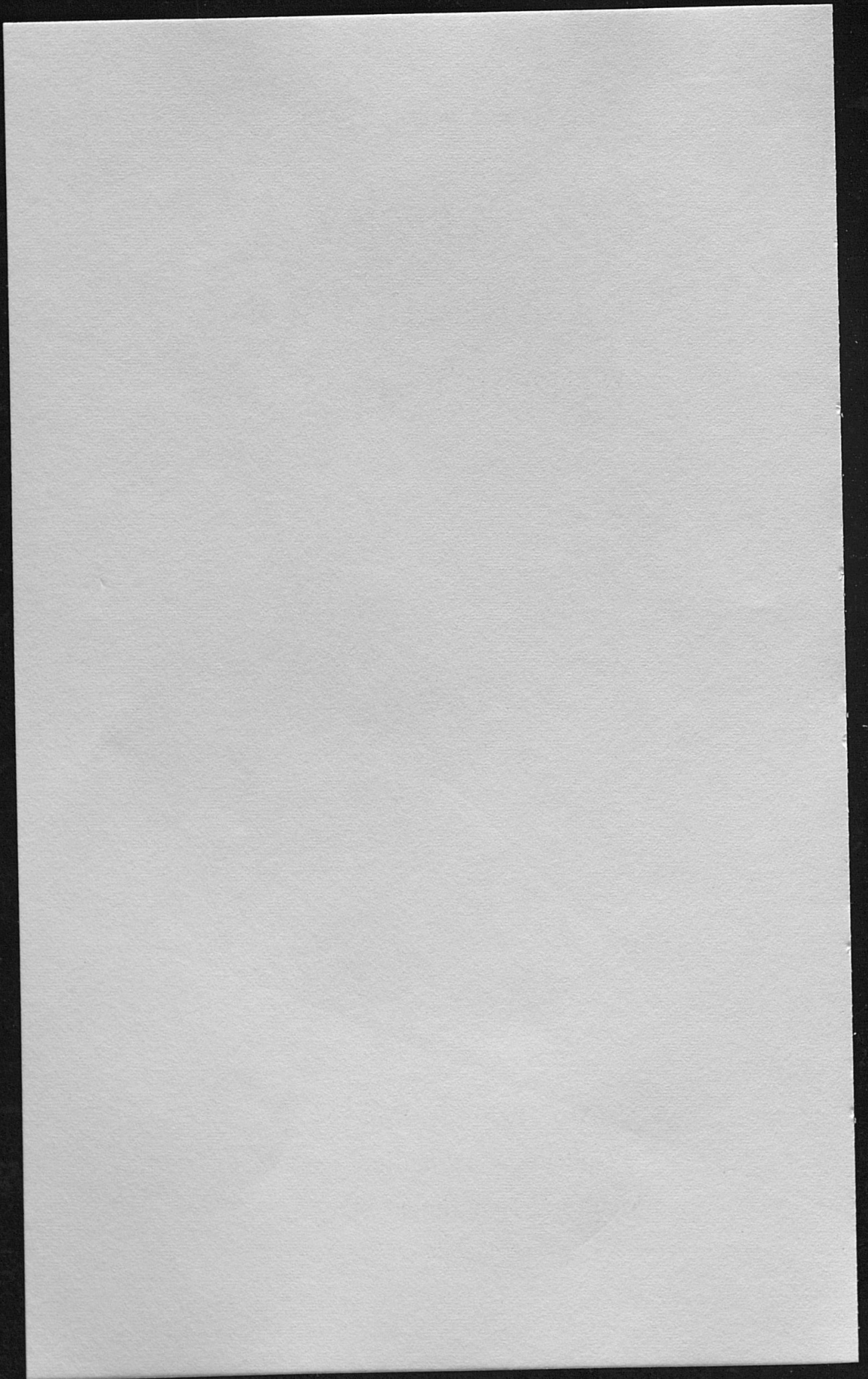


Regulatory Bulletin 213

KENTUCKY
ECONOMIC POISONS
REPORT, 1972



University of Kentucky
College of Agriculture
Agricultural Experiment Station
Lexington



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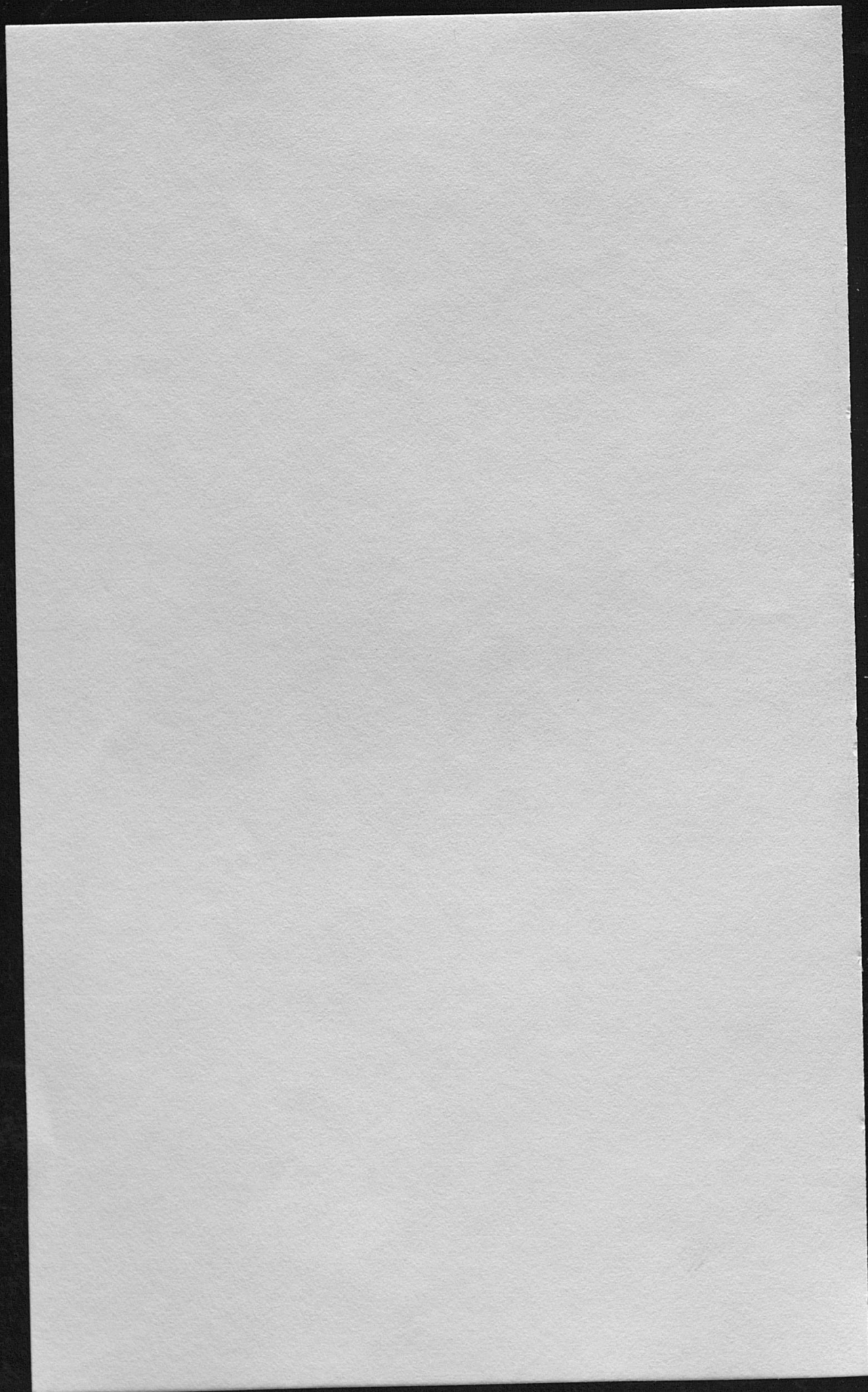
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This report compiled and prepared by W. J. Huffman
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COMPANIES REPRESENTED BY SAMPLES REPORTED IN THIS BULLETIN

Ag Supply Company
Industrial Drive
Hopkinsville, Kentucky 42240

Allied Chemical Corp.
Box 2061R
Morristown, New Jersey 07960

Allied Mills, Inc.
P.O. Box 459
Libertyville, Illinois 60048

Anchor Serum Company
2621 Belt Highway
St. Joseph, Missouri 64502

Babson Bros., Co.
2100 South York Road
Oak Brook, Illinois 60521

BASF Wyandotte Corp.
1609 Biddle Avenue
Wyandotte, Michigan 48192

Central Soya Feed Division
300 Ft. Wayne Bank Building
Fort Wayne, Indiana 46802

Chemagro Corporation
Box 4913
Kansas City, Missouri 64120

Chemical Formulators Inc.
Box 26
Nitro, West Virginia 25143

Chevron Chemical Company
940 Hensley Street
Richmond, California 94804

Wm. Cooper & Nephews, Inc.
1909 North Clifton
Chicago, Illinois 60614

DeLaval Separator Company
350 Dutchess Turnpike
Poughkeepsie, New York 12602

Diversey Chemical Company
212 W. Monroe Street
Chicago, Illinois 60606

The Dow Chemical Company
2030 Dow Center
Midland, Michigan 48640

Dragon Chemical Co.
7033 Walrond Drive
Roanoke, Virginia 24019

E. I. DuPont De Nemours & Company
6054 DuPont Building
Wilmington, Delaware 19898

Economic Laboratories
Osborn Building
St. Paul, Minnesota 55102

Elanco Products Company
740 S. Alabama Street
Indianapolis, Indiana 46206

E-Z Flo Chemical Company
Div. Grower Service Corporation
P.O. Box 808
Lansing, Michigan 48903

Farmland Industries
3314 N. Oak Trafficway
Kansas City, Missouri 64116

Farnam Companies Inc.
Box 2151
Phoenix, Arizona 85001

Franklin Laboratories
1777 S. Bellaire Street
Denver Colorado 80222

FRM Chemical Inc.
520 S. Clay-Box 9903
St. Louis, Missouri 63122

Geigy Agricultural Chemicals
Ardsley, New York 10502

Good-Life Chemical, Inc.
Good-Life Drive
Effingham, Illinois 62401

W. R. Grace & Co.
Agri. Chemical Group
100 N. Main Street
Memphis, Tennessee 38103

Hat-Ra Chemical Company
1100 N. Adams Street
Henderson, Kentucky 42420

Jones Chemicals, Inc.
100 Sunny Sol. Blvd.
Caledonia, N. Y. 14423

Carl Kaster
516 West Main Street
Louisville, Kentucky 40202

Kerr-McGee Chemical Corp.
Kerr-McGee Bldg.
Oklahoma City, Oklahoma 73102

COMPANIES REPRESENTED BY SAMPLES REPORTED IN THIS BULLETIN (Cont'd.)

LeGear Laboratories Inc.
4161 Beck Avenue
St. Louis, Missouri 63116

Louisville Chemical Company
601 E. Jefferson Street
Louisville, Kentucky 40202

J. W. McCoy
321 N. Franklin Street
Madisonville, Kentucky 42431

Miller Chemical & Fertilizer Corp.
P.O. Box 333
Hanover, Pennsylvania 17331

Moorman Manufacturing Company
Quincy, Illinois 62301

Niagara Chemical Division
FMC Corporation
201 Lovejoy Avenue
South Haven, Michigan 49090

Patterson Chemical Co.
1400 Union Avenue
Kansas City, Missouri 64101

Penwalt Chemical Corporation
3 Parkway
Philadelphia, Pennsylvania 19102

Chas. Pfizer & Company, Inc.
235 East 42nd Street
New York, New York 10017

Ralston Purina Company
Checkerboard Square
St. Louis, Missouri 63199

Rigo Manufacturing Company
638 Benton Avenue
Nashville, Tennessee 37202

Riverside Chemical Co.
Marks, Mississippi 38646

Sapo Elixir Chemical Co.
9870 Big Bend Blvd.
Kirkwood, Missouri 63122

O. M. Scott & Sons Company
Marysville, Ohio 43030

Sep-Ko Chemicals, Inc.
3900 Jackson Street N. E.
Minneapolis, Minnesota 55421

Shell Chemical Company
2401 Crow Canyon Road
San Ramon, California 94583

Smith-Douglas Div. Borden Inc.
Box 419
Norfolk, Virginia 23501

Southland Corp.
2841 Pierce Street
Dallas, Texas 75233

Stauffer Chemical Company
P.O. Box 10
Dayton, New Jersey 08810

Supersweet Feeds Div.
1200 Investors Bldg.
Minneapolis, Minnesota 55402

Thompson-Hayward Chemical Co.
5200 Speaker Road
Kansas City, Kansas 66106

Thuron Industires, Inc.
12200 Denton Drive
Dallas, Texas 75234

Tobacco States Chemical Company
P.O. Box 479
Lexington, Kentucky 40501

Tuco Div. of UpJohn Company
7171 Portage Road
Kalamazoo, Michigan 49001

Tykor Products
50 West Broad Street
Columbus, Ohio 42315

Union Carbide Corporation
270 Park Avenue
New York, New York 10017

Uniroyal Chemical Division
Amity Road
Bethany, Connecticut 06526

United Cooperatives, Inc.
111 Glamorgan Street
Alliance, Ohio 44601

Woolfold Chemical Works, Ltd.
East Main Street
Fort Valley, Georgia 31030

Yale Chemical Co.
Box 715
Nashville, Tennessee 37202

INTRODUCTION

During the period January 1 through December 31, 1972, 415 pesticide samples were analyzed.

LABELING REQUIREMENTS

Chemicals that require registration under the Kentucky Economic Poisons Law must bear a label stating directions for use, which, if complied with, are considered adequate for the protection of the public. With few exceptions, the label must contain a warning or caution statement, designed to prevent injury to man and other vertebrate animals, vegetation, or other useful living things. The front or display side of the label should also bear the statement "Keep Out Of Reach Of Children." If the product is shipped in interstate commerce, the label should bear the EPA registration number.

The label of the product must also contain an active ingredient statement which shows either the name and percentage of each active ingredient together with the total percentage of the inert ingredients, or the names of each active ingredient in the descending order of their percentages together with the name of each and the total percentage of the inert ingredients. The ingredient statement of any product may be of either form, except in the case of compounds which are highly toxic to man. The ingredient statement for products containing highly toxic compounds must list the name and percentage of each active ingredient. Highly toxic materials may also be required to be colored or discolored for the protection of the public health.

The label provides the public with information on the uses of, and the precautions to be taken in using all economic poisons sold in Kentucky. The name and address of the manufacturer or distributor, the net weight or measure of the contents of any package or bottle, and the brand or trademark under which the product is sold must appear on the label.

FIELD INSPECTION

In order to adequately enforce the provision of the act, field inspectors are authorized to collect samples of economic poisons and devices and to enter any car, warehouse, store, or other place where economic poisons or devices may be stored for the purpose of inspection or sampling. They are also authorized to issue and enforce a written or printed stop sale or removal order on a lot of economic poison when the material being offered for sale is in violation of any of the provisions of the Kentucky Economic Poisons Law. They are authorized to hold this material at a designated place.

PESTICIDE-FERTILIZER MIXTURES

An important group of specialty products are the products in which an insecticide, herbicide, or other economic poison is incorporated into a fertilizer. These products must be registered under the economic poisons law and the fertilizer law and the labeling must meet the requirements of both laws.

EXPLANATION OF TABLES

The following tables are compiled by active ingredient. Manufacturers are listed alphabetically above their respective products. The examinations reported are official samples of pesticide products offered for sale in Kentucky.

Of the samples reported, 68 samples were found to be deficient in one or more of the active ingredients guaranteed. Twenty one products were not registered when the sample was taken, and one sample was mislabeled.

The symbols in the right hand column of each table have the following meaning:

- P (Passed) denotes the amount of active ingredient found was not significantly at variance from the amount guaranteed.
- D (Deficient) denotes the amount of active ingredient found was significantly below the amount guaranteed.
- X (Not registered) denotes the product was not registered in Kentucky at the time the sample was taken.
- M (Mislabeled) denotes the product did not meet the label requirements in all respects.

ANALYSES OF PRODUCTS CONTAINING ATRAZINE

Registrant Product	Atrazine		Remarks
	Guarantee %	Found %	
GEIGY AGRICULTURAL CHEMICALS			
AAtrex 4L	43.00	43.60	P
Do	43.00	46.60	P
Do	43.00	46.26	P
Do	43.00	45.66	P
Do	43.00	44.10	P
Do	80.00	84.77	P
AAtrex 80W	80.00	84.68	P
Do	80.00	84.25	P
Do	80.00	84.64	P
Do	80.00	84.22	P
Do	80.00	84.60	P
Do	80.00	84.20	P
Do	80.00	81.30	P
Do	80.00	86.80	P
Do	80.00	83.75	P

ANALYSES OF PRODUCTS CONTAINING CARBARYL

Registrant Product	Carbaryl		Remarks
	Guarantee %	Found %	
AG SUPPLY COMPANY			
Sevin 5 Dust	5.00	5.10	P
Do	5.00	5.20	P
Do	5.00	4.80	P
Do	5.00	5.00	P
Do	5.00	5.50	P
Do	5.00	5.50	P
CHEVRON CHEMICAL CO.			
Sevin 5 Dust	5.00	4.90	P
Do	5.00	5.00	P
Do	5.00	4.80	P
Do	5.00	4.60	P
Sevin Garden Spray	50.00	54.40	P
DRAGON CHEMICAL CORPORATION			
NOK OUT 1 3/4% Sevin Dust	1.75	1.65	P
Do	1.75	1.90	P
Sevin 50 W	50.00	52.50	P
E-Z-FLO CHEMICAL COMPANY			
Sevin 5 Dust	5.00	5.90	P
Sevin 50 W	50.00	52.70	P
Do	50.00	49.60	P

ANALYSES OF PRODUCTS CONTAINING CARBARYL (Cont'd.)

Registrant Product	Carbaryl		Remarks
	Guarantee %	Found %	
FARMLAND INDUSTRIES, INC. Coop 5% Sevin Dust	5.00	<u>4.20</u>	<u>D</u>
W. R. GRACE & CO. NACO 5% Sevin Dust	5.00	4.90	P
MILLER CHEMICAL & FERTILIZER CORP. Sevin 5 Aqua	53.68	52.80	P
LOUISVILLE CHEMICAL COMPANY LC Sevin 5 Dust	5.00	<u>3.55</u>	<u>D</u>
NIAGARA CHEMICAL DIVISION FMC CORP. Sevin 1.75 Dust	1.75	<u>1.30</u>	<u>D</u>
Sevin 50 Wettable Powder	50.00	52.80	P
RIGO CHEMICAL COMPANY Kill-Ko 5% Sevin Vegetable Dust	5.00	5.90	P
Do	5.00	4.90	P
Do	5.00	5.50	P
Do	5.00	5.50	P
Do	5.00	5.60	P
O. M. SCOTT & SONS Kode Lawn Insect Control	8.75	9.60	P
STAUFFER CHEMICAL COMPANY Sevin 4 Flowable	42.60	<u>39.50</u>	<u>D</u>
TOBACCO STATES CHEMICAL CO. 1 3/4% Bean Dust	1.75	1.76	P
Do	1.75	<u>1.45</u>	<u>D</u>
Do	1.75	1.97	P
Do	1.75	1.80	P
Do	1.75	2.10	P
5% Sevin Vegetable Dust	5.00	5.00	P
10% Sevin Dust	10.00	10.60	P
Sevin 4 Flowable	42.60	41.68	P
Do	42.60	44.80	P
Do	42.60	43.50	P
UNION CARBIDE CORP. Sevimol 4	40.38	40.50	P
Sevin 50-W	50.00	53.70	P
Do	50.00	52.90	P
Do	50.00	49.90	P
Do	50.00	50.80	P
Sevin Sprayable	80.00	80.60	P
UNITED CO-OPERATIVES, INC. Sevin Dust	3.00	3.10	P
Do	3.00	3.15	P
5% Sevin Dust	5.00	5.10	P
Sevin Spray Powder	50.00	53.30	P

ANALYSES OF PRODUCTS CONTAINING CARBARYL (Cont'd.)

Registrant Product	Carbaryl		Remarks
	Guarantee %	Found %	
WOOLFOLK CHEMICAL WORKS, LTD Security 5% Sevin Garden Dust	5.00	5.04	P

ANALYSES OF PRODUCTS CONTAINING CIODRIN

Registrant Product	Ciodrin		Remarks
	Guarantee %	Found %	
CHEVRON CHEMICAL COMPANY Ortho Ciodrin Dairy Spray	2.00	2.16	P
PFIZER AGRICULTURAL DIVISION Dairy Spray	15.40	<u>14.60</u>	<u>DX</u>
SHELL CHEMICAL COMPANY 3% Ciodrin Livestock Dust	3.00	3.10	P
3% Coidrin Insecticide	3.00	2.74	P
Do	3.00	2.71	P
Do	3.00	3.01	P
Do	3.00	3.05	P
SUPERSWEET FEEDS DIVISION Cattle Pest-O-Kil Con.	14.40	<u>13.60</u>	<u>D</u>
TOBACCO STATES CHEMICAL CO., INC. Tobacco States Ciodrin E.C.	12.37	13.10	P
Do	12.37	12.20	P
Do	12.37	12.90	P
UNITED CO-OPERATIVIES, INC. Unico 1%	1.00	1.18	P
Do	1.00	1.18	P
Unico Stock Spray Con.	12.60	12.60	P
Do	12.60	12.40	P
Do	12.60	14.30	P

ANALYSES OF PRODUCTS CONTAINING CO-RAL

Registrant Product	Co-Ral		Remarks
	Guarantee %	Found %	
ANCHOR LABORATORIES, INC. Anchor Fly & Louse Dust	1.00	1.01	X

ANALYSES OF PRODUCTS CONTAINING CO-RAL (Cont'd.)

Registrant Product	Co-Ral		Remarks
	Guarantee %	Found %	
CHEMAGRO CORPORATION			
Co-Ral Emulsifiable	11.60	12.46	P
Do	11.60	12.23	P
Co-Ral 25% WP	25.00	25.60	P
Do	25.00	27.40	P
Do	25.00	26.20	P
O.M. FRANKLIN SERUM COMPANY			
Franklin Co-Ral	4.00	4.14	X
MOORMAN MANUFACTURING CO.			
Moormans Cattle Dust	1.00	1.02	P
PFIZER AGRICULTURAL DIVISION			
Pfizer Horn Fly & Lice Dust	1.00	1.06	P
RALSTON PURINA COMPANY			
Co-Ral Cattle Insecticide	4.00	4.22	P

ANALYSES OF PRODUCTS CONTAINING DDVP

Registrant Product	DDVP		Remarks
	Guarantee %	Found %	
ALLIED MILLS, INC.			
Wayne Fly Filler	0.50	1.49	M
CENTRAL SOYA			
Sugar Fly Bait	0.50	<u>0.31</u>	<u>D</u>
RIGO MANUFACTURING CO.			
Kill-Ko Fly Bait	0.50	0.52	P
Do	0.50	0.63	P
Do	0.50	<u>0.00</u>	<u>D</u>
THOMPSON-HAYWARD CHEMICAL CO.			
De-Pester Dairy Spray	1.00	1.61	P

ANALYSES OF PRODUCTS CONTAINING DIPHENAMID

Registrant Product	Diphenamid		Remarks
	Guarantee %	Found %	
TUCO DIV. OF THE UPJOHN COMPANY			
Enide 50 W	50.00	52.64	P
Do	50.00	52.18	P
Do	50.00	52.44	P
Do	50.00	51.87	P
Do	50.00	52.66	P
Do	50.00	50.26	P
Do	50.00	51.11	P
Do	50.00	52.62	P
Do	50.00	53.66	P
Do	50.00	51.46	P
Do	50.00	51.87	P
Do	50.00	52.04	P

ANALYSES OF PRODUCTS CONTAINING DIPTEREX

Registrant Product	Dipterex		Remarks
	Guarantee %	Found %	
FARNAM COMPANIES Super Die-Fly	1.00	0.85	X
MOORMAN MANUFACTURING COMPANY Moorman's Fly Bait	1.00	1.10	P
CHEMAGRO CORP. Dylox 80% Soluble Powder	80.00	79.80	P
Do	80.00	82.50	P

ANALYSES OF PRODUCTS CONTAINING DISULFOTON

Registrant Product	Disulfoton		Remarks
	Guarantee %	Found %	
"AG" SUPPLY CO. Plant Bed Granules	15.00	15.36	P
CHEMARGO CORPORATION Di-Syston 15% Granular	15.00	16.21	P
Do	15.00	15.27	P
Do	15.00	15.40	P
Do	65.00	68.60	P
Do			
Di-Syston Liquid Conc.			

ANALYSES OF PRODUCTS CONTAINING DISULFOTON (Cont'd.)

Registrant Product	Disulfoton		Remarks
	Guarantee %	Found %	
TOBACCO STATES CHEMICAL CO., INC. Tobacco Bed Beads	15.00	16.09	P

ANALYSES OF PRODUCTS CONTAINING ENDOSULFAN

Registrant Product	Endosulfan		Remarks
	Guarantee %	Found %	
"AG" SUPPLY CO. Thiodan Tobacco Spray	24.00	26.20	P
Do	24.00	24.30	P
Do	24.00	26.90	P
Do	24.00	24.70	P
Do	24.00	23.40	P
Do	24.00	25.20	P
E-Z FLO CHEMICAL CO. Thiodan 2EC	24.00	25.70	P
Do	24.00	23.60	P
W. R. GRACE & CO. Thiodan 2EC	24.00	23.80	P
Do	24.00	26.00	P
KERR-MCGEE CHEMICAL CORP. Thiodan liquid - 2	24.00	25.60	P
NIAGARA CHEMICAL DIV. Thiodan Miscible	24.00	25.70	P
Do	24.00	24.30	P
Do	24.00	22.60	D
Do	24.00	23.50	P
Thiodan 50WP	50.00	52.90	P
RIGO MANUFACTURING CO. Kill-Ko Thiodan 4 Dust	4.00	4.50	X
UNITED CO-OPERATIVES INC. Unico Thiodan E.C.	22.80	25.30	P
Do	22.80	22.70	P
Do	22.80	26.40	P
Do	22.80	24.50	P
Do	22.80	24.20	P
Do	22.80	23.00	P
WOOLFOLK CHEMICAL WORKS, LTD Security Thiodan E.C.	22.30	22.30	P

ANALYSES OF PRODUCTS CONTAINING LINURON

Registrant Product	Linuron		Remarks
	Guarantee %	Found %	
E. I. DU PONT DE NEMOURS & CO.			
Lorox G	10.00	10.68	P
Lorox	50.00	54.70	P
Do	50.00	54.50	P
Do	50.00	52.00	P
Do	50.00	52.10	P
Do	50.00	52.50	P
Do	50.00	54.20	P

ANALYSES OF PRODUCTS CONTAINING MALATHION

Registrant Product	Malathion		Remarks
	Guarantee %	Found %	
"AG" SUPPLY COMPANY			
Malathion Emulsive	50.00	51.50	P
Do	50.00	53.00	P
Cythion Premium Grade Malathion	50.00	47.70	<u>D</u>
CHEVRON CHEMICAL COMPANY			
Malathion 5 Dust	5.00	5.80	P
Do	5.00	4.40	P
Do	5.00	2.40	<u>D</u>
Ortho Malathion 5 Emulsive XB	55.00	56.90	<u>P</u>
E-Z-FLO CHEMICAL CO.			
5% Malathion Dust	5.00	3.90	<u>DX</u>
Malathion 25 WP	25.00	24.70	<u>P</u>
FARMLAND INDUSTRIES			
COOP Malathion Conc.	55.00	57.20	P
NIAGARA CHEMICAL DIV.			
Malathion 5 EC	56.00	54.80	P
PATTERSON CHEMICAL COMPANY			
55% Malathion Emulsive Conc.	55.00	54.10	X
Do	55.00	59.30	X
STAUFFER CHEMICAL COMPANY			
Malathion 5-E	56.00	57.50	P
TOBACCO STATES CHEMICAL CO., INC.			
5% Malathion Dust	5.00	4.60	P
Do	5.00	4.80	P
50% Malathion EC	50.00	53.00	P

ANALYSES OF PRODUCTS CONTAINING MALATHION (Cont'd.)

Registrant Product	Malathion		Remarks
	Guarantee %	Found %	
TOBACCO STATES CHEMICAL CO., INC. (Cont'd.)			
50% Malathion EC	50.00	50.90	P
Do	50.00	51.00	P
57% Malathion EC	57.00	<u>51.40</u>	D
Do	57.00	57.50	P
UNITED CO-OPERATIVES, INC.			
Unico 5% Malathion Dust	5.00	4.50	P
Do	5.00	5.50	P
Do	5.00	4.80	P
Unico Louse & Flea Powder	5.00	4.50	P
Do	5.00	5.80	P
Do	5.00	6.50	P
Unico Malathion WP	25.00	23.50	D
Do	25.00	<u>23.40</u>	D
Do	25.00	<u>23.70</u>	D
Do	25.00	<u>20.90</u>	D
Do	25.00	<u>19.80</u>	D
Do	25.00	<u>19.40</u>	D
Unico Malathion 5 EC	57.00	56.80	P
Do	57.00	56.70	P
Do	57.00	57.30	P
WOOLFOLK CHEMICAL WORKS, LTD.			
Security 25% Malathion	25.00	23.40	D
Do	25.00	25.20	P
Security Malathion 5-E	56.10	56.60	P
Do	56.10	54.90	P

ANALYSES OF PRODUCTS CONTAINING METHOMYL

Registrant Product	Methomyl		Remarks
	Guarantee %	Found %	
E. I. DU PONT DE NEMOURS & CO.			
Lannate	90.00	91.80	P
Do	90.00	95.20	P
Do	90.00	94.10	P
Do	90.00	91.70	P
Do	90.00	92.10	P
Do	90.00	91.00	P
Do	90.00	92.30	P
Do	90.00	93.90	P
Do	90.00	93.20	P
Do	90.00	93.10	P

ANALYSES OF PRODUCTS CONTAINING METHOXYCHLOR

Registrant Product	Methoxychlor		Remarks
	Guarantee %	Found %	
"AG" SUPPLY COMPANY "AG" Methoxychlor-2 E	24.00	26.80	P
ALLIED CHEMICAL Arcadian 50% Methoxychlor WP	50.00	50.70	P
Do	50.00	51.00	P
Do	50.00	49.90	P
CHEMICAL FORMULATORS, INC. Chemform Methoxychlor 50% WP	50.00	48.00	P
Do	50.00	49.60	P
Do	50.00	55.60	P
E. I. DU PONT DE NEMOURS & CO. Dairy Cattle Insecticide	50.00	51.50	P
Do	50.00	50.80	P
Do	50.00	50.60	P
Marlate 50 WP	50.00	51.00	P
Do	50.00	50.40	P
Do	50.00	50.80	P
Do	50.00	51.00	P
MOORMAN MANUFACTURING CO. Moorman's Insecticide Dust	3.00	3.30	P
Do	3.00	3.40	P
RIGO CHEMICAL COMPANY Kill-Ko Dairy Cattle Dust	10.00	9.20	P
STAUFFER CHEMICAL CO. Stauffer Methoxychlor 50-WP	50.00	50.20	P
TOBACCO STATES CHEMICAL., INC. Beef Cattle Dust	5.00	5.60	P
7½% Methoxy Garden Dust	7.50	7.70	P
24% Methoxychlor EC	24.00	23.60	P
Do	24.00	25.00	P
Do	24.00	26.10	P
UNITED CO-OPERATIVES, INC. Unico Methoxychlor EC	23.80	23.30	P
Do	23.80	25.20	P
Unico 50% Methoxychlor WP	50.00	50.50	P
Do	50.00	50.80	P
Do	50.00	51.00	P

ANALYSES OF PRODUCTS CONTAINING METHYL PARATHION

Registrant Product	Methyl Parathion		Remarks
	Guarantee %	Found %	
RIVERSIDE CHEMICAL COMPANY			
Methyl Parathion 4-E	44.00	<u>45.10</u>	<u>X</u>
STAUFFER CHEMICAL COMPANY			
Methyl Parathion 4-E	45.42	45.77	P
Do	45.42	45.40	P
Do	45.42	45.70	P
Do	45.42	44.50	P
Do	45.42	44.20	P
Do	45.42	45.90	P
Methyl Parathion H-E	44.60	45.50	P
Methyl Parathion 4-E	45.42	<u>41.14</u>	<u>D</u>
Do	45.42	<u>42.00</u>	<u>D</u>
Do	45.42	44.80	P
Do	45.42	45.50	P
Do	45.42	46.80	P
Do	45.42	45.60	P

ANALYSES OF PRODUCTS CONTAINING MONOCROTOPHOS

Registrant Product	Monocrotophos		Remarks
	Guarantee %	Found %	
SHELL CHEMICAL CO.			
Azodrin 3.2	39.10	43.15	P
Do	39.10	39.51	P
Do	39.10	40.93	P
Do	39.10	41.23	P
Do	39.10	40.00	P
Do	39.10	39.99	P
Do	39.10	40.37	P
Do	39.10	40.47	P
Do	39.10	41.90	P
Do	39.10	43.36	P
Do	39.10	42.78	P
Do	39.10	43.59	P
Do	39.10	40.70	P
Do	39.10	41.13	P

ANALYSES OF PRODUCTS CONTAINING PARAQUAT

Registrant Product	Paraquat		Remarks
	Guarantee %	Found %	
CHEVRON CHEMICAL CO.			
Paraquat CL	29.10	30.20	P
Do	29.10	30.00	P
Do	29.10	30.40	P
Do	29.10	29.50	P
Do	29.10	32.20	P
Do	29.10	29.90	P
Do	29.10	32.10	P

ANALYSES OF PRODUCTS CONTAINING PARATHION

Registrant Product	Parathion		Remarks
	Guarantee %	Found %	
W. R. GRACE & CO.			
Parathion Flowable	80.00	85.60	P
SMITH-DOUGLAS DIV.			
Parathion EC	46.50	50.20	P
STAUFFER CHEMICAL COMPANY			
Parathion 8-F	79.77	81.14	P
Parathion 15-WP	15.00	15.00	P
TOBACCO STATES CHEMICAL CO.			
1% Parathion Dust	1.00	.93	P
WOOLFOLK CHEMICAL WORKS, LTD			
Parathion 15% WP	15.00	14.70	P

ANALYSES OF PRODUCTS CONTAINING RABON

Registrant Product	Rabon		Remarks
	Guarantee %	Found %	
SHELL CHEMICAL COMPANY			
Rabon IEC	24.30	24.50	P
Do	24.30	24.70	P
Do	24.30	24.50	P
Do	24.30	24.30	P

ANALYSES OF PRODUCTS CONTAINING RONNEL

Registrant Product	Ronnel		Remarks
	Guarantee %	Found %	
DOW CHEMICAL COMPANY			
Korlan 24E	24.00	23.83	P
Do	24.00	25.52	P
Do	24.00	23.82	P
GOOD-LIFE CHEMICALS, INC.			
Korlan 2E	24.00	23.65	P
RIGO CHEMICAL COMPANY			
Kill-Ko Hog Lice Granules	5.00	4.26	P
UNITED CO-OPERATIVES, INC.			
Unico Lice-X	5.00	4.76	P
Unico Ronnel-2	23.80	24.13	P
Do	23.80	24.20	P

ANALYSES OF PRODUCTS CONTAINING SODIUM HYPOCHLORITE

Registrant Product	Sodium Hypochlorite		Remarks
	Guarantee %	Found %	
BABSON BROS. CO.			
Surge Zinicin	10.50	5.60	D
Do	10.50	7.19	D
Do	10.50	5.60	D
Do	10.50	6.20	D
Do	10.50	8.20	D
BASF WYANDOTTE CORPORATION			
Sodium Hypochlorite	12.00	4.15	D
Do	12.00	2.90	D
Do	12.00	8.90	D
Do	12.00	3.60	D
DE LAVAL SEPARATOR COMPANY			
Chlorine Sanitizer	6.00	5.60	P
Do	6.00	5.36	D
Do	6.00	5.50	P
Do	6.00	5.30	D
Do	6.00	5.30	D
DIVERSEY CHEMICAL CORPORATION			
Dibac Liquid Bactericide	8.50	4.90	D
Do	8.50	3.40	D
Do	8.50	8.00	P
Do	8.50	6.80	D
Do	8.50	4.50	D
Do	8.50	8.20	P

ANALYSES OF PRODUCTS CONTAINING SODIUM HYPOCHLORITE (Cont'd.)

Registrant Product	Sodium Hypochlorite		Remarks
	Guarantee %	Found %	
ECONOMIC LABORATORIES INC.			
Klenzade X-4 Liquid Bactericide	6.40	<u>4.10</u>	<u>D</u>
Do	6.40	<u>7.00</u>	<u>P</u>
Klenzade XY 12 Disinfectant	8.40	<u>6.10</u>	<u>D</u>
Do	8.40	<u>5.80</u>	<u>D</u>
FRM CHEMICAL INC.			
FRM-Chlor Bactericide	8.40	<u>6.80</u>	<u>DX</u>
HAT-RA CHEMICAL COMPANY			
Sno-Glo Bleash	10.00	9.80	P
Do	10.00	<u>8.50</u>	<u>D</u>
JONES CHEMICALS, INC.			
Sunny Sol "150"	12.00	12.20	P
Do	12.00	<u>7.70</u>	<u>D</u>
Do	12.00	<u>11.10</u>	<u>D</u>
Do	12.00	<u>8.70</u>	<u>D</u>
CARL KASTER COMPANY			
Hy Chlor	15.00	<u>8.20</u>	<u>D</u>
J. W. McCOY			
B-7 Liquid Bactericide	7.00	<u>5.20</u>	<u>DX</u>
PENNWALT CORP.			
B-K Chlorine Bearing Liquid	5.25	4.80	P
Do	5.25	<u>4.40</u>	<u>D</u>
Do	5.25	<u>3.53</u>	<u>D</u>
Do	5.25	<u>3.40</u>	<u>D</u>
Do	5.25	<u>4.30</u>	<u>D</u>
SAPO ELIXIR CHEMICAL COMPANY			
Wash-White	5.25	<u>3.90</u>	<u>D</u>
SEP-KO CHEMICALS INC.			
MonoKlor Sanitizing Solution	6.40	6.20	P
Do	6.40	6.80	P
Do	6.40	7.16	P
THE SOUTHLAND CORPORATION CHEMICAL DIV.			
LOC Chlorine-Based Disinfectant	8.40	7.60	X
TYKOR DEPARTMENT-BORDEN CHEMICAL DIV.			
Tykor Klor-10	10.00	<u>3.90</u>	<u>D</u>
YALE CHEMICAL COMPANY			
Yale Hypochlorite	5.00	<u>4.00</u>	<u>DX</u>

ANALYSES OF PRODUCTS CONTAINING SUTAN

Registrant Product	Sutan		Remarks
	Guarantee %	Found %	
STAUFFER CHEMICAL CO.			
Sutan 10-G	10.00	10.83	P
Sutan 6-E	78.25	81.30	P
Do	78.06	75.81	P
Sutan 6-E	78.25	81.83	P
Do	78.06	82.41	P
Do	78.25	83.74	P
Do	78.25	82.56	P

ANALYSES OF PRODUCTS CONTAINING TRIFLURALIN

Registrant Product	Trifluralin		Remarks
	Guarantee %	Found %	
ELANCO PRODUCTS COMPANY			
Elanco Treflan E.C.	44.50	45.11	P
Do	44.50	45.91	P
Do	44.50	44.55	P
Do	44.50	44.05	P
Do	44.50	44.05	P
Do	44.50	44.53	P
Do	44.50	43.55	P

ANALYSES OF PRODUCTS CONTAINING MIXTURES OF PESTICIDES

Registrant Product	Guarantee %	Found %	Remarks
"AG" SUPPLY COMPANY			
Burley Leaf Tobacco Spray			
Endosulfan	12.20	12.27	P
Malathion	12.20	12.61	P
Do			
Do	12.20	13.22	P
Do	12.20	11.60	P
Do			
Do	12.20	12.20	P
Do	12.20	13.00	P
Do			
Do	12.20	12.40	P
Do	12.20	12.20	P
Do			
Do	12.20	12.20	P
Do	12.20	13.20	P
ALLIED MILLS, INC.			
Wayne Super Livestock and Dairy Spray			
Ciodrin	0.25	0.44	P
Vapona	1.00	1.34	P
Do			
Do	1.00	1.11	X
Do	0.25	0.20	X
ANCHOR LABORATORIES INC.			
Dairy Cattle Dust			
Methoxychlor	5.00	4.82	X
Malathion	4.00	3.68	X
Do			
Do	5.00	5.04	P
Do	4.00	4.11	P
Do			
Do	5.00	4.90	P
Do	4.00	3.60	P
CNETRAL SOYA			
Fly Spray Concentrate			
Ciodrin	10.00	9.90	P
Vapona	2.50	3.29	P
Do			
Do	10.00	11.30	P
Do	2.50	- -	
WM. COOPER & NEPHEWS, INC.			
Cooper Dairy & Stock Spray			
Vapona	1.00	1.24	P
Ciodrin	0.25	0.32	P
EZ FLO CHEMICAL COMPANY			
Prime Leaf Tobacco Spray			
Endosulfan	12.20	12.70	P
Malathion	12.20	12.40	P

ANALYSES OF PRODUCTS CONTAINING MIXTURES OF PESTICIDES (Cont'd.)

Registrant Product	Guarantee %	Found %	Remarks
E-Z FLO CHEMICAL COMPANY (Cont'd.)			
Alfalfa Weevil Spray			
Methoxychlor	25.90	23.60	P
Malathion	23.37	19.50	D
Super Kill Tobacco Spray			
Endosulfan	12.57	12.15	P
Parathion	6.29	6.92	P
FRANKLIN LABORATORIES, INC.			
Franklin Livestock Insecticide Powder			
Methoxychlor	5.00	4.97	P
Malathion	4.00	3.93	P
GEIGY AGRICULTURAL CHEMICALS			
Alfa-Tox			
Methoxychlor	20.00	22.80	P
Diazinon	10.00	10.00	P
Do			
Do	20.00	22.00	P
Do	10.00	10.50	P
Do			
Do	20.00	20.00	P
Do	10.00	10.60	P
Do			
Do	20.00	21.50	P
Do	10.00	10.80	P
Do			
Do	20.00	21.90	P
Do	10.00	9.90	P
Do			
Do	20.00	22.00	P
Do	10.00	10.00	P
W. R. GRACE & COMPANY			
Naco Dual Tobacco Spray			
Endosulfan	12.30	12.50	P
Malathion	12.30	13.20	P
Do			
Do	12.30	12.60	P
Do	12.30	12.80	P
Do			
Do	12.30	13.22	P
Do	12.30	11.60	P
Do			
Do	12.30	12.91	P
Do	12.30	13.32	P
LE GREAR LABORATORIES, INC.			
LeGear Dairy and Cattle Dust			
Methoxychlor	5.00	5.20	X
Malathion	4.00	3.42	X

ANALYSES OF PRODUCTS CONTAINING MIXTURES OF PESTICIDES (Cont'd.)

Registrant Product	Guarantee %	Found %	Remarks
THE LOUISVILLE CHEMICAL CO.			
Double Duty Tobacco Spray			
Endosulfan	12.20	13.50	X
Malathion	12.20	11.60	X
Do			
Endosulfan	12.20	12.20	X
Malathion	12.20	12.97	X
Do			
Do	12.20	12.51	P
Do	12.20	13.00	P
NIAGARA CHEMICAL DIV.			
Golden Leaf Tobacco Spray			
Endosulfan	12.20	13.40	P
Malathion	12.20	12.50	P
Do			
Do	12.20	12.40	P
Do	12.20	12.50	P
Do			
Do	12.20	12.80	P
Do	12.20	12.80	P
Do			
Do	12.20	13.40	P
Do	12.20	11.80	P
Do			
Do	12.20	13.50	P
Do	12.20	12.70	P
Do			
Do	12.20	12.22	P
Do	12.20	12.15	P
RALSTON PURINA COMPANY			
Purina Dairy Spray Special			
Ciodrin	1.00	0.96	P
Vapona	0.25	0.30	P
Do			
Do	1.00	1.15	P
Do	0.25	0.30	P
Purina Fly Checker			
DDVP	0.23	0.32	P
Dipterex	0.25	<u>0.07</u>	<u>D</u>
RIGO CHEMICAL COMPANY			
Fly Spray for Dairy & Beef Cattle			
Ciodrin	1.00	1.22	P
Vapona	0.25	0.19	P
Do			
Do	1.00	1.12	P
Do	0.25	0.22	P

ANALYSES OF PRODUCTS CONTAINING MIXTURES OF PESTICIDES (Cont.d)

Registrant Product	Guarantee %	Found %	Remarks
RIGO CHEMICAL COMPANY			
Kill-Ko Multi-Purpose Tobacco Spray			
Endosulfan	12.20	12.85	P
Malathion	12.20	12.07	P
Piperonal Butoxide	0.70	0.63	P
Pyrethrins	0.07	- -	
Kill-Ko Tobacco Saver No. 2			
Malathion	22.32	24.60	P
Endosulfan	14.88	15.60	P
Piperonal Butoxide	0.75	<u>0.47</u>	<u>D</u>
Pyrethrins	0.07	- -	
Do			
Do	22.32	23.20	P
Do	14.88	15.40	P
Do	0.75	<u>0.59</u>	<u>D</u>
Do	0.07	- -	
Do			
Do	22.32	23.70	P
Do	14.88	15.60	P
Do	0.75	<u>0.48</u>	<u>D</u>
Do	0.07	- -	
Do			
Do	22.32	23.10	P
Do	14.88	15.90	P
Do	0.75	<u>0.59</u>	<u>D</u>
Do	0.07	- -	
Do			
Do	22.32	23.00	P
Do	14.88	16.20	P
Do	0.75	0.61	P
Do	0.07	- -	
Do			
Do	22.32	23.20	P
Do	14.88	16.00	P
Do	0.75	0.61	P
Do	0.07	- -	
SHELL CHEMICAL COMPANY			
Ciovap			
Ciodrin	1.00	1.06	P
Vapona	0.25	0.20	P
Do			
Do	1.00	1.12	P
Do	0.25	0.24	P
Do			
Do	1.00	1.25	P
Do	0.25	0.30	P
Ciovap E.C.			
Do	10.00	10.60	P
Do	2.50	<u>2.00</u>	<u>D</u>
Do			
Do	10.00	9.80	P
Do	2.50	2.34	P

ANALYSES OF PRODUCTS CONTAINING MIXTURES OF PESTICIDES (Cont'd.)

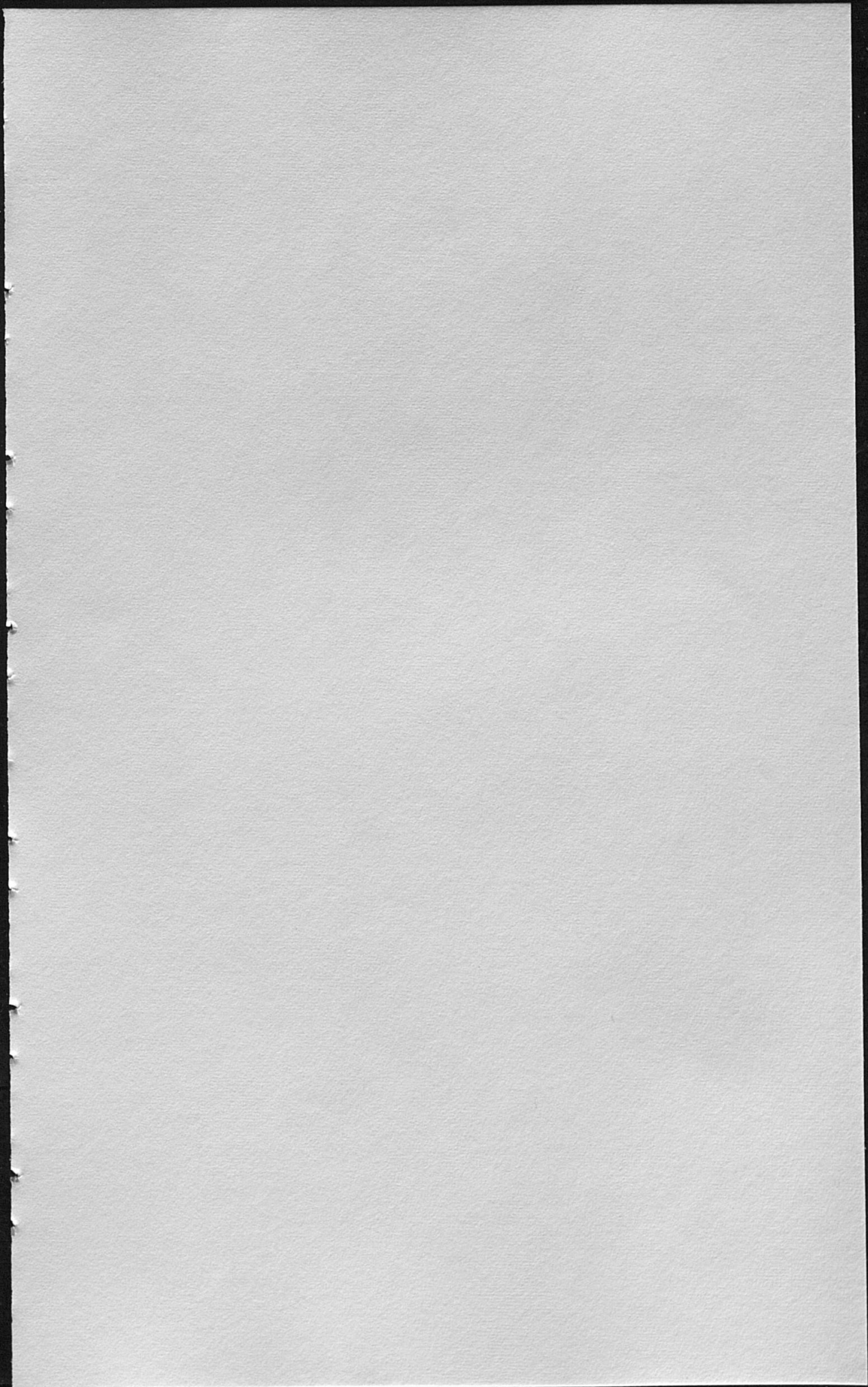
Registrant Product	Guarantee %	Found %	Remarks
SMITH DOUGLAS DIV.			
Thiodan-Malathion 1-1 E.C.			
Endosulfan	12.42	12.50	P
Malathion	12.42	13.10	P
Do			
Do	12.42	12.30	P
Do	12.42	12.97	P
Thiodan-Parathion 3-1 Dust			
Endosulfan	3.00	2.60	P
Parathion	1.00	0.95	P
Thiodan-Parathion 2-1 E.C.			
Endosulfan	23.48	25.60	P
Parathion	11.74	12.45	P
SUPERSWEET FEEDS DIV.			
Supersweet Dairy Spray			
Ciodrin	1.00	0.79	<u>D</u>
Vapona	0.25	0.17	<u>D</u>
THOMPSON-HAYWARD CHEMICAL CO.			
Clean Sweep Tobacco Spray			
Endosulfan	12.20	12.60	P
Malathion	12.20	13.10	P
Do			
Do	12.20	11.90	P
Do	12.20	12.00	P
Do			
Do	12.20	13.60	P
Do	12.20	12.60	P
Do			
Do	12.20	13.70	P
Do	12.20	12.30	P
Do			
Thiodan	12.20	13.60	P
Malathion	12.20	12.00	P
Do			
Endosulfan	12.20	12.30	P
Malathion	12.20	12.80	P
THURON INDUSTRIES INC.			
Simax Ciodrim & DDVP			
Ciodrin	15.00	15.10	P
DDVP	0.93	1.05	P
TOBACCO STATES CHEMICAL CO.			
10% Sevin Dust with Sulphur			
Carbaryl	10.00	10.20	P
Sulphur	70.00	69.70	P
Tobacco Spray			
Endosulfan	12.20	13.30	P
Malathion	12.20	11.70	P
Do			
Do	12.20	12.80	P
Do	12.20	13.20	P

ANALYSES OF PRODUCTS CONTAINING MIXTURES OF PESTICIDES (Cont'd.)

Registrant Product	Guarantee %	Found %	Remarks
TOBACCO STATES CHEMICAL CO. (Cont'd.)			
Tobacco Spray			
Endosulfan	12.20	12.70	P
Malathion	12.20	13.10	P
Six X Tobacco Spray			
Malathion	22.32	24.20	P
Endosulfan	14.88	16.00	P
Piperonal Butoxide	0.75	0.66	P
Pyrethrins	0.07	- -	
Do			
Do	22.32	23.90	P
Do	14.88	15.90	P
Do	0.75	0.63	P
Do	0.07	- -	
Do			
Do	22.00	24.10	P
Do	14.88	16.40	P
Do	0.75	0.67	P
Do	0.07	- -	
Do			
Do	22.32	24.10	P
Do	14.88	16.00	P
Do	0.75	0.69	P
Do	0.07	- -	
Do			
Do	22.32	23.80	P
Do	14.88	16.40	P
Do	0.75	0.68	P
Do	0.07	- -	
Do			
Do	22.32	23.41	P
Do	14.88	15.67	P
Do	0.75	0.65	P
Do	0.07	- -	
Do			
Do	22.32	23.33	
Do	14.88	15.71	P
Do	0.75	0.64	P
Do	0.07	- -	
Blight & Insect Dust			
Methoxychlor	3.00	3.40	P
Malathion	4.00	3.50	P
Captan	5.00	<u>4.00</u>	<u>D</u>
Fruit & Vegetable Spray			
Methoxychlor	12.50	12.50	P
Captan	10.00	9.70	P
Malathion	7.50	7.60	P
UNIROYAL CHEMICAL			
Solo			
Sodium N-1	23.60	26.40	P
Isopropyl N-3	22.20	21.50	P
Do			
Do	23.60	25.20	P
Do	22.20	22.60	P

ANALYSES OF PRODUCTS CONTAINING MIXTURES OF PESTICIDES (Cont'd.)

Registrant Product	Guarantee %	Found %	Remarks
UNIROYAL CHEMICAL			
Solo			
Sodium N-1	23.60	26.00	P
Isopropyl	22.20	21.80	P
UNITED CO-OPERATIVES INC.			
Unico Kill Fly DV			
Dipterex	0.50	0.52	P
DDVP	0.50	<u>0.14</u>	<u>D</u>
Unico-Py-Vona Stock Fly Spray			
Vapona	0.20	0.39	P
Piperonal Butoxide	0.25	0.21	P
Pyrethrins	0.03	--	
Do			
Do	0.20	0.44	P
Do	0.25	0.23	P
Do	0.03	--	
Do			
Do	0.20	0.46	P
Do	0.25	0.22	P
Do	0.03	--	
Nico Dairy & Stock Spray			
Ciodrin	1.00	1.18	P
Vaponao	0.25	0.27	P



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