	SD	25	20	5
Hubbard Feeds, Inc.	Mankato	MN	17	13	4
Hubbard Feeds, Inc.	Rapid City	SD	12	10	2
Hubbard Milling Company	Whitewood	SD	2	1	1
Hunting Elevator Company	Austin	MN	1	1	0
Inland Protein Corporation	Dubuque	IA	1	1	0
International Nutrition	Omaha	NE	4	3	1
Jensen Bros	Sioux Falls	SD	1	0	1
John Morrell & Company	Sioux City	IA	4	4	0
Kal Kan Foods Inc	Vernon	CA	4	4	0
Kay Dee Feed Company	Sioux City	IA	4	2	2
Kaytee Products Inc	Chilton	WI	1	1	0
Kent Feeds Inc	Muscatine	IA	7	7	0
KISS	Milwaukee	WI	1	1	0
L/M Animal Farms	Pleasant Plain	OH	1	1	0
Land O Lakes Ag Services	Dawson	MN	2	1	1
Madison Farmers Elevator	Madison	SD	1	1	0
Madison Milling Company	Madison	MN	1	1	0
Master Mix Feeds	Fort Wayne	IN	3	2	1
McFleeg Inc	Watertown	SD	1	0	1
Merck & Company Inc	Rahway	NJ	1	1	0
Midwest Cooperatives	Onida	SD	2	1	1
Midwest Livestock LTD	Larchwood	IA	2	2	0
Midwest PMS	Minatore	NE	3	1	2
Mighty Deer Lick	Powers	MI	1	1	0
Millbrook Feed Mill	Mitchell	SD	2	2	0
Moorman Inc	Columbus	NE	1	1	0
Moorman Inc	Quincy	IL	6	5	1
Muellers Feed Mill	Martin	SD	2	0	2
Nash Finch	Minneapolis	MN	1	1	0
National By-Products Inc	Omaha	NE	1	1	0
Nelson & Sons Inc	Murray	UT	2	2	0
New Generation Feeds Inc	Poteau	OK	1	1	0
Northern Sun	Red Wing	MN	1	1	0
Nutra-Lix Inc	Billings	MT	1	1	0
Nutrition Specialties	West Point	NE	1	1	0

Manufacturer and Location			Sample Count	Passed	Not Passed
Pedigree Inc	Vernon	CA	1	1	0
Pennfield Animal Health	Omaha	NE	1	1	0
Pennington Seed Natural Springs Div	Madison	GA	1	1	0
Pfizer Animal Health	Lee's Summit	MO	2	2	0
Premier Farmtech	Kansas City	MO	1	1	0
Professional Pet Foods	Meta	MO	1	1	0
Purina Mills	Minneapolis	MN	2	2	0
Purina Mills	Sioux City	IA	2	2	0
Purina Mills	St. Louis	MO	8	6	2
Purina Mills Inc	Aberdeen	SD	1	1	0
Quality Liquid Feed Inc	Ft. Dodge	IA	1	0	1
Quality Liquid Feeds Inc	Dodgeville	WI	2	1	1
Ragland Mills Inc	Neosho	MO	1	1	0
Ralston Purina Company	St. Louis	MO	3	3	0
Ramona Warehouse	Ramona	SD	2	2	0
Rhone-Poulenc Animal Nutrition	Atlanta	GA	1	1	0
Roche Vitamins & Fine Chemicals	Parsippany	NJ	2	1	1
Rudebusch Bros	Castlewood	SD	1	1	0
Schempp Liquifeeds Inc	Menno	SD	1	1	0
Scranton Equity Exchange	Scranton	ND	1	1	0
Scrypton Systems Inc	Annapolis	MD	1	0	1
SD Soybean Processors	Volga	SD	8	8	0
Shurfine International	Northlake	IL	1	1	0
Sioux Nation Ag Center	Sioux Falls	SD	1	1	0
Sioux Nation Ag Center	Watertown	SD	1	1	0
Standard Manufacturing Company	Omaha	NE	1	0	1
Stratford Grain Company	Stratford	SD	1	1	0
Supersweet Feeds	Le Mars	IA	1	1	0
Supersweet Feeds	Omaha	NE	6	2	4
Surefine International	Northlake	IL	1	1	0
Terra Nitrogen Corp	Tulsa	OK	1	1	0
Tetra Sales	Blacksburg	VA	1	1	0
Tradition Feed Products Company	Mankato	MN	5	5	0
Vigortone Ag Products Inc	Cedar Rapids	IA	3	3	0
Vigortone Ag Products Inc	Fremont	NE	1	1	0
Wal Mart Stores Inc	Bentonville	AR	2	2	0
Watertown Coop Elevator	Watertown	SD	3	3	0
West Plains Grain	Oelrichs	SD	1	1	0
Western Feed Company	Belle Fourche	SD	3	3	0
Western Ranch Products	Gering	NE	2	1	1
Wildwood Farms	Clinton	IA	1	1	0
Windy Hill Pet Food Company	Brentwood	TN	1	1	0
Winner Circle Feeds	Mitchell	SD	1	1	0
Woodys	Dickinson	ND	1	1	0
Yaggies Inc	Yankton	SD	1	0	1
Zapata Protein (USA) Inc	Maneville	LA	1	1	0
Zip Feed Mills	Huron	SD	13	7	6
Zip Feed Mills	Sioux Falls	SD	38	27	11
Totals:			573	451	122

Percent Passed:

78.7% Percent Not Passed: 21.3%

Summary Report

Feeds
01-01-1997 to 12-31-1997

Manufacturer Location	Product	Analyte	Found	Claim
Abys Feed & Seed Rapid City, SD				
	Hen Scratch		97F-00286	
	Crude Protein, %		10.64	10.5
	Sweet Chop		97F-00287	
	Crude Protein, %		10.14	9
	Wheat Midds		97F-00288	
	Crude Fiber, %		8.70	12.5
	Crude Protein, %		16.59	16
ADM Animal Health & Nutrition Division Des Moines, IA				
	MX2.5 Medicated		97F-01365	
	Carbadox, g/lb		2.45000	2.5
ADM Processing Company Decatur, IL				
	41% Cottonseed Meal Solvent Extracted		97F-00280	
	Crude Fiber, %		9.78	14
	Crude Protein, %		41.94	41
	Soybean Meal		97F-00845	
	Ash, %		6.36	8
	Crude Protein, %		47.68	46.5
	60% Corn Gluten Meal		97F-03322	
	Ash, %		1.38	5
	Oven Moisture, %		10.16	12
	Crude Protein, %		60.99	60
	44% Soybean Meal		97F-06545	
	Crude Fiber, %		6.05	7
	Crude Protein, %		45.03	44
	Cottonseed Hulls/Pellets		97F-07624	
	Ash, %		3.04	10
	Crude Fiber, %		39.06	50
Ag Pro Coop Gordon, NE				
	50% Meat & Bone Meal		97F-00271	
	Calcium, %		8.05	6-8.8
	Crude Fat, %		11.38	10
	Phosphorus, %		3.740	4
	Crude Protein, %		52.08	50
	Hen Scratch		97F-02560	
	Crude Protein, %		11.39	9.5
Ag Processing Inc Dawson, MN				
	Soybean Meal		97F-05581	
	Ash, %		8.59	8
	Crude Protein, %		43.32	44

#=Misbranded

Manufacturer Location	Product	Analyte	Found	Claim	
	44% Soybean Meal Solvent Extracted		97F-07340		
		Ash, %	5.80	8	
		Crude Fiber, %	5.94	7	
		Crude Protein, %	44.03	44	
	Soybean Meal 47% Protein		97F-08734		
		Ash, %	5.39	8	
		Crude Protein, %	46.48	47	
Ag Processing Inc Sergeant Bluff, IA					
	Soybean Meal		97F-03320		
		Ash, %	6.14	8	
		Crude Protein, %	47.54	46.5	
Ag Science Inc Ames, IA					
	# Zip 4 Zinc Proteinate		97F-01363		
		Zinc, %	3.02	4	DEFICIENT
Ag Services Claremont, SD					
	Custom Mix		97F-07352		
		Decoquinate, g/ton	210.5000	211	
Alfalfa Feeds Inc DeSmet, SD					
	# Suncured Alfalfa Pellets		97F-02563		
		Crude Fiber, %	28.50	33	
		Crude Protein, %	10.24	15	DEFICIENT
Alpharma Inc Fort Lee, NJ					
	Deccox Type A		97F-07626		
		Decoquinate, %	5.5700	6	
American Agco St Paul, MN					
	Cardinal Blend		97F-00502		
		Crude Fiber, %	13.14	26	
		Crude Fat, %	45.04	40	
		Crude Protein, %	19.78	20	
American Protein Corporation Ames, IA					
	Steamed Bone Meal		97F-01066		
		Ash, %	65.59	65	
		Calcium, %	24.38	22-26	
		Crude Fat, %	13.23	12	
		Phosphorus, %	11.080	11	
		Crude Protein, %	14.77	15	
American Protein Corporation Lytton, IA					
	Steamed Bone Meal		97F-03929		
		Ash, %	63.06	65	
		Calcium, %	23.07	22-26	
		Crude Fat, %	15.44	12	
		Phosphorus, %	10.620	11	
		Crude Protein, %	15.09	15	

= Misbranded

Manufacturer Location	Product	Analyte	Found	Claim	
	# Bonemeal		97F-05911		
		Calcium, %	23.55	22-26	
		Crude Fat, %	17.15	12	
		Phosphorus, %	10.950	11	
		Crude Protein, %	13.14	15	DEFICIENT
	Steamed Bone Meal		97F-06727		
		Ash, %	60.97	68	
		Calcium, %	26.87	22-26	
		Crude Fat, %	14.44	12	
		Phosphorus, %	10.280	11	
		Crude Protein, %	16.73	12	
Arco Dehydrating Company Lake Park, IA					
	Alfalfa Meal		97F-05751		
		Crude Fiber, %	27.11	27	
		Crude Protein, %	17.19	17	
Atkinson Feed & Supply Atkinson, NE					
	AFS Extruded Supplement		97F-00270		
		Crude Fiber, %	4.71	13	
		Crude Fat, %	20.08	18	
		Crude Protein, %	37.34	36	
Babers Vis-Vita Sales Sioux City, IA					
	Vis-Vita Confinement		97F-06487		
		Crude Protein, %	35.76	29	
		Vitamin A, IU/lb	80000	100000	
	50% Meat & Bone Meal		97F-08162		
		Calcium, %	9.35	8.4-10	
		Crude Fat, %	14.01	6	
		Phosphorus, %	4.870	4	
		Crude Protein, %	49.62	50	
Big Valley Milling Inc Montevideo, MN					
	# Super 12 Mineral		97F-07560		
		Calcium, %	14.04	12-14	
		Phosphorus, %	12.220	12	
		Salt (Sodium X 2.54), %	10.34	10.5-12.5	
		Selenium, ug/g (ppm)	22.500	28	
		Vitamin A, IU/lb	61000	100000	DEFICIENT
Buckeye Feed Mills Inc Dalton, OH					
	Grass Plus Performer-14 Sweet Horse Feed		97F-01360		
		Crude Protein, %	14.45	14	
C & S Products Company Inc Ft. Dodge, IA					
	Berries & Suet for Wild Birds		97F-01830		
		Crude Fiber, %	6.00	12	
		Crude Fat, %	42.79	25	
		Crude Protein, %	5.89	6	

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Manufacturer Location	Product	Analyte	Found	Claim	
Cammack Ranch Supply Union Center, SD					
	15% Prairie Power Hi-Energy Cake		97F-07902		
	Crude Protein, %		15.43	15	
	Full Energy Bean		97F-07903		
	Crude Fat, %		18.13	18	
	Crude Protein, %		37.19	36	
Cargill - Molasses Division Minneapolis, MN					
	Stress-Mix 12 V65 Liquid Feed Supplement #955		97F-01283		
	Equiv Crude Protein, %		4.76	4	
	Vacuum Moisture, %		30.66	35	
	Potassium, %		3.710	2.5	
	Crude Protein, %		14.18	12	
	Total Sugars, %		32.75	33	
	Vitamin A, IU/lb		49000	60000	
Cargill - Nutrena Feed Division Big Lake, MN					
	# Doin Fine Starter Concentrate (OXY2.0) (BK) Med		97F-07558		
	Calcium, %		2.45	2.25-2.75	
	Oxytetracycline, g/lb		0.953	2	DEFICIENT
	Potassium, %		2.370	2.5	
	Crude Protein, %		30.53	30	
	Salt (Sodium X 2.54), %		2.22	2-2.5	
	Sodium, %		0.87	0.8-1.2	
	Vitamin A, IU/lb		53000	50000	
Cargill - Nutrena Feed Division Minneapolis, MN					
	TM Crumbles Terramycin 2 gram Medicated		97F-00128		
	Oxytetracycline, g/lb		1.790	2	
	Vitamin A, IU/lb		274000	250000	
	Aureomycin 4G Crumbles Type C Medicated		97F-00129		
	Crude Fiber, %		16.06	25	
	Chlortetracycline, g/lb		3.980	4	
	Crude Protein, %		9.46	9	
	# CLS CONTROLLED RELEASE 32 LIQUID SUPP.		97F-00182		
	Equiv Crude Protein, %		20.38	22.4	
	Vacuum Moisture, %		32.35	32	
	Crude Protein, %		30.23	32	DEFICIENT
	Total Sugars, %		30.33	29.5	
	Car-Mol Las 70S Liquid Feed Ingredient #653/FA		97F-00281		
	Vacuum Moisture, %		28.56	30	
	Total Sugars, %		43.64	40	
	Mol-Mix Prime Regulated 32X67 Liquid Feed Supplement		97F-00308		
	Equiv Crude Protein, %		22.18	25	
	Vacuum Moisture, %		32.94	33	
	Crude Protein, %		32.15	32	
	Total Sugars, %		33.04	33	
	Vitamin A, IU/lb		28000	40000	
	44% Protein Solvent Extracted Soybean Meal		97F-01286		
	Crude Protein, %		45.83	44	

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Manufacturer Location	Product	Analyte	Found	Claim	
	# Right Now TM Bronze (P) (ATL)		97F-01662		
		Calcium, %	12.80	11-13	
		Magnesium, %	1.56	3	DEFICIENT
		Phosphorus, %	12.440	10	
		Potassium, %	0.960	2	DEFICIENT
		Salt (Sodium X 2.54), %	10.48	11.5-12.5	
		Selenium, ug/g (ppm)	18.950	30	DEFICIENT
		Sodium, %	4.13	4.5-5.5	
		Vitamin A, IU/lb	118000	100000	
	COC-C-STAT Cattle Supplement (DQ) (NS) Medicated		97F-01663		
		Calcium, %	7.74	7-8	
		Crude Fiber, %	13.22	15	
		Decoquinate, %	0.1220	0.125	
		Crude Protein, %	11.36	10	
		Vitamin A, IU/lb	409000	500000	
	Cat Food		97F-01664		
		Ash, %	6.18	6.5	
		Fat: Acid Hydrolysis, %	10.22	9	
		Oven Moisture, %	11.22	10.5	
		Crude Protein, %	30.37	30	
	40/50 Swine Concentrate		97F-01742		
		Calcium, %	4.70	4.4-4.75	
		Lysine - Total, %	2.800	3.1	
		Phosphorus, %	2.210	2.35	
		Crude Protein, %	40.69	40	
		Salt (Sodium X 2.54), %	2.35	2.5-3	
	Nutrena Prosow Concentrate (NS)		97F-02689		
		Calcium, %	4.73	4.25-4.5	
		Lysine - Total, %	2.800	3.1	
		Crude Protein, %	39.32	35	
		Salt (Sodium X 2.54), %	2.02	2-2.5	
	Cammack 32% Liquid		97F-07905		
		Equiv Crude Protein, %	25.63	29	
		Crude Protein, %	33.81	32	
Cargill - Nutrena Feed Division					
Morrill, NE					
	32% Liquid 50153		97F-03924		
		Equiv Crude Protein, %	24.93	29	
		Crude Protein, %	33.85	32	
Cargill - Nutrena Feed Division					
Sioux City, IA					
	Soybean Meal		97F-00789		
		Crude Protein, %	48.50	46.5	
	Right Track TM Red Starter Feed (MCX) (NS) Medicated		97F-02691		
		Carbadox, %	0.00464	0.0055	
		Crude Fat, %	6.82	5	
		Crude Protein, %	20.76	21-21.5	
	Nutrena Beefcake-37 Block (AM)		97F-02775		
		Calcium, %	4.08	3-4	
		Equiv Crude Protein, %	18.88	18.5	
		Crude Protein, %	38.03	37	
		Salt (Sodium X 2.54), %	10.43	10-12	
		Vitamin A, IU/lb	27000	30000	
Cargill Inc					
Minneapolis, MN					
	34% Solvent Extracted Linseed Meal		97F-01647		
		Crude Fiber, %	9.84	10	
		Crude Protein, %	34.94	34	

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Manufacturer Location	Product	Analyte	Found	Claim	
Cenex/Land O Lakes Ft. Dodge, IA	44% Soybean Meal Solvent Extracted		97F-01366		
		Crude Protein, %	43.58	44	
	Nutribeef 50 M 400 Medicated Liquid Feed		97F-03905		
		Calcium, %	6.59	7.3-8.7	
		Equiv Crude Protein, %	48.06	46	
		Karl Fisher Moisture, %	34.70	32	
		Monensin, g/ton	387.50	400	
		pH	6.91	4.3-7.1	
		Potassium, %	3.210	3.5	
		Crude Protein, %	52.33	50	
		Salt (ChlorideX1.65), %	2.48	2-3	
		Salt (Sodium X 2.54), %	3.55	2-3	EXCESSIVE
		Total Sugars, %	10.69	7	
		Vitamin A, IU/lb	51000	30000	
	# Super 40 C Liquid Feed		97F-03906		
		Equiv Crude Protein, %	33.06	35	
		Karl Fisher Moisture, %	36.70	34	
		Crude Protein, %	40.44	40	
		Total Sugars, %	28.64	29	
		Vitamin A, IU/lb	8000	30000	DEFICIENT
	Lamb Starter Krums Bov		97F-04203		
		Crude Fiber, %	7.28	11.5	
		Lasalocid, g/ton	27.850	30	
		Crude Protein, %	19.97	20	
	# TM Crumbles 4g Medicated		97F-04435		
		Crude Fiber, %	9.92	36	
		Oxytetracycline, g/lb	3.590	4	
	Crude Protein, %	11.69	7		
	Vitamin A, IU/lb	18000	200000	DEFICIENT	
Aureomycin 4G Crumbles (NV) Medicated		97F-06834			
	Chlortetracycline, g/lb	4.220	4		
Litter Wean Transition CX Medicated		97F-06835			
	Carbadox, %	0.00458	0.0055		
	Fat: Acid Hydrolysis, %	4.79	5		
	Crude Protein, %	22.21	22		
Future Cow Supreme Premix BOV Medicated		97F-06836			
	Calcium, %	14.50	12.7-15.2		
	Lasalocid, g/ton	1960.000	2000		
	Magnesium, %	2.15	2		
	Phosphorus, %	10.040	10		
	Salt (Sodium X 2.54), %	18.00	18.2-21.8		
	Selenium, ug/g (ppm)	54.400	53		
	Vitamin A, IU/lb	525000	400000		
# BosBuilder 41% Block Beef Pasture Cattle Supp.		97F-06889			
	Calcium, %	2.99	2.5-3.5		
	Equiv Crude Protein, %	18.24	12	EXCESSIVE	
	Phosphorus, %	1.045	2	DEFICIENT	
	Crude Protein, %	41.86	41		
	Salt (ChlorideX1.65), %	11.54	13.7-16.7	DEFICIENT	
	Salt (Sodium X 2.54), %	12.00	13.7-16.7	DEFICIENT	
	Vitamin A, IU/lb	36500	48000		

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Manufacturer Location	Product	Analyte	Found	Claim	
	# Liquid Steak Maker Start-Em Bov Medicated		97F-07523		
		Calcium, %	2.87	2.5-3.5	
		Equiv Crude Protein, %	21.79	16	EXCESSIVE
		Lasalocid, g/ton	416.000	500	
		Karl Fisher Moisture, %	37.20	30	EXCESSIVE
		Vacuum Moisture, %	37.34	30	EXCESSIVE
		pH	6.15	4.3-7.1	
		Potassium, %	2.990	2.5	
		Crude Protein, %	32.32	32	
		Salt (Sodium X 2.54), %	2.71	1.5-2.5	
		Total Sugars, %	16.89	16	
		Vitamin A, IU/lb	54000	100000	DEFICIENT
	# Peak Plus 35-8		97F-07524		
		Acid Detergent Fiber, %	6.35	7.5	
		Calcium, %	2.18	2-2.5	
		Crude Fat, %	8.06	8	
		Crude Protein, %	34.50	35	
		Salt (ChlorideX1.65), %	0.97	1.5-2	DEFICIENT
		Salt (Sodium X 2.54), %	0.98	1.5-2	DEFICIENT
		Vitamin A, IU/lb	26000	25000	
	TM Crumbles 4G Medicated		97F-08533		
		Crude Fiber, %	18.15	36	
		Oxytetracycline, g/lb	3.620	4	
		Crude Protein, %	11.88	7	
		Vitamin A, IU/lb	197000	200000	
	# Super Sow Mix		97F-08534		
		Lysine - Total, %	2.690	2.5	
		Phosphorus, %	3.375	3.75	DEFICIENT
		Crude Protein, %	30.79	28	
	# BosBuilder G Mineral		97F-08555		
		Calcium, %	14.95	13.7-16.4	
		Phosphorus, %	12.050	12.5	
		Salt (Sodium X 2.54), %	18.38	16-19.1	
		Selenium, ug/g (ppm)	18.550	24	
		Vitamin A, IU/lb	63000	300000	DEFICIENT
Central Bi-Products					
Redwood Falls, MN					
	Gro Mor Hydrolyzed Poultry Feathers		97F-01249		
		Ash, %	4.26	6	
		Crude Protein, %	83.70	80	
	Gro-Mor Hydrolyzed Poultry Feathers		97F-03675		
		Ash, %	3.59	6	
		Crude Protein, %	83.66	80	
Commodity Specialists					
Minneapolis, MN					
	Corn Distillers Dried Grains with Solubles		97F-00412		
		Ash, %	3.87	8	
		Crude Fiber, %	9.24	15	
		Crude Fat, %	10.14	10	
		Crude Protein, %	26.02	25	
	Corn Distillers Dried Grains with Solubles		97F-08828		
		Ash, %	4.38	8	
		Crude Fiber, %	7.15	15	
		Crude Fat, %	10.24	10	

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Manufacturer Location	Product	Analyte	Found	Claim	
ConAgra Flour Milling					
New Prague, MN					
	Wheat Midds		97F-08074		
	Crude Protein, %		17.85	14	
	Wheat Midds		97F-08075		
	Crude Fiber, %		9.76	9.5	
	Crude Fat, %		4.28	3	
	Crude Protein, %		17.08	14	
Consolidated Nutrition L.C.					
Omaha, NE					
	# BovaGain G32 7570-72K		97F-06482		
	Calcium, %		4.90	4.5-5.5	
	Crude Fiber, %		6.29	10	
	Lasalocid, g/ton		345.500	500	DEFICIENT
	Crude Protein, %		32.71	32	
	Salt (Sodium X 2.54), %		3.71	4-5	
	Vitamin A, IU/lb		23750	35000	DEFICIENT
	Master Mix AIM TM 36 IM-240 D650		97F-06483		
	Acid Detergent Fiber, %		5.70	10	
	Calcium, %		2.62	2.5-3	
	Crude Protein, %		37.35	36	
	Vitamin A, IU/lb		32000	34000	
	Master Mix 15% RBC-HL (AN) Medicated		97F-08078		
	Calcium, %		2.99	2.3-3.8	
	Lasalocid, g/ton		61.500	60	
	Crude Protein, %		16.89	15	
	Feedlot CTC 4 Crumbles W/Out Vitamins 8596 Medicated		97F-08079		
	Calcium, %		6.50	5.5-6.5	
	Crude Fiber, %		13.40	15	
	Chlortetracycline, g/lb		3.990	4	
	Crude Protein, %		10.98	9	
Consumers Supply Dist Company					
Sioux City, IA					
	50% Meat & Bone Meal		97F-00303		
	Calcium, %		9.22	8.4-10	
	Crude Fat, %		11.21	6	
	Phosphorus, %		4.540	4	
	Crude Protein, %		49.31	50	
	50% Meat & Bone Meal		97F-01644		
	Calcium, %		9.86	8.4-10	
	Crude Fat, %		11.18	6	
	Phosphorus, %		4.830	4	
	Crude Protein, %		49.83	50	
	1620 Urea - 287 (Feed Urea)		97F-02690		
	Crude Protein, %		289.54	287	
	Urea, %		46.52	46	
	60% Fish Meal		97F-06282		
	Crude Fat, %		9.08	6.5	
	Crude Protein, %		60.90	60	

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Manufacturer Location	Product	Analyte	Found	Claim
Country General				
Grand Island, NE				
	DynaGro 20% Range Block		97F-00138	
	Calcium, %		3.57	2.5-3.5
	Crude Protein, %		20.39	20
	Salt (Sodium X 2.54), %		8.79	8-9
	Sodium, %		3.46	3.2-4.5
	Vitamin A, IU/lb		15500	20000
	37% Range Block		97F-00417	
	Equiv Crude Protein, %		8.42	18.5
	Crude Fat, %		2.28	0.5
	Crude Protein, %		38.58	37
	Salt (Sodium X 2.54), %		12.07	12-13
	Sodium, %		4.75	4.8-6.3
	Vitamin A, IU/lb		36000	30000
	DynaGro Calf Milk Replacer 20/20		97F-01855	
	Fat: Roese Gottlieb, %		21.33	20
	Oxytetracycline, g/ton		100.000	100
	Crude Protein, %		19.55	20
	Vitamin A, IU/lb		22000	30000
	Apple Flavored Deer Block		97F-08832	
	Calcium, %		4.89	4-5
	Crude Protein, %		16.96	14
	Salt (Sodium X 2.54), %		10.36	9.5-10.5
	Sodium, %		4.08	3.8-5.3
	Vitamin A, IU/lb		41000	30000
	37% Range Block		97F-08833	
	Calcium, %		5.28	4-5
	Equiv Crude Protein, %		18.47	18.5
	Crude Protein, %		38.25	37
	Salt (Sodium X 2.54), %		13.81	12-13
	Sodium, %		5.44	4.8-6.3
	Vitamin A, IU/lb		30000	30000
Dakota Mill & Grain				
Fort Pierre, SD				
	# Custom Big Grower		97F-05165	
	Chlortetracycline, g/ton		30.000	200 DEFICIENT
	# Custom 3 Ton Little Grower		97F-05166	
	Tylosin, g/ton		92.000	50 EXCESSIVE
	# Custom Nursery		97F-05167	
	Oxytetracycline, g/ton		100.850	150 DEFICIENT
Dakota Pork Industries Inc				
Huron, SD				
	50% Meat & Bone Meal		97F-00130	
	Calcium, %		9.59	8.5-10
	Crude Fat, %		13.91	6
	Phosphorus, %		4.670	4
	Crude Protein, %		49.09	50
Dakota Pride				
Winner, SD				
	Dakota Pride Creep Feed		97F-00846	
	Crude Fiber, %		16.26	20
	Lasalocid, g/ton		70.100	68
	Crude Protein, %		14.33	14

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Manufacturer Location	Product	Analyte	Found	Claim	
Darby Creek Ag/Shur-Tone Feeds					
Milford Center, OH					
	Dumor Calf Builder Pellets 581		97F-00455		
	Crude Protein, %		16.17	16	
Darling International					
Sioux City, IA					
	Meat & Bone Meal		97F-00843		
	Calcium, %		8.11	8.4-10	
	Crude Fat, %		9.32	8	
	Phosphorus, %		3.900	4	
	Crude Protein, %		55.52	50	
	Meat & Bone Meal Product		97F-01251		
	Calcium, %		7.48	8.4-10	
	Crude Fat, %		10.15	8	
	Phosphorus, %		3.740	4	
	Crude Protein, %		55.78	50	
Diamond Pet Foods					
Meta, MO					
	Diamond Dog Food Lite/Senior Formula		97F-01362		
	Crude Fat, %		9.98	8	
	Oven Moisture, %		7.94	10	
	Crude Protein, %		17.70	16	
	Diamond Poultry & Rice		97F-01745		
	Crude Fat, %		11.23	6	
	Oven Moisture, %		71.76	78	
	Crude Protein, %		8.65	9	
	Dogfood Puppy Formula		97F-06484		
	Fat: Acid Hydrolysis, %		19.14	20	
	Oven Moisture, %		7.74	10	
	Crude Protein, %		34.79	31	
Ducoa					
Highland, IL					
	Porcine Plasma 780		97F-01253		
	Ash, %		9.62	9	
	Oven Moisture, %		6.93	8	
	Crude Protein, %		79.63	78	
DuCoa					
Wilmar, MN					
	Aureo SP 250 Granular Type B Medicated		97F-03928		
	Calcium, %		8.30	7.5-9	
	Chlortetracycline, g/lb		9.140	10	
	Sulfamethazine, g/lb		10.15000	10	
East-Man Feeds					
Sioux Falls, SD					
	# Pre-Grower 120		97F-01744		
	Calcium, %		16.73	15.5-17.5	
	Phosphorus, %		7.520	7	
	Salt (ChlorideX1.65), %		10.32	7-8.4	
	Salt (Sodium X 2.54), %		6.12	7-8.4	
	Vitamin A, IU/lb		79000	73500	EXCESSIVE DEFICIENT

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Manufacturer Location	Product	Analyte	Found	Claim	
Elanco Animal Health Greenfield, IN					
	Rumensin 80		97F-00277		
	Monensin, g/lb		80.80	80	
Farmers Coop Company Brookings, SD					
	14% Complete Hog Feed (Custom Mix)		97F-01330		
	Chlortetracycline, g/ton		87.500	100	
	Crude Protein, %		13.84	14	
	# Custom Mix-Medicated		97F-08740		
	Chlortetracycline, g/ton		75.300	100	
	Sulfamethazine, g/ton		72.62000	100	DEFICIENT
Farmers Coop Elevator Company Rosholt, SD					
	Custom Mix		97F-07552		
	Tylosin, g/ton		12.400	10	
Farmers Union Coop Elevator Kennebec, SD					
	# Custom Feed		97F-00842		
	Chlortetracycline, g/ton		485.000	835	DEFICIENT
Farmland Industries Inc Corson, SD					
	Feedlot 40-20 Concentrate B600 Medicated		97F-00299		
	Calcium, %		7.42	6-7	
	Crude Fiber, %		11.61	17	
	Equiv Crude Protein, %		19.25	20	
	Lasalocid, g/ton		634.000	600	
	Potassium, %		2.370	2	
	Crude Protein, %		40.65	40	
	Salt (Sodium X 2.54), %		4.39	4-5	
	Vitamin A, IU/lb		37000	30000	
	Envirolean 2.5L Swine Concentrate (A)		97F-07527		
	Calcium, %		3.44	2.9-3.9	
	Lysine - Total, %		2.510	2.5	
	Crude Protein, %		40.19	40	
	Salt (Sodium X 2.54), %		1.64	1.5-2.5	
Farmland Industries Inc Huron, SD					
	Pro-Phos 12 Mineral		97F-00304		
	Calcium, %		12.81	11-13	
	Phosphorus, %		11.220	12	
	Salt (Sodium X 2.54), %		11.44	11-13	
	Selenium, ug/g (ppm)		27.967	22	
	Vitamin A, IU/lb		140500	200000	
	Copass Beef 36-13 B-400 Medicated		97F-00305		
	Calcium, %		4.05	3-4	
	Crude Fiber, %		10.79	18	
	Equiv Crude Protein, %		8.71	13	
	Lasalocid, g/ton		391.000	400	
	Crude Protein, %		36.16	36	
	Salt (Sodium X 2.54), %		4.35	4-5	
	Vitamin A, IU/lb		31000	30000	

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Manufacturer Location	Product	Analyte	Found	Claim	
	Feedlot Suspension-40 (O Ca) R-400 Medicated		97F-00414		
		Equiv Crude Protein, %	35.81	39	
		Vacuum Moisture, %	37.69	40	
		Monensin, g/ton	365.00	400	
		Potassium, %	1.970	2	
		Crude Protein, %	42.91	40	
		Salt (Sodium X 2.54), %	4.93	4.5-5.5	
		Vitamin A, IU/lb	33000	36000	
	Feedlot 40-20 R450 Custom Mix Medicated		97F-02284		
		Calcium, %	6.69	6-7	
		Crude Fiber, %	10.08	17	
		Equiv Crude Protein, %	19.38	20	
		Monensin, g/ton	388.00	450	
		Potassium, %	2.070	2	
		Crude Protein, %	39.28	40	
		Salt (Sodium X 2.54), %	4.26	4-5	
		Vitamin A, IU/lb	46000	50000	
	# Feedlot Suspension 32 Liquid		97F-04495		
		Vacuum Moisture, %	35.19	40	
		Crude Protein, %	32.46	32	
		Salt (ChlorideX1.65), %	1.62	4.5-5.5	DEFICIENT
		Salt (Sodium X 2.54), %	2.34	4.5-5.5	DEFICIENT
		Vitamin A, IU/lb	28000	36000	
	Stocker Starter AS-700 #10 Medicated		97F-08546		
		Crude Fiber, %	15.78	22	
		Chlortetracycline, g/ton	57.100	70	
		Crude Protein, %	12.29	12	
		Sulfamethazine, %	0.00869	0.0077	
	Standard Rabbit Feed		97F-08552		
		Crude Fiber, %	14.95	17	
		Crude Protein, %	17.81	17	
	Stocker Starter AS-700 #10 Medicated		97F-08553		
		Crude Fiber, %	13.52	22	
		Chlortetracycline, g/ton	59.700	70	
		Crude Protein, %	13.72	12	
		Sulfamethazine, %	0.00737	0.0077	
	Copass Max-Amino 39		97F-08735		
		Calcium, %	3.40	3-4	
		Crude Protein, %	40.17	39	
		Salt (Sodium X 2.54), %	2.26	2-3	
		Vitamin A, IU/lb	32000	30000	
	Holstein Beef Finisher RT-400 Medicated		97F-08736		
		Calcium, %	7.87	7.5-9	
		Crude Fiber, %	10.96	15	
		Equiv Crude Protein, %	19.34	19	
		Monensin, g/ton	362.00	400	
		Potassium, %	3.390	3.5	
		Crude Protein, %	34.38	34	
		Salt (ChlorideX1.65), %	5.75	1.75-2.25	EXCESSIVE
		Salt (Sodium X 2.54), %	2.06	1.75-2.25	
		Tylosin, g/ton	130.000	144	
		Vitamin A, IU/lb	33000	30000	
	FeedLot 32-19 Concentrate B600 Medicated		97F-08745		
		Calcium, %	6.71	6-7	
		Crude Fiber, %	12.03	15	
		Equiv Crude Protein, %	16.54	19	
		Lasalocid, g/ton	453.500	600	
		Crude Protein, %	31.32	32	
		Salt (Sodium X 2.54), %	4.21	4-5	
		Vitamin A, IU/lb	26000	30000	

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Manufacturer Location	Product	Analyte	Found	Claim		
Farmland Industries Inc Kansas City, MO	Mol Blend		97F-00844			
		Vacuum Moisture, %	33.01	35		
		Crude Protein, %	10.93	5		
	Pro-Phos 16 Mineral		97F-01065			
		Calcium, %	16.94	14-16.5		
		Phosphorus, %	15.660	16		
		Salt (Sodium X 2.54), %	7.96	7.5-9		
		Selenium, ug/g (ppm)	20.800	22		
		Vitamin A, IU/lb	218000	200000		
	Pasture Gainer Block-37 R350 Medicated		97F-02293			
		Calcium, %	3.04	2-3		
		Equiv Crude Protein, %	15.83	16.2		
		Monensin, g/ton	296.00	350		
		Crude Protein, %	38.63	37		
		Salt (Sodium X 2.54), %	12.53	13-15		
		Vitamin A, IU/lb	116000	40000		
	44% Solvent Extracted Soybean Meal		97F-02562			
		Crude Protein, %	45.51	44		
	Envirolean 2.5L Swine Concentrate (A)		97F-05757			
		Calcium, %	3.66	2.5-3.5		
		Lysine - Total, %	2.140	2.5		
		Crude Protein, %	40.48	40		
		Salt (Sodium X 2.54), %	1.81	1.6-2.1		
	# Swine CBD 2-5G Medicated		97F-05758			
		Carbadox, %	0.55100	0.55		
		Crude Fiber, %	28.54	26	EXCESSIVE	
	Farmland Right Dog Food		97F-05759			
Crude Fat, %		14.92	15			
Oven Moisture, %		9.10	12			
	Crude Protein, %	28.33	25			
50% Meat & Bone Meal		97F-05760				
	Calcium, %	9.52	8.5-10.2			
	Crude Fat, %	10.84	6			
	Phosphorus, %	4.620	4			
	Crude Protein, %	49.28	50			
Fat Plus 100		97F-05828				
	Crude Fat, %	94.05	99			
Pro-Phos 6 Mag Mineral		97F-05829				
	Calcium, %	14.05	13-15.5			
	Magnesium, %	10.24	10			
	Phosphorus, %	5.800	6			
	Salt (Sodium X 2.54), %	10.75	11-13			
	Selenium, ug/g (ppm)	17.600	22			
	Vitamin A, IU/lb	149000	150000			
Fat Plus 100		97F-06489				
	Crude Fat, %	96.21	99			
Pro-Phos 12 Mineral		97F-06490				
	Calcium, %	12.81	11-13			
	Phosphorus, %	11.310	12			
	Salt (Sodium X 2.54), %	11.29	11-13			
	Selenium, ug/g (ppm)	19.800	22			
	Vitamin A, IU/lb	247000	200000			

Manufacturer Location	Product	Analyte	Found	Claim	
	Farmland Right Cat Food		97F-06491		
		Fat: Acid Hydrolysis, %	11.06	12	
		Oven Moisture, %	10.00	12	
		Crude Protein, %	35.82	32	
		Taurine - Free, %	0.133	0.1	
	Cattle Crumbles OTC-4 Medicated		97F-06492		
		Calcium, %	5.83	4.5-5.5	
		Crude Fiber, %	23.45	29	
		Oxytetracycline, g/lb	3.960	4	
		Crude Protein, %	11.14	8	
	Soybean Hulls		97F-06893		
		Crude Fiber, %	28.64	40	
		Crude Protein, %	16.20	8	
	Nursery Grower #20 Medicated		97F-07767		
		Carbadox, g/ton	45.35000	50	
		Crude Fat, %	5.15	5	
		Crude Protein, %	21.63	18	
	Game Bird Starter-Breeder		97F-07768		
		Lysine - Total, %	1.480	1.5	
		Methionine - Total, %	0.608	0.6	
		Crude Protein, %	29.20	28	
	# Pro-Phos 12 Copper Mineral		97F-07769		
		Calcium, %	13.66	11-13	
		Phosphorus, %	11.520	12	
		Salt (Sodium X 2.54), %	11.10	11-13	
		Selenium, ug/g (ppm)	21.700	22	
		Vitamin A, IU/lb	85000	200000	DEFICIENT
	Dairy Phos 16 Mineral		97F-07770		
		Calcium, %	17.61	15-18	
		Phosphorus, %	15.190	16	
		Salt (Sodium X 2.54), %	7.11	7.5-9	
		Selenium, ug/g (ppm)	8.095	4	
		Vitamin A, IU/lb	109000	100000	
	Cattle Crumbles OTC-4 Medicated		97F-08159		
		Crude Fiber, %	22.86	29	
		Oxytetracycline, g/lb	3.785	4	
		Crude Protein, %	11.60	8	
	Beef Concentrate 35-0		97F-08160		
		Calcium, %	2.53	2.5-3.5	
		Crude Fiber, %	9.88	12	
		Crude Protein, %	35.52	35	
		Salt (Sodium X 2.54), %	2.34	2.5-3.5	
		Vitamin A, IU/lb	29000	30000	
	Pro-Phos 12 Mineral C3500 Medicated		97F-08165		
		Calcium, %	13.34	11-13	
		Chlortetracycline, g/ton	1.465	1.75	
		Phosphorus, %	11.070	12	
		Salt (Sodium X 2.54), %	10.57	11-13	
		Vitamin A, IU/lb	153000	200000	

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Manufacturer Location	Product	Analyte	Found	Claim	
Federal Beef Processors					
Rapid City, SD					
	# Meat & Bone Meal		97F-02561		
	Calcium, %		10.10	12-14.4	DEFICIENT
	Crude Fat, %		7.88	6	
	Phosphorus, %		4.630	5	
	Crude Protein, %		52.49	46	
Form-A-Feed Inc					
Stewart, MN					
	EMF Phase III Medicated		97F-01749		
	Carbadox, g/ton		47.60000	50	
	Crude Fat, %		5.42	5	
	Crude Protein, %		19.55	20	
Fremar Feeds					
Freeman, SD					
	# Custom Mix		97F-06486		
	Lasalocid, g/ton		17.600	75	DEFICIENT
Friskies Pet Care Products					
Glendale, CA					
	Friskies Alpo Chopped with Beef Dog Food		97F-00139		
	Crude Fat, %		6.42	7	
	Oven Moisture, %		77.18	78	
	Crude Protein, %		9.76	9	
	Friskies Mixed Grill for Cats		97F-00140		
	Ash, %		1.72	2.5	
	Crude Fat, %		7.49	5	
	Oven Moisture, %		77.13	78	
	Crude Protein, %		13.54	10	
	Taurine - Free, %		0.083	0.05	
	Beef Bites Dog Treats		97F-08028		
	Oven Moisture, %		36.27	37	
	Crude Protein, %		27.40	23	
	Alpo Chunky with Beef		97F-08192		
	Crude Fat, %		7.72	6	
	Oven Moisture, %		76.27	78	
	Crude Protein, %		10.45	9	
	Friskies for Cats Sliced Chicken in Gravy		97F-08193		
	Oven Moisture, %		76.31	78	
	Crude Protein, %		15.06	11	
	Taurine - Free, %		0.079	0.05	
Frontier Mills Inc					
Yankton, SD					
	Custom Mix		97F-01834		
	Monensin, ppm		N.D.	0	
	Quick Start 20-50 Medicated		97F-01836		
	Carbadox, g/ton		50.50000	50	
	Crude Protein, %		17.48	18	
	Pyrantel Tartrate, g/ton		92.70000	96	

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Manufacturer Location	Product	Analyte	Found	Claim	
Golden Sun Feeds Inc Estherville, IA					
	# 28% Range Block		97F-00881		
		Calcium, %	2.15	2-3	
		Iodine, %	0.001	0.0033	DEFICIENT
		Crude Protein, %	29.06	28	
		Salt (ChlorideX1.65), %	15.18	17.5-20.5	DEFICIENT
		Salt (Sodium X 2.54), %	14.77	17.5-20.5	DEFICIENT
		Vitamin A, IU/lb	79000	100000	
	# 20% Range Cake		97F-00883		
		Crude Fiber, %	14.82	13	EXCESSIVE
		Crude Protein, %	20.55	20	
		Salt (Sodium X 2.54), %	1.80	1.5-2	
		Vitamin A, IU/lb	21000	20000	
	Golden Sun 40 Golden Lean 40		97F-00982		
		Calcium, %	3.25	3-4	
		Lysine - Total, %	2.230	2.5	
		Crude Protein, %	39.40	40	
		Salt (Sodium X 2.54), %	2.93	2.5-3	
	Energy Lick 12 Supplement Tub		97F-01390		
		Iodine, ppm	20.000	18	
		Crude Protein, %	12.19	12	
		Selenium, ug/g (ppm)	6.225	6.7	
		Vitamin A, IU/lb	42000	50000	
	# Golden Lean 40		97F-01391		
		Calcium, %	3.60	3-4	
		Lysine - Total, %	2.280	2.5	
		Crude Protein, %	40.68	40	
		Salt (ChlorideX1.65), %	1.84	2.5-3	DEFICIENT
		Salt (Sodium X 2.54), %	1.88	2.5-3	DEFICIENT
	Golden Dairy		97F-01392		
		Calcium, %	3.11	2-3	
		Phosphorus, %	2.070	2	
		Crude Protein, %	40.19	40	
		Salt (Sodium X 2.54), %	1.66	1.25-2.25	
		Vitamin A, IU/lb	31000	30000	
	# Golden Pig I NT-150 Medicated		97F-01538		
		Crude Fat, %	5.91	6	
		Lysine - Total, %	1.110	1.4	DEFICIENT
		Oxytetracycline, g/ton	130.000	150	
		Crude Protein, %	21.68	20	
	Golden Pig Concentrate		97F-01539		
		Calcium, %	2.33	2-3	
		Crude Fat, %	5.97	6	
		Lysine - Total, %	2.600	3	
		Crude Protein, %	36.82	34	
	Golden Lean Concentrate HD		97F-01540		
		Calcium, %	3.75	3.3-4	
		Crude Fat, %	6.84	7	
		Lysine - Total, %	2.860	3	
		Crude Protein, %	43.04	40	
		Salt (Sodium X 2.54), %	2.95	2.5-3.3	
	Energy Lick 12		97F-04200		
		Crude Fat, %	5.51	5	
		Crude Protein, %	12.05	12	
		Selenium, ug/g (ppm)	6.180	6.7	
		Vitamin A, IU/lb	43000	50000	

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Manufacturer Location	Product	Analyte	Found	Claim	
	28% Range Block		97F-04201		
		Calcium, %	2.02	1.5-2	
		Crude Protein, %	27.55	28	
		Salt (Sodium X 2.54), %	17.71	17-20	
		Vitamin A, IU/lb	82000	100000	
	Golden Lean Concentrate HD		97F-05745		
		Calcium, %	3.87	3.3-4	
		Crude Fat, %	6.94	7	
		Lysine - Total, %	2.470	3	
		Crude Protein, %	42.71	40	
		Salt (Sodium X 2.54), %	2.74	2.5-3.3	
	41% Beef Finisher 600 BOV Medicated		97F-05746		
		Calcium, %	8.02	7-8	
		Crude Fiber, %	9.45	10	
		Lasalocid, g/ton	621.000	600	
		Crude Protein, %	42.13	41	
		Salt (Sodium X 2.54), %	1.67	1.5-2	
		Vitamin A, IU/lb	45000	40000	
	Hi Plains Mineral		97F-05747		
		Calcium, %	13.17	11-13	
		Phosphorus, %	11.580	12	
		Selenium, ug/g (ppm)	23.000	22.2	
		Vitamin A, IU/lb	430000	400000	
	# Strong Litter/Worm-Gard Medicated		97F-05748		
		Crude Fat, %	3.76	5	DEFICIENT
		Crude Protein, %	17.00	15	
	Golden Dairy		97F-06040		
		Calcium, %	1.87	2-3	
		Phosphorus, %	1.825	2	
		Crude Protein, %	41.37	40	
		Salt (Sodium X 2.54), %	1.65	1.25-2.25	
		Vitamin A, IU/lb	30000	30000	
	Beef Builder-40 500 BOV Medicated		97F-07061		
		Calcium, %	6.45	6.5-7.5	
		Equiv Crude Protein, %	14.57	15	
		Lasalocid, g/ton	536.000	500	
		Crude Protein, %	40.75	40	
		Vitamin A, IU/lb	41000	45000	
	# Golden Lean HD Concentrate 1		97F-08163		
		Calcium, %	2.60	3.3-4	DEFICIENT
		Crude Fat, %	8.41	7	
		Lysine - Total, %	3.060	3	
		Crude Protein, %	39.92	40	
		Salt (Sodium X 2.54), %	2.23	2.5-3.3	
	# Texturized Horse Feed		97F-08166		
		Crude Protein, %	10.83	12	DEFICIENT
	# Med-A-Mix CTC-4G Medicated		97F-08167		
		Calcium, %	3.65	3-4	
		Chlortetracycline, g/lb	3.600	4	
		Lysine - Total, %	2.550	2.5	
		Crude Protein, %	41.54	40	
		Salt (ChlorideX1.65), %	1.59	2.5-3	DEFICIENT
		Salt (Sodium X 2.54), %	1.75	2.5-3	DEFICIENT
	# Hi Plains Mineral		97F-08242		
		Calcium, %	12.40	11-13	
		Phosphorus, %	7.715	9	DEFICIENT
		Selenium, ug/g (ppm)	23.350	22.2	
		Vitamin A, IU/lb	345000	400000	

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Manufacturer Location	Product	Analyte	Found	Claim	
	# Golden Sun Liquid Feed 32 Golden Beef		97F-08243		
		Karl Fisher Moisture, %	44.15	35	EXCESSIVE
		Vacuum Moisture, %	44.47	35	EXCESSIVE
		Crude Protein, %	32.34	32	
		Salt (ChlorideX1.65), %	2.25	4.5-5.5	DEFICIENT
		Salt (Sodium X 2.54), %	2.90	4.5-5.5	DEFICIENT
		Vitamin A, IU/lb	6200	40000	DEFICIENT
Golden Sun Feeds Inc					
Sioux Falls, SD					
	# Lamb Starter BOV Medicated		97F-00310		
		Lasalocid, g/ton	21.933	30	DEFICIENT
		Crude Protein, %	21.26	20	
	Lamb'N Bulk 100 BOV Medicated		97F-00451		
		Calcium, %	1.59	1.5-2	
		Crude Fiber, %	9.01	10	
		Equiv Crude Protein, %	2.67	2.5	
		Lasalocid, g/ton	96.700	100	
		Crude Protein, %	28.89	28	
		Vitamin A, IU/lb	22000	20000	
	50% Beefmaker Block		97F-06284		
		Calcium, %	2.71	2-3	
		Equiv Crude Protein, %	27.50	30	
		Phosphorus, %	1.920	2	
		Crude Protein, %	51.01	50	
		Salt (Sodium X 2.54), %	15.48	16.5-19.5	
		Vitamin A, IU/lb	117000	100000	
	Golden Lean Concentrate HL		97F-07087		
		Calcium, %	3.50	3.3-4	
		Lysine - Total, %	2.450	3	
		Crude Protein, %	39.25	40	
		Salt (Sodium X 2.54), %	3.04	2.5-3.3	
	Calf'n Bulk 80R Medicated		97F-07088		
		Calcium, %	2.68	2.5-3	
		Crude Fiber, %	10.37	12	
		Monensin, g/ton	78.80	80	
		Crude Protein, %	28.51	27	
		Salt (Sodium X 2.54), %	1.61	1.5-2	
		Vitamin A, IU/lb	27000	30000	
	Pig Med-A-Mix C2000 Medicated		97F-07089		
		Calcium, %	2.25	2-2.5	
		Carbadox, g/lb	0.99000	1	
		Crude Fat, %	5.41	5.5	
		Crude Protein, %	36.41	34	
	18% Special Calf Starter Deccox Medicated		97F-07559		
		Acid Detergent Fiber, %	8.86	10	
		Decoquinatate, mg/lb	32.6000	30	
		Crude Protein, %	18.47	18	
	Golden Lean Concentrate HL 24GM		97F-07563		
		Calcium, %	3.57	3.3-4	
		Lysine - Total, %	3.000	3	
		Crude Protein, %	40.05	40	
		Salt (Sodium X 2.54), %	2.56	2.5-3.3	

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Manufacturer Location	Product	Analyte	Found	Claim	
	Beef 'N Bulk R-Ty Medicated		97F-08537		
		Calcium, %	4.77	4-5	
		Crude Fiber, %	11.38	12	
		Equiv Crude Protein, %	9.16	10	
		Monensin, g/ton	228.00	250	
		Crude Protein, %	19.63	20	
		Salt (Sodium X 2.54), %	2.15	1.5-2	
		Tylosin, g/ton	69.050	90	
		Vitamin A, IU/lb	26000	20000	
	Hi-Plains Mineral		97F-08538		
		Calcium, %	13.51	11-13	
		Phosphorus, %	8.670	9	
		Selenium, ug/g (ppm)	22.050	22.2	
		Vitamin A, IU/lb	433000	400000	
	Golden Aide "CTC" 10G Medicated		97F-08827		
		Chlortetracycline, g/lb	9.21	10	
Grand Laboratories Inc Freeman, SD					
	Hematinic Vitamin & Mineral Premix		97F-07097		
		Calcium, %	8.35	8-8.5	
		Iron, %	2.57	2.63	
		Magnesium, %	3.63	3.08	
		Vitamin A, IU/lb	440000	500000	
GTA Feeds Edgeley, ND					
	Beef Grow B500 Medicated		97F-08535		
		Calcium, %	4.45	4-5	
		Equiv Crude Protein, %	12.33	12.9	
		Lasalocid, g/ton	457.000	500	
		Crude Protein, %	38.77	38	
		Salt (Sodium X 2.54), %	2.32	2.5-3.5	
		Vitamin A, IU/lb	32000	30000	
	# 38 N/BP Dairy Supplement		97F-08536		
		Acid Detergent Fiber, %	9.54	8	EXCESSIVE
		Calcium, %	2.30	2.5-3	
		Crude Protein, %	37.90	38	
		Salt (Sodium X 2.54), %	2.33	2-2.5	
		Vitamin A, IU/lb	24000	30000	
	Beef 40/28 Finisher Supp R400 Medicated		97F-08541		
		Calcium, %	6.55	7-8	
		Crude Fiber, %	9.05	12	
		Equiv Crude Protein, %	26.37	28	
		Monensin, g/ton	388.00	400	
		Potassium, %	2.770	3	
		Crude Protein, %	40.39	40	
		Salt (Sodium X 2.54), %	4.40	4.5-5.5	
		Vitamin A, IU/lb	32000	30000	
	# Custom Beef Fin B800 M.G.A. 0.53 Medicated		97F-08542		
		Calcium, %	7.55	7-8	
		Crude Fiber, %	4.07	12	
		Equiv Crude Protein, %	23.63	27.9	
		Lasalocid, g/ton	747.000	800	
		Potassium, %	2.690	3	
		Crude Protein, %	34.08	38	DEFICIENT
		Salt (Sodium X 2.54), %	2.93	3-4	
		Vitamin A, IU/lb	29000	30000	

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Manufacturer Location	Product	Analyte	Found	Claim	
	Triple 12 Cattle Mineral Plus		97F-08543		
		Calcium, %	12.87	12-14	
		Magnesium, %	3.26	2.75	
		Phosphorus, %	11.040	12	
		Salt (Sodium X 2.54), %	12.90	12-14	
		Selenium, ug/g (ppm)	43.150	35	
		Vitamin A, IU/lb	187000	150000	
	Dekade Krumbles Medicated		97F-08544		
		Decoquinatate, %	0.1170	0.125	
GTA Feeds Gettysburg, SD					
	Ranger 14N Hi-Mag Blox		97F-00599		
		Magnesium, %	2.00	2	
		Crude Protein, %	14.72	14	
		Salt (Sodium X 2.54), %	11.05	11-13	
	Range 20 Cake		97F-00849		
		Crude Fiber, %	9.18	12	
		Crude Protein, %	20.79	2	
		Salt (Sodium X 2.54), %	1.45	1.5-2	
	Ranger 20N Blox		97F-00850		
		Crude Protein, %	19.43	20	
		Salt (Sodium X 2.54), %	10.49	11-13	
		Vitamin A, IU/lb	23000	20000	
	# Range Grow BVT 30		97F-02195		
		Crude Fiber, %	11.15	18	
		Lasalocid, g/ton	1.600	30	DEFICIENT
		Monensin, g/ton	N.D.	0	
		Crude Protein, %	14.27	14	
	# Lamb Creep BVT 45		97F-02196		
		Crude Fiber, %	15.63	18	
		Lasalocid, g/ton	75.950	45	EXCESSIVE
		Monensin, g/ton	N.D.	0	
		Crude Protein, %	19.44	18	
	# Ranger 20N Hi Mag Blox		97F-04360		
		Magnesium, %	1.98	2	
		Crude Protein, %	17.80	20	DEFICIENT
		Salt (ChlorideX1.65), %	10.83	11-13	
		Salt (Sodium X 2.54), %	9.62	11-13	DEFICIENT
		Vitamin A, IU/lb	16000	20000	
	Ranger 20N Blox		97F-07906		
		Crude Protein, %	20.40	20	
		Salt (Sodium X 2.54), %	11.16	11-13	
		Vitamin A, IU/lb	21000	20000	
GTA Feeds Sioux Falls, SD					
	# Bull Challenger RM15 Medicated		97F-00300		
		Crude Fiber, %	16.06	16	
		Equiv Crude Protein, %	2.12	1.5	
		Monensin, g/ton	278.23	30	EXCESSIVE
		Crude Protein, %	14.42	14	
	GTA Rum-Liq 41		97F-00309		
		Equiv Crude Protein, %	30.23	32	
		Vacuum Moisture, %	34.20	34	
		Potassium, %	2.636	2	
		Crude Protein, %	43.65	41	
		Vitamin A, IU/lb	33000	40000	

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Manufacturer Location	Product	Analyte	Found	Claim	
	# Rum-Liq 33		97F-00409		
		Equiv Crude Protein, %	28.35	30	
		Vacuum Moisture, %	37.38	36	
		Potassium, %	3.340	3	
		Crude Protein, %	33.93	33	
		Vitamin A, IU/lb	31000	45000	DEFICIENT
	Dekade Krumbles Medicated		97F-00780		
		Decoquinatate, mg/lb	483.0000	568	
	Krumble-ADE DP Medicated		97F-00781		
		Chlortetracycline, g/lb	3.870	4	
		Vitamin A, IU/lb	247000	200000	
	Rum-Liq 33		97F-00782		
		Equiv Crude Protein, %	25.94	30	
		Vacuum Moisture, %	34.73	36	
		Crude Protein, %	32.16	33	
		Vitamin A, IU/lb	53000	30000	
	# Beef Grow		97F-00838		
		Calcium, %	3.80	4-5	
		Crude Protein, %	35.28	38	DEFICIENT
		Salt (Sodium X 2.54), %	2.55	2.5-3.5	
		Vitamin A, IU/lb	30000	30000	
	Groplex 40%		97F-00839		
		Calcium, %	4.15	3.5-4.5	
		Lysine - Total, %	2.250	2.5	
		Phosphorus, %	2.000	2	
		Crude Protein, %	39.73	40	
		Salt (Sodium X 2.54), %	2.05	2-2.5	
	# Beef Marketer RM200 Medicated		97F-00840		
		Calcium, %	7.27	7-8	
		Monensin, g/ton	348.00	400	
		Potassium, %	1.927	3	DEFICIENT
		Crude Protein, %	32.99	38	DEFICIENT
		Salt (Sodium X 2.54), %	3.61	3-4	
		Vitamin A, IU/lb	27000	30000	
	Beef Booster		97F-00841		
		Crude Protein, %	39.33	38	
		Salt (Sodium X 2.54), %	1.82	1.5-2.5	
		Vitamin A, IU/lb	26000	30000	
	Triple 12 Cattle Mineral		97F-00848		
		Calcium, %	13.65	12-14	
		Iodine, %	0.008	0.01	
		Phosphorus, %	11.970	12	
		Salt (Sodium X 2.54), %	14.64	12-14	
		Vitamin A, IU/lb	193000	150000	
	Hi-Mag Mineral		97F-01068		
		Calcium, %	9.94	10-11	
		Iodine, %	0.004	0.005	
		Magnesium, %	12.75	13	
		Phosphorus, %	5.810	6	
		Salt (Sodium X 2.54), %	13.84	12-14	
		Selenium, ug/g (ppm)	15.300	17.5	
		Vitamin A, IU/lb	83000	75000	

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Manufacturer Location	Product	Analyte	Found	Claim	
	Lamb Grower Complete BVT15		97F-01069		
		Crude Fiber, %	12.84	16	
		Equiv Crude Protein, %	2.37	2	
		Lasalocid, g/ton	24.400	30	
		Crude Protein, %	16.45	16	
	Chick Start-A Medicated		97F-01070		
		Amprolium, %	0.0046	0.004	
		Lysine - Total, %	0.788	0.87	
		Methionine - Total, %	0.278	0.31	
		Crude Protein, %	19.03	18	
	Cat Food		97F-01410		
		Crude Fat, %	9.48	9	
		Oven Moisture, %	9.09	12	
		Crude Protein, %	32.12	30	
	Beef Booster		97F-01411		
		Calcium, %	4.57	4-5	
		Crude Protein, %	37.61	38	
		Salt (Sodium X 2.54), %	1.56	1.75-2.25	
		Vitamin A, IU/lb	25000	30000	
	Custom Tetra Krumbles DP NO VITS Medicated		97F-01420		
		Oxytetracycline, g/lb	3.780	4	
	Rum-Liq 33		97F-01659		
		Equiv Crude Protein, %	28.06	30	
		Vacuum Moisture, %	36.51	36	
		Crude Protein, %	36.69	33	
		Vitamin A, IU/lb	38000	30000	
	Tenderlamb Finisher BVT 150 Medicated		97F-02178		
		Calcium, %	5.97	6-7	
		Lasalocid, g/ton	288.000	300	
		Crude Protein, %	34.44	34	
		Salt (Sodium X 2.54), %	1.96	2-2.5	
		Vitamin A, IU/lb	57000	40000	
	Triple 12 Cattle Mineral		97F-02179		
		Calcium, %	12.95	12-14	
		Iodine, ppm	110.000	100	
		Magnesium, %	2.70	2.75	
		Phosphorus, %	11.560	12	
		Salt (Sodium X 2.54), %	12.62	12-14	
		Vitamin A, IU/lb	263000	150000	
	# Forager 38 Block		97F-02180		
		Calcium, %	1.33	1.5-2	
		Equiv Crude Protein, %	9.55	10	
		Crude Protein, %	36.01	38	DEFICIENT
		Salt (Sodium X 2.54), %	12.19	11-13	
		Vitamin A, IU/lb	34000	30000	
	Pheasant Grower Medicated		97F-03239		
		Amprolium, %	0.0154	0.0175	
		Methionine - Total, %	0.347	0.38	
		Crude Protein, %	24.30	24	
	Custom Premix		97F-03321		
		Calcium, %	27.31	26-31	
		Iodine, %	0.003	0.0031	
		Monensin, g/ton	1070.00	1200	
		Salt (Sodium X 2.54), %	19.52	20-24	

Manufacturer Location	Product	Analyte	Found	Claim	
	Triple 12 Cattle Mineral		97F-04204		
		Calcium, %	12.38	12-14	
		Phosphorus, %	11.080	12	
		Salt (Sodium X 2.54), %	15.13	12-14	
		Vitamin A, IU/lb	195000	150000	
	# Krumble ADE DP Medicated		97F-04205		
		Chlortetracycline, g/lb	2.642	4	DEFICIENT
		Vitamin A, IU/lb	150000	200000	
	Rum-Liq 22		97F-04358		
		Equiv Crude Protein, %	17.25	18	
		Vacuum Moisture, %	37.48	36	
		Crude Protein, %	23.32	22	
		Vitamin A, IU/lb	46000	30000	
	# Pig Start 1200 ASP Medicated		97F-04359		
		Chlortetracycline, g/ton	61.767	100	DEFICIENT
		Crude Protein, %	19.05	18	
		Sulfamethazine, g/ton	69.95000	100	DEFICIENT
	Dog Food 27% Hi Protein		97F-06497		
		Fat: Acid Hydrolysis, %	10.51	10	
		Oven Moisture, %	9.71	12	
		Crude Protein, %	28.43	27	
	Six-In-One		97F-06546		
		Calcium, %	4.70	3.5-4.5	
		Lysine - Total, %	2.630	2.75	
		Crude Protein, %	38.23	38	
		Salt (Sodium X 2.54), %	2.16	2-2.5	
	Beef Mix BVT 720 Medicated		97F-06724		
		Calcium, %	9.25	8-9	
		Crude Fiber, %	8.73	11	
		Lasalocid, g/ton	1290.000	1440	
		Crude Protein, %	10.05	8	
		Salt (Sodium X 2.54), %	6.40	5-6	
		Vitamin A, IU/lb	106000	75000	
	Equis 14 Textured		97F-06728		
		Crude Protein, %	14.60	14	
	# Rum-Liq 33		97F-06729		
		Equiv Crude Protein, %	25.90	30	
		Vacuum Moisture, %	34.05	36	
		Potassium, %	1.800	3	DEFICIENT
		Crude Protein, %	31.32	33	DEFICIENT
		Vitamin A, IU/lb	5100	45000	DEFICIENT
	Beef Grow BVT 250 Medicated		97F-06825		
		Calcium, %	4.22	4-5	
		Equiv Crude Protein, %	12.36	12.9	
		Lasalocid, g/ton	478.000	500	
		Crude Protein, %	38.18	38	
		Salt (Sodium X 2.54), %	2.34	2.5-3.5	
		Vitamin A, IU/lb	29000	30000	
	Mediplex Purple Medicated		97F-06837		
		Carbadox, %	0.43100	0.44	
	Beef Marketer R400 Medicated		97F-06890		
		Calcium, %	7.83	7-8	
		Equiv Crude Protein, %	17.98	18.9	
		Monensin, g/ton	386.00	400	
		Potassium, %	3.163	3	
		Crude Protein, %	38.45	38	
		Salt (Sodium X 2.54), %	2.87	3-4	
		Vitamin A, IU/lb	30000	30000	

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Manufacturer Location	Product	Analyte	Found	Claim	
	24-6 Mineral		97F-06891		
		Calcium, %	22.59	23-25	
		Phosphorus, %	5.960	6	
		Potassium, %	7.690	7.5	
		Salt (Sodium X 2.54), %	2.99	3-4	
	# Forager 38 Blox		97F-06892		
		Calcium, %	1.58	1.5-2	
		Equiv Crude Protein, %	8.20	10	
		Crude Protein, %	36.49	38	DEFICIENT
		Salt (Sodium X 2.54), %	11.60	11-13	
		Vitamin A, IU/lb	24000	30000	
	Beef Booster		97F-07096		
		Calcium, %	4.55	4-5	
		Crude Protein, %	38.44	38	
		Salt (Sodium X 2.54), %	1.74	1.75-2.25	
		Vitamin A, IU/lb	35000	30000	
	12-6 Cattle Mineral 2542		97F-07351		
		Calcium, %	11.85	10-12	
		Magnesium, %	2.78	2.75	
		Phosphorus, %	6.000	6	
		Salt (Sodium X 2.54), %	17.98	18-20	
		Vitamin A, IU/lb	157000	150000	
	# Groplex 15/45 Starter Vital-Ad		97F-07553		
		Calcium, %	4.38	4-5	
		Fat: Acid Hydrolysis, %	4.50	6	DEFICIENT
		Fat: Roese Gottlieb, %	3.62	6	DEFICIENT
		Crude Protein, %	10.29	8	
		Salt (Sodium X 2.54), %	2.55	2.5-3.5	
	# Groplex Breeder Vital-Ad		97F-07554		
		Calcium, %	13.12	14.5-16.5	
		Phosphorus, %	5.935	8	DEFICIENT
		Salt (ChlorideX1.65), %	5.84	7-8	DEFICIENT
		Salt (Sodium X 2.54), %	5.36	7-8	DEFICIENT
		Selenium, ug/g (ppm)	7.437	4	
		Vitamin A, IU/lb	67000	45000	
	Rum-Liq 33		97F-07908		
		Equiv Crude Protein, %	27.31	30	
		Karl Fisher Moisture, %	36.30	36	
		Potassium, %	3.270	3	
		Crude Protein, %	33.97	33	
		Salt (ChlorideX1.65), %	1.54	1.25-1.75	
		Salt (Sodium X 2.54), %	3.90	1.25-1.75	EXCESSIVE
		Vitamin A, IU/lb	36000	45000	
	# Cattle B75 Medicated		97F-08076		
		Equiv Crude Protein, %	3.14	2	EXCESSIVE
		Lasalocid, g/ton	69.300	75	
		Crude Protein, %	15.62	13.4	
	24-6 Mineral		97F-08239		
		Calcium, %	23.54	23-25	
		Phosphorus, %	5.530	6	
		Salt (Sodium X 2.54), %	3.24	3-4	
	# Chlortetracycline Crumbles		97F-08240		
		Chlortetracycline, g/lb	2.220	4	DEFICIENT
		Vitamin A, IU/lb	155000	200000	

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Manufacturer Location	Product	Analyte	Found	Claim	
	# Swine G/F 3000 Supplement		97F-08733		
		Calcium, %	2.08	3.5-4.5	DEFICIENT
		Lysine - Total, %	2.940	3	
		Crude Protein, %	42.51	40	
		Salt (ChlorideX1.65), %	1.13	1.75-2.25	DEFICIENT
		Salt (Sodium X 2.54), %	1.17	1.75-2.25	DEFICIENT
	44% Soybean Meal Solvent Extracted		97F-03927		
		Ash, %	5.81	8	
		Crude Protein, %	44.74	44	
	Daitech 38N Dairy Supplement		97F-05753		
		Acid Detergent Fiber, %	5.57	8	
		Calcium, %	2.78	2.5-3	
		Crude Protein, %	38.48	38	
		Salt (Sodium X 2.54), %	1.95	2-2.5	
		Vitamin A, IU/lb	39000	30000	
	Market Lamb Ruf-N-Pro B150 Medicated		97F-05754		
		Calcium, %	4.08	3-4	
		Crude Fiber, %	12.87	25	
		Equiv Crude Protein, %	8.81	10	
		Lasalocid, g/ton	137.000	150	
		Crude Protein, %	29.21	25	
		Salt (ChlorideX1.65), %	3.95	1.5-2	EXCESSIVE
		Salt (Sodium X 2.54), %	2.33	1.5-2	
	44% Soybean Meal Solvent Extracted		97F-03927		
		Ash, %	5.81	8	
		Crude Protein, %	44.74	44	
	Daitech 38N Dairy Supplement		97F-05753		
		Acid Detergent Fiber, %	5.57	8	
		Calcium, %	2.78	2.5-3	
		Crude Protein, %	38.48	38	
		Salt (Sodium X 2.54), %	1.95	2-2.5	
		Vitamin A, IU/lb	39000	30000	
	Market Lamb Ruf-N-Pro B150 Medicated		97F-05754		
		Calcium, %	4.08	3-4	
		Crude Fiber, %	12.87	25	
		Equiv Crude Protein, %	8.81	10	
		Lasalocid, g/ton	137.000	150	
		Crude Protein, %	29.21	25	
		Salt (ChlorideX1.65), %	3.95	1.5-2	EXCESSIVE
		Salt (Sodium X 2.54), %	2.33	1.5-2	
	Beef Booster		97F-05755		
		Calcium, %	4.26	4-5	
		Crude Protein, %	37.68	38	
		Salt (Sodium X 2.54), %	1.73	1.75-2.25	
		Vitamin A, IU/lb	34000	30000	
	# DaiTech Calf Grower DQ Medicated		97F-06498		
		Acid Detergent Fiber, %	9.60	8	EXCESSIVE
		Decoquinatate, g/ton	0.0029	0.0033	
		Crude Protein, %	16.30	16	
	Triple 12 Cattle Mineral Plus		97F-06499		
		Calcium, %	13.02	12-14	
		Magnesium, %	3.04	2.75	
		Phosphorus, %	11.180	12	
		Salt (Sodium X 2.54), %	13.67	12-14	
		Selenium, ug/g (ppm)	38.300	35	
		Vitamin A, IU/lb	247000	150000	
	Six-In-One		97F-07525		
		Calcium, %	4.81	3.5-4.5	
		Lysine - Total, %	2.590	2.75	
		Crude Protein, %	37.45	38	
		Salt (Sodium X 2.54), %	1.97	2-2.5	

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Manufacturer Location	Product	Analyte	Found	Claim	
	Start 1400 ASP Medicated		97F-07852		
		Chlortetracycline, g/ton	77.200	100	
		Crude Fat, %	4.90	5	
		Crude Protein, %	19.62	20	
		Sulfamethazine, g/ton	114.00000	100	
	Calf Creep B60 Medicated		97F-07907		
		Crude Fiber, %	15.38	19	
		Lasalocid, g/ton	63.800	60	
		Crude Protein, %	13.95	14	
	Krumble-APE DP Medicated		98F-00015		
		Vitamin A, IU/lb	210500	200000	
	Dekade Krumbles		98F-00016		
		Decoquinate, %	0.1295	0.125	
GTA Feeds Willmar, MN					
	Dai Tech 34 N/SP Dairy Supplement		97F-00307		
		Calcium, %	2.77	2.5-3	
		Crude Fat, %	9.25	9	
		Crude Protein, %	34.26	34	
		Salt (Sodium X 2.54), %	2.16	2-2.5	
		Vitamin A, IU/lb	24000	25000	
	Six-In-One		97F-07555		
		Calcium, %	4.82	3.5-4.5	
		Lysine - Total, %	2.630	2.75	
		Crude Protein, %	38.29	38	
		Salt (Sodium X 2.54), %	2.18	2-2.5	
	# 38 N/BP Dairy Supplement		97F-07556		
		Acid Detergent Fiber, %	10.15	8	EXCESSIVE
		Calcium, %	2.38	2.5-3	
		Crude Protein, %	36.76	38	DEFICIENT
		Salt (Sodium X 2.54), %	2.07	2-2.5	
		Vitamin A, IU/lb	27000	30000	
	# Calf Creep B60 Medicated		97F-07557		
		Crude Fiber, %	15.53	19	
		Lasalocid, g/ton	57.100	60	
		Crude Protein, %	13.10	14	DEFICIENT
	Headstart DQ Medicated		97F-07561		
		Crude Fiber, %	20.10	22	
		Decoquinate, %	0.0016	0.0016	
		Crude Protein, %	11.84	12	
Hartz Mountain Corp Secaucus, NJ					
	Hartz Total Diet for Canaries		97F-02938		
		Arginine - Total, %	0.830	0.5	
		Crude Fat, %	10.90	9	
		Glycine - Total, %	0.544	0.3	
		Lysine - Total, %	0.478	0.25	
		Methionine - Total, %	0.287	0.2	
		Oven Moisture, %	9.37	12	
		Crude Protein, %	15.42	14.5	
		Threonine - Total, %	0.486	0.3	
		Tryptophan - Total, %	0.229	0.09	
	Hartz Parakeet Honey'N Nut Treat Stick		97F-08748		
		Crude Fat, %	7.99	7	
		Oven Moisture, %	8.30	12	
		Crude Protein, %	11.66	10	

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Manufacturer Location	Product	Analyte	Found	Claim	
Harvest States Coop					
Claire City, SD					
	# Custom Mix Sow Mix		97F-02764		
		Oxytetracycline, g/ton	1.530	40	DEFICIENT
Heartland Grain Fuels					
Aberdeen, SD					
	Corn Distillers Dried Grains With Solubles		97F-07348		
		Crude Fiber, %	8.35	11	
		Crude Fat, %	10.35	11	
		Karl Fisher Moisture, %	10.30	12.5	
		Crude Protein, %	27.86	28	
Heartland Inc					
Bismarck, ND					
	Tradition 37% Sheep Supplement C165		97F-00785		
		Calcium, %	2.98	2.3-3.3	
		Chlortetracycline, g/ton	167.000	165	
		Equiv Crude Protein, %	3.66	3.4	
		Crude Protein, %	38.28	37	
Heinz Pet Products					
Newport, KY					
	9 Lives Plus Super Supper Ocean Fish & Crab		97F-08551		
		Fat: Acid Hydrolysis, %	10.58	9	
		Oven Moisture, %	9.06	12	
		Crude Protein, %	30.62	30	
		Taurine - Free, %	0.098	0.1	
	Kozy Kitten Fish Dinner		97F-08645		
		Oven Moisture, %	77.73	78	
		Crude Protein, %	11.64	10	
Hi-Plains Nutrition Service					
Whitewood, SD					
	2730 Custom Mineral Pre-Mix-BT Medicated		97F-00426		
		Calcium, %	13.29	12-13	
		Iodine, %	0.005	0.0064	
		Lasalocid, g/ton	2530.000	2800	
		Phosphorus, %	12.280	12	
		Salt (Sodium X 2.54), %	11.03	12-13	
		Vitamin A, IU/lb	220000	250000	
	2700 Custom Mineral Premix		97F-00427		
		Calcium, %	13.47	12-13	
		Iodine, %	0.005	0.0064	
		Phosphorus, %	11.860	12	
		Salt (ChlorideX1.65), %	11.56	12-13	
		Salt (Sodium X 2.54), %	10.58	12-13	DEFICIENT
		Vitamin A, IU/lb	230000	250000	
	2230 Pasture Mineral EX		97F-00428		
		Calcium, %	7.10	7-8	
		Iodine, %	0.007	0.0064	
		Phosphorus, %	17.930	18	
		Vitamin A, IU/lb	872000	640000	
	2700 Hi-Plains Custom Mineral Premix		97F-08187		
		Calcium, %	13.73	12-13	
		Phosphorus, %	11.740	12	
		Salt (ChlorideX1.65), %	12.25	12-13	
		Salt (Sodium X 2.54), %	10.41	12-13	DEFICIENT
		Vitamin A, IU/lb	280000	250000	

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Manufacturer Location	Product	Analyte	Found	Claim	
	# 2550 Hi-Plains 1 X 1 Dairy Mineral		97F-08188		
		Calcium, %	14.81	17-18	DEFICIENT
		Phosphorus, %	15.930	17	
	2600 Hi-Plains 1.5 X 1 Mineral		97F-08189		
		Calcium, %	17.35	17-18	10
		Phosphorus, %	9.740		
	# 4280 Hi-Plains Custom Deccox Premix 10X		97F-08190		
		Decoquinatate, mg/lb	1636.3334	2270	DEFICIENT
Howard Farmers Coop Assn					
Howard, SD					
	Six-In-One Custom Mix		97F-00302		
		Oxytetracycline, g/ton	81.950	100	
Hub City Feed & Seed					
Aberdeen, SD					
	50% Meat & Bone Meal		97F-00135		
		Calcium, %	7.51	8.5-10.2	6 4 50
		Crude Fat, %	16.14		
		Phosphorus, %	3.710		
		Crude Protein, %	49.26		
	Soybean Meal		97F-00779		
		Ash, %	5.79	8	44
		Crude Protein, %	44.66		
	Soybean Meal		97F-00783		
		Ash, %	5.73	8	44
		Crude Protein, %	44.81		
	Soybean Meal		97F-04202		
		Crude Protein, %	45.61	44	
	Alfalfa Pellets		97F-04492		
		Crude Protein, %	16.57	15	
	Soybean Meal		97F-05910		
		Crude Protein, %	45.68	44	
	Soybean Meal		97F-06716		
		Ash, %	5.65	8	7 44
		Crude Fiber, %	4.93		
		Crude Protein, %	45.75		
	# Pheasant Brand Pig Grower		97F-06717		
		Crude Protein, %	17.64	16	40
		Tylosin, g/ton	20.650		
	Customer Formula Med Beef Feed Containing Monensin		97F-06732		
		Monensin, g/ton	1110.00	1200	
	Corn Distillers Dried Grains With Solubles		97F-07341		
		Crude Fiber, %	7.37	10	9 12 27
		Crude Fat, %	9.73		
		Karl Fisher Moisture, %	10.80		
		Crude Protein, %	29.11		
	# Pheasant Brand Feedlot 40-20 Concentrate R-500		97F-07349		
		Calcium, %	5.58	6-7	17 20 500 2 40 4-5
		Crude Fiber, %	6.37		
		Equiv Crude Protein, %	24.42		
		Monensin, g/ton	498.00		
		Potassium, %	2.280		
		Crude Protein, %	41.13		
		Salt (Sodium X 2.54), %	3.91	4-5	
		Vitamin A, IU/lb	15000	30000	DEFICIENT

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Manufacturer Location	Product	Analyte	Found	Claim	
	# Pheasant Brand Calf Creep B-68		97F-07350		
		Crude Fiber, %	14.74	18	
		Lasalocid, g/ton	61.400	68	
		Crude Protein, %	10.44	14	DEFICIENT
	Soybean Meal		97F-08164		
		Ash, %	5.62	8	
		Crude Protein, %	43.63	44	
	Soybean Meal		97F-08241		
		Ash, %	5.81	8	
		Crude Protein, %	45.67	44	
	Aureomycin-10		97F-08545		
		Chlortetracycline, g/lb	8.880	10	
	# Hub City's Pheasant Brand 36-14 B400 Medicated		97F-08742		
		Calcium, %	3.05	3-4	
		Crude Fiber, %	6.09	18	
		Equiv Crude Protein, %	13.46	14	
		Lasalocid, g/ton	358.000	400	
		Crude Protein, %	37.63	36	
		Salt (ChlorideX1.65), %	3.47	4-5	DEFICIENT
		Salt (Sodium X 2.54), %	3.44	4-5	DEFICIENT
		Vitamin A, IU/lb	13000	30000	DEFICIENT
	Soybean Meal		97F-08743		
		Ash, %	5.57	8	
		Crude Protein, %	44.20	44	
	# Hub City's Pheasant Brand 36-14 B400 Medicated		97F-08746		
		Calcium, %	2.58	3-4	DEFICIENT
		Crude Fiber, %	6.18	18	
		Equiv Crude Protein, %	13.11	14	
		Lasalocid, g/ton	375.000	400	
		Crude Protein, %	35.32	36	
		Salt (ChlorideX1.65), %	3.21	4-5	DEFICIENT
		Salt (Sodium X 2.54), %	3.28	4-5	DEFICIENT
		Vitamin A, IU/lb	9050	30000	DEFICIENT
Hubbard Feed Inc. Watertown, SD					
	Chlortetracycline Crumbles 10 G Medicated		97F-00312		
		Chlortetracycline, g/lb	10.030	10	
	14% Calf Creep - C B60 Medicated		97F-00314		
		Crude Fiber, %	9.70	15	
		Lasalocid, g/ton	67.000	60	
		Crude Protein, %	14.06	14	
	Commercial Feedlot 40-30 Custom Mix		97F-01381		
		Calcium, %	7.28	6.5-7.8	
		Crude Fiber, %	5.30	14	
		Equiv Crude Protein, %	28.50	30	
		Monensin, g/ton	305.00	350	
		Potassium, %	2.130	2	
		Crude Protein, %	42.17	40	
		Salt (Sodium X 2.54), %	4.75	4-5	
		Vitamin A, IU/lb	54000	40000	

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Manufacturer Location	Product	Analyte	Found	Claim	
	Commercial Feedlot 40-22 R400 Medicated		97F-04427		
		Calcium, %	7.03	6.5-7.5	
		Crude Fiber, %	6.62	14	
		Equiv Crude Protein, %	22.39	22	
		Monensin, g/ton	362.00	400	
		Potassium, %	2.210	2	
		Crude Protein, %	43.13	40	
		Salt (Sodium X 2.54), %	3.95	4-5	
		Vitamin A, IU/lb	33000	40000	
	# Lactation Dairy Cattle Supplement		97F-04428		
		Acid Detergent Fiber, %	3.45	3.7	
		Calcium, %	4.24	4.2-5.2	
		Equiv Crude Protein, %	3.64	4.6	
		Crude Fat, %	6.92	8.1	DEFICIENT
		Crude Protein, %	40.61	39.3	
		Salt (ChlorideX1.65), %	2.08	2.7-3.7	DEFICIENT
		Salt (Sodium X 2.54), %	6.17	2.7-3.7	EXCESSIVE
		Vitamin A, IU/lb	30000	32350	
	Complemix 8/21/97		97F-04931		
		Acid Detergent Fiber, %	16.57	16	
		Calcium, %	2.76	2.5-3	
		Crude Fiber, %	11.49	13.2	
		Equiv Crude Protein, %	3.75	3.7	
		Crude Fat, %	6.00	5.3	
		Crude Protein, %	31.29	30.7	
	# Nu-Tech 20:10 Mineral Mix		97F-05679		
		Calcium, %	21.63	20-24	
		Magnesium, %	2.22	3	DEFICIENT
		Phosphorus, %	10.400	10	
		Selenium, ug/g (ppm)	13.100	14	
		Vitamin A, IU/lb	387000	275000	
	# Min-Tech Rangeland B1440 Mineral Medicated		97F-05680		
		Calcium, %	14.02	12.7-15.2	
		Lasalocid, g/ton	943.000	1440	DEFICIENT
		Phosphorus, %	6.950	7.4	
		Potassium, %	2.170	2.2	
		Salt (Sodium X 2.54), %	20.15	19.3-23.1	
		Selenium, ug/g (ppm)	13.600	12.5	
		Vitamin A, IU/lb	109000	100000	
	Lean Era		97F-05822		
		Calcium, %	3.31	3-4	
		Crude Fat, %	5.05	5	
		Lysine - Total, %	2.360	2.6	
		Phosphorus, %	1.755	1.85	
		Crude Protein, %	36.91	35	
		Salt (Sodium X 2.54), %	2.03	1.8-2.3	
	Min-Tech Sweet Phos 12 Mineral		97F-05823		
		Calcium, %	13.97	12.3-14.7	
		Phosphorus, %	11.820	12	
		Salt (ChlorideX1.65), %	10.73	12.1-14.5	DEFICIENT
		Salt (Sodium X 2.54), %	10.93	12.1-14.5	
		Selenium, ug/g (ppm)	18.100	20	
		Vitamin A, IU/lb	173000	180000	
	Commercial Feedlot 40-20 B500 Medicated		97F-05825		
		Calcium, %	6.58	6.5-7.5	
		Crude Fiber, %	10.88	14	
		Equiv Crude Protein, %	21.50	22	
		Lasalocid, g/ton	437.000	500	
		Potassium, %	1.890	2	
		Crude Protein, %	40.42	40	
		Salt (Sodium X 2.54), %	3.79	4-5	
		Vitamin A, IU/lb	38000	40000	

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Manufacturer Location	Product	Analyte	Found	Claim	
	14% Calf Creep-C B60 Medicated		97F-07337		
		Crude Fiber, %	9.89	15	
		Lasalocid, g/ton	55.350	60	
		Crude Protein, %	14.35	14	
	Recharger II AS35 Stress Control Formula		97F-07338		
		Crude Fiber, %	20.01	22	
		Chlortetracycline, mg/lb	33.400	35	
		Equiv Crude Protein, %	1.50	2	
		Crude Protein, %	11.64	12	
		Sulfamethazine, mg/lb	34.60000	35	
	Lean Era		97F-07339		
		Calcium, %	3.38	3-4	
		Crude Fat, %	5.76	5	
		Lysine - Total, %	2.100	2.6	
		Crude Protein, %	35.28	35	
		Salt (Sodium X 2.54), %	2.00	1.8-2.3	
	18% Milk Maker II Complete Mixer		97F-07551		
		Acid Detergent Fiber, %	7.71	8.5	
		Equiv Crude Protein, %	4.18	3.3	
		Crude Protein, %	19.49	18	
	Custom 12% Energy Cake		97F-08168		
		Crude Protein, %	15.47	12	
	# Passage		97F-08531		
		Acid Detergent Fiber, %	5.93	6	
		Crude Protein, %	53.38	55	DEFICIENT
	40% Profit Maker Hog Hi-Fat		97F-08532		
		Calcium, %	4.59	3.7-4.7	
		Crude Fat, %	8.36	7	
		Lysine - Total, %	2.310	2.2	
		Crude Protein, %	40.44	40	
		Salt (Sodium X 2.54), %	2.64	2-2.5	
	Hubbard Commercial Feedlot 40-22 B500 Medicated		97F-08547		
		Calcium, %	6.17	6.5-7.5	
		Crude Fiber, %	13.19	14	
		Equiv Crude Protein, %	22.93	22	
		Lasalocid, g/ton	495.000	500	
		Potassium, %	2.350	2	
		Crude Protein, %	41.04	40	
		Salt (Sodium X 2.54), %	3.99	4-5	
		Vitamin A, IU/lb	44000	40000	
	# Hubbard Lean Cut PL-F		97F-08548		
		Calcium, %	3.29	3.4-4.4	
		Crude Fat, %	8.80	5	
		Lysine - Total, %	2.860	2.7	
		Phosphorus, %	1.740	2	DEFICIENT
		Crude Protein, %	40.15	40	
	Min-Tech 1:1 Mineral		97F-08556		
		Calcium, %	15.85	14.2-17	
		Phosphorus, %	14.990	16	
		Salt (Sodium X 2.54), %	7.68	7.1-8.5	
		Selenium, ug/g (ppm)	10.400	12.5	
		Vitamin A, IU/lb	142000	100000	
	39% Mor-Milk + Dairy Supplement		97F-08557		
		Calcium, %	1.72	1.5-2.5	
		Crude Protein, %	38.43	39	
		Salt (Sodium X 2.54), %	1.78	1.5-2.5	
		Vitamin A, IU/lb	55000	30000	

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Manufacturer Location	Product	Analyte	Found	Claim	
	Hubbard Chunk Style Dog Food		97F-08558		
		Fat: Acid Hydrolysis, %	7.96	8	
		Oven Moisture, %	6.72	12	
		Crude Protein, %	23.19	21	
	Commercial Feedlot 40-22 B500 Medicated		97F-08559		
		Calcium, %	7.30	6.5-7.5	
		Crude Fiber, %	12.40	14	
		Equiv Crude Protein, %	19.28	22	
		Lasalocid, g/ton	498.000	500	
		Potassium, %	2.250	2	
		Crude Protein, %	39.12	40	
		Salt (Sodium X 2.54), %	4.10	4-5	
		Vitamin A, IU/lb	55000	40000	
	Calf Starter Concentrate C100 Medicated		97F-08741		
		Acid Detergent Fiber, %	8.19	15	
		Calcium, %	2.62	2-2.5	
		Chlortetracycline, g/ton	100.000	100	
		Crude Protein, %	37.09	36	
		Salt (Sodium X 2.54), %	1.90	1.5-2	
		Vitamin A, IU/lb	43000	52000	
Hubbard Feeds, Inc. Mankato, MN					
	Min-Tech Cattle Prep Mineral		97F-00784		
		Calcium, %	12.67	11.8-14.1	
		Iodine, ppm	100.000	100	
		Phosphorus, %	11.750	12	
		Salt (Sodium X 2.54), %	12.62	12.1-14.5	
		Selenium, ug/g (ppm)	19.700	20	
		Vitamin A, IU/lb	275750	300000	
	# 46-16 Pellets		97F-00882		
		Calcium, %	5.65	5.5-6.5	
		Crude Fiber, %	8.56	14	
		Crude Protein, %	41.62	40	
		Salt (ChlorideX1.65), %	2.15	3-4	DEFICIENT
		Salt (Sodium X 2.54), %	1.47	3-4	DEFICIENT
		Vitamin A, IU/lb	46000	40000	
	Sweet Chop Feed		97F-00986		
		Crude Protein, %	10.61	9	
	Hubbard 20% Hi Plains Cake		97F-01059		
		Calcium, %	2.28	2.3-2.8	
		Crude Protein, %	20.92	20	
	Hubbard 14% Calf Creep		97F-01060		
		Crude Fiber, %	8.95	15	
		Crude Protein, %	14.61	14	
	Happy Hound Dog Food		97F-01061		
		Crude Fat, %	17.68	10	
		Oven Moisture, %	6.49	12	
		Crude Protein, %	27.83	27	
	# Multu M Cattle Prep		97F-01073		
		Calcium, %	16.52	12-14.4	EXCESSIVE
		Iodine, %	0.015	0.0185	
		Phosphorus, %	11.580	12	
		Salt (Sodium X 2.54), %	15.07	12-14.4	
		Selenium, ug/g (ppm)	36.900	35	
		Vitamin A, IU/lb	434000	300000	
		Zinc, %	1.38	1.2	

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Manufacturer Location	Product	Analyte	Found	Claim	
	# Hubbard Commercial Feed Lot 32 B400 Medicated		97F-01743		
		Calcium, %	4.33	4-5	
		Crude Fiber, %	14.08	14	
		Lasalocid, g/ton	384.000	400	
		Crude Protein, %	30.66	32	DEFICIENT
		Salt (Sodium X 2.54), %	3.30	3-4	
		Vitamin A, IU/lb	39000	40000	
	# Tradition Ostrich/Rhea Breeder		97F-02959		
		Acid Detergent Fiber, %	14.72	12	EXCESSIVE
		Calcium, %	2.27	1.9-2.4	
		Crude Fiber, %	10.94	13	
		Crude Protein, %	20.53	21	
	Hubbard Advanced Developer		97F-03513		
		Crude Protein, %	12.60	12.2	
	Min-Tech Sweet Phos 15 Mineral		97F-04434		
		Calcium, %	14.35	12.3-14.7	
		Phosphorus, %	13.970	15	
		Salt (ChlorideX1.65), %	8.23	8.9-10.7	
		Salt (Sodium X 2.54), %	8.51	8.9-10.7	
		Selenium, ug/g (ppm)	20.300	12	
		Vitamin A, IU/lb	214000	149000	
	Grolean		97F-06041		
		Calcium, %	1.66	1.2-2	
		Crude Fiber, %	8.79	12	
		Lasalocid, g/ton	57.000	60	
		Crude Protein, %	17.73	16	
	Lean Beef M27R267 Custom		97F-08310		
		Monensin, g/ton	235.00	267	
	16% Rangeland Cake		98F-00017		
		Calcium, %	2.35	2.2	
		Crude Protein, %	16.66	16	
		Vitamin A, IU/lb	45000	30000	
	39% Mor-Milk +		98F-00018		
		Calcium, %	1.65	1.5-2.5	
		Crude Protein, %	38.51	39	
		Salt (Sodium X 2.54), %	1.67	1.5-2.5	
		Vitamin A, IU/lb	36000	30000	
	Summit +		98F-00019		
		Crude Fat, %	6.40	6	
		Crude Protein, %	37.13	38	
		Vitamin A, IU/lb	38000	30000	
	Lean Start 11-20 Complete Mx50 Medicated		98F-00020		
		Crude Fat, %	5.17	5	
		Crude Protein, %	20.78	19.5	
Hubbard Feeds, Inc.					
Rapid City, SD					
	15% SH-Beef Ration		97F-00279		
		Crude Fiber, %	12.89	15	
		Crude Protein, %	15.87	15	
	# Cottonseed Cake		97F-00884		
		Crude Fiber, %	10.50	13	
		Crude Protein, %	28.85	30	DEFICIENT
		Salt (Sodium X 2.54), %	1.60	1-2	
		Vitamin A, IU/lb	29000	30000	

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Manufacturer Location	Product	Analyte	Found	Claim	
	Pelleted Midds Mix		97F-01863		
		Crude Fiber, %	6.94	10	
		Crude Protein, %	15.58	15	
	14% Stress Relief Cake		97F-01864		
		Crude Fiber, %	8.33	10	
		Crude Protein, %	13.65	14	
	Bloom-N-Gro		97F-02201		
		Crude Protein, %	20.40	19	
	14% Calf Creep C50 Medicated		97F-02955		
		Crude Fiber, %	7.36	15	
		Chlortetracycline, g/ton	51.700	50	
		Crude Protein, %	15.54	14	
	Tradition 14% Horse Crunch		97F-02957		
		Crude Protein, %	15.98	14	
	16% Lamb Creep C50 Medicated		97F-02958		
		Chlortetracycline, g/ton	43.600	50	
		Crude Protein, %	16.20	16	
	Sweet Chop Feed		97F-02960		
		Crude Protein, %	11.42	9	
	14% Calf Creep B60 Medicated		97F-06718		
		Crude Fiber, %	7.68	15	
		Lasalocid, g/ton	51.200	60	
		Crude Protein, %	16.04	14	
	Soybean Meal 47% Protein		97F-06719		
		Crude Fiber, %	3.05	3.5	
		Crude Protein, %	48.21	47	
	# 30% Cottonseed Cake		97F-07851		
		Crude Fiber, %	13.85	12	EXCESSIVE
		Crude Protein, %	28.33	30	DEFICIENT
		Vitamin A, IU/lb	23500	30000	
Hubbard Milling Company					
Whitewood, SD					
	Sheep-Lyx		97F-02564		
		Calcium, %	1.68	1.5-2	
		Fat: Roesse Gottlieb, %	5.70	5	
		Iodine, ppm	40.000	14	
		Potassium, %	3.840	4	
		Crude Protein, %	16.93	16	
		Selenium, ug/g (ppm)	4.160	4.4	
		Vitamin A, IU/lb	72000	50000	
	# Crystalyx HE 20%		97F-08191		
		Equiv Crude Protein, %	8.22	8	
		Fat: Roesse Gottlieb, %	5.07	5	
		Potassium, %	3.260	4	DEFICIENT
		Crude Protein, %	21.14	20	
		Selenium, ug/g (ppm)	4.240	4.4	
		Vitamin A, IU/lb	68000	80000	
Hunting Elevator Company					
Austin, MN					
	Maxi 15/25 806H-60A Medicated		97F-06283		
		Carbadox, %	0.00490	0.0055	
		Crude Fat, %	5.43	6	
		Crude Protein, %	22.68	20	

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Manufacturer Location	Product	Analyte	Found	Claim	
Inland Protein Corporation					
Dubuque, IA					
	AP301G Spray Dried Animal Blood Cells		97F-01252		
	Crude Protein, %		93.64	92	
International Nutrition					
Omaha, NE					
	Tylan 10 Type B Medicated Feed		97F-00133		
	Calcium, %		11.25	9.5-11.4	
	Crude Fiber, %		27.24	35.5	
	Tylosin, g/lb		9.340	10	
	Type B Medicated Tylosin		97F-05756		
	Calcium, %		10.09	9.5-11.4	
	Crude Fiber, %		27.18	35.5	
	Tylosin, g/lb		8.210	10	
	Tylan 10		97F-06281		
	Tylosin, g/lb		8.525	10	
	# Type B Medicated Arsanilic Acid 4.5		97F-06485		
	Arsanilic Acid, %		1.100	1	
	Magnesium, %		1.98	3	DEFICIENT
Jensen Bros					
Sioux Falls, SD					
	# Jensens Swine Base Master (F)		97F-01368		
	Calcium, %		22.65	19-22.8	
	Iodine, %		0.007	0.005	
	Phosphorus, %		7.730	9.24	DEFICIENT
	Salt (Sodium X 2.54), %		11.23	12	
	Vitamin A, IU/lb		134000	100000	
John Morrell & Company					
Sioux City, IA					
	50% Meat & Bone Meal		97F-00415		
	Calcium, %		10.04	8.4-10	
	Crude Fat, %		8.48	6	
	Phosphorus, %		4.740	4	
	Crude Protein, %		51.25	50	
	Blood Meal		97F-01833		
	Crude Protein, %		87.87	85	
	50% Meat & Bone Meal		97F-05580		
	Calcium, %		8.78	8.4-10	
	Crude Fat, %		10.89	6	
	Phosphorus, %		4.170	4	
	Crude Protein, %		52.44	50	
	50% Meat & Bone Meal		97F-08738		
	Calcium, %		8.90	8.4-10	
	Crude Fat, %		10.98	6	
	Phosphorus, %		4.260	4	
	Crude Protein, %		51.00	50	
Kal Kan Foods Inc					
Vernon, CA					
	Pedigree Mealtime Small Crunchy Bites Dog Food		97F-07483		
	Fat: Acid Hydrolysis, %		10.50	8	
	Oven Moisture, %		9.54	12	
	Crude Protein, %		21.84	21	

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Manufacturer Location	Product	Analyte	Found	Claim	
	Whiskas Original Recipe Crave		97F-07484		
		Fat: Acid Hydrolysis, %	8.81	8	
		Oven Moisture, %	8.86	12	
		Crude Protein, %	31.65	30	
		Taurine - Free, %	0.090	0.1	
	Pedigree with Chopped Beef Dog Food		97F-08550		
		Crude Fat, %	9.16	6	
		Oven Moisture, %	77.96	78	
		Crude Protein, %	8.05	8	
	Whiskas Ground Mealtime		97F-08648		
		Ash, %	2.62	3	
		Crude Fat, %	8.80	5	
		Oven Moisture, %	76.97	78	
		Crude Protein, %	9.99	9	
		Taurine - Free, %	0.062	0.05	
Kay Dee Feed Company					
Sioux City, IA					
	# Range Grazer 37		97F-01132		
		Calcium, %	5.98	4.5-5.5	
		Equiv Crude Protein, %	18.00	19	
		Crude Protein, %	41.61	37	
		Salt (ChlorideX1.65), %	14.03	14.5-17.4	
		Salt (Sodium X 2.54), %	14.55	14.5-17.4	
		Vitamin A, IU/lb	38333	60000	DEFICIENT
	Royal 12 Mineral		97F-03926		
		Calcium, %	13.43	11-13	
		Phosphorus, %	11.330	12	
		Salt (ChlorideX1.65), %	10.01	11-12	
		Salt (Sodium X 2.54), %	9.69	11-12	DEFICIENT
		Selenium, ug/g (ppm)	23.150	28	
		Vitamin A, IU/lb	98000	100000	
	# Super Ranger Calving Lactating Rebreeding Granules		97F-06725		
		Calcium, %	16.45	12.5-15	
		Phosphorus, %	11.310	12	
		Salt (Sodium X 2.54), %	17.58	15-18	
		Selenium, ug/g (ppm)	26.300	28	
		Vitamin A, IU/lb	27000	350000	DEFICIENT
	A-N-Dee		97F-08161		
		Calcium, %	10.32	8-9.6	
		Crude Fiber, %	4.08	11	
		Crude Protein, %	11.65	10	
		Salt (Sodium X 2.54), %	0.78	1-2	
		Vitamin A, IU/lb	2030000	2000000	
Kaytee Products Inc					
Chilton, WI					
	Kaytee Forti-Diet Rabbit Food		97F-00211		
		Crude Fiber, %	12.47	15	
		Oven Moisture, %	9.80	12	
		Crude Protein, %	18.49	17	
Kent Feeds Inc					
Muscatine, IA					
	Kent Protein Block 30%		97F-00980		
		Calcium, %	2.01	1.5-2	
		Crude Protein, %	31.35	30	
		Salt (Sodium X 2.54), %	10.63	11-13	
		Vitamin A, IU/lb	53000	50000	

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Manufacturer Location	Product	Analyte	Found	Claim	
	18% Golden Nuggets		97F-00981		
		Chlortetracycline, g/ton	91.400	100	
		Crude Protein, %	17.52	18	
		Sulfamethazine, %	0.01001	0.011	
	34 Lamb Supplement 150B Medicated		97F-01656		
		Calcium, %	3.28	2.5-3.5	
		Equiv Crude Protein, %	3.06	5.8	
		Lasalocid, g/ton	158.500	150	
		Crude Protein, %	34.11	34	
		Salt (Sodium X 2.54), %	2.26	2-2.5	
	16% Pig Gold CTC200 Medicated		97F-01657		
		Chlortetracycline, g/ton	189.000	200	
		Crude Protein, %	15.96	16	
	Hog 44 Supplement		97F-01658		
		Calcium, %	3.49	2.8-3.8	
		Lysine - Total, %	2.590	2.55	
		Crude Protein, %	45.12	44	
	GM Base Supplement		97F-07090		
		Calcium, %	3.90	3-4	
		Lysine - Total, %	1.990	2.45	
		Crude Protein, %	40.71	40	
	DeCocci Krumbles Medicated		97F-07091		
		Decoquate, %	0.0514	0.05	
KISS Milwaukee, WI					
	Wild Bird Seed Mixture		97F-08739		
		Oven Moisture, %	12.26	11.4	
		Crude Protein, %	9.28	8.5	
L/M Animal Farms Pleasant Plain, OH					
	Finch Vita-Vittles Gold		97F-00773		
		Crude Fat, %	8.79	7	
		Oven Moisture, %	8.74	10	
		Crude Protein, %	15.12	15.5	
Land O Lakes Ag Services Dawson, MN					
	# BosBuilder G Mineral		97F-00452		
		Calcium, %	14.90	13.7-16.4	
		Phosphorus, %	12.830	12.5	
		Salt (Sodium X 2.54), %	18.50	16-19.1	
		Selenium, ug/g (ppm)	20.150	24	
		Vitamin A, IU/lb	193000	300000	DEFICIENT
	Future Cow Supplement Boy Medicated		97F-08554		
		Acid Detergent Fiber, %	5.64	7	
		Calcium, %	2.10	2.1-2.6	
		Lasalocid, g/ton	264.000	275	
		Crude Protein, %	37.20	38	
		Vitamin A, IU/lb	65000	61500	
Madison Farmers Elevator Madison, SD					
	Hog Finisher Custom Mix		97F-01294		
		Chlortetracycline, g/ton	54.200	50	

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Manufacturer Location	Product	Analyte	Found	Claim	
Madison Milling Company					
Madison, MN					
	Madison's Best Calf Creep B-60 Medicated		97F-08825		
	Crude Fiber, %		14.27	15	
	Lasalocid, g/ton		59.250	60	
	Crude Protein, %		13.72	12	
Master Mix Feeds					
Fort Wayne, IN					
	Master Mix 21% Lamb Pre-Starter 929-03A		97F-01367		
	Crude Fiber, %		9.04	12	
	Chlortetracycline, g/ton		55.000	50	
	Crude Protein, %		22.21	21	
	TM Crumbles F1592 Medicated		97F-01654		
	Oxytetracycline, g/lb		3.650	4	
	# Mineral 10-10 Block for Beef S5615/M7831		97F-01655		
	Calcium, %		11.06	9.6-11.6	
	Phosphorus, %		10.510	10	
	Salt (Sodium X 2.54), %		4.63	3.5-4.5	
	Selenium, %		0.002	0.005	DEFICIENT
	Vitamin A, IU/lb		13000	80000	DEFICIENT
McFleeg Inc					
Watertown, SD					
	# Elite Second Bite CSP Medicated		97F-05677		
	Chlortetracycline, g/ton		71.600	100	
	Crude Protein, %		21.19	21	
	Sulfathiazole, g/ton		60.100	100	DEFICIENT
Merck & Company Inc					
Rahway, NJ					
	Amprol 25%		97F-00275		
	Amprolium, %		25.8500	25	
Midwest Cooperatives					
Onida, SD					
	# Custom Grower Custom Pig Feed		97F-01063		
	Tylosin, g/ton		146.000	100	EXCESSIVE
	Corn & Beef Supplement Medicated		97F-06824		
	Lasalocid, g/ton		75.350	63	
	Tylosin, g/ton		<10.000	0	
Midwest Livestock LTD					
Larchwood, IA					
	Grow Fin 75		97F-06548		
	Calcium, %		16.52	15-18	
	Phosphorus, %		7.110	7.4	
	Salt (Sodium X 2.54), %		10.12	10-12	
	Start 800		97F-06549		
	Calcium, %		1.95	1.7-2.1	
	Crude Fat, %		4.81	5	
	Lysine - Total, %		1.980	2.2	
	Crude Protein, %		26.06	24	

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Manufacturer Location	Product	Analyte	Found	Claim		
Midwest PMS Minatore, NE	# CM 149		97F-00273			
		Calcium, %	9.65	9.5-10		
		Equiv Crude Protein, %	58.06	58		
		Vacuum Moisture, %	33.56	33		
		Monensin, g/ton	347.00	425		
		Crude Protein, %	60.54	61		
		Salt (ChlorideX1.65), %	6.85	4.75-5.25	EXCESSIVE	
		Salt (Sodium X 2.54), %	5.91	4.75-5.25	EXCESSIVE	
		Tylosin, g/ton	86.033	115		
		Vitamin A, IU/lb	20000	25000		
	# CM 236		97F-00274			
			Equiv Crude Protein, %	9.25	6	EXCESSIVE
			Vacuum Moisture, %	38.75	39	
			Crude Protein, %	18.32	15	
		Salt (ChlorideX1.65), %	6.65	4-4.5	EXCESSIVE	
		Salt (Sodium X 2.54), %	9.96	4-4.5	EXCESSIVE	
		Vitamin A, IU/lb	27500	40000	DEFICIENT	
Dakota Mill & Grain Custom Mix 683		97F-00601				
	Vacuum Moisture, %	34.23	36			
Mighty Deer Lick Powers, MI						
	Mighty Deer Lick Sweet Corn	97F-00214				
	Salt (ChlorideX1.65), %	92.19	93-98			
	Salt (Sodium X 2.54), %	88.12	93-98			
Millbrook Feed Mill Mitchell, SD						
	12% Horse Feed	97F-00998				
	Crude Protein, %	14.05	12			
	Range 7 Mineral	97F-00999				
	Calcium, %	6.66	6.5-7.5			
	Phosphorus, %	8.390	9			
	Crude Protein, %	25.17	25			
	Vitamin A, IU/lb	196000	200000			
	Moorman Inc Columbus, NE					
		Moorman Special Mix 492	97F-00301			
Calcium, %		11.14	10-12			
Crude Protein, %		60.93	62			
Salt (Sodium X 2.54), %		3.42	2.5-3.5			
	Vitamin A, IU/lb	57000	53400			
Moorman Inc Quincy, IL						
	Hi-Phos Minerals	97F-01000				
	Calcium, %	12.39	11-13.2			
	Phosphorus, %	12.380	12			
	Salt (Sodium X 2.54), %	15.07	14-16.8			
	Selenium, ug/g (ppm)	43.900	39			
	Vitamin A, IU/lb	500000	200000			

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Manufacturer Location	Product	Analyte	Found	Claim	
	Mintrate Block Blonde A		97F-01001		
		Calcium, %	3.48	2.5-3.5	
		Iodine, %	0.004	0.0015	
		Non-Protein Nitrogen, %	10.00	12	
		Crude Protein, %	42.07	42	
		Salt (Sodium X 2.54), %	4.22	3.5-4.5	
		Vitamin A, IU/lb	61000	60000	
	Quick Start Grower 35-60 WDC Type C		97F-01002		
		Carbadox, g/ton	48.10000	50	
		Crude Protein, %	19.59	18	
		Pyrantel Tartrate, g/ton	94.80000	96	
	Special Range Minerals A		97F-01075		
		Calcium, %	19.08	17.4-20.8	
		Phosphorus, %	8.370	8	
		Salt (Sodium X 2.54), %	15.04	13.5-16.2	
		Selenium, ug/g (ppm)	37.100	39	
		Vitamin A, IU/lb	212000	200000	
	# Hi-Mag Minerals		97F-04327		
		Calcium, %	10.52	9.2-11	
		Magnesium, %	13.61	14	
		Phosphorus, %	7.060	6	
		Salt (ChlorideX1.65), %	10.94	13.4-16	DEFICIENT
		Salt (Sodium X 2.54), %	11.10	13.4-16	DEFICIENT
		Selenium, ug/g (ppm)	32.800	39	
		Vitamin A, IU/lb	87000	200000	DEFICIENT
	Roughage Buster 100		97F-04357		
		Calcium, %	7.34	6.4-7.4	
		Equiv Crude Protein, %	102.20	100	
		Phosphorus, %	5.610	5.6	
		Salt (ChlorideX1.65), %	6.41	5-6	
		Salt (Sodium X 2.54), %	6.89	5-6	EXCESSIVE
		Vitamin A, IU/lb	188000	200000	
Muellers Feed Mill Martin, SD					
	# Beef Ranger 20 MAG		97F-01645		
		Crude Fiber, %	6.58	12	
		Magnesium, %	1.02	2	DEFICIENT
		Crude Protein, %	19.99	20	
		Vitamin A, IU/lb	22000	30000	
	# 12% Hi-N.R.G. Grass S-t-r-e-t-c-h-e-r		97F-01646		
		Calcium, %	1.93	3-4	DEFICIENT
		Iodine, %	0.000	0.003	DEFICIENT
		Crude Protein, %	12.22	12	
		Salt (ChlorideX1.65), %	15.31	13-15	
		Salt (Sodium X 2.54), %	13.30	13-15	
		Vitamin A, IU/lb	18000	20000	
Nash Finch Minneapolis, MN					
	Dog Food		97F-07486		
		Fat: Acid Hydrolysis, %	9.66	8	
		Oven Moisture, %	8.17	12	
		Crude Protein, %	22.18	21	
National By-Products Inc Omaha, NE					
	Nationals 50% Meat & Bone Meal		97F-01327		
		Calcium, %	8.73	8.4-10.1	
		Crude Fat, %	9.02	6	
		Phosphorus, %	4.250	4	
		Crude Protein, %	49.33	50	

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Manufacturer Location	Product	Analyte	Found	Claim
Nelson & Sons Inc				
Murray, UT				
	Extruded Floating Silvercup Steelhead 3.5		97F-07909	
	Ash, %		8.12	12
	Fat: Roesse Gottlieb, %		15.15	16
	Crude Protein, %		46.23	45
	Sodium, %		0.38	0-2
	Extruded Floating Silvercup Trout 3.5		97F-07913	
	Ash, %		7.97	12
	Crude Fat, %		10.71	10
	Crude Protein, %		41.24	40
	Sodium, %		0.93	0-2
New Generation Feeds Inc				
Poteau, OK				
	Stress Lic		97F-08238	
	Calcium, %		2.58	2.3-2.8
	Crude Fat, %		4.95	5
	Phosphorus, %		1.950	2
	Crude Protein, %		24.21	22
	Selenium, ug/g (ppm)		9.327	6.6
	Vitamin A, IU/lb		84000	80000
Northern Sun				
Red Wing, MN				
	Sunflower Meal 28%		97F-03323	
	Crude Fiber, %		20.70	23
	Crude Protein, %		28.99	28
Nutra-Lix Inc				
Billings, MT				
	Custom 24% Nutra Lix		97F-02423	
	Equiv Crude Protein, %		0.46	14
	Iodine, %		0.001	0.0011
	Karl Fisher Moisture, %		40.10	37.5
	Crude Protein, %		26.40	24
	Vitamin A, IU/lb		34000	40000
Nutrition Specialties				
West Point, NE				
	Soy En-Dust		97F-00847	
	Crude Fat, %		99.83	100
Pedigree Inc				
Vernon, CA				
	Pedigree Choice Cuts with Beef		97F-08647	
	Oven Moisture, %		78.75	82
	Crude Protein, %		9.27	8
Pennfield Animal Health				
Omaha, NE				
	Pennchlor 50 Chlortetracycline		97F-01361	
	Chlortetracycline, g/lb		46.000	50

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Manufacturer Location	Product	Analyte	Found	Claim
Pennington Seed Natural Springs Div Madison, GA				
	Hummingbird Food		97F-02939	
		Vacuum Moisture, %	99.84	99.9
Pfizer Animal Health Lee's Summit, MO				
	TM-50 Type A		97F-01074	
		Oxytetracycline, g/lb	50.400	50
	OTC-10 Type B Medicated		97F-05768	
		Oxytetracycline, g/lb	10.300	10
Premier Farmtech Kansas City, MO				
	Tylan-10 Sulfa-G Type B Medicated		97F-06488	
		Calcium, %	10.25	10.5-12.6
		Crude Fiber, %	24.90	30.4
		Sulfamethazine, g/lb	9.98000	10
		Tylosin, g/lb	8.840	10
Professional Pet Foods Meta, MO				
	Professional Lamb Meal & Rice Maintenance		97F-01746	
		Crude Fat, %		12
		Oven Moisture, %	6.20	10
		Crude Protein, %	23.74	21
Purina Mills Minneapolis, MN				
	Dairy Concentrate 38% WCS 1207		97F-07344	
		Acid Detergent Fiber, %	16.70	18
		Calcium, %	1.76	1.5-2.5
		Crude Fiber, %	12.95	12.5
		Equiv Crude Protein, %	6.80	8
		Crude Protein, %	37.30	38
	Maxi Tech 40 Milking Concentrate		97F-08830	
		Acid Detergent Fiber, %	7.83	12
		Calcium, %	3.14	3-4
		Crude Fiber, %	4.37	8.5
		Equiv Crude Protein, %	8.16	8
		Crude Protein, %	40.69	40
Purina Mills Sioux City, IA				
	Accuration 2 HL RM 130 3397 Medicated		97F-07345	
		Calcium, %	2.12	1-2
		Equiv Crude Protein, %	16.94	16
		Crude Fat, %	9.42	9
		Monensin, g/ton	120.00	130
		Crude Protein, %	33.67	32
		Salt (Sodium X 2.54), %	4.68	4.5-5.5
	Preconditioning/Receiving Chow CTSM 3152 Medicated		97F-07347	
		Crude Fiber, %	19.59	26
		Chlortetracycline, g/ton	61.900	70
		Equiv Crude Protein, %	2.54	2
		Crude Protein, %	12.60	12
		Sulfamethazine, %	0.00812	0.0077

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Manufacturer Location	Product	Analyte	Found	Claim		
Purina Mills St. Louis, MO	Horse Chow 100		97F-00598			
		Crude Fiber, %	19.26	30		
		Crude Protein, %	11.72	10		
	Purina Cattle Mineral 12:12 VA		97F-00600			
		Calcium, %	12.91	12-14		
		Iodine, %	0.007	0.0085		
		Phosphorus, %	11.680	12		
		Salt (Sodium X 2.54), %	3.00	3-4		
	Vitamin A, IU/lb	191000	150000			
	# Liquid Feed Sup-R-Lix Feedlot 50 EC Medicated R		97F-02502			
		Calcium, %	4.73			
		Equiv Crude Protein, %	54.62	49		EXCESSIVE
		Fat: Roese Gottlieb, %	3.44	5		DEFICIENT
		Monensin, g/ton	231.00	400		DEFICIENT
		pH	6.75			
		Potassium, %	1.950	2		
		Crude Protein, %	60.85	50		
		Salt (Sodium X 2.54), %	4.47	3.5-4.5		
		Vitamin A, IU/lb	19000	25000		
	Hog Chow 40 W/O 2880		97F-06494			
		Calcium, %	4.49	3.5-4.5		
Lysine - Total, %		2.310	2.33			
Crude Protein, %		39.23	40			
Salt (Sodium X 2.54), %	2.52	1.75-2.25				
Cattle Mineral 12:12 VA 3794		97F-06495				
	Calcium, %	13.30	12-14			
	Phosphorus, %	11.650	12			
	Salt (Sodium X 2.54), %	3.54	3-4			
Vitamin A, IU/lb	205000	150000				
# A-S 700 ETTS 0186		97F-06496				
	Ash, %	24.73	19		EXCESSIVE	
	Calcium, %	6.36	5.1-6.5			
	Crude Fiber, %	9.58	27.9			
	Chlortetracycline, g/lb	1.620	2			
	Salt (Sodium X 2.54), %	3.99	3.8-4.2			
Sulfamethazine, g/lb	2.14000	2				
Purina Accuration 2HL RM130		97F-06730				
	Calcium, %	2.23	1-2			
	Equiv Crude Protein, %	16.09	16			
	Crude Fat, %	10.54	9			
	Monensin, g/ton	124.00	130			
	Crude Protein, %	32.21	32			
Salt (Sodium X 2.54), %	4.68	4.5-5.5				
Preconditioning Receiving Chow CTSM		97F-06731				
	Crude Fiber, %	14.06	26			
	Equiv Crude Protein, %	2.55	2			
Crude Protein, %	12.90	12				
Purina Mills Inc Aberdeen, SD	Custom Accu Mix		97F-07346			
		Fat: Acid Hydrolysis, %	6.15			
		Monensin, g/ton	28.50	32.5		

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Manufacturer Location	Product	Analyte	Found	Claim	
Quality Liquid Feed Inc					
Ft. Dodge, IA					
	# Nutribeeff 50 M Medicated		97F-00416		
	Calcium, %		7.13	7.3-8.7	
	Equiv Crude Protein, %		49.55	46	EXCESSIVE
	Vacuum Moisture, %		35.47	32	
	Monensin, g/ton		372.00	450	
	pH		6.60		
	Potassium, %		3.670	3.5	
	Crude Protein, %		52.76	50	
	Salt (ChlorideX1.65), %		7.53	2-3	EXCESSIVE
	Salt (Sodium X 2.54), %		2.93	2-3	
	Total Sugars, %		10.81	7	
	Vitamin A, IU/lb		22000	30000	
Quality Liquid Feeds Inc					
Dodgeville, WI					
	Super 40C		97F-07522		
	Equiv Crude Protein, %		34.03	35	
	Karl Fisher Moisture, %		37.10	34	
	Crude Protein, %		40.07	40	
	Total Sugars, %		27.12	29	
	Vitamin A, IU/lb		28000	30000	
	# Nutribeeff 50 HM450 Medicated		97F-08737		
	Calcium, %		7.71	7.3-8.7	
	Equiv Crude Protein, %		49.83	46	EXCESSIVE
	Karl Fisher Moisture, %		33.80	32	
	Monensin, g/ton		432.00	450	
	pH		7.40	6-8	
	Potassium, %		3.450	3.5	
	Crude Protein, %		53.76	50	
	Salt (ChlorideX1.65), %		4.99	2-3	EXCESSIVE
	Salt (Sodium X 2.54), %		4.09	2-3	EXCESSIVE
	Total Sugars, %		9.30	6	
	Vitamin A, IU/lb		39000	40000	
Ragland Mills Inc					
Neosho, MO					
	Ragland Special Sheep & Goat Protein Block		97F-08831		
	Calcium, %		4.20	3.5-4.5	
	Crude Protein, %		19.47	18	
	Salt (Sodium X 2.54), %		16.87	17-20	
	Vitamin A, IU/lb		51000	50000	
Ralston Purina Company					
St. Louis, MO					
	Cat Chow		97F-00210		
	Crude Fat, %		11.62	8	
	Oven Moisture, %		8.88	12	
	Crude Protein, %		34.08	31.5	
	Tender Vittles Soft Tuna Flavor Dinners		97F-07485		
	Fat: Acid Hydrolysis, %		10.18	8.5	
	Oven Moisture, %		37.75	39	
	Crude Protein, %		25.39	24	
	Fishy's Cat Treats		97F-08749		
	Crude Fat, %		9.86	8.5	
	Oven Moisture, %		32.08	36	
	Crude Protein, %		31.01	24	

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Manufacturer Location	Product	Analyte	Found	Claim	
Ramona Warehouse					
Ramona, SD					
	Dry Whole Extruded Soybeans #9019		97F-03922		
		Crude Fat, %	19.90	18	
		Crude Protein, %	37.38	36	
	Ramona Horse Feed		97F-03923		
		Crude Fat, %	7.64	5	
		Crude Protein, %	16.68	13	
Rhone-Poulenc Animal Nutrition					
Atlanta, GA					
	Deccox		97F-00278		
		Decoquate, %	5.7300	6	
Roche Vitamins & Fine Chemicals					
Parsippany, NJ					
	# Aureo S 700		97F-00276		
		Chlortetracycline, g/lb	32.350	35	
		Sulfamethazine, %	4.38000	7.7	DEFICIENT
	Bovatec 68 Type A		97F-07904		
		Lasalocid, g/lb	70.000	68	
Rudebusch Bros					
Castlewood, SD					
	Dry Extruded Whole Soybeans No. 9020		97F-00411		
		Crude Fat, %	18.47	18	
		Crude Protein, %	37.32	36	
Schempp Liquifeeds Inc					
Menno, SD					
	Sun Drop Liquifeed		97F-06493		
		Ash, %	8.46	10	
		Equiv Crude Protein, %	27.31	31	
		Vacuum Moisture, %	41.80	43	
		Crude Protein, %	32.93	30	
		Total Sugars, %	25.71	25	
Scranton Equity Exchange					
Scranton, ND					
	Breeder Ewe Feed		97F-01067		
		Crude Protein, %	12.61	12	
Scrypton Systems Inc					
Annapolis, MD					
	# Squirrel Away All Natural Bird Seed Supplement		97F-00216		
		Crude Fiber, %	23.76	21	EXCESSIVE
		Crude Fat, %	12.51	13	
		Oven Moisture, %	11.60	6	EXCESSIVE
		Crude Protein, %	14.19	16	DEFICIENT
SD Soybean Processors					
Volga, SD					
	Soybean Meal		97F-00127		
		Oven Moisture, %	11.76	12	
		Crude Protein, %	47.37	44	

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Manufacturer Location	Product	Analyte	Found	Claim	
	Soybean Meal 47%		97F-00311		
	Crude Protein, %		46.39	47	
	Soybean Meal 44%		97F-01296		
	Crude Protein, %		47.74	44	
	Soybean Meal		97F-01835		
	Crude Protein, %		46.74	46.5	
	47% Soybean Meal		97F-05582		
	Crude Fiber, %		3.54	7	
	Crude Protein, %		46.25	47	
	44% Soybean Meal		97F-06804		
	Crude Fiber, %		5.42	7	
	Crude Protein, %		45.40	44	
	47% Soybean Meal		97F-07526		
	Crude Fiber, %		2.66	3.5	
	Crude Protein, %		46.93	47	
	Ground Soybean Hulls		97F-08829		
	Crude Fiber, %		36.02	38	
	Crude Protein, %		9.38	9	
Shurfine International					
Northlake, IL					
	Shurfine Dog Food Beef Flavor		97F-08646		
	Oven Moisture, %		76.51	78	
	Crude Protein, %		8.25	8	
Sioux Nation Ag Center					
Sioux Falls, SD					
	ICN W/Mecadox Medicated		97F-01364		
	Carbadox, g/ton		46.00000	50	
	Crude Fat, %		7.18	7.75	
	Crude Protein, %		22.88	23	
Sioux Nation Ag Center					
Watertown, SD					
	Profit Maker Free Choice Cattle Mineral Medicated		97F-05678		
	Calcium, %		16.29	15-16	
	Lasalocid, g/ton		1290.000	1440	
	Phosphorus, %		6.820	6.7	
	Potassium, %		1.970	2	
	Salt (Chloride X 1.65), %		18.69	18-19	
	Salt (Sodium X 2.54), %		16.09	18-19	DEFICIENT
	Selenium, ug/g (ppm)		19.950	24	
	Vitamin A, IU/lb		269000	300000	
Standard Manufacturing Company					
Omaha, NE					
	# Super Nutro Plus for Ruminants		97F-01287		
	Crude Protein, %		18.45	12	
	Selenium, ug/g (ppm)		53.100	70	
	Vitamin A, IU/lb		1384000	2000000	DEFICIENT
Supersweet Feeds					
Le Mars, IA					
	Supersweet Rough-N-Ready Medicated 2353		97F-06805		
	Crude Fiber, %		19.30	22	
	Lasalocid, g/ton		30.400	30	
	Crude Protein, %		15.33	14	

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Manufacturer Location	Product	Analyte	Found	Claim	
Supersweet Feeds Omaha, NE					
	Total Balance Builder 1422 Medicated		97F-05749		
	Acid Detergent Fiber, %		7.95	8	
	Calcium, %		3.27	3-4	
	Decoquinate, g/ton		100.6000	105	
	Crude Protein, %		33.10	32	
	Salt (Sodium X 2.54), %		2.05	1.5-2.5	
	Vitamin A, IU/lb		27000	20000	
	# 8470 Feedlot Charger Medicated		97F-05750		
	Crude Fiber, %		12.50	15	
	Chlortetracycline, mg/lb		1217.333	2100	DEFICIENT
	Crude Protein, %		15.18	12	
	Sulfamethazine, mg/lb		2132.00000	2100	
	Vitamin A, IU/lb		211000	200000	
	0445 Enerpro Layer Concentrate		97F-05752		
	Calcium, %		4.10	4.25-5.25	
	Lysine - Total, %		1.910	2.15	
	Methionine - Total, %		0.880	0.95	
	Crude Protein, %		40.75	40	
	# Forecaster G Medicated		97F-05765		
	Calcium, %		3.57	3-4	
	Lasalocid, g/ton		380.000	400	
	Crude Protein, %		36.90	38	DEFICIENT
	Salt (Sodium X 2.54), %		4.34	3.5-4.5	
	Vitamin A, IU/lb		42000	45000	
	# Cat Food Feline Blend		97F-05766		
	Ash, %		7.70	6.5	EXCESSIVE
	Crude Fat, %		10.82	10	
	Oven Moisture, %		7.86	12	
	Crude Protein, %		31.95	30	
	# 0556 Enerpro Broiler Concentrate Medicated		97F-05767		
	Amprolium, %		0.0257	0.034	DEFICIENT
	Calcium, %		3.34	2.5-3.5	
	Crude Fat, %		5.95	6	
	Lysine - Total, %		1.730	2.8	DEFICIENT
	Methionine - Total, %		0.998	1.1	
	Crude Protein, %		41.61	40	
Shurfine International Northlake, IL					
	Shurfine Supper Supreme for Cats		97F-00268		
	Ash, %		3.12	3.5	
	Crude Fat, %		7.60	5	
	Oven Moisture, %		72.91	78	
	Crude Protein, %		13.53	10	
Terra Nitrogen Corp Tulsa, OK					
	Urea Liquor STCC 2818146		97F-00134		
	Non-Protein Nitrogen, %		33.25	32	
	Urea, %		71.16	70	
Tetra Sales Blacksburg, VA					
	Tetra Min Flake Food for all Tropical Fish		97F-00180		
	Crude Fat, %		6.43	5	
	Oven Moisture, %		6.31	6	
	Crude Protein, %		49.98	45	

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Manufacturer Location	Product	Analyte	Found	Claim
Tradition Feed Products Company				
Mankato, MN				
	Tradition Complete Horse Power Pellet		97F-00985	
	Crude Fiber, %		11.21	20
	Crude Protein, %		13.81	12.5
	Tradition 17% Egg Layer		97F-02202	
	Calcium, %		3.70	2.9-3.9
	Methionine - Total, %		0.323	0.3
	Crude Protein, %		16.63	17
	Tradition 17% Chick Grower AM/BMD18		97F-02954	
	Amprolium, %		0.0115	0.0125
	Methionine - Total, %		0.270	0.3
	Crude Protein, %		18.01	17
	OptiCare Amprol Crumbles Medicated		97F-05824	
	Amprolium, g/lb		3.9900	4.54
	Amprol Crumbles		97F-06720	
	Amprolium, %		1.1000	1.25
Vigortone Ag Products Inc				
Cedar Rapids, IA				
	Select Sow S10		97F-01417	
	Calcium, %		19.16	19-22.8
	Phosphorus, %		11.740	11.8
	Salt (Sodium X 2.54), %		10.52	9.5-11.4
	Selenium, ug/g (ppm)		5.165	5
	Vitamin A, IU/lb		153000	114600
	Vigorfat 80		97F-01418	
	Crude Fat, %		98.06	80
	Oven Moisture, %		0.13	6
	Pig Blender		97F-01419	
	Crude Fat, %		18.65	18
	Lysine - Total, %		2.310	2.7
	Crude Protein, %		33.42	33
	Salt (Sodium X 2.54), %		2.26	1.9-2.4
Vigortone Ag Products Inc				
Fremont, NE				
	Vigortone Bovotone No. 32SCTC Medicated		97F-01289	
	Calcium, %		14.15	13.5-16.2
	Chlortetracycline, g/lb		1.130	1.4
	Phosphorus, %		6.740	7
	Salt (Sodium X 2.54), %		19.46	18.2-21.8
	Selenium, ug/g (ppm)		27.000	26.4
	Vitamin A, IU/lb		313000	300000
Wal-Mart Stores Inc				
Bentonville, AR				
	Special Kitty Select		97F-01838	
	Oven Moisture, %		76.29	78
	Crude Protein, %		14.08	13
	Taurine - Free, %		0.100	0.05
	Special Kitty Select Savory Salmon Entree for Cats		97F-02937	
	Ash, %		3.49	3.5
	Oven Moisture, %		77.63	78
	Crude Protein, %		13.91	12
	Taurine - Free, %		0.048	0.05

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Manufacturer Location	Product	Analyte	Found	Claim	
Watertown Coop Elevator					
Watertown, SD					
	Swine Concentrate Custom Mix		97F-01379		
	Tylosin, g/ton		23.800	20	
	Swine Concentrate Custom Mix		97F-01380		
	Chlortetracycline, g/ton		92.600	100	
	Sulfathiazole, g/ton		94.400	100	
	Custom Mix Feed		97F-03238		
	Carbadox, g/ton		45.85000	50	
	Pyrantel Tartrate, g/ton		85.35000	96	
West Plains Grain					
Oelrichs, SD					
	44% Soybean Meal		97F-00272		
	Crude Protein, %		46.38	44	
Western Feed Company					
Belle Fourche, SD					
	411 W Calf Ration Medicated		97F-07620		
	Decoquinatate, %		0.0043	0.005	
	Crude Protein, %		19.56	20	
	Elk Flushing Ration		97F-07621		
	Crude Fat, %		7.09	5	
	Crude Protein, %		16.53	15	
	Cocci Meal Medicated		97F-07622		
	Decoquinatate, %		0.1250	0.125	
Western Ranch Products					
Gering, NE					
	# Western Trail Boss 15		97F-04050		
	Calcium, %		12.26	11.5-13.5	
	Phosphorus, %		14.740	15	
	Potassium, %		2.030	2	
	Salt (ChlorideX1.65), %		8.21	4.5-5.5	EXCESSIVE
	Salt (Sodium X 2.54), %		6.05	4.5-5.5	
	Selenium, %		0.002	0.002	
	Vitamin A, IU/lb		130000	300000	DEFICIENT
	Western Ruffage-Mate 52		97F-04051		
	Calcium, %		2.42	2-3	
	Equiv Crude Protein, %		6.56	7	
	Phosphorus, %		2.470	2	
	Crude Protein, %		51.22	52	
	Salt (Sodium X 2.54), %		10.11	9.5-11	
	Selenium, ug/g (ppm)		6.455	6	
	Vitamin A, IU/lb		61000	60000	
Wildwood Farms					
Clinton, IA					
	Munch Mix Wildwood Farms Inc		97F-00213		
	Crude Fiber, %		7.51	23	
	Crude Fat, %		23.43	20	
	Crude Protein, %		14.51	12	
Windy Hill Pet Food Company					
Brentwood, TN					
	Tuffys High Protein Meal Dog Food		97F-08549		
	Fat: Acid Hydrolysis, %		10.51	10	
	Oven Moisture, %		8.66	12	
	Crude Protein, %		26.86	26	

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Manufacturer Location	Product	Analyte	Found	Claim		
Winner Circle Feeds Mitchell, SD	T Trace Mineral		97F-00997			
		Iodine, %	0.005	0.007		
		Salt (Sodium X 2.54), %	19.85	18-22		
Woodys Dickinson, ND	Imperial Dairy Ration 16 A-N		97F-06726			
		Crude Protein, %	17.75	16		
Yaggies Inc Yankton, SD	# Beef Starter 12		97F-01131			
		Crude Fiber, %	18.19	17		
		Chlortetracycline, mg/lb	248.500	70	EXCESSIVE	
		Crude Protein, %	11.00	12	DEFICIENT	
		Sulfamethazine, %	0.00748	0.0154	DEFICIENT	
Zapata Protein (USA) Inc Maneville, LA	Fishmeal		97F-01250			
		Crude Fat, %	8.19	6		
		Crude Protein, %	64.05	60		
Zip Feed Mills Huron, SD	ZIP Nat-Pro Block 24%		97F-00002			
		Calcium, %	1.31	1-2		
		Crude Protein, %	23.93	24		
		Salt (ChlorideX1.65), %	12.00	11-12		
		Salt (Sodium X 2.54), %	9.44	11-13	DEFICIENT	
		Vitamin A, IU/lb	78000	50000		
	Zip Liquid Supplement 50%		97F-00131			
		Equiv Crude Protein, %	43.62	44		
		Vacuum Moisture, %	42.89	45		
		Potassium, %	3.250	2.5		
		Crude Protein, %	52.00	50		
		Salt (ChlorideX1.65), %	3.45	3-4		
	Zip Calf Builder 14% TM-800 Special Medicated		97F-00132			
		Crude Fiber, %	13.23	15		
		Oxytetracycline, g/ton	768.000	800		
# Zip GMN Pork Pro 42% 444		97F-00306				
	Calcium, %	4.41	4-5			
	Lysine - Total, %	2.075	2.7	DEFICIENT		
	Phosphorus, %	2.170	2			
	Potassium, %	2.211	2.5			
	Crude Protein, %	41.10	42			
Zip High Fat Dairy 36% 207		97F-00413				
	Acid Detergent Fiber, %	10.96	15			
	Calcium, %	3.13	3-4			
	Crude Fat, %	10.40	10			
	Crude Protein, %	36.14	36			
	Salt (Sodium X 2.54), %	2.02	2.2-2.7			
	Vitamin A, IU/lb	17000	22000			

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Manufacturer Location	Product	Analyte	Found	Claim	
	Mol-Mix Prime Regulated Release 32K66		97F-00786		
		Equiv Crude Protein, %	21.50	25	
		Vacuum Moisture, %	33.72	34	
		Phosphorus, %	1.890	2	
		Crude Protein, %	31.60	32	
		Total Sugars, %	27.84	27	
		Vitamin A, IU/lb	Rejected	40000	
	# Mol-Mix Prime Regulated Release 30 X65 Liquid S		97F-01282		
		Equiv Crude Protein, %	24.68	18	EXCESSIVE
		Vacuum Moisture, %	29.54	35	
		Crude Protein, %	35.39	30	
		Total Sugars, %	31.06	30	
		Vitamin A, IU/lb	44000	50000	
	# Regulated Release 32 X67 (AA) Free-Choice Liquid		97F-01284		
		Equiv Crude Protein, %	18.81	25	
		Lasalocid, g/ton	130.000	160	
		Vacuum Moisture, %	33.40	33	
		Crude Protein, %	27.75	32	DEFICIENT
		Salt (ChlorideX1.65), %	2.87	2-2.5	
		Salt (Sodium X 2.54), %	0.44	2-2.5	DEFICIENT
		Total Sugars, %	30.70	30	
		Vitamin A, IU/lb	34000	40000	
	Zip Steakmaker 40/28 B-500/MA40 Special Medicated		97F-01735		
		Lasalocid, g/ton	477.500	500	
	# Mol-Mix Prime Regulated Release 32 K66 Liquid		97F-06721		
		Equiv Crude Protein, %	20.23	25	
		Vacuum Moisture, %	33.81	34	
		Phosphorus, %	1.830	2	
		Crude Protein, %	33.21	32	
		Total Sugars, %	28.26	27	
		Vitamin A, IU/lb	9400	40000	DEFICIENT
	# Mol-Mix Prime Regulated Release 32 K66 Liquid		97F-07625		
		Equiv Crude Protein, %	22.72	25	
		Vacuum Moisture, %	33.45	34	
		Phosphorus, %	1.920	2	
		Crude Protein, %	32.42	32	
		Total Sugars, %	26.41	31	DEFICIENT
		Vitamin A, IU/lb	28500	40000	
	# Northern Plains Mineral Zip 10:10 Mineral		97F-08539		
		Calcium, %	12.02	10-12	
		Phosphorus, %	10.120	10	
		Salt (Sodium X 2.54), %	17.25	14-16	
		Selenium, ug/g (ppm)	27.600	35	
		Vitamin A, IU/lb	1500	50000	DEFICIENT
	Bits-O-Zip High Protein Dog Food		97F-08540		
		Fat: Acid Hydrolysis, %	10.99	10	
		Oven Moisture, %	8.40	12	
		Crude Protein, %	28.20	26	
Zip Feed Mills Sioux Falls, SD					
	Zip GMN Pork Builder 40%		97F-00313		
		Calcium, %	3.97	3-4	
		Lysine - Total, %	2.040	2.45	
		Crude Protein, %	40.92	40	
		Salt (Sodium X 2.54), %	1.68	1.5-2	

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Manufacturer Location	Product	Analyte	Found	Claim	
	# Zip Medicated Mineral C-3500 Medicated		97F-00454		
		Calcium, %	8.77	7.5-8.5	
		Chlortetracycline, g/ton	1696.667	3500	DEFICIENT
		Iodine, ppm	51.000	66	
		Phosphorus, %	7.450	7.5	
		Salt (ChlorideX1.65), %	47.75	50-55	
		Salt (Sodium X 2.54), %	48.78	50-55	
		Selenium, ug/g (ppm)	15.400	15	
		Vitamin A, IU/lb	64000	200000	DEFICIENT
	# 10/10 Beef Mineral 1843Q		97F-00787		
		Calcium, %	12.51	10.5-12.5	
		Iodine, ppm	54.000	70	
		Phosphorus, %	9.790	10	
		Salt (Sodium X 2.54), %	11.32	10-12	
		Selenium, ug/g (ppm)	20.000	26	
		Vitamin A, IU/lb	195000	400000	DEFICIENT
	Soybean Meal		97F-00788		
		Crude Protein, %	47.58	46	
	Custom Mixed Beef Feed		97F-00790		
		Calcium, %	4.00	3-4	
		Crude Fiber, %	6.14	10	
		Lasalocid, g/ton	212.000	250	
		Potassium, %	2.070	2	
		Crude Protein, %	33.39	32	
		Salt (Sodium X 2.54), %	2.46	2-3	
		Vitamin A, IU/lb	31000	25000	
	Zip P-10 Mineral		97F-00983		
		Calcium, %	21.08	20-22	
		Iodine, %	0.005	0.0066	
		Phosphorus, %	9.960	10	
		Salt (Sodium X 2.54), %	13.52	12-14	
		Selenium, ug/g (ppm)	27.300	35	
		Vitamin A, IU/lb	45000	50000	
	# Zip Mo-Las 20% Tub		97F-00984		
		Calcium, %	2.12	2-2.5	
		Crude Fat, %	4.95	5	
		Iodine, ppm	14.000	12.5	
		Phosphorus, %	1.520	2	DEFICIENT
		Crude Protein, %	20.54	20	
		Salt (ChlorideX1.65), %	18.82	14-16	EXCESSIVE
		Salt (Sodium X 2.54), %	18.74	14-16	EXCESSIVE
		Vitamin A, IU/lb	52000	50000	
	Zip Cattle Block 50%		97F-01323		
		Calcium, %	3.27	3-4	
		Equiv Crude Protein, %	25.81	29	
		Iodine, ppm	24.000	20	
		Phosphorus, %	2.020	2	
		Crude Protein, %	49.24	50	
		Salt (Sodium X 2.54), %	15.00	16.5-19.5	
		Vitamin A, IU/lb	109000	100000	
	Zip 22/50 Performer CSP-250 414 Medicated		97F-01407		
		Chlortetracycline, g/ton	81.100	100	
		Crude Protein, %	18.32	10	
		Sulfathiazole, %	0.010	0.011	
	Zip Chick Starter Medicated		97F-01408		
		Amprolium, %	0.0066	0.008	
		Lysine - Total, %	0.910	1	
		Methionine - Total, %	0.314	0.3	
		Crude Protein, %	20.14	20	

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Manufacturer Location	Product	Analyte	Found	Claim	
	Zip 11/15 Performer M-50 406 Medicated		97F-01409		
		Carbadox, %	0.00550	0.0055	
		Crude Fat, %	8.07	8	
		Crude Protein, %	20.48	21	
	Zipmycin OTC 4 Granules 864 Medicated		97F-01660		
		Crude Fiber, %	17.33	29	
		Oxytetracycline, g/lb	3.440	4	
		Crude Protein, %	7.07	5	
	Steak Maker 42% B-600 015 Medicated		97F-01661		
		Calcium, %	8.95	7.5-9	
		Crude Fiber, %	7.51	15	
		Equiv Crude Protein, %	29.38	30	
		Iodine, ppm	20.000	10	
		Lasalocid, g/ton	542.000	600	
		Potassium, %	2.060	2	
		Crude Protein, %	43.70	42	
		Vitamin A, IU/lb	46000	40000	
	Zip Chick Starter 501		97F-02558		
		Amprolium, %	0.0082	0.008	
		Methionine - Total, %	0.336	0.3	
		Crude Protein, %	20.38	20	
	Calf Builder 14% C-20 Medicated		97F-02559		
		Crude Fiber, %	11.78	15	
		Chlortetracycline, g/ton	16.200	20	
		Crude Protein, %	14.31	14	
	Custom Mixed Pro R300		97F-04493		
		Calcium, %	4.53	3.5-4.5	
		Monensin, g/ton	247.00	300	
		Crude Protein, %	40.97	39	
		Salt (Sodium X 2.54), %	5.42	4.5-5.5	
	# Zip Nat-Pro Block 24%		97F-04494		
		Acid Detergent Fiber, %	14.81	9	EXCESSIVE
		Calcium, %	1.62	1.5-2	
		Iodine, %	0.002	0.001	
		Crude Protein, %	24.45	24	
		Salt (Sodium X 2.54), %	10.64	11-13	
		Vitamin A, IU/lb	56000	50000	
	Zip Start'em Pellets 20% w/Deccox Medicated		97F-05762		
		Acid Detergent Fiber, %	10.58	10	
		Decoquinatate, %	0.0027	0.0033	
		Crude Protein, %	19.79	20	
	Zip P-10 Mineral 845		97F-05763		
		Calcium, %	20.23	20-22	
		Phosphorus, %	10.180	10	
		Salt (Sodium X 2.54), %	12.22	12-14	
		Selenium, ug/g (ppm)	33.300	35	
		Vitamin A, IU/lb	70000	50000	
	Zip 25/50 Performer CSP-250 414 Medicated		97F-05764		
		Chlortetracycline, g/ton	72.400	100	
		Crude Protein, %	18.96	18	
		Sulfathiazole, %	0.011	0.011	
	# Zip Purple Ribbon Mineral Pellets		97F-05769		
		Calcium, %	10.91	10-12	
		Phosphorus, %	9.650	10	
		Salt (Sodium X 2.54), %	13.14	10-13	
		Selenium, ug/g (ppm)	32.000	35	
		Vitamin A, IU/lb	9700	100000	DEFICIENT

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Manufacturer Location	Product	Analyte	Found	Claim	
	# Zip Beef Health 30% AS-700 042 Medicated		97F-05770		
		Calcium, %	1.62	1.5-2.5	
		Chlortetracycline, g/ton	338.500	700	DEFICIENT
		Potassium, %	2.410	2.5	
		Crude Protein, %	32.53	30	
		Salt (Sodium X 2.54), %	2.48	2-3	
		Sulfamethazine, %	0.05935	0.077	DEFICIENT
		Vitamin A, IU/lb	21000	60000	DEFICIENT
	# Chick Grower 541		97F-05771		
		Amprolium, %	0.0046	0.006	DEFICIENT
		Lysine - Total, %	0.455	0.5	
		Methionine - Total, %	0.257	0.25	
		Crude Protein, %	15.05	14	
	Soybean Meal		97F-05772		
		Crude Protein, %	46.15	44	
	# Zip Non Medicated Mineral		97F-05912		
		Calcium, %	11.21	10-12	
		Phosphorus, %	10.450	10	
		Salt (Sodium X 2.54), %	17.00	14-16	
		Vitamin A, IU/lb	6700	50000	DEFICIENT
	Zip Steak-Maker42% R-400 014		97F-06550		
		Calcium, %	7.96	7.5-9	
		Crude Fiber, %	11.52	15	
		Equiv Crude Protein, %	30.27	30	
		Monensin, g/ton	352.00	400	
		Potassium, %	2.254	2	
		Crude Protein, %	44.32	42	
		Vitamin A, IU/lb	61000	40000	
	Zipmycin OTC 4 Granules		97F-06722		
		Crude Fiber, %	19.00	29	
		Oxytetracycline, g/lb	2.810	4	
		Crude Protein, %	6.93	5	
	# Zip 25/50 Performer CSP-250		97F-06723		
		Chlortetracycline, g/ton	56.350	100	DEFICIENT
		Crude Protein, %	19.09	18	
		Sulfathiazole, %	0.010	0.011	
	# Zip Gro 'Em w/DEC 020 Medicated		97F-07092		
		Acid Detergent Fiber, %	10.68	9	EXCESSIVE
		Decoquinate, mg/lb	14.2300	15.13	
		Crude Protein, %	16.48	16	
	Zip Super Phos Mineral		97F-07093		
		Calcium, %	13.63	14.5-15.5	
		Phosphorus, %	14.130	15	
		Salt (Sodium X 2.54), %	10.41	9.5-11	
		Selenium, ug/g (ppm)	37.900	35	
		Vitamin A, IU/lb	131000	100000	
	Zip Nat Pro 32%		97F-07094		
		Calcium, %	3.48	3-4	
		Crude Fiber, %	6.98	10	
		Potassium, %	2.230	2	
		Crude Protein, %	33.13	32	
		Salt (Sodium X 2.54), %	2.42	2-3	
		Vitamin A, IU/lb	50000	50000	

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Manufacturer Location	Product	Analyte	Found	Claim	
	# Zip Steak-Maker 42% B-600 Medicated		97F-07095		
		Calcium, %	7.44	7.5-9	
		Crude Fiber, %	10.56	15	
		Equiv Crude Protein, %	26.21	30	
		Lasalocid, g/ton	621.000	600	
		Potassium, %	2.110	2	
		Crude Protein, %	42.35	42	
		Salt (ChlorideX1.65), %	2.37	3-4	DEFICIENT
		Salt (Sodium X 2.54), %	0.43	3-4	DEFICIENT
		Vitamin A, IU/lb	60000	40000	
	Zip Purple Ribbon Mineral Pellets 846 A7K1 142		97F-07562		
		Calcium, %	9.63	10-12	
		Phosphorus, %	9.440	10	
		Salt (ChlorideX1.65), %	11.97	13-15	
		Salt (Sodium X 2.54), %	11.66	13-15	DEFICIENT
		Selenium, ug/g (ppm)	41.800	35	
		Vitamin A, IU/lb	101000	100000	
	Dried Blood Meal		97F-07623		
		Crude Protein, %	90.79	85	
	Bits-O-Zip Cat Food		97F-08077		
		Fat: Acid Hydrolysis, %	8.60	8	
		Oven Moisture, %	9.07	12	
		Crude Protein, %	32.26	30	
	Mineral Pellets		97F-08311		
		Calcium, %	9.69	10-12	
		Phosphorus, %	9.510	10	
		Salt (Sodium X 2.54), %	12.32	13-15	
		Selenium, ug/g (ppm)	33.450	35	
		Vitamin A, IU/lb	106000	100000	
	Zip Ranch Block 32%		97F-08747		
		Calcium, %	1.87	1.5-2.5	
		Crude Fiber, %	9.09	12	
		Crude Protein, %	33.93	32	
		Salt (Sodium X 2.54), %	9.74	9-10.8	
		Vitamin A, IU/lb	66000	50000	
	Zip GMN Pork Builder 40% 456		97F-08826		
		Calcium, %	3.96	3-4	
		Lysine - Total, %	2.110	2.45	
		Crude Protein, %	39.17	40	
		Salt (Sodium X 2.54), %	1.59	1.5-2	

Sample Count Report

Remedies Sampled From 1/1/97 To 12/31/97

Manufacturer and Location			Sample Count	Passed	Not Passed
Agri Laboratories LTD	St. Joseph	MO	3	3	0
American Cyanamid/Ft Dodge Labs	Fort Dodge	IA	4	4	0
Anthony Products Company	Arcadia	CA	1	1	0
Aspen Veterinary Resources	N Kansas City	MO	3	3	0
Boehringer Ingelheim Animal Health	St Joseph	MO	7	7	0
Dealer Distribution of America	Poterville	CA	1	1	0
Dionne Products	Des Moines	IA	1	1	0
Durvet Inc	Blue Springs	MO	7	7	0
Elanco Animal Health	Greenfield	IN	2	2	0
Elanco Products Company	Indianapolis	IN	2	2	0
Fermenta Animal Health Company	Elwood	KS	3	3	0
Fleming Laboratories	Charlotte	NC	1	1	0
Fort Dodge Labs	Fort Dodge	IA	4	4	0
Golden Sun Feeds Inc	Estherville	IA	1	0	1
Hartz Mountain Corp	Secaucus	NJ	3	3	0
Hess & Clark Inc	Ashland	OH	1	1	0
Imu-Tek Animal Health Inc	Ft. Collins	CO	1	0	1
Manna Pro Corporation	St. Louis	MO	1	1	0
Merck & Company Inc	Rahway	NJ	2	2	0
Milk Specialties Company	Dundee	IL	2	2	0
Pfizer Animal Health	Lee's Summit	MO	13	13	0
Pharmacia & Upjohn Company	Kalamazoo	MI	3	2	1
Solvay Animal Health Inc	Mendota Heights	MN	4	2	2
St Aubrey Labs	Hauppauge	NY	1	1	0
Tradition Feed Products Company	Mankato	MN	1	1	0
Universal Cooperatives Inc	Minneapolis	MN	2	2	0
Vedco Inc	St Joseph	MO	2	2	0
Totals:			76	71	5

Percent Passed:

93.4% **Percent Not Passed:** 6.6%

Summary Report

Remedies
01-01-1997 to 12-31-1997

Manufacturer Location	Product	Analyte	Found	Claim
Agri Laboratories LTD St. Joseph, MO				
	Agri-Cillin Penicillin, U/mL		97D-08727 313000.00	300000
	Ferrodex 100 Hematinic Iron, mg/mL		97D-08728 98.90	100
	Tetra-Bac 324 Tetracycline HCl, g/packet		97D-08730 105.200	101.2
American Cyanamid/Fort Dodge Labs Fort Dodge, IA				
	Aureomycin Chlortetracycline, g/lb		97D-00142 23.500	25
	Aureomycin Chlortetracycline, g/lb		97D-03237 26.500	25
	Aureomycin Chlortetracycline Chlortetracycline, g/lb		97D-00418 28.475	25
	Aureomycin Chlortetracycline, g/lb		97D-01369 28.150	25
Anthony Products Company Arcadia, CA				
	Microcillin Penicillin, U/mL		97D-00505 326500.00	300000
Aspen Veterinary Resources N Kansas City, MO				
	CMPK Solution Calcium, g/500 mL		97D-00429 9.74	10
	Dextrose Monohydrate, g/500 mL		69.0	75
	Magnesium, g/500 mL		2.78	2.8
	Phosphorus, g/500 mL		5.410	6
	Potassium, g/500 mL		0.520	0.5
	Tincture Iodine 7% Iodine, %		97D-00430 6.7800	7
	Sustain III Bolus Sulfamethazine, g/bolus		97D-01328 31.70000	32.1
Boehringer Ingelheim Animal Health St Joseph, MO				
	Vitamin A-D 500 Vitamin A, I.U./mL		97D-00285 484000	500000
	Vitamin D, I.U./mL		96000	75000

Manufacturer Location	Product	Analyte	Found	Claim
	Oxy-Tet 100	Oxytetracycline HCl Injection	97D-00453	
		Oxytetracycline, mg/mL	99.900	100
	Anchor OXY TET 100		97D-00504	
		Oxytetracycline, mg/mL	87.600	100
	Anchor Oxy-tet 100		97D-01358	
		Oxytetracycline, mg/mL	103.000	100
	Piperazine Water Wormer		97D-01666	
		Piperazine, %	17.150	17.1
	Oxy-Tet 200		97D-03234	
		Oxytetracycline, mg/mL	221.000	200
	Bio-Mycin 200		97D-08194	
		Oxytetracycline, mg/mL	214.000	200
Dealer Distribution of America				
Poterville, CA				
	Agripharm Iodine Tincture 7%		97D-07771	
		Titrateable Iodine, %	6.48	7
Dionne Products				
Des Moines, IA				
	Dionne Gentle Iodine		97D-01292	
		Titrateable Iodine, %	0.99	1
Durvet Inc				
Blue Springs, MO				
	Duramycin 10		97D-00137	
		Tetracycline HCl, g/lb	26.300	25
	Durvet Duramycin 10		97D-00141	
		Tetracycline HCl, g/lb	25.800	25
	Vitamins and Electrolytes		97D-00456	
		Vitamin A, I.U./lb	5130000	5000000
	Controlled Iodine Spray		97D-01326	
		Titrateable Iodine, %	1.04	1
	Nitrofurazone Dressing		97D-01331	
		Nitrofurazone, %	0.191	0.2
	Durvet Vitamins and Electrolytes		97D-03236	
		Vitamin A, I.U./8 oz	2451000	2500000
	Durvet-Vitamins and Electrolytes		97D-08834	
		Vitamin A, I.U./lb	4583000	5000000
Elanco Animal Health				
Greenfield, IN				
	Tylan 50 Injection		97D-01393	
		Tylosin, mg/mL	49.400	50
	Tylan 200		97D-08195	
		Tylosin, mg/mL	217.000	200

Manufacturer Location	Product	Analyte	Found	Claim	
Elanco Products Company Indianapolis, IN					
	Tylan 50		97D-01843		
		Tylosin, mg/mL	48.400	50	
	Tylan 50 (Tylosin) Injection		97D-08731		
		Tylosin, g/mL	52.800	50	
Fermenta Animal Health Company Elwood, KS					
	Iron Guard 200		97D-01133		
		Iron, mg/mL	193.00	200	
	Atgard Swine Wormer		97D-01665		
		Dichlorvos, g/packet	2.14	2.35	
	Atgard Swine Wormer (Dichlorvos)		97D-08729		
		Dichlorvos, g/packet	11.60	11.5	
Fleming Laboratories Charlotte, NC					
	Piperazine 230		97D-03515		
		Piperazine, g/package	212.000	230	
Fort Dodge Labs Fort Dodge, IA					
	D-Lyte H2O-K		97D-00603		
		Dextrose, %	80.72	72.38	
		Sodium, %	3.98	3.36-4.11	
	Aureomycin Chlortetracycline Soluble Powder		97D-03057		
		Chlortetracycline, g/lb	25.400	25	
	D-Lyte H2O-K		97D-08325		
		Dextrose, %	82.70	72.38	
		Potassium, %	2.690	1.67	
		Sodium, %	3.15	3.36-4.11	
	Aureomycin Soluble Powder		97D-08732		
		Chlortetracycline, g/packet	26.800	25.6	
Golden Sun Feeds Inc Estherville, IA					
	# Golden Sun Neo Oxy		97D-06043		
		Oxytetracycline, g/lb	5.680	7	DEFICIENT
		Crude Protein, %	12.85	8	
Hartz Mountain Corp Secaucus, NJ					
	Hartz Once a Month Wormer for Puppies		97D-00181		
		Piperazine, mg/capsule	84.300	80	
	Once A Month wormer for Large Dogs		97D-00269		
		Piperazine, mg/capsule	313.000	303	

Manufacturer Location	Product	Analyte	Found	Claim	
	Hartz Once-a-Month Wormer for Dogs		97D-02790		
		Piperazine, mg/capsule	80.500	80	
Hess & Clark Inc Ashland, OH					
	Vi-Tal		97D-01679		
		Vitamin A, I.U./packet	3330000	2600000	
Imu-Tek Animal Health Inc Ft. Collins, CO					
	# Kick Start		97D-01839		
		Ash, %	9.41	12	
		Fat: Roese Gottlieb, %	16.71	15	
		Protein, %	16.51	18	DEFICIENT
		Vitamin A, I.U./pack	450000	500000	
Manna Pro Corporation St. Louis, MO					
	Manna Pro Pelleted Wormer		97D-06826		
		Pyrantel Tartrate, %	1.22000	1.25	
Merck & Company Inc Rahway, NJ					
	Corid 20% Soluble Powder		97D-00289		
		Amprolium, %	20.5000	20	
	Corid 20% Soluble Powder		97D-08324		
		Amprolium, %	20.4500	20	
Milk Specialties Company Dundee, IL					
	Advance CALF MEDIC Type C Medicated Calf Milk Repl		97D-01842		
		Ash, %	9.35	10	
		Fat: Roese Gottlieb, %	23.61	25	
		Oxytetracycline, g/ton	750.000	800	
		Protein, %	20.14	20	
		Vitamin A, I.U./lb	102000	100000	
	Advance Calf Medic		97D-06734		
		Ash, %	5.66	10	
		Fat: Roese Gottlieb, %	23.83	25	
		Oxytetracycline, g/ton	815.000	800	
		Protein, %	21.57	20	
		Vitamin A, I.U./mL	88000	100000	
Pfizer Animal Health Lee's Summit, MO					
	Liquamycin LA-200 (oxytetracycline injection) Anti		97D-00284		
		Oxytetracycline, mg/mL	204.000	200	

Manufacturer Location	Product	Analyte	Found	Claim	
	Vi-Sorbis		97D-00291		
		Calcium, mg/tablet	94.40	100	
		Iron, mg/tablet	9.80	9.5	
		Linoleic Acid 18.2, mg/tablet	33.80	20	
		Phosphorus, mg/tablet	83.600	77.3	
		Vitamin A, IU/tablet	1844	1250	
	RFD Liquid Wormer		97D-00503		
		Pyrantel Base, mg/mL	2.07	2.27	
	Albon Soluble Powder		97D-00988		
		Sulfadimethoxine, g/pkg	94.500	94.6	
	Entrolyte HE		97D-01134		
		Dicalcium Phosphate, g/6.3 oz	1.28	1.33	
		Glucose Monohydrate, g/6.3 oz	148.00	152	
		Glycine, g/6.3 oz	4.93	4.72	
		Magnesium Sulfate, g/6.3 oz	0.73	0.76	
		Net Weight, grams	180.00	178	
		Potassium Chloride, g/6.3 oz	3.70	3.6	
		Sodium Bicarbonate, g/6.3 oz	11.90	12.75	
		Sodium Chloride, g/6.3 oz	2.98	2.84	
	Terramycin Soluble Powder		97D-01324		
		Oxytetracycline, g/6.4 oz	11.400	10	
	Albon Antibacterial Soluble Powder		97D-01653		
		Sulfadimethoxine, g/pkg	96.150	94.6	
	Terramycin		97D-06042		
		Oxytetracycline, g/6.4 oz	10.605	10	
	Albon Antibacterial Soluble Powder		97D-07772		
		Sulfadimethoxine, g/pkg	94.800	94.6	
	Liquamycin LA-200		97D-08196		
		Oxytetracycline, mg/mL	217.000	200	
	Terramycin Scours Tablets		97D-00282		
		Oxytetracycline, mg/tablet	232.000	250	
	Pfi-Pen G Antibiotic		97D-03058		
		Penicillin, U/mL	305000.00	300000	
	Terramycin Soluble Powder		97D-03235		
		Oxytetracycline, g/6.4 oz	11.100	10	
Pharmacia & Upjohn Company					
Kalamazoo, MI					
	Albadry Plus Suspension		97D-00212		
		Penicillin, U/10 mL	186000.00	200000	
	Albacillin		97D-00215		
		Penicillin, U/10 mL	107000.00	100000	
	# Biolyte Calf Electrolyte Formula		97D-00290		
		Chloride, mEq/3.85 oz	93.65	104.23	DEFICIENT
		Dextrose, g/3.85 oz	93.40	93.5	
		Magnesium, mEq/3.85 oz	8.40	9.1	
		Potassium, mEq/3.85 oz	31.500	31.35	
		Sodium, mEq/3.85 oz	166.60	184.25	

Manufacturer Location	Product	Analyte	Found	Claim	
Solvay Animal Health Inc					
Mendota Heights, MN					
	Vitamins & electrolytes Soluble for Poultry		97D-00136		
	Vitamin A, I.U./LB		4610000	5000000	
	# Salsbury Hog & Cattle Vitamins & Electrolytes		97D-00283		
	Potassium, %		1.300	1.3	
	Vitamin A, I.U./lb		3877000	5000000	DEFICIENT
	# Vitamins & Electrolytes Soluble for Poultry		97D-01290		
	Potassium, %		0.940	1	
	Vitamin A, I.U./lb		3698000	5000000	DEFICIENT
	Salsbury Hog & Cattle Vitamins & Electrolytes		97D-01332		
	Potassium, %		1.070	1.3	
	Vitamin A, I.U./lb		4556000	5000000	
St Aubrey Labs					
Hauppauge, NY					
	Liquid Wormer		97D-08027		
	Piperazine, mg/5 ml		274.500	250	
Tradition Feed Products Company					
Mankato, MN					
	Thrive Suspendable Broth		97D-06733		
	Sodium, %		5.45	5.5-6	
Universal Cooperatives Inc					
Minneapolis, MN					
	Sustain III Calf Bolus		97D-01295		
	Sulfamethazine, g/bolus		7.94500	8.02	
	Sustain III		97D-04363		
	Sulfamethazine, g/bolus		31.10000	32	
Vedco Inc					
St Joseph, MO					
	NutriVed OFA Chewable Tablets for Cats		97D-00425		
	Total Fatty Acids, mg/tablet		150.7	163.5	
	Vitamin A, I.U./tablet		860	750	
	Zinc, mg/tablet		1.20	1	
	Vedco Vitamin A & D Injection		97D-00987		
	Vitamin A, I.U./mL		608000	500000	
	Vitamin D, I.U./mL		65000	75000	

= Misbranded

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. For this reason, they are not very effective in cases where the infection is firmly established. 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 has also served to curtail some of the availability of these products.

The South Dakota Department of Agriculture also operates 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. During fiscal year (FY) 1991, 166 samples were analyzed for sulfa residue, finding only 16 samples containing detectable levels of sulfathiazole or sulfamethazine. Fifteen of these samples contained sulfa at 2 parts per million (ppm) or less. One sample contained sulfamethazine at 13.5 ppm. FDA's action level 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 discovered by our monitoring program during FY 1991 were violative. Similar results were obtained during FY 1990 monitoring.

SAMPLING PROGRAM

Although the incidence of sulfa residues in animal tissues has been reduced, the problem has not gone away. 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 meat meal, meat and bone meal, finishing feeds for hogs and cattle, and feeds for lactating dairy cows.

We do not intend for our inspectors to take more samples, but plan on getting more use out of the samples that are taken. We intend on reducing the number of sulfa residue analyses conducted and shift some of the resources used in that program into other contamination monitoring projects.

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

1. The lab will automatically analyze only meat meal and meat and bone meal samples for sulfa residues. They will no longer routinely analyze feeds listing meat and bone meal as an ingredient.
2. All other sulfa-residue analyses will be done at the request of the inspector or the Office of Agronomy Services.
 - a. Determine if the feed sampled fits into one of the priority categories. These categories are:
 - feeds and supplements for finishing hogs and cattle,
 - feeds and supplements for lactating dairy cows, and
 - other products which the inspector has reason to suspect may contain sulfa residues.
 - b. Other products which may be samples are:
 - custom-mixed and/or commercial 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.
 - c. Make a note in the "Remarks" section of the Report on Sample form requesting analysis for sulfa residue.

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 & DRUG CONTAMINANTS MONITORING PROGRAM

Adulteration by Noxious Weed Seeds

Noxious weeds have been, and continue to be, 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 SDCL Chapter 38-12-3 and 38-12-4, when used in commercial feed or sold as such to the ultimate consumer, shall be ground fine enough or otherwise treated to destroy the viability of the weed seeds so that the finished product contains 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 weeds 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 preliminary results, we are finding feed samples which contain noxious weed seeds. An important factor that needs to be kept in mind, however, is that we are not sampling a representative cross-section of the commercial feed supply, we are only sampling those products which appear to have a high probability of containing noxious weed seed. Another factor that needs to be considered is that the weed seeds need to be **viable** in order for the product to be in violation.

SAMPLING PROGRAM

Although ARSD 12:53:01:10 has been in place since 1982, the limited amount of sampling done since then has not proved sufficient information on the occurrence of viable noxious weed seeds in commercial feeds needed to determine if noxious weed seed distribution through commercial feeds is a problem. 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. Custom formula feeds, feeds containing whole grains, bird seed intended for wild birds, and grain screenings are products of primary concern at this time.

Rather than increase the number of samples taken, we plan on getting more use out of the samples we are already taking. At this time, we plan on increasing the number of samples analyzed for weed seeds until we feel we are getting a representative look at the amount of contamination that is taking place.

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

1. The lab will not analyze any sample for weed seed unless it is 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 unground screenings,
 - Texturized and other feeds containing whole grains, and
 - Bird seed intended for feeding wild birds.
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 it is necessary to 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.

SUMMARY OF WEED SEED OCCURRENCE IN COMMERCIAL FEEDS

Commercial Feeds Sampled January 1, 1997 - December 31, 1997

Total samples analyzed for weed seed contamination: 21

Number of samples analyzed reported as PASSED: 6
 Number of samples analyzed reported NOT PASSED: 15

Percent of samples reported NOT PASSED: 29%

Number of samples actually containing weed seeds: 11
 Number of samples containing no weed seeds: 10

Sampling was confined to products that looked like they may contain noxious weed seeds. Many 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 many 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 for cattle, horses, sheep	2	1	50%
Screenings, hulls	6	2	33%
Customer formula feeds	11	2	18%
Wild bird food	1	1	100%
Other (range cake)	1	0	--

In 1996 we analyzed 54 samples for weed seed contamination and reported 11 samples as NOT PASSED, a 20% non-compliance rate. Since 1989 we have analyzed approximately 400 samples for weed seeds, reporting about 80 of them as NOT PASSED, for a non-compliance rate of about 20% during that time period.

WEED SEED ANALYSIS OF COMMERCIAL FEEDS

Commercial Feeds Sampled Jan. 1, 1997 - Dec. 31, 1997

* 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.

Cargill, Inc.

Vienna, SD

Corn Screenings Passed
None found

Dakota Mill & Grain

Fort Pierre, SD

Custom Big Grower Passed
None found

Dakota Mill & Grain

Wall, SD

Custom Mixed Feed Passed
None found

Elkton Farmers Elevator

Elkton, SD

Corn Screenings Passed
None found

Farmers Coop Elevator

Avon, SD

Custom Mixed Feed Passed
None found

Fremar Feeds

Freeman, SD

Custom Mixed Feed Passed
None found

Frontier Mills, Inc.

Yankton, SD

Custom Dairy Mix Passed
None Found

Golden Sun Feeds

Estherville, IA

Texturized Horse Feed Not Passed
Found: Wild oat 20/lb, 16 germinated

Howard Farmers Coop

Howard, SD

Custom Mixed Feed Passed
None Found

Hubbard Milling Co.

Mankato, MN

12% Energy Cube - Beef Passed
None found

Sweet Chop Feed Passed
Found: Wild oat 13/lb, no Wild oat seeds were viable

K.I.S.S.

Milwaukee, WI

Wild Bird Seed Mix

Not Passed

Found: Quackgrass 9/lb, 2 Quackgrass seeds germinated

Lake Preston Coop

Lake Preston, SD

Grain Screenings

Not PassedFound: Wild oat 2768/lb, Wild mustard 238/lb, Quackgrass 3/lb
6 Wild oats & 7 Wild mustard germinated**Midwest Coop**

Onida, SD

Corn & Beef Supplement Medicated

Passed

Found: Field pennycress 3/lb, no seeds germinated

New Underwood Grain

New Underwood, SD

Custom Formula Dairy Feed

Not Passed

Found: Wild oat 400/lb, 10% seeds germinated

Pollock Farmers Elevator

Pollock, SD

Custom Feed

Not PassedFound: Field bindweed 11/lb, Wild mustard 31/lb, Wild oat 6656/lb
14 Wild oats & 7 Wild mustard germinated**South Dakota Wheat Growers**

Tulare, SD

Wheat Screenings

Passed

Found: Wild oat 4/lb, Field bindweed 4/lb
Only 1 Wild oat germinated**Southwest Grain**

Belle Fourche, SD

Custom Dairy Feed

Passed

Found: Wild oat 4/lb, no seeds viable

Stratford Grain

Stratford, SD

Millet Screenings

Not PassedFound: Wild oat 122/lb, Canada thistle 9/lb, Quackgrass 5/lb
6 Wild oat germinated**Watertown Coop Elevator**

Watertown, SD

Grain Screenings

Passed

Found: Wild mustard 57/lb
Only 1 seed germinated**Western Feed Company**

Belle Fourche, SD

Custom Dairy Feed

Passed

None Found

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 animals 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 been extensively research 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 to be used as animal feed.

Limited data suggests that as little as 1 ppm vomitoxin may result in reduced feed intake of swine. Poultry and ruminants may 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.

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 sampling 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 605-688-6171). The Department of Agriculture also maintains a list of commercial labs in the upper Midwest that provide mycotoxin analysis.

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Office of Agronomy Services

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Revision Number: 1

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."

Recently, selenium supplementation of animal feeds has come under scrutiny due to environmental concerns. In particular, the concern is that selenium supplementation in feed may increase the level of selenium found in animal waste, which may lead to an increased level of selenium in surface water. It is theorized that this selenium may accumulate in the tissue of fish and wildlife. At the time of this writing, FDA is reviewing the situation to determine if it is necessary to do an environmental impact statement to maintain the current regulation.

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, will 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.

Care should be taken when handling selenium premixes. 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 smoking. Sodium selenite is the form of selenium most often used in the production of animal feeds. "Pure" sodium selenite contains 45% selenium and should be avoided; it is toxic and should not be handled without protective clothing and a respirator. 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.

**SELENIUM ANALYSIS OF COMMERCIAL FEEDS
SUMMARY**

Commercial Feeds Sampled January 1, 1997 - December 31, 1997

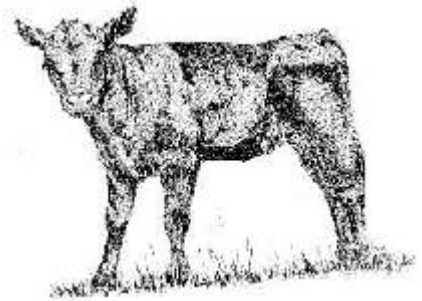
<u>Lab number</u>	<u>Manufacturer</u>	<u>Claim (ppm)</u>	<u>Found (ppm)</u>	<u>Not passed (NP)</u>
97F-304	Farmland Industries	22.0	28.0	
97F-452	Land O'Lakes Ag Services	24.0	20.1	
97F-454	Zip Feed Mills	15.0	15.4	
97F-784	Hubbard Milling Co.	20.0	19.7	
97F-787	Zip Feed Mills	26.0	20.0	
97F-983	Zip Feed Mills	35.0	27.3	
97F-1000	Moorman Inc.	39.0	43.9	
97F-1065	Farmland Industries	22.0	20.8	
97F-1068	GTA/Harvest States	17.5	15.3	
97F-1073	Hubbard Milling Co.	35.0	36.9	
97F-1075	Moorman Inc.	39.0	37.1	
97F-1287	Standard Manufacturing Co.	70.0	53.1	
97F-1289	Vigortone Ag Products	26.4	27.0	
97F-1390	Golden Sun Feeds	6.70	6.22	
97F-1417	Vigortone Ag Products	5.00	5.16	
97F-1655	Master Mix Feeds	0.00500 %	0.00215 %	Deficient
97F-1662	Cargill-Nutrena Feeds	30.0	19.0	Deficient
97F-2564	Hubbard Milling Co.	4.4	4.160	
97F-3926	Kay Dee Feed Company	28.0	23.2	
97F-4050	Western Ranch Products	0.00200 %	0.00150 %	Deficient
97F-4051	Western Ranch Products	6.00	6.45	
97F-4200	Golden Sun Feeds	6.7	6.180	
97F-4327	Moorman Inc.	39.0	32.8	
97F-4434	Hubbard Milling Co.	12.0	20.3	
97F-5678	Sioux Nation Ag Center	24.0	20.0	
97F-5679	Hubbard Feeds	14.0	13.1	
97F-5680	Hubbard Feeds	12.5	13.6	
97F-5763	Zip Feed Mills	35.0	33.3	
97F-5769	Zip Feed Mills	35.0	32.0	
97F-5823	Hubbard Feeds	20.0	18.1	
97F-5829	Farmland Industries	22.0	17.6	
97F-6490	Farmland Industries	22.0	19.8	
97F-6499	GTA/Harvest States	35.0	38.3	
97F-6725	Kay Dee Feed Company	28.0	26.3	
97F-6836	Cenex/Land O'Lakes	53.0	54.4	
97F-7093	Zip Feed Mills	35.0	37.9	
97F-7554	GTA/Harvest States	4.0	7.43	
97F-7560	Big Valley Milling	28.0	22.5	
97F-7562	Zip Feed Mills	35.0	41.8	
97F-7769	Farmland Industries	22.0	21.7	
97F-7770	Farmland Industries	4.00	8.10	
97F-8191	Hubbard Milling Company	4.40	4.24	
97F-8238	New Generation Feeds	6.6	9.327	
97F-8242	Golden Sun Feeds	22.2	23.3	
97F-8311	Zip Feed Mills	35.0	33.5	
97F-8538	Golden Sun Feeds	22.2	22.0	
97F-8539	Zip Feed Mills	35.0	27.6	
97F-8543	GTA/Harvest States	35.0	43.2	
97F-8555	Cenex/Land O'Lakes	24.0	18.5	
97F-8556	Hubbard Milling Company	12.5	10.4	

During 1997, 50 samples were analyzed for selenium, with only 3 samples reported NOT PASSED, a 94% compliance rate. During 1996, 63 samples were analyzed for selenium, with 79% of the analyses reported as PASSED. In 1995, 59 samples were analyzed for selenium and 99% of the analyses were reported PASSED.

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.

Selenium Effects on South Dakota Livestock Production



What is Selenium?



Selenium occurs naturally in various mineral forms in nearly all parts of the world and is a necessary part of a healthy diet for humans and animals. Some areas of the world supplement selenium in human and animal diets, as locally produced food and feed does not contain sufficient quantities to meet nutritional needs. However, an over abundance of selenium in human and animal diets can cause severe toxic effects.

Most of western South Dakota is composed of sedimentary marine shales that were developed when an inland sea covered South Dakota (see map). Selenium is often associated with marine shales and therefore South Dakota has areas of high selenium concentration in soil and water. Soils that are high in concentration of selenium are referred to as "seleniferous" soils. Plants growing in those soils will absorb selenium from the soil in the form of selenite (SeO_3) and selenate (SeO_4). Selenate is said to be the most common form of selenium in the state due to the chemical properties of soils in the western portion of the state.

Selenium toxicity is commonly referred to as selenosis. Selenosis was first documented in 1856 near Ft. Randall in South Dakota. A physician with the U.S. Cavalry reported horses experiencing hair, mane, and tail loss and sloughing of hooves. Over the next 75 years similar reports from livestock owners led to a cooperative investigation by the South Dakota and Wyoming Experiment Stations and US Department of Agriculture. It was found that the symptoms experienced by livestock were the result of consuming forage containing high concentrations of selenium.

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?

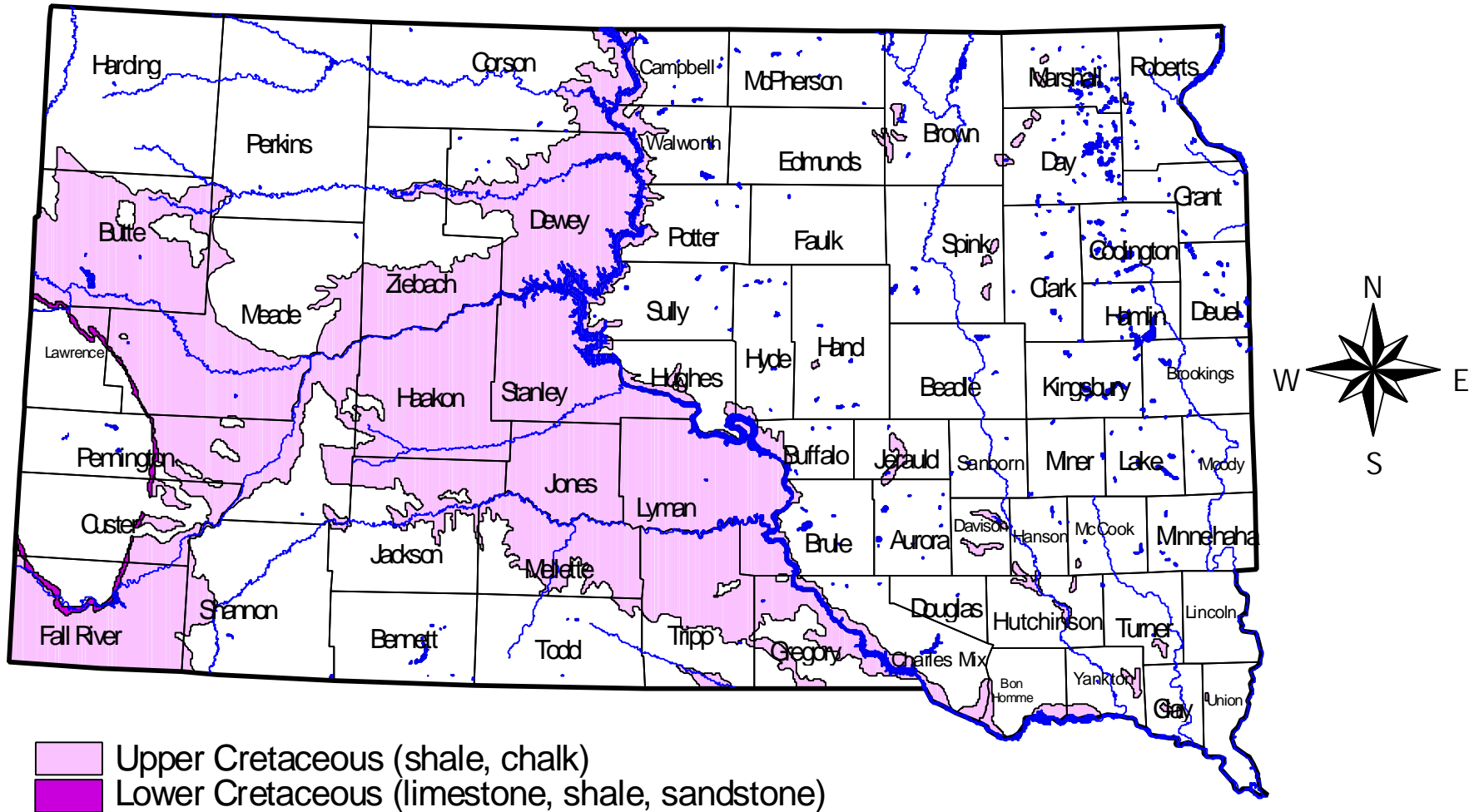


Excluding the livestock from water or feed that contains toxic levels of selenium is a priority. Adverse effects of selenium will usually reverse if the source of selenium is reduced and the toxicity has not progressed to a point where it is irreversible.

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.

Marine Shale in South Dakota



South Dakota Department of Agriculture
Data taken from Geologic Map of South Dakota
South Dakota Geological Survey

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 also be toxic. Sheep tend to be 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. This may not be an adequate amount of copper 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 very 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. Copper oxide is probably the second most common source of copper for feed manufacturing. It is black in color and not water-soluble.

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 to be added 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 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 which contain copper.

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.

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 Department of Agriculture at 605-773-4432 or the Food and Drug Administration (FDA) at 301-594-1724.