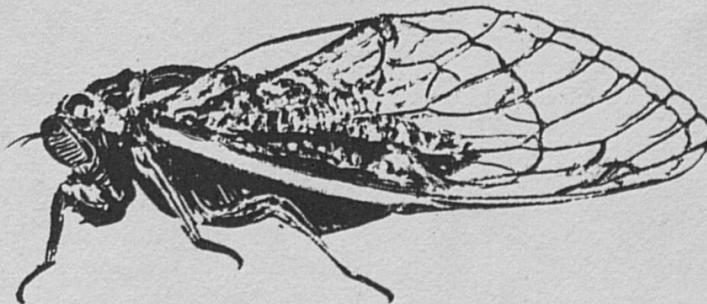


Regulatory Bulletin 204

KENTUCKY
ECONOMIC POISONS
REPORT, 1969



PERIODICAL CICADA
"17-Year Locust"
(Enlarged Drawing)

University of Kentucky
Agricultural Experiment Station
Lexington

DIVISION OF REGULATORY SERVICES
KENTUCKY AGRICULTURAL EXPERIMENT STATION

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Resigned November 1969.

* * * * *

This report compiled and prepared by Bruce Poundstone and W. J. Huffman
Analytical data by Laboratory Staff

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NOTE - The cover picture is a drawing of the "17 Year Locust." Brood X of the Periodical Cicadas, "17 Year Locust," is due to appear in 1970.

COMPANIES REPRESENTED BY SAMPLES REPORTED IN THIS BULLETIN

Ag Supply Company
Industrial Drive
Hopkinsville, Kentucky 42240

Agrico Chemical Company
5050 Poplar Avenue
Memphis, Tennessee 38101

Allied Chemical Corp.
40 Rector Street
New York, New York 10006

American Chemical Products of Lansing
Lansing, Michigan

American Exterminator, Inc.
1641 Reading Road
Cincinnati, Ohio 45202

The Ansul Company
One Stanton Street
Marinette, Wisconsin 54143

Astor Products, Inc.
5050 Edgewood Court
Jacksonville, Florida 32202

Babson Brothers Company
2100 S. York Road
Oak Brook, Illinois 60521

Bacon Products, Inc.
Box 8127
Chattanooga, Tennessee 37411

Black Leaf Products
6147 North Broadway
Chicago, Illinois 60626

Bluegrass Plant Foods, Inc.
North Main Street
Cynthiana, Kentucky 41031

Borden, Inc., Chemical Div.
P. O. Box 419
Norfolk, Virginia 23501

Burley Belt Fertilizer Company
Box 5150
Lexington, Kentucky 40505

Burnett Tractor Company
Route 4
Fulton, Kentucky 42041

Cale Chemical Company
Tupelo, Mississippi 38801

C & F Supply, Inc.
Highway 70
Hiseville, Kentucky 42152

Calvert Chemical Company
1920 Losantiville Avenue
Cincinnati, Ohio 45237

C & M Marketing Company
Box 4032, Maple Sta.
Dearborn, Michigan 48126

Chevron Chemical Company
940 Hensley Street
Richmond, California 94804

The Clorox Company
850 42nd Ave.
Oakland, California 94601

Colonial Stores, Inc.
Box 4358
Atlanta, Georgia 30302

Commonwealth Fertilizer Company
Box 438
Russellville, Kentucky 42276

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

Cowler Chemical Company
1200 Shaker Blvd.
Cleveland, Ohio 44120

Cumberland Manufacturing Company
501 25th Avenue, North
Nashville, Tennessee 37202

The D-Con Company, Inc.
90 Park Avenue
New York, New York 10016

DeLaval Separator Company
350 Dutchess Turnpike
Poughkeepsie, New York 12602

Dragon Chemical Corp.
7033 Walrond Dr., N. W.
Roanoke, Virginia 24019

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

E. I. DuPont De Nemours & Company 6054 DuPont Building Wilmington, Delaware 19898	Guarantee Pest Control Company 23 N. 31W Bypass Bowling Green, Kentucky 42101
End-O-Rat Company Box 115 Lancaster, Pa. 17604	Gulf Oil Corp., Agri. Chem. Div. Gulf Building Pittsburgh, Pa. 15230
E-Z-Flo Chemical Company Div. Growers Service Corporation P. O. Box 808 Lansing, Michigan 48903	Hat-Ra Chemical Company 1100 N. Adams Street Henderson, Kentucky 42420
Fairmont Chemical Company 117 Blanchard Street Newark, N. J. 07105	Hess & Clark 7th & Orange Streets Ashland, Ohio 44805
Farmland Industries 3315 N. Oak Trafficway Kansas City, Missouri 64116	Houchen's Stores Bowling Green, Kentucky 42101
Federal Chemical Company 646 Starks Building Louisville, Kentucky 40202	Independent Grocers Alliance Dist. Co. Chicago, Illinois
Fisher, Fazio, Costa Supermarkets Cleveland, Ohio	Indiana Farm Bureau Coop. Ass'n. 47 S. Pennsylvania Indianapolis, Indiana 46204
Frontier Chemicals, Inc. 119 E. Sopert Street St. Louis, Mo. 63111	International Mineral & Chemical Corp. Old Orchard Road Skokie, Ill. 60078
Geigy Agricultural Chemicals Ardsley, New York 10502	S. C. Johnson & Son, Inc. 1525 Howe Street Racine, Wisconsin 53403
Good-Life Chemical, Inc. Good-Life Drive Effingham, Ill. 62401	Carl Kaster 516 West Main Street Louisville, Kentucky 40202
Glasgow Fertilizer Company Box 198 Glasgow, Kentucky 42141	Klenzade Products, Inc. P. O. Box 1020 Beloit, Wisconsin 35311
W. R. Grace & Company Agri. Chemical Group 100 N. Main Street Memphis, Tennessee 38103	The Kroger Company 1240 State Avenue Cincinnati, Ohio 45204
The Great Atlantic & Pacific Tea Co. 3041 Wilson Avenue Louisville, Kentucky 40211	Lamb Products Company Box 2741 - Arcade Station Nashville, Tennessee 37219
Gro-Green Chemical Company P. O. Box 388 Shelbyville, Kentucky 40065	Lazarus Laboratories, Inc. Div. West Chemical Products, Inc. 42-16 West Street Long Island City, N. Y. 11101

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

Dr. L. D. LeGear, Inc.
4161 Beck Avenue
St. Louis, Missouri 63116

Lehigh Chemical Company
3511 Grade Lane
Louisville, Kentucky 40214

Liberty Cash Grocers, Inc.
Memphis, Tennessee

McKnight-Keaton Grocery
Sikeston, Missouri

Mercury Chemical Co., Inc.
2443 N. Claybourn Ave.
Chicago, Illinois 60614

Meyer-Blanke Company
5432 Highland Park Dr.
St. Louis, Missouri 63110

Miami Products & Chemical Co.
520 Lonoke Street
Dayton, Ohio 45403

Mobil Chemical Company
401 E. Main Street
Richmond, Virginia 23208

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

North American Fertilizer Company
1419 S. Preston Street
Louisville, Kentucky 40217

Novel Wash Company
4045 Garfield Avenue
St. Louis, Missouri 63113

Ohio Valley Fertilizer Company
P. O. Box 567
Maysville, Kentucky 41056

Olin Mathieson Chemical Corporation
P. O. Box 392
Little Rock, Arkansas 72203

Pearson & Company
Box 431
Mobile, Alabama 36601

Pennsalt Chemical Corporation
3 Penn Center Plaza
Philadelphia, Pennsylvania 19102

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

Pilot Stores, Inc.
Cincinnati,
Ohio 45212

Perk Products Company
1412 Dickerson Road
Nashville, Tennessee 37213

Proctor and Gamble Company
Box 599
Cincinnati, Ohio 45201

Purex Corporation, Ltd.
24600 S. Main Street
Wilmington, California 90744

C. B. Ragland & Company
600 Thompson Lane
Nashville, Tennessee 37204

Ralston Purina Company
835 S. Eighth Street
St. Louis, Missouri 63199

Rigo Manufacturing Company
638 Benton Avenue
Nashville, Tennessee 37202

Royster Company
Box 1940
Norfolk, Virginia 23501

Scot Lad Food, Inc.
Chicago, Ill.

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

Shell Chemical Company
110 W. 51st Street
New York, N. Y. 10020

The Sinclair Manufacturing Company
6120 N. Detroit Avenue
Toledo, Ohio 43612

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

Southern States Cooperative, Inc.
7th & Main Streets
Richmond, Virginia 23123

Southern States Cooperative, Inc.
Fertilizer Division
7th & Main Streets
Richmond, Virginia 23123

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

Supersweet Feeds Division
International Milling Company
1200 Investors Bldg.
Minneapolis, Minnesota 55415

Thompson-Hayward Chemical Company
5200 Speaker Road
Kansas City, Missouri 66110

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

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

United States Chemical
Corporation
1644 W. Bruce Street
Milwaukee, Wisconsin 53215

Universal Milking Machine
Division
1st Avenue at College
Albert Lea, Minnesota 56007

USS Agri-Chemicals, Inc.
Box 1685
Atlanta, Ga. 30301

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

Wyandotte Chemical Corp.
1609 Biddle Avenue
Wyandotte, Michigan 48192

INTRODUCTION

During the period January 1 through December 31, 1969, 653 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 Federal registration number.

The label of the product must also contain a guaranteed analysis 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, etc. supposed to contain economic poisons or devices, 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.

Field inspectors are in a position to explain the various aspects of the Kentucky Economic Poisons Law so that dealers and users of pesticide products will have an understanding of this act.

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. Because of the nature of these products, special regulations are employed in their registration. For example, an insecticide incorporated into a fertilizer is manufactured usually to be applied to the ground and, therefore, will be effective only against certain soil-inhabiting pests. Another inherent restriction in the use of these products may be in the method or in the time of application of either of the component parts of the product.

SODIUM HYPOCHLORITE STABILITY

We continue to find sodium hypochlorite solutions with a guarantee of more than 5.25% sodium hypochlorite that have deteriorated so that they are not fully effective at the use dilution shown on the label.

In 1968 this department did a study of the stability of a sodium hypochlorite solution that was guaranteed at 6.0%.

We secured four gallons of freshly formulated material and analyzed samples on the following schedule.

February 2, all; lots no. 1 and no. 2, each month; lot no. 3, each 3 months; and lot no. 4, each 6 months.

The following table gives the results of these analyses:

SODIUM HYPOCHLORITE

DATE ANALYZED	LOT NO. 1	LOT NO. 2	LOT NO. 3	LOT NO. 4
2-2-68	7.09%	7.21%	7.61%	6.86%
3-22-68	6.80%	6.75%		
4-22-68	6.45%	6.55%	6.25%	
5-28-68	6.17%	6.10%		
6-25-68	5.80%	5.70%		
7-24-68	5.30%	5.36%	5.06%	4.91%
8-21-68	5.04%	5.08%		
9-24-68	4.59%	4.57%		
10-21-68	4.35%	4.35%	4.22%	
11-25-68	4.22%	4.22%		
12-20-68	4.18%	4.18%		
1-22-69	4.13%	4.14%	4.03%	4.03%

Although these products were over-formulated by about 16 percent, after four months lots no. 1 and no. 2 analyzed below the guarantee of 6 percent; at the end of six-months storage lots no. 1 and no. 2 were about 0.7 percent below the guarantee; lots no. 3 and no. 4 about 1.0 percent below the guarantee.

These sodium hypochlorite solutions with a guarantee of 6 percent had a shelf-life of about 3 months even though they were over-formulated by about 16 percent.

Realizing that sodium hypochlorite solutions of high concentration lose their strength rapidly, some manufacturers over-formulate as much as 50 percent.

There are several factors that contribute to the loss in strength of these solutions, some of which are:

1. Sunlight
2. Temperature
3. Exposure to the atmosphere

In order to try and overcome some of the instability of these materials the following are some rules that should be followed:

1. Keep out of direct sunlight.
2. Store in a cool place (below 70°).
3. Do not carry in stock over 30 days.
4. Be sure that bottles are tightly capped or recapped.
5. Always use oldest stock first.
6. Do not purchase more than can be disposed of in 30 days.

The use dilution shown on the label is based on the active ingredient guarantee and if the active ingredient in a product is below the guarantee, the product loses its effectiveness in proportion to this loss.

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, 125 samples were found to be deficient in one or more of the active ingredients guaranteed. Seventeen products were not registered when the sample was taken, and three samples were mislabeled.

The symbols in the right hand column of each table except pesticide-fertilizer mixtures 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 ALDRIN

Registrant Product	Aldrin		Remarks
	Guarantee %	Found %	
AG SUPPLY COMPANY Ag Aldrin-4 EC	43.10	43.40	P
BORDEN CHEMICAL DIVISION, BORDEN INC. Aldrin 4 EC	44.00	45.60	P
CHEVRON CHEMICAL COMPANY Ortho Aldrin 25 Granular	25.00	<u>20.60</u>	<u>D</u>
Ortho Aldrin 4 Emulsive	43.00	<u>45.10</u>	<u>P</u>
Do	43.00	46.00	P
E-Z FLO CHEMICAL COMPANY E-Z Flo 20% Granular Aldrin	20.00	19.60	P
E-Z Flo Aldrin 4 EC	45.84	44.40	P
E-Z Flo Aldrin 4 Spray	47.40	<u>42.70</u>	<u>D</u>
W. R. GRACE & COMPANY, AGRI. CHEM. GROUP NACO 20 Aldrin Granules	20.00	<u>18.50</u>	<u>D</u>
GULF OIL CORPORATION, AGRI. CHEM. DIVISION Aldrin 20-G	20.00	19.60	P
Do	20.00	20.50	P
MOBIL CHEMICAL COMPANY 25% Aldrin Dust	25.00	<u>22.20</u>	<u>DX</u>
SHELL CHEMICAL COMPANY Aldrin 20% Granules	20.00	<u>18.80</u>	<u>D</u>
Do	20.00	<u>18.80</u>	<u>D</u>
Do	20.00	20.70	P
Do	20.00	<u>19.00</u>	<u>D</u>
Do	20.00	<u>18.70</u>	<u>D</u>
Do	20.00	19.30	P
TOBACCO STATES CHEMICAL COMPANY 20% Aldrin Granules	20.00	19.40	P
Aldrin 4 Emulsion	41.22	43.30	P
Do	41.22	43.10	P

ANALYSES OF PRODUCTS CONTAINING ATRAZINE

Registrant Product	Atrazine		Remarks
	Guarantee %	Found %	
GEIGY AGRICULTURAL CHEMICALS Geigy AAtrex 80 W	80.00	80.00	P
Do	80.00	83.30	P
Do	80.00	80.40	P
Do	80.00	83.00	P

ANALYSES OF PRODUCTS CONTAINING ATRAZINE (Cont'd.)

Registrant Product	Atrazine		Remarks
	Guarantee %	Found %	
GEIGY AGRICULTURAL CHEMICALS (Cont'd.)			
Geigy AAtrex 80 W	80.00	81.80	P
Do	80.00	81.30	P
Do	80.00	79.77	P
Do	80.00	82.30	P
Do	80.00	80.80	P
Do	80.00	82.20	P
Do	80.00	81.40	P
Do	80.00	79.15	P
Do	80.00	80.24	P
Do	80.00	79.32	P
Do	80.00	80.83	P
Do	80.00	83.30	P

ANALYSES OF PRODUCTS CONTAINING CALCIUM HYPOCHLORITE

Registrant Product	Calcium Hypochlorite		Remarks
	Guarantee %	Found %	
OLIN MATHIESON CHEMICAL CORPORATION			
Lo-Bax	50.00	55.50	P
HTH Granular Dry Chlorine	70.00	71.20	P
PENNSALT CHEMICALS CORPORATION			
B-K Powder	50.00	54.30	P
RALSTON PURINA COMPANY			
Purina Chlorine Sanitizer	50.00	59.90	P

ANALYSES OF PRODUCTS CONTAINING CARBARYL

Registrant Product	Carbaryl		Remarks
	Guarantee %	Found %	
AG SUPPLY COMPANY			
"Ag" Sevin 5 Dust	5.00	4.90	P
Do	5.00	5.00	P
Do	5.00	4.70	P
CHEVRON CHEMICAL COMPANY			
Ortho Sevin 5 Dust	5.00	4.60	P
Do	5.00	2.20	D
Do	5.00	4.70	P

ANALYSES OF PRODUCTS CONTAINING CARBARYL (Cont'd.)

Registrant Product	Carbaryl		Remarks
	Guarantee %	Found %	
CHEVRON CHEMICAL COMPANY (Cont'd.)			
Ortho Sevin Garden Spray	50.00	51.50	P
Ortho Sevin 50 Wettable	50.00	48.50	P
Do	50.00	51.90	P
E-Z FLO CHEMICAL COMPANY			
E-Z Flo Sevin 5 Dust	5.00	5.30	P
Do	5.00	5.30	P
Do	5.00	5.30	P
W. R. GRACE & COMPANY			
NACO 5% Sevin Dust	5.00	5.20	X
NIAGARA CHEMICAL DIVISION			
Niagara Sevin 50 WP	50.00	48.70	P
CHAS. PFIZER & COMPANY			
Flea and Tick Powder	5.00	5.50	X
RIGO MANUFACTURING COMPANY			
Kill-Ko Vegetable Dust 5% Sevin	5.00	5.30	P
Do	5.00	5.90	P
Do	5.00	5.40	P
Do	5.00	5.60	P
Do	5.00	5.60	P
SOUTHERN STATES COOPERATIVE, INC.			
SS 3% Sevin Dust	3.00	2.76	P
STAUFFER CHEMICAL COMPANY			
Stauffer Sevin 4 Flowable	41.80	42.40	P
Do	41.80	42.40	P
Do	41.80	41.40	P
TOBACCO STATES CHEMICAL COMPANY			
Tobacco States Vegetable Dust	5.00	5.10	P
Do	5.00	5.30	P
UNION CARBIDE CORPORATION			
Union Carbide Sevin 50 W	50.00	50.10	P
Union Carbide Sevin Sprayable	80.00	85.90	P
Do	80.00	85.30	P
UNITED COOPERATIVES, INC.			
Unico Sevin Dust	3.00	2.80	P
Do	3.00	3.10	P
WOOLFOLK CHEMICAL WORKS, LTD.			
Security 5% Sevin Garden Dust	5.00	4.90	P
Do	5.00	4.70	P
Do	5.00	4.80	P
Do	5.00	5.80	P
Security 50% Sevin Wettable	50.00	50.70	P

ANALYSES OF PRODUCTS CONTAINING DDVP

Registrant Product	DDVP		Remarks
	Guarantee %	Found %	
BACON PRODUCTS COMPANY, INC. Flipo Special Fly Bait	0.50	0.57	X
W. M. COOPER & NEPHEWS, INC. Sugar Bait Fly Killer	0.50	0.62	P
RIGO MANUFACTURING COMPANY Kill-Ko Fly Bait	0.46	0.66	P
Do	0.46	0.59	P
Do	0.46	0.53	P

ANALYSES OF PRODUCTS CONTAINING DIAZINON

Registrant Product	Diazinon		Remarks
	Guarantee %	Found %	
GEIGY AGRICULTURAL CHEMICALS Diazinon 14G	14.30	14.40	P
Do	14.30	15.60	P
Greigy Spectracide	25.00	25.39	P
Diazinon AG 500	48.00	49.20	P
Do	48.00	50.90	P
Do	48.00	49.30	P
Do	48.00	50.70	P
Do	48.00	48.70	P
Do	48.00	52.70	P
Do	48.00	52.50	P
Do	48.00	51.80	P

ANALYSES OF PRODUCTS CONTAINING DIELDRIN

Registrant Product	Dieldrin		Remarks
	Guarantee %	Found %	
AG SUPPLY COMPANY "Ag" Dieldrin Termite Control	18.60	19.20	P
STAUFFER CHEMICAL COMPANY Stauffer Dieldrin 1.5 E	18.50	20.10	P
TOBACCO STATES CHEMICAL COMPANY Tobacco States 1.5 Dieldrin EC	17.60	18.90	P
Do	17.60	18.00	P

ANALYSES OF PRODUCTS CONTAINING FERBAM

Registrant Product	Ferbam		Remarks
	Guarantee %	Found %	
ALLIED CHEMICAL CORPORATION Orchard Brand Ferbam	76.00	73.70	X
CHEVRON CHEMICAL COMPANY Ortho Ferbam 76 Fungicide	76.00	77.50	P
NIAGARA CHEMICAL DIVISION Niagara Carbamate Fungicide	76.00	73.80	P
STAUFFER CHEMICAL COMPANY Stauffer Ferbam 76-WP	76.00	78.20	P
Do	76.00	75.60	P
Do	76.00	76.80	P
Do	76.00	75.60	P
Do	76.00	75.10	P
Do	76.00	77.90	P
Do	76.00	78.57	P
TOBACCO STATES CHEMICAL COMPANY Tobacco States Fermate Dust	10.50	10.70	P

ANALYSES OF PRODUCTS CONTAINING IODINE

Registrant Product	Iodine		Remarks
	Guarantee %	Found %	
COWLES CHEMICAL COMPANY Clenesco Novadine	1.75	2.02	P
KLENZADE PRODUCTS Microklene D F Iodophor	1.75	1.80	P
LAZARUS LABORATORIES, INC. Iosan	1.75	1.75	P
Do	1.75	1.74	P
Udder-San	1.75	1.79	P
Supersan	4.20	<u>3.40</u>	<u>D</u>
RALSTON PURINA COMPANY Purina I-O Dairy	1.75	1.73	P
Do	1.75	1.80	P
SUPERSWEET FEEDS Germ-I-Rid with Iodoguard	1.75	1.74	P

ANALYSES OF PRODUCTS CONTAINING IODINE (Cont'd.)

Registrant Product	Iodine		Remarks
	Guarantee %	Found %	
UNIVERSAL MILKING MACHINE DIV. NATIONAL COOPERATIVES			
Universal Iodo-Kleen	1.75	1.69	P
Do	1.75	1.70	P
WYANDOTTE CHEMICALS CORPORATION			
ACCORD	1.75	1.85	X

ANALYSES OF PRODUCTS CONTAINING LINURON

Registrant Product	Linuron		Remarks
	Guarantee %	Found %	
E. I. DU PONT DE NEMOURS & COMPANY, INC.			
Dupont Lorox	50.00	52.76	P
Do	50.00	52.84	P
Do	50.00	52.40	P
Do	50.00	52.31	P
Do	50.00	54.27	P
Do	50.00	51.24	P
Do	50.00	51.15	P

ANALYSES OF PRODUCTS CONTAINING MALATHION

Registrant Product	Malathion		Remarks
	Guarantee %	Found %	
AG SUPPLY COMPANY			
"Ag" Malathion Emulsive	50.00	50.90	P
Do	50.00	48.40	<u>D</u>
Do	50.00	48.70	P
BORDEN CHEMICAL DIVISION			
Nutro Malathion EC	55.75	54.70	P
CHEVRON CHEMICAL COMPANY			
Ortho Malathion 5 Dust	5.00	6.10	P
Ortho Malathion 25 Wetttable	25.00	25.20	P
Ortho Malathion 5 Emulsive XB	55.00	55.10	P
Do	55.00	57.00	P
DRAGON CHEMICAL CORPORATION			
Dragon 5% Malathion Dust	5.00	4.20	<u>D</u>
Dragon 50% Malathion Spray	50.00	49.80	P

ANALYSES OF PRODUCTS CONTAINING MALATHION (Cont'd.)

Registrant Product	Malathion		Remarks
	Guarantee %	Found %	
E-Z FLO CHEMICAL COMPANY E-Z Flo Malathion 5E	56.50	55.40	P
FARMLAND INDUSTRIES Coop Malathion Concentrate	55.00	57.30	X
W. R. GRACE & COMPANY AGRI. CHEMICAL GROUP NACO Malathion 5 EC	57.00	<u>55.00</u>	<u>D</u>
Do	57.00	56.90	P
INDIANA FARM BUREAU COOPERATIVE Coop 57% Malathion EC	57.00	<u>52.80</u>	<u>D</u>
INTERNATIONAL MINERALS & CHEMICAL CORPORATION Rainbow Malathion 5-E	56.00	55.40	P
Do	56.00	55.70	P
MERCURY CHEMICAL COMPANY INC. Malathion 50E Premium	45.70	47.30	X
NIAGARA CHEMICAL COMPANY Malathion 25 Wetttable	25.00	25.50	P
Do	25.00	25.10	P
CHAS. PFIZER & COMPANY Pfizer Malathion Compound	57.00	56.30	X
RIGO MANUFACTURING COMPANY Kill-Ko Malathion 50% Emulsifiable	50.00	51.20	P
STAUFFER CHEMICAL COMPANY Stauffer Malathion 25 WP	25.00	<u>23.50</u>	<u>D</u>
Stauffer Malathion 5-E	56.00	55.70	P
Do	56.00	<u>53.20</u>	<u>D</u>
THOMPSON HAYWOOD CHEMICAL COMPANY De-Pester Malathion Dust No. 5	5.00	4.30	P
TOBACCO STATES CHEMICAL COMPANY Tobacco States 25% Malathion WP	25.00	24.60	P
UNITED COOPERATIVES, INC. Unico 5% Malathion Dust	5.00	5.60	P
Do	5.00	5.00	P
Do	5.00	4.60	P
Do	5.00	<u>4.10</u>	<u>D</u>
Do	5.00	5.20	P
Do	5.00	<u>3.50</u>	<u>D</u>
Do	5.00	<u>4.80</u>	<u>D</u>
Unico Louse and Flea Powder	5.00	5.60	P
Unico Malathion W.P.	25.00	<u>19.80</u>	<u>D</u>
Unico Malathion 51 Spray	51.30	50.70	P
Do	51.30	50.80	P

ANALYSES OF PRODUCTS CONTAINING MALATHION (Cont'd.)

Registrant Product	Malathion		Remarks
	Guarantee %	Found %	
UNITED COOPERATIVES, INC. (Cont'd.)			
Unico Malathion 5 EC	57.00	56.00	P
Do	57.00	56.90	P
Do	57.00	56.80	P
Do	57.00	55.70	P
Do	57.00	58.50	P
Do	57.00	56.10	P
Unico Malathion Grain Spray	57.00	56.50	P
USS AGRI-CHEMICALS INC.			
Armagard Malathion 5 EC	55.75	55.00	P
Do	55.75	56.00	P

ANALYSES OF PRODUCTS CONTAINING MALIEC HYDRAZIDE

Registrant Product	Maliec Hydrazide		Remarks
	Guarantee %	Found %	
THE ANSUL COMPANY			
Sucker-Stuff	30.00	32.80	P
Do	30.00	31.60	P
Do	30.00	31.70	P
Do	30.00	31.80	P
Do	30.00	31.70	P
Do	30.00	31.70	P
Do	30.00	32.30	P
Do	30.00	32.20	P
FAIRMOUNT CHEMICAL COMPANY, INC.			
De-Sprout	30.00	32.20	P
UNIROYAL CHEMICAL DIVISION			
MH-30	30.00	30.40	P
Do	30.00	30.40	P
Do	30.00	30.50	P
Do	30.00	31.20	P
Do	30.00	30.40	P

ANALYSES OF PRODUCTS CONTAINING MANEB

Registrant Product	Maneb		Remarks
	Guarantee %	Found %	
E. I. DU PONT DE NEMOURS & COMPANY, INC.			
Dupont Manzate D	80.00	79.80	P
Do	80.00	77.60	P
Do	80.00	79.50	P
Do	80.00	77.40	D
Do	80.00	80.07	P

ANALYSES OF PRODUCTS CONTAINING METHOXYCHLOR

Registrant Product	Methoxychlor		Remarks
	Guarantee %	Found %	
AG SUPPLY COMPANY			
"Ag" Methoxychlor Garden Dust	5.00	4.80	X
"Ag" Methoxychlor-2 Emulsifiable	24.00	25.30	P
Do	24.00	25.20	P
Do	24.00	26.10	P
"Ag" 50% Methoxychlor WP	50.00	52.80	P
ALLIED CHEMICAL CORPORATION			
Arcadian Methoxychlor EM-2	25.20	27.10	P
Do	25.20	25.50	P
E. I. DU PONT DE NEMOURS & COMPANY, INC.			
Dupont Dairy Cattle Insecticide	50.00	53.40	P
Do	50.00	52.70	P
Dupont Marlata 2-MR	24.00	24.80	P
Do	24.00	23.50	P
Do	24.00	26.20	P
Dupont Marlata 50	50.00	49.40	P
Do	50.00	51.20	P
Do	50.00	48.50	P
FARMLAND INDUSTRIES			
Coop Methoxychlor "50"	50.00	48.90	X
GEIGY AGRICULTURAL CHEMICALS			
Geigy Methoxychlor 25E	25.00	28.50	P
Geigy Methoxychlor "50"	50.00	48.60	P
Do	50.00	49.90	P
STAUFFER CHEMICAL COMPANY			
Stauffer Methoxychlor 2-EH	24.00	28.10	P
TOBACCO STATES CHEMICAL COMPANY, INC.			
Tobacco States 24% Methoxychlor EC	24.00	26.50	P
Do	24.00	26.80	P

ANALYSES OF PRODUCTS CONTAINING METHOXYCHLOR (Cont'd.)

Registrant Product	Methoxychlor		Remarks
	Guarantee %	Found %	
TOBACCO STATES CHEMICAL COMPANY, INC. (Cont'd.)			
Tobacco, States 24% Methoxychlor EC	24.00	24.50	P
Do	24.00	24.70	P
Do	24.00	24.50	P
UNITED COOPERATIVES, INC.			
Unico Methoxychlor EC	23.80	26.60	P
Do	23.80	24.70	P
Do	23.80	25.90	P
Do	23.80	24.70	P
Do	23.80	26.00	P
Do	23.80	23.60	P
Unico 50% Methoxychlor WP	50.00	52.80	P
Do	50.00	50.30	P
Do	50.00	47.30	D
Do	50.00	49.10	P
Do	50.00	49.60	P

ANALYSES OF PRODUCTS CONTAINING PARAQUAT

Registrant Product	Paraquat		Remarks
	Guarantee %	Found %	
CHEVRON CHEMICAL COMPANY			
Ortho Paraquat CL	29.10	30.70	P
Do	29.10	30.90	P
Do	29.10	29.60	P
Do	29.10	32.70	P
Do	29.10	31.30	P

RAT BAITS
(PRODUCTS CONTAINING PIVAL, PROLIN, WARFARIN)

Registrant Product	Pival		Remarks
	Guarantee %	Found %	
AMERICAN CHEMICAL PROD.OF LANSING			
Rat Kill	0.14	0.13	X
CHAS. PFIZER & COMPANY			
Tri-Ban	0.025	0.024	X

RAT BAIT (Cont'd.)
(PRODUCTS CONTAINING PIVAL, PROLIN, WARFARIN)

Registrant Product	Pival		Remarks
	Guarantee %	Found %	
RALSTON PURINA COMPANY Purina Rat-Kill Soluble	0.14	0.14	P
Registrant Product	Prolin		Remarks
	Guarantee %	Found %	
BACON PRODUCTS, INC. Eagles-7 Prolin Rat Bait	0.025	0.025	P
Warfarin	0.025	0.0352	P
Sulfaquinoxaline			
Do	0.025	0.027	P
Do	0.025	0.0362	P
Do			
Do	0.025	0.024	P
Do	0.025	0.0304	P
Do			
BLACK LEAF PRODUCTS COMPANY Warf			
Warfarin	0.025	0.027	P
Sulfaquinoxaline	0.025	0.0304	P
WM. COOPER & NEPHEWS, INC. Cooper Prolin Rat & Mouse Killer			
Warfarin	0.025	0.026	P
Sulfaquinoxaline	0.025	0.0356	P
GOOD-LIFE CHEMICALS, INC. Rat Dume			
Warfarin	0.025	0.023	P
Sulfaquinoxaline	0.025	0.0294	P
Do			
Do	0.025	0.022	P
Do	0.025	0.0304	P
Do			
Do	0.025	0.024	P
Do	0.025	0.0226	P
W. R. GRACE & COMPANY Prolin Pellets			
Warfarin	0.025	0.032	P
Sulfaquinoxaline	0.025	0.0316	P
S. C. JOHNSON & SON, INC. Raid			
Warfarin	0.025	0.027	P
Sulfaquinoxaline	0.025	0.0314	P

RAT BAIT (Cont'd.)
(PRODUCTS CONTAINING PIVAL, PROLIN. WARFARIN)

Registrant Product	Prolin		Remarks
	Guarantee %	Found %	
LAMB PRODUCTS COMPANY			
Lam-Kill Rat & Mouse Killer			
Warfarin	0.025	0.027	P
Sulfaquinoxaline	0.025	0.0312	P
PEARSON AND COMPANY			
Red-I-Cat Concentrate			
Warfarin	0.500	0.510	P
Sulfaquinoxaline	0.500	0.591	P
UNITED COOPERATIVES, INC.			
Unico Prolin Rat & Mouse Killer			
Warfarin	0.025	0.033	P
Sulfaquinoxaline	0.025	0.0308	P
Do			
Do	0.025	0.024	P
Do	0.025	0.0308	P
Do			
Do	0.025	0.030	P
Do	0.025	0.0338	P
Do			
Do	0.025	0.027	P
Do	0.025	0.0339	P

Registrant Product	Warfarin		Remarks
	Guarantee %	Found %	
AMERICAN EXTERMINATOR, INC.			
Warfarin Rat & Mouse Killer	0.025	0.020	X
BLACKLEAF PRODUCTS COMPANY			
Warf Pellets	0.025	0.024	P
Do	0.025	0.025	P
CALE CHEMICAL COMPANY			
Kilz Rat & Mouse Killer	0.025	0.025	P
C. & F. SUPPLY, INC.			
Rat & Mouse Killer	0.025	0.042	X
WM. COOPER & NEPHEWS, INC.			
Water Soluable Warfarin	0.540	0.600	P
Do	0.540	0.500	P

RAT BAIT (Con'd.)
(PRODUCTS CONTAINING PIVAL, PROLIN, WARFARIN)

Registrant Product	Warfarin		Remarks
	Guarantee %	Found %	
THE D-CON COMPANY, INC.			
D-Con Ready Mix	0.025	0.026	P
Do	0.025	0.025	P
Do	0.025	0.025	P
D-Con Warficide	0.127	<u>0.100</u>	<u>D</u>
D-Con Mouse-Prufe	0.054	0.044	P
Do	0.054	0.048	P
Do	0.054	0.054	P
Do	0.054	<u>0.042</u>	<u>D</u>
Do	0.054	0.051	P
Do	0.054	0.049	P
Do	0.054	0.049	P
Do	0.054	0.052	P
DRAGON CHEMICAL CORPORATION			
Dragon Rat and Mouse Killer	0.025	0.025	P
THE END-O-RAT COMPANY			
End-O-Rat	0.025	0.029	P
GUARANTEE PEST CONTROL COMPANY			
Guarantee Warfarin Bait	0.025	0.024	P
HESS & CLARK DIV. OF RICHARDSON-MERRELL, INC.			
Warfarat Crumbles	0.025	0.020	X
Do	0.025	0.022	P
Do	0.025	0.020	P
DR. LEGEAR, INC.			
Dr. LeGear Mouse Killer	0.050	0.047	P
LEHIGH CHEMICAL COMPANY, INC.			
Expell	0.025	0.021	P
PERK PRODUCTS COMPANY			
Perkerson's Blam	0.025	0.020	P
Do	0.025	0.022	P

ANALYSES OF PRODUCTS CONTAINING SIMAZINE

Registrant Product	Simazine		Remarks
	Guarantee %	Found %	
GEIGY AGRICULTURAL CHEMICALS			
Simazine 80 W	80.00	83.86	P
Do	80.00	82.90	P

ANALYSES OF PRODUCTS CONTAINING SODIUM HYPOCHLORITE

Registrant Product	Sodium Hypochlorite		Remarks
	Guarantee %	Found %	
ASTOR PRODUCTS, INC.			
White Arrow Bleach	5.25	5.53	P
Do	5.25	5.81	P
BABSON BROTHERS COMPANY			
Surge Zinicin Sanitizer	10.50	10.16	P
Do	10.50	<u>5.10</u>	<u>D</u>
BURNETT TRACTOR COMPANY			
Sodium Hypochlorite Solution	15.00	<u>8.11</u>	<u>DX</u>
Do	15.00	<u>10.10</u>	<u>D</u>
Do	15.00	<u>9.07</u>	<u>D</u>
Do	8.00	13.40	P
THE CALVERT CHEMICAL COMPANY			
Sun-Fresh Bleach	5.25	4.56	P
Do	5.25	5.68	P
C & M MARKETING COMPANY			
Squire Bleach	5.25	6.24	X
THE CLOROX COMPANY			
Clorox Bleach	5.25	5.43	P
Do	5.25	5.48	P
Do	5.25	5.45	P
Do	5.25	5.56	P
Do	5.25	5.39	P
Do	5.25	5.51	P
Do	5.25	5.23	P
Do	5.25	5.28	P
Do	5.25	5.27	P
Do	5.25	5.42	P
Do	5.25	5.24	P
Do	5.25	5.40	P
Do	5.25	<u>4.54</u>	<u>D</u>
Do	5.25	5.40	P
Do	5.25	5.58	P
Do	5.25	5.48	P
COLONIAL STORES, INC.			
3 D Bleach	5.25	5.62	P
CUMBERLAND MANUFACTURING COMPANY			
Bri-Tex Bleach	5.25	<u>3.30</u>	<u>D</u>
THE DELAVAL SEPARATOR COMPANY			
DeLaval Chlorine Sanitizer	6.00	<u>2.26</u>	<u>D</u>
FISHER, FAZIO, COSTA, SUPER MARKETS			
Heritage House Bleach	5.25	5.29	X

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

Registrant Product	Sodium Hypochlorite		Remarks
	Guarantee %	Found %	
FRONTIER CHEMICALS, INC.			
Clor-San-12 Bactericide	10.50	10.10	P
Do	10.50	<u>7.93</u>	<u>D</u>
Do	10.02	<u>6.77</u>	<u>D</u>
THE GREAT ATLANTIC & PACIFIC TEA COMPANY			
Bright Sail Laundry Bleach	5.25	5.42	P
Do	5.25	5.56	P
Do	5.25	5.58	P
Do	5.25	5.02	P
HAT-RA CHEMICAL COMPANY			
Sno-Glo Bleach	10.00	10.70	P
Do	10.00	<u>3.47</u>	<u>D</u>
Do	15.00	<u>10.92</u>	<u>D</u>
HOUCHENS STORES			
Our Special Bleach	5.25	5.91	P
Do	5.25	5.90	P
INDEPENDENT GROCERS' ALLIANCE DISTRIBUTING COMPANY			
IGA Hi-Power Bleach	5.25	4.89	P
Do	5.25	5.42	P
Do	5.25	<u>4.26</u>	<u>D</u>
Do	5.25	5.60	P
CARL KASTER COMPANY			
Hy-Clor Sodium Hypochlorite Solution	15.00	6.61	<u>D</u>
Do	15.00	<u>9.21</u>	<u>D</u>
Do	15.00	<u>9.30</u>	<u>D</u>
Do	15.00	<u>9.35</u>	<u>D</u>
Do	15.00	<u>6.30</u>	<u>D</u>
Do	15.00	<u>9.30</u>	<u>D</u>
KLENZADE PRODUCTS			
Klenzade X-4 Liquid Bactericide	6.40	6.75	P
Do	6.40	6.15	P
Do	6.40	<u>4.57</u>	<u>D</u>
Klenzade XY-12 Disinfectant	8.40	9.97	P
Do	8.40	<u>6.53</u>	<u>D</u>
Do	8.40	<u>5.23</u>	<u>D</u>
THE KROGER COMPANY			
Kandu Bleach	5.25	5.67	P
Do	5.25	5.84	P
Do	5.25	5.62	P

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

Registrant Product	Sodium Hypochlorite		Remarks
	Guarantee %	Found %	
THE KROGER COMPANY (Cont'd.)			
Kandu Bleach	5.25	5.50	P
Do	5.25	5.52	P
LIBERTY CASH GROCERS, INC.			
Miss Dixie Laundry Bleach	5.25	5.28	X
MCKNIGHT-KEATON GROCERY COMPANY			
Chloro-San Household Bleach	5.25	<u>3.97</u>	<u>D</u>
Do	5.25	<u>3.09</u>	<u>D</u>
MEYER-BLANKE COMPANY			
"EM-BEE" "CL-8" Sodium Hypochlorite Solution	8.40	8.54	P
THE MIAMI PRODUCTS & CHEMICAL COMPANY			
Jack & Jill Liquid Bleach	5.25	4.98	P
	5.25	5.84	P
NOVEL WASH COMPANY, INC.			
Novel Wash Bleach	5.25	4.77	P
Do	5.25	<u>4.43</u>	<u>D</u>
PENNSALT CHEMICALS CORPORATION			
B-K Liquid Bactericide	5.25	5.39	P
Do	5.25	<u>4.22</u>	<u>D</u>
PILOT STORES, INC.			
Little Skipper Bleach and Cleaner	5.25	5.22	P
PUREX CORPORATION, LTD.			
Fleecy White Bleach	5.25	5.73	P
Purex Super Bleach	6.00	6.70	P
Do	6.00	6.70	P
Do	6.00	6.30	P
Do	6.00	6.24	P
Do	6.00	6.67	P
Do	6.00	5.75	P
Do	6.00	6.27	P
Do	6.00	<u>4.79</u>	<u>D</u>
Do	6.00	<u>6.23</u>	<u>P</u>
Do	6.00	6.61	P
Do	6.00	6.60	P
Do	6.00	6.01	P
Do	6.00	6.85	P
Do	6.00	6.74	P
Do	6.00	6.33	P

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

Registrant Product	Sodium Hypochlorite		Remarks
	Guarantee %	Found %	
PUREX CORPORATION, LTD. (Cont'd.) Purex Super Bleach	6.00	6.49	P
C. B. RAGLAND Lucky Lady	5.25	6.27	P
SCOTT LAD FOODS. INC. Scot Lad Bleach	5.25	5.70	X
SEP-KO CHEMICALS MonoKlor Sanitizing Solution	6.40	<u>5.50</u>	<u>D</u>
SINCLAIR MANUFACTURING COMPANY White Monday Bleach	5.25	5.66	P
Do	5.25	5.80	P
Do	5.25	5.80	P
Do	5.25	5.65	P
Do	5.25	4.88	P
Do	5.25	5.73	P
Do	5.25	6.05	P
Do	5.25	5.92	P
Do	5.25	5.16	P
Do	5.25	5.78	P
Do	5.25	5.13	P
STA-RITE INDUSTRIES, INC. Per-Chlor Germicide & Disinfectant	5.00	4.15	P
Do	5.00	<u>4.19</u>	<u>D</u>
UNITED STATES CHEMICAL CORPORATION San-I-King Germicide	8.50	8.06	P
Do	8.50	<u>7.68</u>	<u>D</u>

ANALYSES OF PRODUCTS CONTAINING ZINEB

Registrant Product	Zineb		Remarks
	Guarantee %	Found %	
CHEVRON CHEMICAL COMPANY Ortho Zineb Wettable	75.00	80.34	P
SOUTHERN STATES COOPERATIVE, INC. Z Dust	5.20	5.60	P
TOBACCO STATES CHEMICAL COMPANY Tobacco States 75% Zineb Wettable Powder	75.00	72.40	P
Do	75.00	76.40	P

ANALYSES OF PRODUCTS CONTAINING MIXTURES OF PESTICIDES

Registrant Product	Guarantee %	Found %	Remarks
UNITED COOPERATIVES, INC. Unico Sevin Zineb 3-5.2 Dust			
Carbaryl	3.00	2.80	P
Zineb	5.20	6.00	P
PROCTER & GAMBLE Comet			
Trisodium phosphate	12.90	*	
Sodium dodecylbenzene Sulfonate	1.90	*	
Sodium Hypochlorite	0.40	0.48	P
Do			
Do	12.90	*	
Do	1.90	*	
Do	0.40	0.44	P
Do			
Do	12.90	*	
Do	1.90	*	
Do	0.40	0.44	P
Do			
Do	12.90	*	
Do	1.90	*	
Do	0.40	0.53	P
Do			
Do	12.90	*	
Do	1.90	*	
Do	0.40	0.51	P
GEIGY AGRICULTURAL CHEMICAL COMPANY Geigy Alfa-Tox			
Diazinon	10.00	9.90	P
Methoxychlor, Technical	20.00	22.90	P

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

Registrant Product	Guarantee %	Found %	Remarks
GEIGY AGRICULTURAL CHEMICAL COMPANY (Cont'd.)			
Geigy Alfa-Tox			
Diazinon	10.00	11.60	P
Methoxychlor, Technical	20.00	19.70	P
Do			
Do	10.00	10.40	P
Do	20.00	23.30	P
Do			
Do	10.00	10.30	P
Do	20.00	21.40	P
Do			
Do	10.00	10.90	P
Do	20.00	21.40	P
Do			
Do	10.00	10.60	P
Do	20.00	21.10	P
Do			
Do	10.00	10.60	P
Do	20.00	19.80	P
Do			
Do	10.00	10.70	P
Do	20.00	20.80	P
Do			
Do	10.00	10.30	P
Do	20.00	21.10	P
CHEVRON CHEMICAL COMPANY			
Tobacco Spray-D			
DDD	24.50	23.70	P
Dieldrin	2.30	2.65	P
Do			
Do	24.50	25.00	P
Do	2.30	2.78	P
E-Z FLO CHEMICAL COMPANY			
Tobacco Worm & Grasshopper Spray			
DDD	23.36	28.00	P
Dieldrin	2.19	2.26	P
New Super Kill Tobacco Spray			
Dieldrin	2.42	2.40	P
DDT	22.57	22.60	P
Endosulfan	11.23	12.80	P
Do			
Do	2.42	2.65	P
Do	22.57	22.10	P
Do	11.23	11.99	P
NIAGARA CHEMICAL DIVISION			
Niagara Tobacco Spray			
DDD	24.30	26.20	P
Dieldrin	2.25	2.55	P

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

Registrant Product	Guarantee %	Found %	Remarks
CHAS. PFIZER & COMPANY			
Pfizer Dairy Cattle Dust	5.00	5.12	P
Methoxychlor, Technical	4.00	3.70	P
Malathion			
RIGO MANUFACTURING COMPANY			
Kill-Ko Dairy Kattle Dust			
Methoxychlor	10.00	<u>7.90</u>	<u>D</u>
Butoxypolypropylene	5.00	*	
Kill-Ko Rhothane-Dieldrin			
Dieldrin	2.13	2.40	P
DDD	22.70	26.50	P
TOBACCO STATES CHEMICAL COMPANY			
Tobacco States Hopper & Worm Spray			
Dieldrin	2.13	2.30	P
DDD	22.70	22.20	P
Do			
Do	2.13	2.30	P
Do	22.70	24.30	P
Super X Tobacco Spray			
DDD	16.92	16.90	P
DDT	11.29	10.70	P
Diazinon	8.44	9.00	P
Dieldrin	2.11	2.50	P
Do			
Do	16.92	16.90	P
Do	11.29	11.30	P
Do	8.44	9.00	P
Do	2.11	2.50	P
Do			
Do	16.92	17.60	P
Do	11.29	11.50	P
Do	8.44	8.90	P
Do	2.11	2.60	P
Do			
Do	16.92	16.00	P
Do	11.29	11.50	P
Do	8.44	9.00	P
Do	2.11	2.60	P
UNITED COOPERATIVES, INC.			
T-D Tobacco Spray			
DDD	23.20	22.10	P
Dieldrin	2.20	2.20	P

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

Registrant Product	Guarantee %	Found %	Remarks
UNITED COOPERATIVES, INC.			
T-D Tobacco Spray	23.20	30.00	P
DDD	2.20	2.32	P
Dieldrin			
USS AGRI-CHEMICALS, INC.			
Red-X Tobacco Spray	2.15	2.70	P
Dieldrin	11.60	11.90	P
DDT	23.25	<u>21.80</u>	<u>D</u>
DDD			
Do	2.15	2.70	P
Do	11.60	11.90	P
Do	23.25	<u>21.40</u>	<u>D</u>

Results of Analyses of Insecticides in Fertilizers. An Asterisk Indicates a Deficiency.
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SAMPLE NUMBER	GRADE	ELEMENT	GUARANTEE	FOUND
AGRICO CHEMICAL COMPANY, MEMPHIS, TENN.				
23407	4-16- 4	ALDRIN	0.1500	0.0500 *
23568	4-16- 4	ALDRIN	0.1000	0.2800 M
23699	4-16- 4	ALDRIN	0.3000	0.0700 *
23700	5-10-15	ALDRIN	0.1500	0.1400
23906	4-16- 4	ALDRIN	0.3000	0.1600 *
23988	4-16- 4	ALDRIN	0.3000	0.0400 *
24217	5-10-15	ALDRIN	0.1500	0.0800 *
24490	5-10-15	ALDRIN	0.1400	0.1000 *
24868	4-16- 4	ALDRIN	0.3000	0.4300
24869	5-10-15	ALDRIN	0.1500	0.1600
24923	5-10-15	ALDRIN	0.1500	0.1400
BLUEGRASS PLANT FOODS, INC., CYNTHIANA, KY.				
24213	6-12-18	ALDRIN	0.1490	0.1400
24214	13- 6-16	ALDRIN	0.1400	0.1500
24385	5- 4-12	ALDRIN	0.1000	0.0600 *
24922	8- 6-18	ALDRIN	0.1500	0.1300
25012	5- 6-10	ALDRIN	0.1500	0.1100 *
25013	11- 7-11	ALDRIN	0.1400	0.1200
25014	5- 6-10	ALDRIN	0.0900	0.0600 *
25015	6- 6-17	ALDRIN	0.1400	0.1600
25016	10- 8-11	ALDRIN	0.1100	0.2100 M
25017	8-10-14	ALDRIN	0.1400	0.0500 *
BURLEY BELT FERTILIZER COMPANY, LEXINGTON, KY.				
22982	5-10-15	ALDRIN	0.1500	0.0800 *
23665	4-16- 4	ALDRIN	0.3100	0.2800
23788	4-16- 4	ALDRIN	0.3100	0.3000
24481	4-16- 4	ALDRIN	0.3100	0.2600
24487	8-10-15	ALDRIN	0.1500	0.1600
24488	5-10-15	ALDRIN	0.1500	0.1200 *
24489	5-10-15	ALDRIN	0.1500	0.2200
24840	8- 6-18	ALDRIN	0.1500	0.2200
24841	9- 9- 9	ALDRIN	0.4000	0.6700 M
24842	11- 9-18	ALDRIN	0.0900	0.0800
24843	8-10-15	ALDRIN	0.1500	0.1400
24870	4-16- 4	ALDRIN	0.3100	0.2800
24871	6- 6-18	ALDRIN	0.1500	0.1600
24872	10-10-20	ALDRIN	0.1500	0.1700
25060	3- 3-11	ALDRIN	0.0995	0.1200
25061	12- 4-14	ALDRIN	0.3280	0.0600 *
25062	10-10-20	ALDRIN	0.1500	0.0600 *
COMMONWEALTH FERTILIZER CO., RUSSELLVILLE, KY.				
23635	4-16- 4	ALDRIN	0.3100	0.2400 *
23655	4-16- 4	ALDRIN	0.3100	0.2300 *
25025	5-10-15	ALDRIN	0.1500	0.1300

Results of Analyses of Insecticides in Fertilizers. An Asterisk Indicates a Deficiency.
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SAMPLE NUMBER	GRADE	ELEMENT	GUARANTEE	FOUND
FEDERAL CHEMICAL COMPANY, LOUISVILLE, KY.				
23281	4-16- 4	ALDRIN	0.1875	0.3400 M
23332	4-16- 4	ALDRIN	0.1875	0.0 *
23678	4-16- 4	ALDRIN	0.1875	0.0 *
23693	4-16- 4	ALDRIN	0.1875	0.0700 *
23694	4-16- 4	ALDRIN	0.1875	0.0200 *
23698	9-10-15	ALDRIN	0.1500	0.0500 *
23794	4-16- 4	ALDRIN	0.1875	0.0800 *
23901	6-12-12	ALDRIN	0.5000	0.4200
23907	4-16- 4	ALDRIN	0.1875	0.1000 *
23910	5-10-15	ALDRIN	0.1500	0.0800 *
GLASGOW FERTILIZER COMPANY, GLASGOW, KY.				
23419	4-16- 4	ALDRIN	0.3100	0.2000 *
23904	4-16- 4	ALDRIN	0.3100	0.2700
W. R. GRACE & CO., NASHVILLE, TENN.				
23416	4-16- 4	ALDRIN	0.3100	0.1600 *
23590	5-10-15	ALDRIN	0.2500	0.2400
W. R. GRACE & CO., NEW ALBANY, IND.				
23166	4-16- 4	ALDRIN	0.3100	0.0700 *
23261	4-16- 4	ALDRIN	0.1875	0.0500 *
23264	9-10-15	ALDRIN	0.1500	0.0700 *
23400	4-16- 4	ALDRIN	0.3100	0.4800 M
23589	4-16- 4	ALDRIN	0.3100	0.1300 *
24219	5-10-15	ALDRIN	0.1500	0.1300
24493	5-10-15	ALDRIN	0.1500	0.1100 *
GRO-GREEN CHEMICAL CO., INC., SHELBYVILLE, KY.				
23528	8-10-15	ALDRIN	0.1500	0.1300
24483	2- 5- 6	ALDRIN	0.0500	0.0500
24484	5- 6- 9	ALDRIN	0.0670	0.0800
24485	10-13-11	ALDRIN	0.0960	0.0800
24486	9-13- 7	ALDRIN	0.0960	0.0200 *
24837	8-11-11	ALDRIN	0.1140	0.0900 *
24838	5- 7- 7	ALDRIN	0.0580	0.0900 M
GRO-GREEN PAYNES, MIDWAY, KY.				
24223	6 17 10- 0- 7	ALDRIN	0.1400	0.1600
25063	6 17 6-10-10	ALDRIN	0.0790	0.0900
25064	6 17 17- 6- 9	ALDRIN	0.2430	0.3100
GULF OIL CORP., IRVINGTON, KY.				
24646	11-11-15	ALDRIN	0.1100	0.1700 M
24651	5-10-14	ALDRIN	0.0700	0.0600
INTERNATIONAL MINERALS & CHEMICAL CORP., CINCINNATI, OHIO				
23334	5-10-15	ALDRIN	0.1500	0.1900
23367	4-16- 4	ALDRIN	0.3100	0.1100 *
23616	4-16- 4	ALDRIN	0.3100	0.1300 *
23617	5-10-15	ALDRIN	0.1500	0.1000 *
24610	5-10-15	ALDRIN	0.1500	0.1500

Results of Analyses of Insecticides in Fertilizers. An Asterisk Indicates a Deficiency. An "M" Indicates Misbranded.

SAMPLE NUMBER	GRADE	ELEMENT	GUARANTEE	FOUND
INTERNATIONAL MINERALS & CHEMICAL CORP., SOMERSET, KY.				
23319	6-12-18	ALDRIN	0.1500	0.0300 *
23639	4-16- 4	ALDRIN	0.3100	0.2300 *
23785	4-16- 4	ALDRIN	0.3100	0.2500
MOBIL CHEMICAL CO., RICHMOND, VA.				
23158	4-16- 4	ALDRIN	0.3100	0.0800 *
23300	4-16- 4	ALDRIN	0.3100	0.0900 *
23349	4-16- 4	ALDRIN	0.3100	0.0700 *
23566	4-16- 4	ALDRIN	0.3100	0.0500 *
23574	4-16- 4	ALDRIN	0.1500	0.0800 *
23786	4-16- 4	ALDRIN	0.1500	0.0400 *
23905	4-16- 4	ALDRIN	0.3100	0.0300 *
NORTH AMERICAN FERTILIZER CO., LOUISVILLE, KY.				
23409	4-16- 4	ALDRIN	0.3100	0.1600 *
23784	4-16- 4	ALDRIN	0.3100	0.0500 *
24215	9- 9-17	ALDRIN	0.1500	0.1000 *
24682	8- 8-15	ALDRIN	0.1300	0.0 *
24876	11- 9-19	ALDRIN	0.1480	0.1600
OHIO VALLEY FERTILIZER, INC., MAYSVILLE, KY.				
24371	10-10-20	ALDRIN	0.1500	0.1900
24373	5-10-15	ALDRIN	0.1500	0.0600 *
24378	8-10-15	ALDRIN	0.1500	0.0700 *
24873	10-10-20	ALDRIN	0.1500	0.0800 *
ROYSTER COMPANY, NORFOLK, VA.				
23088	4-16- 4	ALDRIN	0.3100	0.2500
23484	4-16- 4	ALDRIN	0.3100	0.0500 *
23902	4-16- 4	ALDRIN	0.3100	0.3000
25189	5-10-15	ALDRIN	0.1500	0.1300
SOUTHERN STATES COOP., INC., LOUISVILLE, KY.				
23172	5-10-15	ALDRIN	0.1500	0.1800
23223	4-16- 4	ALDRIN	0.3100	0.3500
23227	4-16- 4	ALDRIN	0.3100	0.2900
23304	4-16- 4	ALDRIN	0.3100	0.3200
23345	4-16- 4	ALDRIN	0.3100	0.3100
23363	4-16- 4	ALDRIN	0.3100	0.2900
23408	4-16- 4	ALDRIN	0.3100	0.2900
23432	4-16- 4	ALDRIN	0.3100	0.2600
23462	5-10-15	ALDRIN	0.1500	0.1300
23463	4-16- 4	ALDRIN	0.3100	0.3400
23569	4-16- 4	ALDRIN	0.3100	0.3000
23781	10-10-10	ALDRIN	0.5000	0.4900
23903	4-16- 4	ALDRIN	0.3100	0.3400
24276	5-10-15	ALDRIN	0.1500	0.1500
24847	6- 6-18	ALDRIN	0.1500	0.1600

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SAMPLE NUMBER	GRADE	ELEMENT	GUARANTEE	FOUND
SOUTHERN STATES COOP., INC., RUSSELLVILLE, KY.				
23435	5-10-15	ALDRIN	0.1500	0.1000 *
23516	5-10-15	ALDRIN	0.1500	0.1300
23909	5-10-15	ALDRIN	0.1500	0.1600
23911	5-10-15	ALDRIN	0.1500	0.1500
24216	5-10-15	ALDRIN	0.1500	0.1700
24357	5-10-15	ALDRIN	0.1500	0.1400
SOUTHERN STATES COOP., INC., WINCHESTER, KY.				
23154	4-16- 4	ALDRIN	0.3100	0.3300
23271	4-16- 4	ALDRIN	0.3100	0.2800
23278	5-10-15	ALDRIN	0.1500	0.1600
23301	0-16- 4	ALDRIN	0.3100	0.9100 M
23360	4-16- 4	ALDRIN	0.3100	0.3300
23592	8-10-15	ALDRIN	0.1500	0.1300
23597	4-16- 4	ALDRIN	0.3100	0.3200
23789	5-10-15	ALDRIN	0.1500	0.1600
23989	4-16- 4	ALDRIN	0.3100	0.3100
24212	6- 6-18	ALDRIN	0.1500	0.1100 *
24491	5-10-15	ALDRIN	0.1500	0.1200 *
25018	6- 6-18	ALDRIN	0.1500	0.1200 *
SOUTHERN STATES HOPKINSVILLE COOP., HOPKINSVILLE, KY.				
24603	12-12-18	ALDRIN	0.1800	0.2600
24604	12-12-18	ALDRIN	0.1800	0.3200 M
USS AGRI-CHEMICALS, INC, ATLANTA, GA.				
23226	5-10- 5	ALDRIN	0.1875	0.2300
23338	5-10- 5	ALDRIN	0.1875	0.1700
23457	5-10- 5	ALDRIN	0.1875	0.1600
23622	5-10- 5	ALDRIN	0.1875	0.0700 *
23908	5-10- 5	ALDRIN	0.1875	0.1900
23912	5-10- 5	ALDRIN	0.1875	0.1700
23913	5-10- 5	ALDRIN	0.1875	0.2300
24492	5-10-15	ALDRIN	0.1500	0.0700 *
24844	5-10-15	ALDRIN	0.1500	0.0700 *
USS AGRI-CHEMICALS, INC., CINCINNATI, OHIO				
23355	4-16- 4	ALDRIN	0.1875	0.0900 *
23501	4-16- 4	ALDRIN	0.1875	0.0900 *
24672	5-10-15	ALDRIN	0.1500	0.0600 *
24673	10-10-20	ALDRIN	0.1500	0.1000 *
24677	6-12-18	ALDRIN	0.1500	0.0400 *
USS AGRI-CHEMICALS, INC., JEFFERSONVILLE, IND.				
23171	5-10- 5	ALDRIN	0.1875	0.1700
23570	5-10- 5	ALDRIN	0.1875	0.1600
23633	5-10-15	ALDRIN	0.1500	0.4500 M
23782	4-16- 4	ALDRIN	0.1875	0.0700 *
23783	4-16- 4	ALDRIN	0.1875	0.1500 *
24218	5-10-15	ALDRIN	0.1500	0.1500
USS AGRI-CHEMICALS, INC., NASHVILLE, TENN.				
23122	5-10- 5	ALDRIN	0.1875	0.0400 *
23280	5-10- 5	ALDRIN	0.1875	0.0 *
23293	5-10- 5	ALDRIN	0.1875	0.1300 *
24482	6-12-18	ALDRIN	0.1500	0.2000

