ISSN 0097-0905

Inspection of Pesticides, Pool Products and Pet Preparations 1983

By Lester Hankin

BULLETIN 821 • THE CONNECTICUT AGRICULTURAL EXPERIMENT STATION NEW HAVEN • AUGUST 1984

INSPECTION OF PESTICIDES, POOL PRODUCTS, AND PET PREPARATIONS--1983

Results of chemical analysis of 210 official samples of pesticides, pool products, and pet preparations collected during 1983 by inspectors of the Connecticut Department of Environmental Protection are presented in this Bulletin.

Table 1 shows individual samples representing 306 guarantees for active ingredients from 49 manufacturers. Following the names of the manufacturers are the brands of the products and the active ingredients. The percentage of the guarantee found for each active ingredient is then shown. Deficiencies are underlined with a single line and excesses are in parenthesis. Deficiencies are based on Laboratory Verification Guidelines established by the U.S. Environmental Protection Agency. Only 5.2% of 211 samples were deficient and 1.4% excessive.

Table 2 summarizes the number of samples tested from each manufacturer the number of guarantees for active ingredients, the number of deficiencies (-) or excesses (+), and the average percent of guarantee.

Analyses were performed by M. Fuzesi, R. Hastings, and M.A. Illig. Samples were collected by M. Beott and D. Griswold. Pesticide laws are administered by the Commissioner of the Department of Environmental Protection.

Lester Hankin
Chief, Analytical Chemistry

Table 1. Analysis of Individual Samples

Manufacturer, Brand Name & Active Ingredient	Percent Guarantee	Percent Found
AGWAY		
Agway Ant & Soil Insect Granules--Diazinon	5	5.1
Agway Asparagus Berry Weeder--Simazine	4	4.3
Agway Bulb Dust		
--Methoxychlor	5	5.0
--Thiram	10	10.3
Agway Cluster Fly Insect Tape--Diazinon	10	10.1
Agway Dairy Bactericide--Calcium Hypochlorite	50	68.5
Agway Diazinon Dust--Diazinon	4	4.2
Agway Dormant Oil--Petroleum Distillate	98.8	98.8
Agway Dual Garden Orchard Spray		
--Captan	15.0	15.1
--Malathion	7.5	7.5
--Methoxychlor	15.0	14.8
Agway Fruit & Ornamental Spray with Imidan--Imidan	12.5	12.3
Agway Fruit Tree Spray		
--Captan	11.35	11.72
--Malathion	6.00	5.95
--Methoxychlor	12.00	11.70
--Carbaryl	3.00	3.20
Agway Garden & Lawn Insect Spray--Diazinon	25	25.8
Agway Garden Insect Spray with Sevin--Carbaryl	50	51.0
Agway Garden Weed Killer--Dacthal	5	5.0
Agway Insect Spray with Malathion--Malathion	55	56.0
Agway Iris Borer & Leaf Miner Spray--Dimethoate	23.4	23.0
Agway Lawn & Garden Insect Spray--Diazinon	25.0	26.5
Agway Lawn Weed Killer		
--2,4-D[a]	20.3	20.8
--Dicamba	1.9	1.8
Agway Liquid Sevin 4F--Carbaryl	42.6	42.1
Agway Maneb Garden Fungicide--Maneb	80.0	76.6
Agway 25% Methoxychlor Spray--Methoxychlor	25	24.7
Agway Mole Control--Zinc Phosphide	2	2.6
Agway Organic Garden Spray		
--Pyrethrins	1.0	1.0
--Piperonyl Butoxide--technical	10	10.0
Agway Pantry Pest Spray		
--Tetramethrin	0.200	0.195
--Phenothrin	0.191	0.185
Agway Rose & Flower Dust		
--Folpet	7.50	7.80
--Carbaryl	3.00	3.20
--Kelthane	1.00	1.10
Agway Rotenone Dust--Rotenone	1.00	1.06
Agway Seed Potato Dust-Coordination product of Zinc & Manganese--Ethylenebisdithiocarbamate	8.0	6.7
Agway Total Weed Killer--Prometon	1.6	1.65

Table 1. Analysis of Individual Samples (continued)

Manufacturer, Brand Name & Active Ingredient	Percent Guarantee	Percent Found
Agway Tree & Shrub Spray		
--Meta Systox	6.0	6.1
--Methoxychlor	5.0	5.1
--Kelthane	0.9	0.88
Agway Vegetable Disease Control--Chlorothalonil	75.0	76.4
Agway Vegetable Garden Dust		
--Malathion	5.6	6.2
--Methoxychlor	5.0	5.4
--Captan	7.0	7.6
Agway Wasp & Hornet Jet Spray--Resmethrin	0.250	0.252
Agway Weed & Brush Killer--Ammonium Sulfamate	46.5	46.7
Agway Zineb Garden Fungicide--Zineb	75.0	79.9
AIREACTOR CORP.		
DDG		
--n-Alkyldimethylbenzylammonium Chloride	2.61	2.50
--n-Alkyldimethylethylbenzylammonium Chloride	2.61	2.50
BLACK LEAF PRODUCTS		
Black Leaf Ant Killer--B Diazinon	12.5	12.7
Black Leaf Crab Grass Killer		
--Octylammoniummethane Arsenate } Total Arsenic		
--Dodecylammoniummethane Arsenate } Total Arsenic	4.0	4.2
Black Leaf Fly & Mosquito Spray		
--Resmethrin	0.200	0.208
--Allethrin	0.150	0.145
Black Leaf Liquid Sevin--Carbaryl	22.5	23.0
Black Leaf 50% Malathion Spray--Malathion	50	49.5
Black Leaf Maneb Fungicide--Maneb	80.0	54.2
Black Leaf 25% Methoxychlor--Methoxychlor	25.0	24.6
Black Leaf Spot Weed Killer--2,4-D	0.65	0.67
Black Leaf Tomato & Vegetable Liquid Spray		
--Carbaryl	22.5	22.0
Black Leaf Warf with Prolin		
--Warfarin	0.025	0.024
--(N-(2-quinoxalinyl)sulfanilamide Sulfaquinoxaline	0.025	0.022
BONIDE CHEMICAL CO.		
Bonide Benomyl 50% WP--Benomyl	50	49.5
Bonide Captan 50% WP--Captan	50	49.3
Bonide Fruit Spray		
--Captan	12.0	13.0
--Malathion	6.0	6.3
--Methoxychlor	12.0	11.5
--Carbaryl	0.3	0.32
Bonide Malathion 50% Insecticide--Malathion	50	51.0

Table 1. Analysis of Individual Samples (continued)

Manufacturer, Brand Name & Active Ingredient	Percent Guarantee	Percent Found
Bonide Moletex--Zinc Phosphide	2	2.6
Bonide Organic, Greenhouse, Houseplant & Vegetable Spray Concentrate		
--Pyrethrins	1.0	1.0
--Piperonyl Butoxide	10.0	9.90
BURROUGHS WELLCOME CO.		
Pulvex Dri-Shampoo--Rotenone	0.1	0.097
CARTER WALLACE INC.		
Lambert Kay Flea & Tick Powder For Cats--Carbaryl	5.0	5.3
Victory 5 Collar For Cats--Baygon	9.4	9.1
Victory Insecticide Pump Spray For Cats		
--Pyrethrins	0.06	0.062
--Piperonyl Butoxide--technical	0.60	0.62
Victory Insecticide Spray For Cats		
--Carbaryl	0.500	0.517
--Pyrethrins	0.050	0.052
--n-Octylbicycloheptenedicarboximide	0.166	0.155
CHARTER CORP.		
Florok Wood Preservative Pentachlorophenol		
--Pentachlorophenol	4.5	5.5
--Other chlorophenols	0.6	
CHEVRON CHEMICAL CO.		
Ortho Ant & Roach Killer--Baygon	1.0	1.08
Ortho Crab Grass Killer		
--Octylammoniummethane Arsenate		
--Dodecylammoniummethane Arsenate--total arsenic	4.1	5.0
Ortho Diazinon Insect Spray--Diazinon	25	26.0
Ortho Diazinon Soil & Foliage Spray--Diazinon	4	4.0
Ortho Flea-D-Con Flea Killer--Resmethrin	0.250	0.245
Ortho Flotox Garden Sulfur--Sulfur	90	93.0
Ortho Flying & Crawling Insect Killer		
--Resmethrin & Related Compounds	0.250	0.256
Ortho Fruit & Vegetable Insect Control--Diazinon	25	25.8
Ortho Funginex Rose Disease Control--Triforine	6.5	6.7
Ortho Garden Weed Preventer--Dacthal	5.0	5.0
Ortho Home Orchard Spray		
--Captan & Related Derivatives	15.0	15.5
--Malathion	7.5	8.2
--Methoxychlor	15.0	14.8
Ortho House Plant & Insect Spray		
--Pyrethrins	0.02	0.021
--Resmethrin	0.08	0.075
Ortho Indoor Plant Insect Spray		
--Pyrethrins	0.02	0.022
--Rotenone	0.13	0.12
--Piperonyl Butoxide--technical	0.25	0.27

Table 1. Analysis of Individual Samples (continued)

Manufacturer, Brand Name & Active Ingredient	Percent Guarantee	Percent Found
Ortho Kleenup Spot Weed & Grass Killer--Glyphosate	0.75	0.76
Ortho Kleenup Weed & Grass Killer--Glyphosate	0.50	0.58
Ortho Outdoor Insect Fogger		
--Resmethrin	0.250	0.279
--2-Hydroxyethyl-n-octyl Sulfide	0.950	0.920
Ortho Pest-B-Gon Roach Bait--Baygon	2	2.0
Ortho Phaltan Rose & Garden Fungicide--Folpet	75	76.0
Ortho Poison Ivy & Poison Oak Killer		
--2,4-D	0.70	0.75
--MCPP[b]	0.75	0.80
Ortho Rose & Flower Jet Duster		
--Carbaryl	2.4	2.6
--Malathion	3.2	3.1
--Folpet	4.0	4.2
--Kelthane	1.2	1.2
Ortho Rotenone Dust or Spray--Rotenone	1.0	1.0
Ortho Sevin Garden Spray--Carbaryl	50	52.0
Ortho 3 Way Rose & Flower Care		
--Disyston	1.00	1.06
--Trifluralin	0.174	0.172
Ortho Tomato Vegetable Dust		
--Captan & Related Derivatives	5.0	5.6
--Methoxychlor	5.0	5.2
--Rotenone	0.75	0.95
Ortho Vegetable Disease Control--Chlorothalonil	29.6	29.4
Ortho Weed-B-Gon Jet Weeder		
--2,4-D	0.70	0.76
--MCPP	0.75	0.82
Ortho Whitefly & Mealybug Killer--Resmethrin	0.050	0.046
CIBA-GEIGY CORP.		
Diazinon 4E--Diazinon	47.5	47.6
Spectracide Crawling Insect Control Granules		
--Diazinon	5	5.0
Spectracide Garden Insect Dust--Diazinon	4	3.9
Spectracide Garden, Rose & Houseplant Spray		
--Diazinon	0.5	0.60
Spectracide Professional Home Pest Control		
--Diazinon	0.500	0.493
--Pyrethrins	0.052	0.050
--Piperonyl Butoxide	0.261	0.240
Spectracide Professional Home Pest Control XP		
--Diazinon	1.00	1.14
Spectracide 33 Plus Lawn Killer		
--2,4-D	6.25	6.32
--MCPP	10.83	11.30
--Dicamba	1.20	1.13

Table 1. Analysis of Individual Samples (continued)

Manufacturer, Brand Name & Active Ingredient	Percent Guarantee	Percent Found
CROWN CHEMICALS		
Crown Py-Fly		
--Pyrethrins	0.05	0.05
--Piperonyl Butoxide	0.50	0.49
D-CON CO.		
D-Con Four/Gone		
--Allethrin	0.300	0.310
--Phenothrin	0.191	0.210
D-Con Mouse Prufe--Warfarin	0.054	0.057
D-Con Mouse Prufe--Warfarin	0.054	0.053
DARWORTH CO.		
Cuprinol Clear Wood Preservative No. 20		
--Zinc Napthenate 13.5%, equiv. to 2% metallic Zinc	2	2.0
Cuprinol Semi-Transparent Stain & Wood Preservative Natural Spice W61		
--Bis(tri-butyl-tin)oxide	0.50	0.50
--Chlorothalonil	0.70	0.63
Cuprinol Semi-Transparent Stain & Wood Preservative Seashell No. 90		
--Bis(tri-butyl-tin)oxide	0.30	(0.47)
--Folpet	0.44	present[c]
Cuprinol Wood Preservative Green No. 10--Copper Napthanate, 20% min., equiv. to 2% metallic copper--copper	2	2.1
DEXOL INDUSTRIES		
Dexol Cygon Systemic Insecticide--Dimethoate	23.4	23.7
Dexol Dexa-Klor Insect Spray--Dursban	6.7	6.6
Dexol Kelthane--Kelthane	18.5	18.9
Dexol Lawn Weed Killer		
--MCPP	3.66	3.90
--2,4-D	8.07	8.00
--Dicamba	0.84	0.89
Dexol Malathion Insect Control--Malathion	50	51.0
Dexol Multi-Purpose Spray		
--Meta Systox	11.74	12.10
--2,6-Dinitro-6-octylphenyl Crotonate[d]	1.197	
--2,6-Dinitro-4-octylphenyl Crotonate[d]	0.083	1.25
Dexol Plant Insect Spray--Nicotine	0.07	(0.11)
Dexol Red Spider Mite Spray--Kelthane	0.046	0.040
Dexol Systemic Granules--DiSyston	1.0	1.2
Dexol Tropical Plant Fungicide--Truban	25	25.5

Table 1. Analysis of Individual Samples (continued)

Manufacturer, Brand Name & Active Ingredient	Percent Guarantee	Percent Found
Dexol Whitefly & Mealybug Spray		
--Methoprene	0.100	0.120
--Pentac	0.075	0.076
--Resmethrin	0.050	0.054
DOW CHEMICAL CO.		
Dow Dursban 2E--Dursban	22.4	23.0
Dow Dursban TC--Dursban	42.0	41.5
ENGINEERING SERVICES & PRODUCTS		
Fly Belts--Methomyl	1.000	1.020
FAESY & BESTHOFF		
F & B Liquid Sevin--Carbaryl	22.5	23.2
B & B Eptam 2.3 Granular--Eptam	2.3	2.3
FEC INDUSTRIES		
Air San		
--ortho-Phenylphenol	0.10	0.09
--p-Tertiary-Amylphenol	0.03	0.03
Capital Punishment Roach & Ant Killer		
--Pyrethrins	0.05	0.05
--Diazinon	0.50	0.54
--Piperonyl Butoxide	0.10	0.11
--N-Octylbicycloheptenedicarboximide	0.166	0.150
Germa-San Multi Purpose Cleaner		
--Alkyldimethylbenzylammonium chloride	0.125	0.161
--Alkyldimethylethylbenzylammonium chloride	0.125	0.165
Last Rites High-Pressure Insect Bomb--Resmethrin	0.500	0.600
Shazam Wasp-Hornet Spray--Resmethrin	0.150	0.170
Spearmint Disinfectant Cleaner		
--Alkyldimethyl-3,4-dichlorobenzylammonium Chloride	1.250	(1.900)
--Alkyldimethylbenzylammonium chloride	0.625	0.840
--Alkyldimethylethylammonium chloride	0.625	0.609
The Enforcer Insect Spray		
--Pyrethrins	0.20	0.19
--Piperonyl Butoxide	1.00	0.950
GLORION CORP.		
Acme Bordeaux Mixture--Copper	12.75	12.78
Glorion Weed Stop--Trifluralin	1.75	1.88
GREYSTONE INDUSTRIES		
Gypsy Moth Zapper--Creosote	75	76.8

Table 1. Analysis of Individual Samples (continued)

Manufacturer, Brand Name & Active Ingredient	Percent Guarantee	Percent Found
GRIFFIN CORP.		
Manex--Maneb	37	35.7
H. KREVIT & CO.		
Sodium Hypochlorite--available chlorine	--	6.99
Sodium Hypochlorite--available chlorine		
--subsample 1[e]	~15	7.17
--subsample 2	~15	7.15
--subsample 3	~15	4.35
HEALTH CHEM CORP.-HERCON DIV.		
Spray N Kill Gypsy Moth Caterpillar Insecticidal Spray--Carbaryl	22.5	22.7
ICI AMERICAS		
Talon G Rodenticide Bait Pack (Mini Pellets) --Brodifacoum	0.0047	0.005
LETHELIN PRODUCTS CO.		
Borerkill--Lindane	2	2.1
MODERN POOL PRODUCTS		
A.P.C.		
--Calcium Hypochlorite	63.6	66.5
--Dichlone	1.9	0
Algen II--Alkyldimethylbenzylammonium Chloride	10	9.7
Aqua-Chlor--Calcium Hypochlorite	65	65.9
Berkite 4 Algacide--Dichlone	1.5	1.6
Berkite 13--Dichlone	4.9	4.7
Pool Care--Sodium Dichloro-s-triazine Trione	99.5	100.0
Summer Set Algacide--Dichlone	1.5	0.7
Super Chloro Pool--Sodium Hypochlorite	12.5	7.8
Super Shok--Calcium Hypochlorite	65	66.5
MORTON NORWICH PRODUCTS-TEXIZE DIV.		
Texize No Pest Strip--DDVP[f]	19.2	19.8
NIPPON SODA CO.		
Calcium Hypochlorite	70	66.0
ORTHO DIV.		
Ortho Rose & Flower Insect Killer		
--Pyrethrins	0.02	0.02
--Piperonyl Butoxide	0.18	0.20
Ortho Tomato & Vegetable Insect Killer		
--Pyrethrins	0.02	0.02
--Piperonyl Butoxide	0.20	0.19

Table 1. Analysis of Individual Samples (continued)

Manufacturer, Brand Name & Active Ingredient	Percent Guarantee	Percent Found
Weed B-Gon Weed Killer		
--2,4-D	0.20	0.22
--MCPP	0.20	0.19
PRATT-GABRIEL DIV. *MILLER CHEM. & FERT. CO.		
Cygon 2E-- Dimethoate	23.4	24.0
Parrott Multi-Purpose Maltox		
--Malathion	15	15.4
--Methoxychlor & Related Compounds	20.0	20.2
--Dichlone	1.80	1.90
Pratt Benomyl 50W Systemic Fungicide--Benomyl	50	49.3
Pratt Amitrol T Liquid Herbicide--Amitrole	21.6	21.2
Pratt Dursban 15EC--Dursban	13.5	13.4
Pratt 15% Lindane Borer Spray--Lindane	5.0	5.1
Pratt Malathion 50 Spray--Malathion	50	50.5
Pratt Mite Spray--Kelthane	18.5	18.8
Pratt Red Arrow Botanical Insect Spray		
--Pyrethrins	0.5	0.51
--Rotenone	1.5	1.6
--Piperonyl Butoxide	3.0	2.9
Pratt Tomato Vegetable Liquid Insect Spray		
--Methoxychlor	20	20.2
--Diazinon	10	11.1
Vapo Total Release Aerosol		
--Vapona	6.51	6.80
--Baygon	1.00	1.10
RALSTON PURINA CO.		
Purina Disinfectant		
--n-Alkyldimethylbenzylammonium Chloride	2.9	5.9
--n-Alkyldimethylethylbenzylammonium Chloride	2.9	
Purina Rat Control Pellets--Warfarin	0.025	0.026
RESIDEX CORP.		
Residex Diazinon 4E Insecticide--Diazinon	47.5	48.8
RHONE-POULENC		
Farm & Home Disinfectant		
--Coal Tar Phenols	14.0	pass[g]
--Neutral Coal Tar Oils	61.6	pass
--Anhydrous Soap	14.4	pass
RIGO CO.		
Kill Ko Amitrol T--Amitrole	21.6	21.4

Table 1. Analysis of Individual Samples (continued)

Manufacturer, Brand Name & Active Ingredient	Percent Guarantee	Percent Found
RITE-OFF		
Rite-Off Rozol Rat & Mouse Bait		
--Chlorophacinone-Liphadione	0.005	0.005
ROCKLAND CHEM. CO.		
Rockland Benomyl Fungicide--Benomyl	50	49.8
Rockland Weed & Grass Killer		
--Promoten	3.50	3.60
--Butoxypropyl ester of 2,4-D	1.63	1.54
Rockland Zineb Garden Fungicide--Zineb	75.0	75.1
S.C. JOHNSON & SONS		
Raid Professional Strength Ant & Roach Killer		
--2-(1-Methylethoxy)-phenylmethyl Carbamate	0.95	0.99
Raid Tomato & Vegetable Fogger--Pyrethrins	0.2	0.23
SCIENCE PRODUCTS CO.		
Science Clover Mite & Red Spider Spray--Kelthane	0.25	0.27
Science Dursban Insecticide--Dursban	6.0	6.20
Science Eptam Garden Weed Control--Eptam	2.3	2.20
Science Fruit, Nut & Garden Spray		
--Diazinon	8.30	8.80
--Kelthane	3.20	3.40
Science Gladiolus & Bulb Dust		
--Thiram	50	50.4
--Methoxychlor	5	5.10
Science Gladiolus & Bulb Dust		
--Thiram	50	49.5
--Methoxychlor	5	5.1
Science Kelthane EC--Kelthane	18.5	18.8
Science 57% Malathion Spray--Malathion	57	58.0
Science 25% Methoxychlor Spray--Methoxychlor	25.0	25.0
Science Rabbit & Deer Repellent--Thiram	20	20.4
Science 1% Rotenone--Rotenone	1.0	1.13
Science 5% Sevin Dust--Carbaryl	5.0	5.20
Science Sevin Liquid--Carbaryl	22.	22.4
Science Sevin 50W--Carbaryl	50	49.7
Science Seed Protectant--Thiram	50	50.4
Science Systemic Insecticide Granules--Disyston	1	1.12
Science Truban Fungicide--Truban	30	31.0
Twin Light Sprayall For Fruit		
--Malathion	4.00	4.30
--Captan	7.50	7.30
--Carbaryl	5.00	5.20
SHELL CHEMICAL CO.		
Pydrin--Cyano(3-phenoxyphenyl)methyl-4-chloro alpha(1-methylethyl)benzene Acetate	30	30.9

Table 1. Analysis of Individual Samples (continued)

Manufacturer, Brand Name & Active Ingredient	Percent Guarantee	Percent Found
SPECTRUM HOME & GARDEN PRODUCTS (CIBA-GEIGY)		
Spectrum Conquer Liquid Vegetation Killer		
--Prometon	2.50	2.54
--Pentachlorophenol	1.00	1.01
STARBAR		
Starbar Fogasect 2-Hour Fogger		
--Baygon	1.00	1.10
--DDVP	0.47	0.51
Starbar Vaporette Spray--DDVP	0.465	0.508
SUDBURY LABORATORY		
Sudbury Benomyl Garden Spray Fungicide--Benomyl	50	50.4
Sudbury Captan Garden Spray Fungicide--Captan	50.0	50.1
Sudbury Diazinon Liquid Concentrate Insect Spray		
--Diazinon	25.0	24.8
Sudbury Kelthane Concentrate Mite Spray--Kelthane	18.5	19.0
Sudbury Malathion Liquid Concentrate Insect Spray		
--Malathion	50.0	51.0
Sudbury Sevin Liquid Concentrate Insect Spray		
--Sevin	42.6	43.0
SUPERIOR SALES CO.		
Opened container-no brand name		
--Pyrethrins	3.00	3.20
--Piperonyl Butoxide	6.00	5.80
--N-Octylbicycloheptenedicarboximide	10.0	9.85
SYNDET PRODUCTS		
San-I-Kleen		
--n-Alkyldimethylbenzylammonium Chloride	5.0	5.31
Sani-I-Terge		
--n-Alkyldimethylammonium Chloride	1.5	1.56
Syn-Quat		
--n-Alkyldimethylbenzylammonium Chloride	10	10.7
TOMLYN PRODUCTS DIV. OF AID LABS.		
Tomyln Flea, Tick & Lice Shampoo		
--Pyrethrins	0.054	0.056
--Piperonyl Butoxide--technical	0.108	0.116
--n-Octylbicycloheptenedicarboximide	0.180	0.182
UNION CARBIDE AGRICULTURAL PRODUCTS		
Nu-Lawn Weeder--Bromoxynil Ester of Octanoic Acid	8.4	9.0

Table 1. Analysis of Individual Samples (continued)

Manufacturer, Brand Name & Active Ingredient	Percent Guarantee	Percent Found
VALHAR CHEMICAL CORP.		
Grannick's Bitter Apple Shampoo For Dogs		
--Pyrethrins--subsample 1	0.055	0.051
--subsample 2	0.055	0.057
--Piperonyl Butoxide--subsample 1	0.555	0.172
--subsample 2	0.555	0.182
WALCO-LINCK CORP.		
Tat Ant Traps--Baygon	0.250	0.243
ZEMA CORP.		
Zema Luster Foam Shampoo For Dogs		
--Pyrethrins	0.05	0.046
--Piperonyl Butoxide--Technical	0.10	0.094
--n-Octylbicycloheptenedicarboximide	0.17	0.190
ZOECON CORP.		
Zodiac 75 Day Carpet Spray		
--Precor	0.032	0.030
--Pyrethrins	0.19	0.20
--Piperonyl Butoxide	1.00	1.00
--n-Octylbicycloheptenedicarboximide	1.00	1.10
Zodiac House & Kennel Fogger		
--Ronnel	2.00	2.19
--DDVP & Related Compounds	0.50	0.43
Zodiac Flea & Tick Shampoo		
--Pyrethrins	0.050	0.045
--Piperonyl Butoxide	0.500	0.485
Zodiac Flea & Tick Pump Spray		
--Pyrethrins	0.18	0.193
--Piperonyl Butoxide, technical	1.8	1.70
Zodiac Flea & Tick Spray For Cats		
--Baygon	0.250	0.270
Zodiac IGR Plus		
--Precor	0.15	0.17
--Baygon	1.00	1.10
--DDVP	0.47	0.48
Zodiac 3 Way Tick & Flea Dust For Dogs		
--Imidan	5.0	5.40

(a) 2,4,-D is 2,4-Dichlorophenoxyacetic Acid.
(b) MCPP is Mecoprop, α-(4-chloro-2,2-methylphenoxy)propionic Acid.
(c) Presence of linseed oil in sample prevented quantitative determination of Folpet.
(d) The combination of these two compounds is Karathane.
(e) Subsample means that more than one container was collected and each analyzed separately.
(f) DDVP is O,O-Dimethyl-2,2-dichlorovinyl phosphate.
(g) Quantitative analysis not practical on such a mixture.

Table 2. Summary for Each Manufacturer of Number of Products Tested. Number of Guarantees for Active Ingredients, Number of Samples Not Meeting Guarantee (Deficient or Excessive), and Average Percentage of Guarantee.

	Number of products tested	Number of guarantees	Number of guarantees deficient (-) or excessive (+)	Average % of guarantee
Agway	33	48	1-	103
Aireactor Corp.	1	2	0	96
Black Leaf Prod.	10	12	1-	97
Bonide Chem.	6	10	0	105
Burroughs-Wellcome	1	1	0	97
Carter Wallace	4	7	0	101
Charter Corp.	1	1	0	108
Chevron Chem.	27	41	0	104
Ciba-Geigy Corp.	7	11	0	102
Crown Chem.	1	2	0	103
D-Con	3	4	0	104
Darworth	4	6	1+	111
Dexol Indust.	11	17	1+	106
Dow Chem.	2	2	0	101
Engineering Serv. & Prod.	1	1	0	102
Faesy & Besthoff	2	2	0	102
FEC Indust.	7	15	1+	111
Glorion Corp.	2	2	0	104
Greystone Indust.	1	1	0	102
Griffin Corp.	1	1	0	96
H. Krevitt	2	1	1-	42
Health-Chem. Corp.	1	1	0	101
ICI Americas	1	1	0	106
Lethelin Prod.	1	1	0	104
Modern Pool Prod.	9	10	3-	82
Morton Norwich Prod.	1	1	0	103
Nippon Soda	1	1	1-	94
Ortho Div.	3	6	0	102
Pratt-Gabriel Div.	11	17	0	103
Ralston Purina	2	3	0	103
Residex Corp.	1	1	0	103
Rhone-Poulenc	1	3	0	--
Rigo	1	1	0	99
Rite-Off	1	1	0	100
Rockland Chem.	3	4	0	99
S.C. Johnson & Sons	2	2	0	110
Science Prod.	18	23	0	103
Shell Chem.	1	1	0	103
Spectrum Home & Garden Prod.	1	2	0	102
Starbar	2	3	0	109
Sudbury Labs.	6	6	0	101
Superior Sales	1	3	0	101
Syndet Prod.	3	3	0	106
Tomlyn Prod.	1	3	0	104
Union Carbide	1	1	0	107
Valhar Chem. Corp.	1	2	1-	66
Walco-Linck Corp.	1	1	0	97
Zema Corp.	1	3	0	99
Zoecon Corp.	7	15	0	102
Total	210	306		