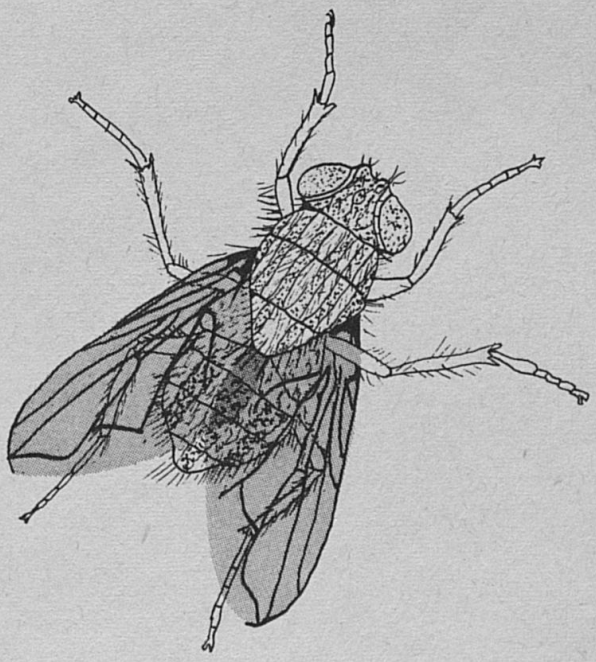
REGULATORY BULLETIN 146

KENTUCKY ECONOMIC POISONS REPORT

1956 THROUGH 1957



UNIVERSITY OF KENTUCKY

AGRICULTURAL EXPERIMENT STATION

LEXINGTON

FEED AND FERTILIZER DEPARTMENT

KENTUCKY AGRICULTURAL EXPERIMENT STATION

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Robert Mathews, Asst. Adm. & Chief Inspector

Guy P. Zickefoose, Auditor-Inspector
David M. Daugherty, Registration Inspector

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Otis R. Wheeler

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* Resigned during period covered by this Bulletin.

CONTENTS

Prepared by David M. Daugherty, Paul R. Caudill, and Bruce Poundstone.
Analytical data by the Laboratory Staff

COMPANIES LICENSED UNDER KENTUCKY ECONOMIC POISONS LAW IN 1957

Abbott Laboratories, 1400 Sheridan Road, North Chicago, Illinois
ABCO, Incorporated, 1603 Fifth Avenue, McKeesport, Pennsylvania
Abmor Associates, Inc., 515 Flushing Avenue, Brooklyn 5, New York
Aceline Products Corporation, 27 Gorham Street, P. O. Box 236, Rochester 1, N.Y.
Acme Quality Paints, Inc., 8250 St. Aubin Avenue, Detroit 11, Michigan
Adco, Incorporated, 902 West Main, Sedalia, Missouri
Aero-Sanitation Company, 325 W. Pacific Avenue, St. Louis 19, Missouri
"Ag" Supply Company, Old Clarksville Road, Hopkinsville, Kentucky
Airkem, Incorporated, 241 East 44th Street, New York 17, New York
Airosol Company, Inc., 525 North 11th Street, Neodesha, Kansas
Air-Way Industries, Inc., 2101 Auburn Avenue, Toledo 1, Ohio
Alco Chemical Company, 19027 Pioneer Boulevard, Artesia, California
Allen-Crowl Company, 1559 Allentown Road, Box 627, Lima, Ohio
Allied Chemical & Dye Corp., Barrett Division, 40 Rector St., New York 6, N. Y.
Allied Drug Products Company, 16th and Pierce Streets, Chattanooga 1, Tennessee
Alpha Products Company, 214 Mills Building, N. W., Washington 6, D. C.
American Aerovap, Inc., 170 W. 74th Street, New York 23, New York
American Chemical Paint Company, Ambler, Pennsylvania
American Cyanamid Company, 30 Rockefeller Plaza, New York 20, New York
American Cyanamid Company, Farm & Home Division, P. O. Box 672, Princeton, N.J.
American Cyanamid Company, Lederle Lab. Div., Middletown Rd., Pearl River, N. Y.
American Exterminators, Inc., 817 Race Street, Cincinnati, Ohio
American Lace Paper Company, 4425 N. Port Washington Rd., Milwaukee 12, Wisconsin
American-Marietta Company, 901 N. Greenwood Avenue, Kankakee, Illinois
American Mothproofing Company, 2510 Hampton Avenue, St. Louis 10, Missouri
American Scientific Laboratories, P. O. Box 232, Madison 1, Wisconsin
Amsco Chemical Company, 701 North Main Street, Memphis, Tennessee
Anchor Serum Co. of Indiana, Inc., 1101 Kentucky Avenue, Indianapolis 6, Indiana
Anderson & Spilman, W. Walnut Street, Danville, Kentucky
The Antimite Company, 5137 Southwest Avenue, St. Louis 10, Missouri
Arkansas Fuel Oil Corporation, P. O. Box 1117, Shreveport, Louisiana
Armour Fertilizer Works, P. O. Box 1088, Nashville, Tennessee
Armstrong Paint & Varnish Works, 1330 South Kilbourn Ave., Chicago 23, Illinois
Arnold Laboratories, P. O. Box 111, 206 Spring Street, New Castle, Indiana
Arnott Chemical & Exterminating Co., Inc., 249 Massachusetts Ave., Indianapolis, Ind.
Asco Electronics Company, 26 Essex Street, Andover, Massachusetts
Associated Chemical Enterprises, 388 Washington St., Allentown, Pennsylvania
Associated Seed Growers, Inc., 15 Main Street, Cambridge, New York
The Atco Company, 6263 N. Teutonia Avenue, Milwaukee 9, Wisconsin
Auto Chlor System, 734 Alabama Avenue, Memphis, Tennessee
Avon Products, Inc., 30 Rockefeller Plaza, New York 20, New York
Bauer & Black, Division of the Kendall Co., 309 W. Jackson Blvd., Chicago 6, Ill.
F. W. Berk & Company, Inc., Park Place East, Wood-Ridge, New Jersey
Berlou Manufacturing Company, 421 Monroe Street, Marion, Ohio
Better Brushes, Inc., 9-13 Church Street, Palmer, Massachusetts
Big Four Feed & Implement Co., Maple & Cemetery Street, Scottsville, Kentucky
Black Panther Company, Inc., P. O. Box 132, Sanford, North Carolina
Bleach Products Company, Inc., 517 Russell Street, Charleston, West Virginia
Blitz Products, Inc., P. O. Box 776, Foley, Alabama
The Blitz-Fog Company, 407 East Michigan Street, Milwaukee 2, Wisconsin
Bluegrass Plant Food, Inc., 447 North Main, Cynthiana, Kentucky
Blue Grass Supply Company, 1091 West High Street, Lexington, Kentucky
Bohlender Plant Chemical, Inc., Tipp City, Ohio
Bonide Chemical Company, 382 North Genesee Street, Utica 4, New York
Bonnie Green Products Company, Front & Bainbridge Streets, Philadelphia 47, Pa.
The Bourbon Company, P. O. Box 466, Lexington, Kentucky
Boyer Chemical Company, 2232 S. Wabash Avenue, Chicago 16, Illinois
Boyle-Midway, Inc., 22 East 40th Street, New York 16, New York
Bridgeport Brass Company, 30 Grand Street, Bridgeport, Connecticut

E. L. Bruce Company, P. O. Box 397, Memphis 1, Tennessee
Brulin & Company, Inc., 2939-45 Columbia Avenue, Indianapolis 7, Indiana
Cabell Chemical Company, 101 22nd Street, Huntington, West Virginia
California Spray-Chemical Corp., Lucas and Ortho Way, Richmond, California
Campbell Chemicals, Inc., 9225 Watson Industrial Park, St. Louis 19, Missouri
Carajon Chemical Company, Inc., P. O. Box 167, Fremont, Michigan
Carbola Chemical Company, Inc., Natural Bridge, New York
Carbolineum Wood Preserving Co., 528 West Highland Avenue, Milwaukee 3, Wisconsin
Carson Chemicals, Inc., P. O. Box 182, New Castle, Indiana
Cato Oil & Grease Company, 1808 N. E. Ninth Street, Oklahoma City, Oklahoma
Cedar Hill Formulae Company, 234 Steele Street, New Britain, Connecticut
Cenol Company, Inc., 3240 W. Chicago Avenue, Chicago 51, Illinois
Center Chemical Company, P. O. Box 1888, Atlanta, Georgia
Chambers-Godfrey Mfg. Company, 304-02 Broadway, Martin, Tennessee
Chapman Chemical Company, P. O. Box 3158, Mallory Station, Memphis 9, Tennessee
Chase Products Company, Gardner Road & 20th Street, Broadview, Illinois
Chemagro Corporation, 437 Fifth Avenue, New York 16, New York
Chemical Corporation of America, P. O. Drawer 509, Tallahassee, Florida
Chemical Formulators, Inc., Box 26, Nitro, West Virginia
Chemway Corporation, Fairfield Road, Mountain View, New Jersey
Chesnut & Anderson Supply Company, East Ninth Street, Hopkinsville, Kentucky
Chipman Chemical Company, Inc., Bound Brook, New Jersey
John Clarke & Company, Inc., 420 Lexington Avenue, New York 17, New York
Clean Home Products, Inc., 507 North Cardinal Avenue, St. Louis 3, Missouri
W. A. Cleary Corporation, P. O. Box 749, New Brunswick, New Jersey
Click Chemical Company, 601 South Columbus Ave., Mount Vernon, New York
Clorox Chemical Company, 850-42nd Avenue, Oakland 1, California
Coahoma Chemical Company, Inc., P. O. Box 728, Clarksdale, Mississippi
E. A. Cohen, Greenville, Kentucky
Colgate-Palmolive Company, 300 Park Avenue, New York 22, New York
Colonial Chemical Company, 6207 Georgia Avenue, West Palm Beach, Florida
Columbian Hog & Cattle Powder Company, 1457 Genesee Street, Kansas City, Missouri
Common Sense Manufacturing Co., Inc., 1392 Niagara Street, Buffalo 13, New York
Commonwealth Fertilizer Co., Inc., P. O. Box 388, Russellville, Kentucky
Conn. Chemical Research Corp., 706 Bostwick Avenue, Bridgeport 5, Connecticut
Cook Chemical Company 2500 Summit, Kansas City, Missouri
William Cooper & Nephews, Inc., 1909 North Clifton Avenue, Chicago 14, Illinois
Cooperative Seed & Farm Supply Service, 7th & Main Streets, Richmond, Virginia
Cowles Chemical Company, 7016 Euclid Avenue, Cleveland, Ohio
S. L. Cowley & Sons Mfg. Company, 708 W. McAlester, Hugo, Oklahoma
Crawford Industries, Inc., W. First at Darr Street, Oil City, Pennsylvania
Cre-O-Tox Chemical Products Company, 2670 Broad Avenue, Memphis, Tennessee
Cumberland Manufacturing Company, 501-25th Avenue N., Nashville, Tennessee
Frank J. Curran Company, 8101 S. Main Street, Downers Grove, Illinois
Custom Manufacturing Company, 8732 Oak Street, P. O. Box 4043, New Orleans, La.
Cutter Laboratories, Fourth & Parker Streets, Berkeley 10, California
The d-CON Company, Inc., 1450 Broadway, New York 18, New York
Darling & Company, 4201 South Ashland Avenue, Chicago, Illinois
Darworth Incorporated, P. O. Box 308, Simsbury, Connecticut
Daubert Chemical Company, 4700 South Central Avenue, Chicago 38, Illinois
Davison Chemical Company, P. O. Box 1009, Nashville 1, Tennessee
DeKalb Agricultural Ass'n., Inc., 310 North Fifth Street, DeKalb, Illinois
Deseghers, 256 West 31st Street, New York 1, New York
DeSoto Chemical Company, Inc., North DeSoto Avenue, Arcadia, Florida
Devoe & Raynolds Company, Inc., P. O. Box 328, Louisville 1, Kentucky
Diamond Black Leaf Company, 3525 Vandalia Road, Des Moines, Iowa
The Dill Company, Washington Street & McKinley Avenue, Norristown, Pennsylvania
J. A. Ditman, P. O. Box 186, Laurel, Maryland
Dixi Chem Company, P. O. Box 1711, Chattanooga, Tennessee
The Donaldson Company, Inc., 666 Pelham Boulevard, St. Paul 14, Minnesota
The Dow Chemical Company, Midland, Michigan
Driskell Drug Company, 416 Main Street, Carrollton, Kentucky
Drugmaster, Inc., 4200 North Union Boulevard, St. Louis 15, Missouri

E. I. duPont de Nemours & Company, Wilmington 98, Delaware
Eagle Chemical Company, Inc., P. O. Box 8127, Chattanooga, Tennessee
Economics Laboratory, Inc., 914 Guardian Buildling, St. Paul, Minnesota
Electrolux Corporation, 500 Fifth Avenue, New York 36, New York
Emery Industries, Inc., 4200 Carew Tower, Cincinnati 2, Ohio
Empire Laboratories, 700 Marietta Street, N. W., Atlanta, Georgia
Empire Manufacturing Company, 111 Grand Avenue, Kansas City, Missouri
Henry A. Enrich & Company, Inc., 6 East 32nd Street, New York 16, New York
Erbrich Products Company, 1120 East 32nd Street, Indianapolis, Indiana
Esso Incorporated, 15 West 51st Street, New York 19, New York
J. C. Everett Company, Inc., 35 East Second Street, Maysville, Kentucky
Faesy & Besthoff, Inc., 25 E. 26th Street, New York 10, New York
Fairfield Chemical Division, P. O. Box 1616, Baltimore 3, Maryland
Falls Cities Coop. Milk Producers Ass'n., 1051 East Main Street, Louisville 7, Ky.
Farm & Garden Supply, P. O. Box 519, Hopkinsville, Kentucky
Farnam Companies, Inc., P. O. Box 2151, 711 North First Street, Phoenix, Arizona
Federal Chemical Company, 646 Starks Building, Louisville 2, Kentucky
Federal Chemical Company, Inc., 2701 Winthrop Avenue, Indianapolis 5, Indiana
Alex. C. Fergusson Company, 44 East Oregon Avenue, Philadelphia, Pennsylvania
Florida Agricultural Supply Company, 1611 Talleyrand Avenue, Jacksonville, Fla.
R. M. Flowers Company, Inc., 156 West Public Square, Russellville, Kentucky
Fly-Cord, Inc., P. O. Box 2006, Savannah, Georgia
Food Machinery & Chemical Corp., 161 East 42nd Street, New York 17, New York
Fox Hardware, 19 East Center Street, Madisonville, Kentucky
O. M. Franklin Serum Company, 409 Livestock Exchange Bldg., Denver 16, Colorado
Franklin Research Company, 5134 Lancaster Avenue, Philadelphia 31, Pennsylvania
The Fuller Brush Company, 3580 Main Street, Hartford, Connecticut
Furst-McNess Company, 120 East Clark Street, Freeport, Illinois
Gallowhur Chemical Corp., North Water Street, Ossining, New York
Garden Hose Spray Company, Inc., 7 Upland Road, Cambridge 40, Massachusetts
Garden Products Company, 3246 South Grand Boulevard, St. Louis 18, Missouri
Gaston Johnston Corporation, 24-64 45th Street, Long Island City 3, New York
Geigy Agricultural Chemicals, P. O. Box 430, Yonkers, New York
General Insecticide Company, Inc., P. O. Box 187, Utica, New York
The Glidden Company, 900 Union Commerce Building, Cleveland 14, Ohio
Globe Laboratories, 116 Commerce Street, Fort Worth 2, Texas
H. Clay Glover Company, Inc., 60 Hempstead Avenue, West Hempstead, New York
Good-Life Chemicals, Inc., 310 South First Street, Effingham, Illinois
The Grant Company, 2735 North Ashland Avenue, Chicago, Illinois
The Great Atlantic & Pacific Tea Co., 3041 Wilson Avenue, Louisville, Kentucky
Great Lakes Chemical Corp., 753 Warner Bldg., Washington 4, D. C.
Greever's Incorporated, Chilhowie, Virginia
Griffin Chemical Company, 528 Franklin Street, Louisville 2, Kentucky
Earl Grissmer Company, P. O. Box 5992, Indianapolis, Indiana
Guarantee Pest Control Company, 1317 East 13th Street, Bowling Green, Kentucky
Guardian Industries, Inc., 230 Fifth Avenue, New York 1, New York
Gulf Oil Corporation, P. O. Box 1166, Pittsburgh 30, Pennsylvania
Chr. Hansen's Laboratory, Inc., 9015 West Maple Street, Milwaukee, Wisconsin
J. M. Harris & Company, Inc., P. O. Box 411, Roanoke, Virginia
P. F. Harris Mfg. Company, 101 West Eighth, North Little Rock, Arkansas
Harris Products Company, Inc., P. O. Box 4, Miami Beach 39, Florida
Hartz Mountain Products Corp., 36 Cooper Square, New York 3, New York
Haver-Lockhart Laboratories, 1915 Broadway, P. O. Box 676, Kansas City 41, Mo.
Health-Mor, Incorporated, 203 North Wabash Avenue, Chicago 1, Illinois
Heller Laboratories, Inc., Div. of B. Heller & Co., 3925 Calumet Ave., Chicago, Ill.
Hess & Clark, Inc., Seventh & Orange Street, Ashland, Ohio
Hexol, Incorporated, 1500 - 17th Street, San Francisco 7, California
Hillyard Sales Company, P. O. Box 909, 402 N. Third St., St. Joseph, Missouri
The Hilo Company, 14 Orchard Street, Norwalk, Connecticut
Hinton & Company, Inc., 67 Murray Street, New York City, New York
J. I. Holcomb Manufacturing Company, 1601 Barth Avenue, Indianapolis 7, Indiana
Home & Garden Products Company, 520 South Delaware Avenue, Philadephia 47, Pa.
Hopkins Agricultural Chemical Co., 740 Williamson Street, Madison, Wisconsin

House of Huston, Inc., 4135 Laguna Street, Coral Gables, Florida
The House of Twain, Inc., 609 No. LaSalle Street, Chicago 10, Illinois
Sam Houston Company, P. O. Box 662, Talladega, Alabama
The Huge' Company, Inc., 884-86 Hodiamont Avenue, St. Louis 12, Missouri
Hulman & Co. Laboratories, 900 Wabash Avenue, Terre Haute, Indiana
Humco Laboratory, Inc., 1008 Whitaker Street, Texarkana, Texas
Hutson Chemical Company, Railroad Avenue, Murray, Kentucky
Hy-G Corporation, 222 Clara Street, San Francisco 7, California
Hy-Gro Corporation, 1101 Maryland Avenue, Baltimore 1, Maryland
Hydroponic Chemical Company, Inc., Copley, Ohio
Imperial Chemical Company, West Sixth and Grass Street, Shanandoah, Iowa
International Minerals & Chemical Corporation, P. O. Box 67, Lockland 15, Ohio
Irwin-Willert Company, 4044 Park Avenue, St. Louis 10, Missouri
Jewel Tea Company, Inc., 1955 West North Avenue, Melrose Park, Illinois
Raymond Johns Distributing Company, 1506 West Main Street, Louisville 3, Kentucky
S. C. Johnson & Son, Inc., 1525 Howe Street, Racine, Wisconsin
H. D. Jones, Glasgow, Kentucky
Jones Products Company, Inc., 25 N. Charter Street, Madison 5, Wisconsin
Judson-Dunaway Corporation, Dover, New Hampshire
The K-R-O Company, 19½ N. Limestone Street, Springfield, Ohio
The Keever Starch Company, 528 East Town Street, Columbus 15, Ohio
Kelly-Western Seed Division, Utah Cooperative Ass'n., Box 2310, Salt Lake City, Utah
Kentucky Chemical & Supply Company, 256 West Vine Street, Lexington, Kentucky
King Chemical Company, 2336 South Lauderdale, Memphis 6, Tennessee
Klenzade Products, Inc., P. O. Box 1020, Beloit, Wisconsin
Knapp-Monarch Company, 3501 Bent Avenue, St. Louis 16, Missouri
Knoxville Fertilizer Company, P. O. Box 118, Nashville, Tennessee
H. Kohnstamm & Company, Inc., 83-93 Park Place, New York 7, New York
Koppers Company, Inc., Tar Products Division, 430 Park Avenue, New York 22, N. Y.
H. B. Fred. Kuhls, 6413 Third Avenue, Brooklyn 20, New York
Lamb Products Company, 3728 Hilltop Lane, Nashville, Tennessee
Lang Brothers, 213 Broadway, Paducah, Kentucky
Larvacide Products, Inc., 117 Liberty Street, New York 6, New York
LaSalle Chemical Company, 3610 South Racine, Chicago 9, Illinois
Lebanon Chemical Corporation, P. O. Box 532, Lebanon, Pennsylvania
Leeds Chemical Products Inc., 112 East Walton, Chicago 11, Illinois
Dr. L. D. LeGear Medicine Company, 4161 Beck Avenue, St. Louis 16, Missouri
Lehigh Chemical Company, Inc., 5510 New Cut Road, Louisville 14, Kentucky
Lehn & Fink Products Corporation, 192 Bloomfield Avenue, Bloomfield, New Jersey
Lester Laboratories, Inc., P. O. Box 4897, Atlanta 2, Georgia
The Lewy Chemical Company, 707 Broadway, New York 3, New York
Lien Chemical Company, 9229 W. Grand Avenue, Franklin Park, Illinois
O. E. Linck Company, Inc., Route 46 and Valley Road, Clifton, New Jersey
Lindavap, Inc., P. O. Box 638, Ann Arbor, Michigan
Long Manufacturing Company, 991 Williams Street, San Leandro, California
Andy Lotshaw Company, 1474 W. Hubbard Street, Chicago 22, Illinois
Louisville Chemical Company, 601 East Jefferson, Louisville, Kentucky
Lowe's Incorporated, 212 York Street, Cassopolis, Michigan
Lucas Products Corporation, 3839 Seiss Avenue, Toledo, Ohio
McCormick & Company, Inc., McCormick Building, Baltimore 2, Maryland
McKesson & Robbins, Inc., P. O. Box 548, Bridgeport, Connecticut
McKnight Keaton Grocery Company, Sikeston, Missouri
McLaughlin Gormley King Company, 1715 Fifth Street, S. E., Minneapolis 14, Minn.
L. C. McLoney & Sons, 316-7 South Church Street, Cynthiana, Kentucky
Mabex Company, Umbria & Lemonte Streets, Philadelphia, Pennsylvania
Magna, Incorporated, 511 Pine, Bensenville, Illinois
Mallinckrodt Chemical Works, 3600 North Second Street, St. Louis 7, Missouri
Maloney Chemical Company, 1302 South Webster Avenue, Green Bay, Wisconsin
Mariah Rodenticide Company, Inc., R. F. D. #1, Hi-Way 41 No., Vincennes, Ind.
Masury-Young Company, 76 Roland Street, Boston, Massachusetts
Charles R. Mehle, 2712 Baker Avenue, Cincinnati 11, Ohio
Merck & Company, Inc., Rahway, New Jersey
The Wm. S. Merrell Company, Lockland Station, Cincinnati 15, Ohio
Michigan Chemical Corporation, 500 N. Bankson Street, St. Louis, Michigan

Mid-South Chemical Corporation, 1222 Riverside Boulevard, Memphis, Tennessee
Midland Laboratories, 210-220 Jones Street, Dubuque, Iowa
Midwest Oil Company, 2500 Minnehaha Avenue, Minneapolis, Minnesota
Miles Laboratories, Inc., 1127 Myrtle Street, Elkhart, Indiana
Miller Products Company, 607 Del Monte Way, St. Louis 12, Missouri
Milner Products Company, 4359 Northview Drive, Jackson, Mississippi
Minnesota Paints, Inc., 1101 South Third Street, Minneapolis, Minnesota
Monarch Supply, Inc., 2438 W. Lincoln Avenue, Milwaukee 15, Wisconsin
Monsanto Chemical Company, 1700 South Second Street, St. Louis 4, Missouri
Montgomery Ward & Co., Inc., 619 West Chicago Avenue, Chicago, Illinois
E. R. Moore, Route #3, Georgetown, Kentucky
Moorman Manufacturing Company, Quincy, Illinois
Motomco, Incorporated, 89 Terminal Avenue, Clark, New Jersey
Muncie Laboratories, Inc., 543 Johnson Building, Muncie, Indiana
Edgar A. Murray Company, Electronic Road, Clinton Corners, New York
Mutual Products Company, 509 N. Fourth Street, Minneapolis, Minnesota
Naphthalene Products Company, P. O. Box 6328, Tarrant, Alabama
Nash & Kinsella Labs., Inc., 3741 Washington Boulevard, St. Louis 8, Missouri
National Aluminate Corporation, 6216 West 66th Place, Chicago 38, Illinois
National Laboratories, Inc., 4934 Lewis Avenue, Toledo 12, Ohio
National Paint & Oil Company, 207 North Second Street, Nashville, Tennessee
H. W. Naylor Company, Morris, New York
Niagara Chemical Division, 100 Niagara Street, Middleport, New York
Nip-Co Manufacturing, Inc., 200 Main Street, New Rochelle, New York
Nott Manufacturing Company, Inc., P. O. Box 87, Mt. Vernon, New York
The Geo. H. Nowland Company, 2833 Spring Grove Avenue, Cincinnati 25, Ohio
Nu-Pine Corporation, 740 W. Monument Street, Jackson, Mississippi
Nuodex Products Company, Cornelius Zabriskie, 120 West 42nd St., New York, N.Y.
Odor-Aire, Inc., 330 N. Mosley, Wichita, Kansas
Oldbury Electro-Chemical Co., 5001 Buffalo Avenue, Niagara Falls, New York
Olin Mathieson Chemical Corp., Mathieson Building, Baltimore 3, Maryland
One-Spot Company, Jessup, Maryland
Panogen, Incorporated, Research Department, Woodstock, Illinois
Panther Oil & Grease Mfg. Co., P. O. Box 711, Fort Worth, Texas
Paper Products, Incorporated, 18554 South Susana Road, Long Beach 5, California
Parke, Davis & Company, Jos. Campau at the River, Detroit 32, Michigan
S. B. Penick & Company, 50 Church Street, New York 8, New York
Penn-Champ Oil Corporation, P. O. Box 191, Butler, Pennsylvania
Pennsylvania Engineering Company, 1119-21 North Howard Street, Phildadelphia, Pa.
Pennsylvania Salt Mfg. Co., Three Penn Center Plaza, Philadelphia 2, Pennsylvania
Peoples Farm Supply Company, P. O. Box 35, Smiths Grove, Kentucky
Perk Products Company, 1338 Lewis Street, Nashville, Tennessee
L. Perrigo Company, Allegan, Michigan
Pest Guard Products, Inc., 731 West Davis, Dallas 8, Texas
Pfanstiehl Detergent Chemicals, Inc., 669 So. Market St., Waukegan, Illinois
The Pfeiffer Company, 3965 Laclede Avenue, St. Louis 8, Missouri
Chas. Pfizer & Company, Inc., 11 Bartlett Street, Brooklyn 6, New York
Phelan-Faust Paint Mfg. Co., 932 Loughborough Avenue, St. Louis 11, Missouri
Phelps Dodge Refining Corp., 300 Park Avenue, New York 22, New York
Phoenix Closet Accessories, Inc., 101 N. J. R. R. Avenue, Newark, New Jersey
Piatt & Smillie Chemicals, Inc., 2322 Olive Street, St. Louis 3, Missouri
Pitman-Moore Company, Division Allied Laboratories, Box 1656, Indianapolis 6, Ind.
Pittsburgh Chemical Laboratory, 715 Penn Avenue, Pittsburgh 22, Pennsylvania
Pittsburgh Plate Glass Company, New Albany Road, Moorestown, New Jersey
Plasti-Kote, Inc., 9801 Harvard Road, Cleveland, Ohio
Plough, Inc., 3022 Jackson Avenue, Memphis, Tennessee
Polk Miller Products Corp., 2007 No. Hamilton Street, Richmond, Virginia
Porter Paint Company, 419 South 14th Street, Louisville, Kentucky
B. G. Pratt Company, 204 21st Avenue, Patterson, New Jersey
Pratt & Lambert, Inc., 75 Tonawanda Street, Buffalo 7, New York
Pratt Food Company, 25 Industrial Road, Hammond, Indiana
Prentiss Drug & Chemical Co., Inc., 101 West 31st Street, New York 1, New York
Private Brand, Inc., 300 South Third Street, Kansas City, Missouri

The Procter & Gamble Company, Box 599, Cincinnati 1, Ohio
Protection Products Mfg. Company, 2305 Superior Avenue, Kalamazoo, Michigan
The John Puhl Products Company, 1450 Broadway, New York 18, New York
Purex Corporation, Ltd., 9300 Rayo Avenue, South Gate, California
Pyrrole Chemical Corporation, 817 Spring Lane, Box 218, Portsmouth, Ohio
Ralston Purina Company, 835 S. Eighth Street, St. Louis, Missouri
The W. T. Rawleigh Company, 223-225 East Main Street, Freeport, Illinois
W. G. Reardon Laboratories, Inc., 330 North Main Street, Port Chester, New York
Reefer-Galler, Inc., 225 Fifth Avenue, New York 10, New York
Reilly Tar & Chemical Corp., 1615 Merchant Bank Building, Indianapolis 4, Indiana
Rex Research Corporation, 600 Montrose Avenue, Toledo 7, Ohio
Rexall Drug Company, Los Angeles 54, California
Rigo Manufacturing Company, Inc., 638 Benton Avenue, Box 1188, Nashville, Tennessee
Riley Brothers, Inc., 209 North Main Street, Burlington, Iowa
Riverdale Chemical Company, 17th & Hanover Streets, Chicago Heights, Illinois
Robeson Preservo Company, 208 Merchant Street, Port Huron, Michigan
G. S. Robins & Company, 126 Chouteau Avenue, St. Louis 2, Missouri
Rohm & Haas Company, 222 W. Washington Square, Philadelphia, Pennsylvania
Rokeby Chemical Company, Second Street at St. Clair, Marietta, Ohio
Roman Cleanser Company, 2700 E. McNichols Road, Detroit 12, Michigan
Rose Manufacturing Company, 160 Main Street, Beacon, New York
Rotenone Products Company, 110 Eaton Place, East Orange, New Jersey
Royal Appliance Mfg. Company, 1975 East 61st Street, Cleveland 3, Ohio
Royal Lace Paper Works, 99 Gold Street, Brooklyn 1, New York
I. D. Russell Co. Laboratories, P. O.Box 1, 2463 Harrison Street, Kansas City, Mo.
Dr. Salsbury's Laboratories, 500 Gilbert, Charles City, Iowa
The Sanfax Company, P. O. Box 604, Atlanta, Georgia
Sapo Elixer Chemical Company, 800 E. Big Bend Road, Kirkwood 22, Missouri
Saywell Laboratories, 2004 St. Clair Avenue, Cleveland 14, Ohio
Scott Industries, 311 Bellevue, Jackson, Tennessee
O. M. Cott & Sons Company, Marysville, Ohio
Sears, Roebuck & Company, 925 S. Homan Avenue, Chicago, Illinois
Sennewald Drug Company, Inc., 2723 Choateau Avenue, St. Louis 3, Missouri
Senoret Chemical Company, 610 Gratiot Street, St. Louis 2, Missouri
John Sexton & Company, 4501 W. 47th Street, Chicago 32, Illinois
Shaker Seed & Feed Company, P. O. Box 6, South Union, Kentucky
Shell Oil Company, 50 West 50th Street, New York 20, New York
Sherman Laboratories, 5031 Grandy Avenue, Detroit 11, Michigan
The Sinclair Manufacturing Co., 1125 Brown Avenue, Toledo 7, Ohio
Sinclair Refining Company, P. O. Box 1710, Atlanta 1, Georgia
The Smith Agricultural Chemical Co., 1850 Kentucky Avenue, Indianapolis, Indiana
Smith Chemical Company, 1113 Clark Avenue, Ames, Iowa
Sno-Wash Distributor, 1523 Obyrne Street, Henderson, Kentucky
Southern Agricultural Insecticides, Inc., P. O. Box 324, Palmetto, Florida
Southern National Mfg. Co., Hollister, Missouri
Southern States Georgetown Cooperative, North Water Street, Georgetown, Kentucky
Southern States Simpson Cooperative, 610 Walker Avenue, Franklin, Kentucky
Spalding Research Laboratories, Inc., 523 South Capitol Avenue, Lansing 33, Mich.
Specifide, Inc., 3555 Sutherland Avenue, Indianapolis, Indiana
John Speed Company, 401 North 37th Street, Louisville, Kentucky
Stalfort Pressure Pak, Inc., 2012 Hammonds Ferry Road, Baltimore 27, Maryland
Standard Laboratories, Inc., 201 Tabor Road, Morris Plains, New Jersey
Standard Oil Company, Inc., 430 West Bloom Street, Louisville, Kentucky
Standard Naphthalene, 115 Jacobus Avenue, South Kearney, New Jersey
Stanley Home Products, Inc., 42 Arnold Street, Westfield, Massachusetts
Stark Bro's Nurseries & Orchards Company, Louisiana, Missouri
Stauffer Chemical Company, Lawrence Street, Chauncey, New York
Stearns' Electric Paste Company, 111 W. Washington Street, Chicago 2, Illinois
The Sterling Company, Inc., 2801-05 Locust Street, St. Louis 3, Missouri
Sterwin Chemicals, Inc., 1450 Broadway, New York 18, New York
Stim-U-Plant Laboratories, Inc., 2077 Parkwood Avenue, Columbus 19, Ohio
J. Strickland & Company, 1400 Ragan, Memphis, Tennessee
Stull's Chemicals, Inc., 3400 Nacogdoches Road, Box 6722, San Antonio, Texas

The Styron-Beggs Company, 39 South Fourth Street, Newark, Ohio
Sun Oil Company, 1608 Walnut Street, Philadelphia 3, Pennsylvania
Superior Chemical Products, Inc., 47 North 2nd Street, Philadelphia 6, Pennsylvania
W. R. Sweeney Manufacturing, Inc., 340 South Main, Salisbury, Missouri
Swift & Company, Plant Food Division, National Stock Yards, Illinois
Tabtrol Company, 7003 Deerfield Road, Baltimore 8, Maryland
Ray H. Tanck, Inc., Middleton, Wisconsin
The Taylor-Reed Corporation, Glenbrook, Connecticut
Tennessee Copper Company, Copperhill, Tennessee
Texize Chemicals, Inc., P. O. Box 1820, Greenville, South Carolina
Thermo-Vap Inc., Harold Wainess & Associates, 228 N. LaSalle St, Chicago 1, Ill.
Thompson Chemical Corporation, 3600 Monon Street, Los Angeles 27, California
Thompson-Hayward Chemical Co., 2915 S. W. Boulevard, Kansas City, Missouri
Thompsons Sanitory Supply House, 761-765 E. Seventh Street, Lexington, Kentucky
Tobacco States Chemical Co., Inc., P. O. Box 479, Lexington, Kentucky
Tom-Cat Products Company, 101 Union Street, Jonesboro, Arkansas
Toxite Laboratories, Inc., Cumberland, Indiana
Trend Products, Inc., 514 Crockett Street, Amarillo, Texas
Trylon Products Corporation, 2750 N. Wolcott Avenue, Chicago 14, Illinois
Tull Chemical Company, P. O. Box 246, Oxford, Alabama
Turco Products, Inc., 6135 South Central Avenue, Los Angeles, California
Tykor Products, Division of the Borden Co., 350 Madison Ave., New York 17, N. Y.
Tryzol Products Company, 3129 West 47th Street, Chicago 32, Illinois
W. C. Turener Feed & Farm Supply, Greensburg, Kentucky
Union Carbide and Carbon Corp. 30 East 42nd Street, New York 17, New York
Unit Chemical Corporation, 4161 Redwood Avenue, Los Angeles 66, California
United Co-Operatives, Inc., 450 West Ely Street, Alliance, Ohio
United States Borax & Chemical Corporation, 630 Shatto Place, Los Angeles, Calif.
United States Rubber Company, 1230 Avenue of the Americas, New York 20, New York
Van Brode Milling Company, Inc., Cameron Street, Clinton, Massachusetts
R. T. Vanderbilt Company, Inc., 230 Park Avenue, New York 17, New York
Vaporette, Inc., 823 Mercantile Bank Bldg., Dallas 1, Texas
Vaughn Seed Company, 601 West Jackson Boulevard, Chicago 6, Illinois
Vestal Laboratories, Inc., 4963 Manchester, St. Louis, Missouri
Victrylite Candle Company, P. O. Box 890, Oshkosh, Wisconsin
Virginia-Carolina Chemical Corp., 401 East Main Street, Richmond, Virginia
Virginia Smelting Company, West Norfolk, Virginia
By Lactos Laboratories, Inc., 1901 East Euclid Avenue, Des Moines, Iowa
Walgreen Company, 4300 Peterson Avenue, Chicago 30, Illinois
Walker Remedy Company, 224 Commercial Street, Waterloo, Iowa
The J. R. Watkins Company, 150 Liberty Street, Winona, Minnesota
The Weeveil-Cide Company, 1323 Union Avenue, Kansas City, Missouri
S. C. Wells & Company, 1 Church Street, LeRoy, New York
West Disinfecting Company, 42-16 West Street, Long Island City 1, New York
Westchester Veterinary Products, Div. of Eastco, Inc., 180 Mamaroneck Ave., White Plains, New York
Whitmire Research Labs., Inc., 339 South Vandeventer, St. Louis 10, Missouri
Wilbert Products Company, Inc., 805 East 139th Street, New York 54, New York
Winru Chemical & Sales Company, 923 State Line, Kansas City 1, Missouri
Wisconsin Chemical Products Company, 5117-19 North 32nd Street, Milwaukee, Wis.
Wood Treating Chemical Company, 5137 Southwest Avenue, St. Louis 10, Missouri
Woodlets, Incorporated, 2048 Niagara Street, Buffalo 7, New York
Woolfolk Chemical Works, Ltd., East Main Street, Fort Valley, Georgia
Worden Company, P. O. Box 525, Grand Island, Nebraska
Wyandotte Chemicals Corp., 1609 Biddle Avenue, Wyandotte, Michigan
Wyco, Incorporated, 5200 South Dixie, West Palm Beach, Florida
Wyeth Laboratories, Div. American Home Products Corp., Box 8299, Philadelphia, Pa.
Yopp Seed Company, 120 South Second Street, Paducah, Kentucky
Zep Manufacturing Corporation, 560 Edgewood Avenue, Atlanta 1, Georgia

INTRODUCTION

During the regular session of the 1956 Kentucky Legislature, House bill No. 471, now commonly known as the Kentucky Economic Poisons Law, was passed and became effective on July 1, 1956. The Economic Poisons Act of Kentucky was fashioned after the Federal Insecticide, Fungicide and Rodenticide Act of 1949. The Federal Act has jurisdiction over economic poisons which move across state borders. Movement of economic poisons within states is not subject to the provisions of the Federal Act.

The Kentucky Economic Poisons Law is a counterpart of the Federal Insecticide, Fungicide, and Rodenticide Act and is concerned with the distribution of pesticides within Kentucky. The Law is sometimes referred to as the Kentucky Pesticide Law. At present forty-three states have pesticide laws of some kind, many of which are duplicates of or very similar to the Federal Insecticide, Fungicide and Rodenticide Act. Only five states have no law regulating the sale of economic poisons.

The Kentucky Economic Poisons Law, being patterned after the Federal Act, supplements and extends the effectiveness of federal enforcement. This is done through the cooperation of inspectors of Kentucky and those of other states having similar legislation. One of the most important aspects of the Kentucky Economic Poisons Law is that the people of Kentucky are protected by legislation similar to the Federal Act on all economic poisons, regardless of whether they move interstate or within Kentucky.

The Kentucky Economic Poisons Law is designed to regulate the sale of pesticides in such a way as to prevent the selling of improperly labeled and inadequate pesticide chemicals. Many different types of products are subject to registration and examination under the provisions of this act. All insecticide, fungicide, and herbicide products must be registered before sale in Kentucky. In addition, disinfectants, germicides, repellents, rodenticides and nematocides are eligible for registration under this act.

Labeling Requirements

Chemicals eligible for registration under the act must bear a label stating the directions for use which if complied with are considered adequate. 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 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" to indicate their toxic nature.

These label requirements provide the public with information as to the uses of and the precautions to be taken in the use of all economic poisons sold in Kentucky.

The name and the address of the manufacturer or registrant must appear on the label. The net weight or measure of the contents of any bottle or package must be stated on the label, and also the name, brand or trademark under which the article is sold.

Through the excellent cooperation of germicide and disinfectant manufacturers, Kentucky was the first of the forty-eight states to require a statement on the label of quaternary ammonia germicides and disinfectants, stating the limiting water hardness at which these compounds would remain effective. Some quaternary ammonia germicides may be ineffective in hard water areas, and it is often necessary to know the effective hardness range of these compounds for adequate sanitation.

The regulation in Kentucky requires a statement to appear on the label of the product showing the effectiveness of the product in waters of specific hardness.

This regulation is valuable in many ways. (1) The manufacturer guarantees the quality and efficiency of the product in hard water. (2) The purchaser can be assured of adequate disinfection if he knows the hardness of the water to be used. (3) The manufacturer has an opportunity of increased sales of quality products.

Benefit to Dealers

The Kentucky Economic Poisons Law, though designed primarily to protect the purchaser or consumer of pesticide products, also indirectly benefits the dealers in these products and the general public, even though they may not be directly involved in the purchase or distribution of pesticide chemicals.

Because of the labeling requirements for economic poisons, any individual entirely unconnected with the purchase and distribution of pesticides can be protected knowing that in case of emergency the labeled information shown on the pesticide container may be of extreme importance. Likewise, every housewife who purchases fresh fruits and vegetables from the local grocer is indirectly protected by the labeling of pesticide products whose directions for use indicate safe rates of application which will not leave a dangerous residue of pesticides on fresh fruits and vegetables.

Under the act a manufacturer is required to submit claims he wishes to make for his products in advance of the sale. If the composition of an article is such as to warrant the proposed claims and if the labeling complies with the requirements of the law, the product can be registered. In light of this, dealers not only operate in an orderly market from the standpoint of uniform labeling requirements but, by virtue of the authority provided the Director of the Kentucky Agricultural Experiment Station to review proposed claims under the act, the dealer further has reason to believe products are adequate for the purpose intended. This undoubtedly tends to keep ineffective and worthless items of this kind off the market.

Before passage of the pesticide act, a few pesticide dealers in Kentucky were dispensing economic poisons from large drums or containers. This practice enabled the dealers to take advantage of the bulk price of the product which was passed on at a savings to the consumer. In the interest of safety to the consumer, his crops and livestock, the Kentucky Economic Poisons Law forbids the sale of economic poisons in unlabeled containers. Although purchasing the material in smaller containers may be somewhat more expensive, the cost calculated on a per acre or per head basis amounts to only a few pennies and the advantage to the consumer far outweighs the cost. The merchandising qualitites of smaller packages are without doubt an asset to the dealer and will result in increased sales and more satisfied customers.

Consumer Benefits

In addition to the consumer benefits mentioned in the above paragraph, further benefit is derived through the law by labeling requirements which provide for adequate caution statements. For example, the skull and crossbones must appear on the label if the material is considered highly toxic. Because of intensified research and a greater demand for a wide variety of pesticide chemicals, there are at the present time hundreds of economic poisons varying in their specific uses and in their poisonous nature. Adequate, concise labeling is imperative to assure correct usage and safe handling.

The net weight of the product and the ingredients are compared with that stated on the label and checked periodically in the laboratories. Thus, the Kentucky Economic Poisons Law also protects the consumer by assuring him that the product involved contains the amount and kind of material shown on the label.

Field Inspection

Under the provisions of the Kentucky Economic Poisons Law the authority vested in the Director of the Kentucky Agricultural Experiment Station may be executed by such employees as the Director may designate.

In order to adequately enforce the provisions of the act, five field inspectors are charged with the important job of bringing the various aspects of the Kentucky Economic Poisons Law to manufacturers, dealers, and the general public. These men exhibit the qualities of advisors and counselors in all aspects of the Kentucky Economic Poisons Law, and at the same time have the firmness necessary to uphold the provisions of the act.

Field inspectors are authorized to collect samples of economic poisons and devices and to enter into any car, warehouse, store, etc., supposed to contain economic poisons or devices, for the purpose of inspection or sampling. Field inspectors are also authorized to issue and enforce a written or printed stop sale or removal order of 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 and 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 consumers of pesticide products will have an understanding of this act.

Specialty Products

Two types of speciality products subject to the act are worthy of note in that their use is confined to specific restricted situations.

The first of these is that group of pesticide products which includes insecticide vaporizers and other products in which a device is sold in conjunction with the pesticide portion of the product. Devices or products which include a device used in conjunction with a pesticide come within the scope of the Kentucky Economic Poisons Law with respect to labeling. Although devices are not eligible for registration, the labeling of the device is subject to examination under the pesticide law.

Another important group of speciality products are the products in which a pesticide, herbicide or other economic poison is incorporated into a fertili-

zer. 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. For this reason, upon advice of the departments of Agronomy, Entomology and Botany, Horticulture, and the Director of the Kentucky Agricultural Experiment Station, the sale of fertilizer-insecticide mixtures has been restricted to specific crops and at definite rates of application. The use of these products is based on the result of scientific experimental evidence. Uses and recommendations will be varied as new evidence is brought to light.

Several fertilizer-insecticide mixtures are made and sold exclusively for use on lawns and other turf as distinguished from application to agricultural crops. Requirements for the registration of this group of fertilizer-pesticide mixtures are less severe and many formulations are acceptable for registration in Kentucky.

Laboratory Analysis

The field inspection staff regularly samples the various pesticide products offered for sale in Kentucky. These samples are forwarded to the laboratories of the Feed and Fertilizer Department at Lexington for chemical analysis.

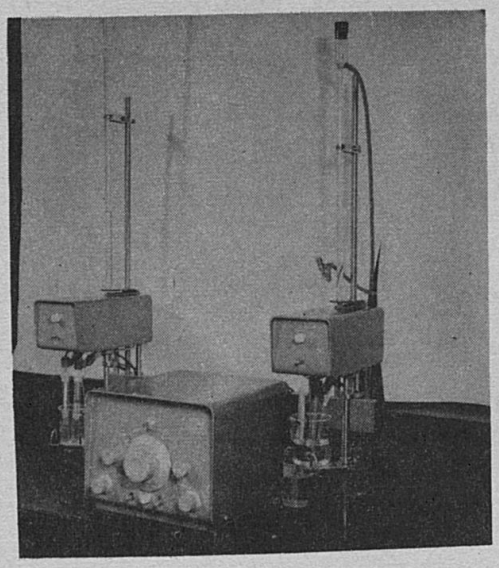
One of the most important aspects of the pesticide program is the function of the laboratory in analyzing pesticide products to determine whether or not the contents of a given package equal the guarantee stated by the manufacturer. The complexity of the newer pesticide chemicals is such that special equipment is required to give speedy and reproducible results in the hands of trained personnel.

Chemical analysis is essentially the determination of the weight of the component of interest in a given weight of material; for example, the weight of rotenone in 100 pounds of dust, or the percentage of the dust which is rotenone.

Usually the materials that are used as pesticides contain, in addition to the active ingredients, one or many components which are chemically similar but which are worthless with respect to insecticidal activity. Often other materials such as solvents, diluents, and other agents may prevent an accurate analysis. The separation of the component to be analyzed from materials which would interfere with the analysis is often a long, tedious process. For example, one way of determining the amount of rotenone is to dissolve the rotenone in a suitable solvent, filter out the insoluble clay which serves as a diluent, evaporate the solvent and weight the rotenone. For an accurate analysis this takes three days. An experienced operator can run several samples at one time, but the time-consuming steps are necessary to remove the impurities which are extracted with the rotenone. In the jargon of the laboratory worker, this removal of interfering substances from the compound is called the "scrub-up." Only if these steps are taken can the analyst be sure that he is weighing only rotenone.

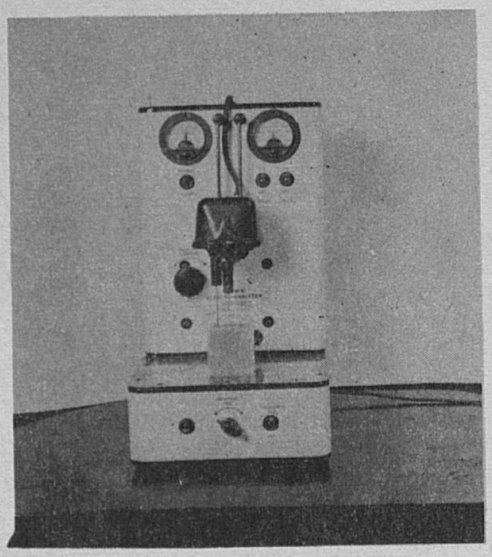
Through the years scientists have developed many other techniques which give results equivalent to those obtained by gravimetric analysis—that is, weighing the component obtained from a given amount of the material. Often methods of analysis utilizing these newer techniques are superior to gravimetric methods. The use of these new methods calls for a wide variety of

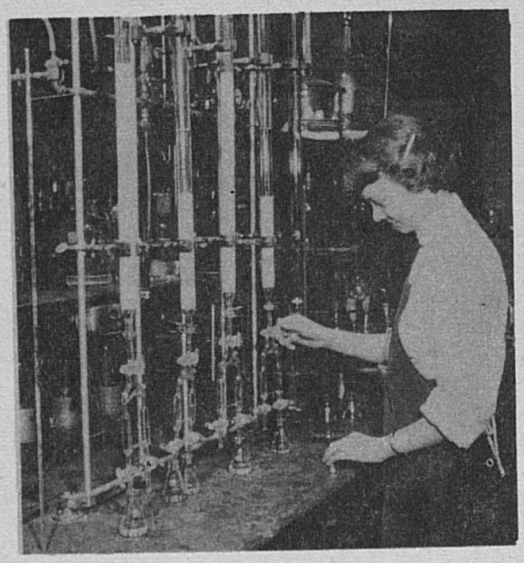
equipment, often expensive, but permitting more thorough coverage of the pesticides offered for sale in the state. Some of the finest equipment available is employed in the analysis of pesticide products by the Feed and Fertilizer Department. The Beckman Model automatic titrator, shown at the right, performs quick and precise titrations. Where applicable it can give the amount of a component in a solution in less than a minute by acid-base, precipitation or oxidation-reduction type titration. Since it is not dependent on visual indicators it can use colored or turbid solutions or those which contain insoluble impurities. This may eliminate hours of "scrub-up."



Electrolysis of a solution can sometimes be used in analysis. For example, the percentage of copper in bordeaux mixtures can be readily obtained by an electrolytic technique in which the copper ion is attracted to and plated out on the negatively charged platinum electrode. The increase in weight of this electrode is the weight of copper which was in the solution. This method, using the equipment pictured at the left of this page, takes much less than one using more conventional chemical techniques.

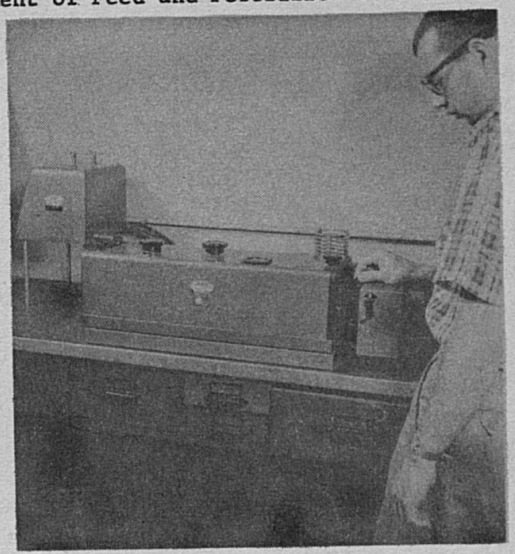
In the last few years chromatography has enjoyed a more popular acceptanc in many laboratories. This technique operates on the principal that some sub-



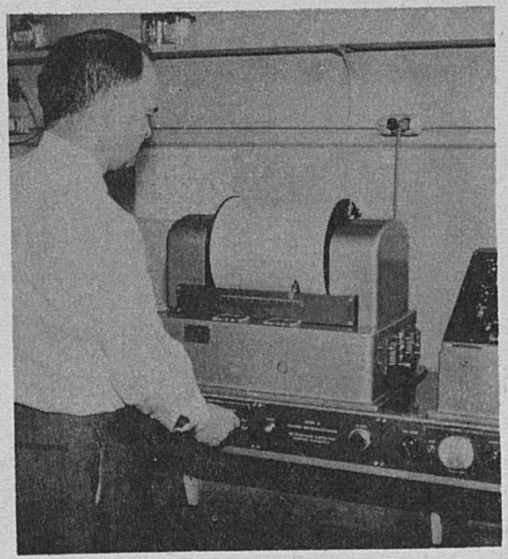


stances are held to a suitable adsorbent more strongly than are others. In practice, this means that if a solution of two or more components is passed through a column of the adsorbent, one of the components may be held back more strongly than the other. Sometimes this makes possible a separation in thirty minutes or an hour that otherwise might take hours or days or be virtually impossible by other chemical means. The picture above at the right shows a chemist taking a sample from a chromatographic column.

Spectrophotometric methods often possess the advantages of being faster and more sensitive than other chemical methods. Colored solutions are colored because light of one color is absorbed more than light of other colors. One of the instruments used by the Department of Feed and Fertilizer is the Beckman Model DU Spectrophotometer shown at the right. The concentration of a colored component in a solution is related to the amount of the light of that color that is absorbed. Therefore, the concentration of a component in solution can be determined in the range of parts per million. This may eliminate evaporating large volumes of solution in order to get enough solid material to weigh. Another advantage of this technique is that it is very often specific for one component. This sometimes permits determining the concentration of a solution without separating other components or impurities from the solution.



An infra-red spectrophotometer is similar in principal to one operating in the visible or ultra-violet region. The Perkin Elmer Model 20 infra-red spectrophotometer, pictured at the left, will record the amount of each wave-length of infra-red radiation that is absorbed by a given compound in solution. The resulting graph is very complex, but enables the operator to calculate the concentration of a given solution and usually enables him to tell exactly the nature of the compound in the solution.



The analysts working with pesticides are constantly looking for better methods which give faster, more accurate, or more specific results. As new materials become available and as the products on the market become more complex in nature, the task of analysis becomes even more difficult.

The chemists of the Department of Feed and Fertilizer employed in the analysis of pesticide products must of necessity be well trained and must have a high sense of scientific honesty in the evaluation of their methods and techniques. Kentucky pesticide chemists cooperate with chemists in other states and with the government in the search for better and more accurate methods.

If the laboratory report shows the composition of the product notably at variance from the guaranteed content, a stop sale is issued. The material may then be returned to the manufacturer or otherwise disposed of.

Kentucky Pesticide Registration

Manufacturers have registered approximately 3,500 brands of pesticides in Kentucky. Insecticides comprise approximately 70 percent of this total number,

fungicides about 10 per cent, herbicides about 10 per cent, and germicides approximately 5 per cent. The remaining 5 per cent of the products include such products as repellents and rodenticides.

Information Disseminated

In addition to the personal contact provided by the inspectors in the field, the Department of Feed and Fertilizer periodically releases timely information regarding the workings of the pesticide law through all the news-disseminating media. News releases are made to all the local newspapers in Kentucky describing the activities of this department in relation to the regulation of pesticides. Occasionally members of the department disseminate information regarding the law by way of radio and television interviews.

Each month all manufacturers of pesticide chemicals registered in Kentucky and all feed, fertilizer, and pesticide dealers receive a newsletter published by this department called the "Regulatory Service News." This newsletter serves to acquaint the public with the members of this department as well as to knit the regulatory phases of the department into an easily understood and welcomed program. A regulatory service, no matter how beneficial or necessary to the public, cannot operate effectively unless the public is well aware of the service rendered and of the protection afforded.

Serving as a nerve center for the administration of pesticide laws in the country is the Association of American Pesticide Control Officials, Inc. This organization composed of state and federal control officials supplies information and advice concerning the regulations and operations of pesticide laws in the country with an eye to more effective operation and uniform service among the states.

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 300 samples analyzed in the eighteen month period from July, 1956 through December 31, 1957, twenty-four were found to be deficient in one or more of the active ingredients guaranteed. This represents 8 percent of the number of samples secured. Thirty-one products were not registered when the sample was taken.

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

P (Passed) denotes amount of active ingredient 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 secured.

ANALYSES OF PRODUCTS CONTAINING ALDRIN

Registrant Product Active Ingredient	Guaranteed %	Found %	Remarks
ARMOUR FERTILIZER WORKS			
3-12-12 Muriate with Aldrin			
Aldrin	.50	.39	P
3-12-12 Muriate with Aldrin			
Aldrin	.50	.48	P
6-6-18 Sulfate with Aldrin			
Aldrin	.15	.30	P
5-10-15 Sulfate with Aldrin			
Aldrin	.15	.31	P
4-16-16 Muriate with Aldrin			
Aldrin	.50	.52	P
DARLING AND COMPANY			
5-10-15 Sulfate with Aldrin			
Aldrin	.50	.53	P
HUTSON CHEMICAL COMPANY			
Hutson's 4-12-8 Muriate with Aldrin			
Aldrin	1.00	.77	D
INTERNATIONAL MINERALS AND CHEMICAL CORP.			
International .20% Aldrin Fertilizer			
Aldrin	.20	.20	P
5-10-10 Muriate with Aldrin			
Aldrin	.50	.33	D
KNOXVILLE FERTILIZER COMPANY			
5-10-10 Muriate with Aldrin			
Aldrin	.50	.35	XD
5-10-10 Muriate with Aldrin			
Aldrin	.50	.27	XD
10-6-4 Muriate with Aldrin			
Aldrin	2.00	.24	XD
SWIFT AND COMPANY, PLANT FOOD DIVISION			
8-8-8 Muriate with Aldrin			
Aldrin	.50	.44	XP
TOBACCO STATES CHEMICAL COMPANY, INC.			
Tobacco States Aldrin Equivalent			
Aldrin	22.80	23.85	P
VIRGINIA-CAROLINA CHEMICAL CORP.			
4-12-8 Muriate with Aldrin			
Aldrin	.50	.53	P
48% Sulfate of Potash with Aldrin			
Aldrin	1.50	1.43	XP
4-12-8 Muriate with Aldrin			
Aldrin	.50	.50	XP

ANALYSES OF PRODUCTS CONTAINING ARAMITE

Registrant Product Active Ingredient	Guaranteed %	Found %	Remarks
NIAGARA CHEMICAL DIVISION FOOD MACHINERY & CHEMICAL CORP.			
Niagara Spider Mite Dust or Spray			
Aramite	3.00	2.42	P

ANALYSES OF PRODUCTS CONTAINING ARSENIC

Registrant Product Active Ingredient	Guaranteed %	Found %	Remarks
ACME QUALITY PAINTS, INC.			
Acme Arsenate of Lead			
Arsenic	20.00	21.80	P
CALIFORNIA SPRAY-CHEMICAL CORP.			
Triox			
Arsenic	30.30	34.40	P
COWLEY AND SONS, SL, MFG. COMPANY			
Cowley's Rat and Mouse Poison			
Arsenic	1.75	3.56	P
Do.	1.75	3.34	P
DOW CHEMICAL COMPANY			
Dow Standard Arsenate of Lead			
Arsenic	19.60	21.60	P
E. I. DuPONT de NEMOURS AND COMPANY			
NuRexform Standard Lead Arsenate			
Arsenic	19.56	20.50	P
Do.	19.56	21.50	P
Do.	19.56	21.70	P
NIAGARA CHEMICAL DIVISION FOOD MACHINERY & CHEMICAL CORP.			
Niagara Standard Lead Arsenate			
Arsenic	20.30	22.00	XP
SENORET CHEMICAL COMPANY			
Terro Ant Killer			
Arsenic	.91	.94	P
TOBACCO BY-PRODUCTS AND CHEMICAL CORP.			
Standard Arsenate of Lead			
Arsenic	19.56	20.50	P
UNITED COOPERATIVES, INC.			
Unico Lead Arsenate			
Arsenic	19.60	22.60	P
WOOLFOLK CHEMICAL WORKS LTD.			
Security Brand Lead Arsenate			
Arsenic	19.56	21.40	P
Do.	19.56	23.30	P

ANALYSES OF PRODUCTS CONTAINING GAMMA ISOMER OF BENZENE HEXACHLORIDE FROM LINDANE

Registrant Product Active Ingredient	Guaranteed %	Found %	Remarks
BONIDE CHEMICAL COMPANY			
Bonide Lintox			
Gamma Isomer of BHC	25.00	22.40	XP
CALIFORNIA SPRAY-CHEMICAL CORP.			
Isotox Dairy Spray			
Gamma Isomer of BHC	25.00	25.00	P

ANALYSES OF PRODUCTS CONTAINING GAMMA ISOMER
OF BENZENE HEXACHLORIDE FROM LINDANE (Con't)

Registrant Product Active Ingredients	Guaranteed %	Found %	Remarks
CALIFORNIA SPRAY-CHEMICAL CORP. (Con't)			
Isotox Liquid Dairy Spray			
Gamma Isomer of BHC	20.00	23.88	P
Do.	20.00	19.85	P
Do.	20.00	21.10	P
Do.	20.00	21.10	P
Do.	20.00	20.00	P
Isotox 25 Seed Treater			
Gamma Isomer of BHC	25.00	23.30	P
Do.	25.00	23.30	P
Do.	25.00	23.50	P
Do.	25.00	23.80	P
Isotox Transplanter Solution			
Gamma Isomer of BHC	5.00	9.41	P
Do.	5.00	7.70	P
Do.	5.00	7.45	P
Do.	5.00	5.85	P
Do.	5.00	6.33	P
Ortho Louse, Tick and Flea Powder			
Gamma Isomer of BHC	1.00	.92	P
CENOL COMPANY, INC.			
Cenol Pressurized			
Gamma Isomer of BHC	3.00	3.69	XP
DOW CHEMICAL COMPANY			
Lindane 25% Wettable			
Gamma Isomer of BHC	25.00	24.93	P
ENTERPRISE CHEMICAL CORP.			
Lindane Spray			
Gamma Isomer of BHC	12.90	14.25	XP
GLOBE LABORATORIES			
Globe Lindane Concentrate			
Gamma Isomer of BHC	11.14	11.33	P
DR. LeGEAR MEDICINE COMPANY			
Roost Paint			
Gamma Isomer of BHC	1.25	1.21	P
MOORMAN MANUFACTURING COMPANY			
Moorman's Moor-Ma-Fume			
Gamma Isomer of BHC	12.00	12.06	P
NIAGARA CHEMICAL DIVISION FOOD MACHINERY & CHEMICAL CORP.			
Niagara Gam Kill 25 Spray			
Gamma Isomer of BHC	25.00	24.75	XP
PENNSYLVANIA SALT MANUFACTURING COMPANY			
Pennsalt BHC-W-12			
Gamma Isomer of BHC	12.00	12.08	XP
RALSTON PURINA COMPANY			
Purina Lin-Dane Insecticide			
Gamma Isomer of BHC	25.00	25.10	P

ANALYSES OF PRODUCTS CONTAINING GAMMA ISOMER OF BENZENE HEXACHLORIDE FROM LINDANE (Con't)

Registrant Product Active Ingredient	Guaranteed %	Found %	Remarks
RALSTON PURINA COMPANY (Con't)			
Purina Mange Control			
Gamma Isomer of BHC	6.50	6.70	P
I. D. RUSSELL CHEMICAL LABORATORIES			
BHC Roost Spread			
Gamma Isomer of BHC	1.35	1.61	XP
Do.	1.35	1.59	P
TOBACCO BY-PRODUCTS AND CHEMICAL COMPANY			
Black Leaf 10% Lindane Spray			
Gamma Isomer of BHC	10.00	12.18	XP
Do.	10.00	12.72	XP
Do.	10.00	12.90	XP
TOBACCO STATES CHEMICAL COMPANY, INC.			
10% BHC Wettable Powder			
Gamma Isomer of BHC	10.00	9.40	P
Do.	10.00	8.52	D
10% Lindane Transplanter Solution No. 2			
Gamma Isomer of BHC	10.00	11.17	P
Do.	10.00	11.80	P
Do.	10.00	13.03	P
UNITED COOPERATIVE, INC.			
Unico Lindane Emulsifiable Concentrate			
Gamma Isomer of BHC	20.00	20.00	P
Lindane Wettable Powder			
Gamma Isomer of BHC	25.00	25.10	P
Unico BHC Wettable Powder 12% Gamma			
Gamma Isomer of BHC	12.00	13.87	P

ANALYSES OF PRODUCTS CONTAINING CALCIUM HYPOCHLORITE

Registrant Product Active Ingredient	Guaranteed %	Found %	Remarks
OLIN MATHIESON CHEMICAL CORPORATION			
HTH-15			
Calcium Hypochlorite	15.00	16.80	P
PENNSYLVANIA SALT MANUFACTURING COMPANY			
B-K Chlorine Bearing Powder			
Calcium Hypochlorite	50.00	52.30	P
PUREX CORPORATION LTD.			
Purex Dry Bleach			
Calcium Hypochlorite	7.50	10.43	P
Do	8.00	4.40	D

ANALYSES OF PRODUCTS CONTAINING CAPTAN

Registrant Product Active Ingredients	Guaranteed %	Found %	Remarks
CALIFORNIA SPRAY-CHEMICAL CORP.			
Orthocide Garden Fungicide			
Captan	50.00	49.80	P
Do	50.00	47.20	P
Orthocide 50 Wettable			
Captan	50.00	49.20	P
COOPERATIVE SEED & FARM SUPPLY SERVICE, INC.			
Strawberry Dust #7.5			
Captan	7.50	7.69	P
Do	7.50	7.53	P
STAUFFER CHEMICAL COMPANY			
Stauffer Captan Garden Spray			
Captan	50.00	52.20	P
Do	50.00	52.60	P

ANALYSES OF PRODUCTS CONTAINING CHLORDANE

Registrant Product Active Ingredient	Guaranteed %	Found %	Remarks
CALIFORNIA SPRAY-CHEMICAL CORP.			
Ortho-Klor 10 Chlordane Dust			
Chlordane	10.00	10.90	P
Ortho-Klor 44 Chlordane Spray			
Chlordane	44.00	45.50	P
COOPERATIVE SEED AND FARM SUPPLY SERVICE, INC.			
C-5 Dust			
Chlordane	5.00	5.37	P
DIAMOND BLACK LEAF COMPANY			
45% Chlordane, Emulsifiable Concentrate			
Chlordane	45.00	46.60	P
5% Chlordane Dust			
Chlordane	5.00	4.67	P
HELLER LABORATORIES, INC.			
$1,000 Guaranteed Ant Bane			
Chlordane	2.00	2.54	P
KNOXVILLE FERTILIZER COMPANY			
5-10-10 Muriate with Chlordane			
Chlordane	1.00	1.02	P
Strawberry Special 5-10-10 Muriate with Chlordane			
Chlordane	1.00	1.02	P
SHERWIN WILLIAMS COMPANY			
Pestroy Lawn Insecticide			
Chlordane	40.00	41.80	XP
SWIFT AND COMPANY			
End-O-Pest Are			
Chlordane	45.00	47.40	P

ANALYSES OF PRODUCTS CONTAINING CHLORDANE (Con't)

Registrant Product Active Ingredient	Guaranteed %	Found %	Remarks
TOBACCO STATES CHEMICAL COMPANY			
Tobacco States Brand 5% Chlordane Dust			
Chlordane	5.00	5.20	P
UNITED COOPERATIVES, INC.			
Unico Chlordane Wettable Powder			
Chlordane	40.00	41.00	P

ANALYSES OF PRODUCTS CONTAINING COPPER

Registrant Product Active Ingredient	Guaranteed %	Found %	Remarks
ACME QUALITY PAINTS, INC.			
Acme Bordeaux Mixture			
Copper	12.75	12.93	P
Do	12.75	12.64	P
Do	12.75	12.87	P
Do	12.75	12.21	P
Do	12.75	11.47	P
Do	12.75	12.33	P
COOPERATIVE SEED AND FARM SUPPLY			
Copper Sulfate			
Copper	25.20	25.19	P
Do	25.20	24.37	P
Do	25.20	25.25	P
Do	25.20	25.06	P
GENERAL CHEMICAL DIVISION ALLIED CHEMICAL & DYE CORP.			
Orchard Brand Bordeaux Mixture			
Copper	12.75	13.49	P
Powdered Bordeaux Mixture			
Copper	12.75	13.08	P
LOUISVILLE CHEMICAL COMPANY			
Bluestone Powder			
Copper	99.00	99.00	XP
NIAGARA CHEMICAL DIVISION FOOD MACHINERY & CHEMICAL CORP.			
Niagara Bordeaux Mixed Powder			
Copper	12.75	14.20	P
Do	12.75	11.75	P
TOBACCO STATES CHEMICAL COMPANY, INC.			
Tomato Copper Dust			
Copper	7.00	7.12	P
Do	7.00	6.81	P
Do	7.00	7.11	P
Tobacco States Tri-Basic Copper Sulfate			
Copper	53.00	52.61	P
Do	53.00	53.71	P
Tobacco States Brand Instant Bluestone			
Copper	25.20	25.10	P

ANALYSES OF PRODUCTS CONTAINING COPPER (Con't)

Registrant Product Active Ingredient	Guaranteed %	Found %	Remarks
VIRGINIA CAROLINA CHEMICAL CORP.			
Black Leaf Copper Sulfate			
Copper	25.20	25.28	P

ANALYSES OF PRODUCTS CONTAINING DDT

Registrant Product Active Ingredient	Guaranteed %	Found %	Remarks
BONIDE CHEMICAL COMPANY			
Bonide Neutox			
DDT	50.00	55.32	XP
CALIFORNIA SPRAY CHEMICAL CORP.			
Persisto 50 Wettable			
DDT	50.00	51.80	P
Pest-B-Gone Wettable			
DDT	50.00	54.26	P
COOPERATIVE SEED AND FARM SUPPLY			
D-10 Dust			
DDT	10.00	9.90	P
D-5 Dust			
DDT	5.00	5.20	P
FARM AND GARDEN SUPPLY			
DDT Dust			
DDT	5.00	4.97	XP
HILLENMEYER NURSERIES			
Borer-Pruf			
DDT	.50	.52	XP
KENTUCKY COLOR AND CHEMICAL COMPANY			
Tomahawk Dust			
DDT	50.00	44.70	XD
Do.	50.00	50.00	XP
LOUISVILLE CHEMICAL COMPANY			
Creal-O-Dust			
DDT	10.00	11.42	P
CHARLES R. MEHLE INSECTICIDES			
Mehle's Insecticide Powder			
DDT	10.00	10.10	P
NIAGARA CHEMICAL DIVISION FOOD MACHINERY & CHEMICAL CORP.			
Niagara 5% DDT Dust			
DDT	5.00	5.48	XP
Niagara DDT 50 Spray			
DDT	50.00	51.80	P
RALSTON PURINA COMPANY			
Purina DDT Insecticide			
DDT	75.00	77.72	P
Do.	75.00	81.00	P

ANALYSES OF PRODUCTS CONTAINING DDT (Con't)

Registrant Product Active Ingredient	Guaranteed %	Found %	Remarks
SHERWIN WILLIAMS COMPANY			
Pestroy 6% DDT			
DDT	6.00	6.32	XP
JOHN SPEED COMPANY			
Ken-Ko Wettable Powder			
DDT	50.00	51.20	P
TOBACCO BY-PRODUCTS COMPANY			
Black Leaf 50% DDT			
DDT	50.00	49.50	P
TOBACCO STATES CHEMICAL COMPANY			
50% DDT Wettable Powder			
DDT	50.00	51.00	P
Do.	50.00	51.20	P
25% DDT Concentrate			
DDT	25.00	24.90	P
5% DDT Ready Mixed Dust			
DDT	5.00	6.06	P
Do.	5.00	5.35	P
Do.	5.00	5.08	P
Do.	5.00	5.28	P
UNITED COOPERATIVES, INC.			
Unico 50% DDT Wettable Powder			
DDT	50.00	52.60	P
Do.	50.00	51.80	P
Do.	50.00	55.20	P
Do.	50.00	53.50	P
Unico DDT Emulsifiable Concentrate			
DDT	24.00	26.00	P

ANALYSES OF PRODUCTS CONTAINING DIELDRIN

Registrant Product Active Ingredient	Guaranteed %	Found %	Remarks
DIAMOND BLACK LEAF COMPANY			
Curb 5% Granular Dieldrin			
Dieldrin	5.00	4.40	P
TOBACCO STATES CHEMICAL COMPANY, INC.			
Plant Bed & Lawn Saver			
Dieldrin	2.12	1.60	P
UNITED COOPERATIVES, INC.			
Unico Dieldrin Emulsifiable Concentrate			
Dieldrin	15.30	14.50	P

ANALYSES OF PRODUCTS CONTAINING FERBAM

Registrant Product Active Ingredient	Guaranteed %	Found %	Remarks
CALIFORNIA SPRAY-CHEMICAL CORP.			
Nu-Leaf Black Fungicide			
Ferbam	76.00	78.10	P
CHEMICAL FORMULATORS, INC.			
Chem Form Brand Ferbam Fungicide			
Ferbam	76.00	54.90	D
E. I. DuPONT de NEMOURS AND COMPANY			
DuPont Fermate			
Ferbam	76.00	77.60	P
Do	76.00	72.30	P
Do	76.00	74.30	P
GEIGY AGRICULTURAL CHEMICALS			
Geigy Ferbam Dust for Tobacco Blue Mold			
Ferbam	11.40	10.52	P
TOBACCO STATES CHEMICAL COMPANY, INC.			
Tobacco States 15% Fermate Ready Mixed Dust			
Ferbam	10.50	11.23	P

ANALYSES OF PRODUCTS CONTAINING HEPTACHLOR

Registrant Product Active Ingredient	Guaranteed %	Found %	Remarks
ARMOUR FERTILIZER WORKS			
10-10-10 Muriate with Heptachlor			
Heptachlor	.25	.15	D
DAVISON CHEMICAL COMPANY			
10-10-10 with Heptachlor			
Heptachlor	.50	.26	D
Do	.50	.29	D
5-10-15 Sulfate with Heptachlor			
Heptachlor	.50	.26	D
FEDERAL CHEMICAL COMPANY			
5-10-15 Sulfate with Heptachlor			
Heptachlor	.50	.43	P
Do	.50	.70	P
Do	.50	.13	D
6-12-12 with Heptachlor			
Heptachlor	.50	.30	D
UNITED COOPERATIVES, INC.			
Heptachlor Transplanting Solution			
Heptachlor	23.30	25.00	XP

ANALYSES OF PRODUCTS CONTAINING MANEB

Registrant Product Active Ingredient	Guaranteed %	Found %	Remarks
E. I. DuPONT de NEMOURS AND COMPANY			
DuPont Manzate			
Maneb	70.00	69.60	P

ANALYSES OF PRODUCTS CONTAINING METHOXYCHLOR

Registrant Product Active Ingredient	Guaranteed %	Found %	Remarks
AGRICULTURAL SUPPLY COMPANY			
Methoxychlor Garden Dust			
Methoxychlor	5.00	5.49	P
THE BOURBON COMPANY			
Bourbon Fruit & Vegetable Spray			
Methoxychlor	12.50	11.90	P
I. E. DuPONT de NEMOURS AND COMPANY			
DuPont 50% Technical Methoxychlor Wettable Powder			
Methoxychlor	50.00	49.90	P
GEIGY AGRICULTURAL CHEMICALS			
Geigy Methoxychlor 50			
Methoxychlor	50.00	50.25	P

ANALYSES OF PRODUCTS CONTAINING PARATHION

Registrant Product Active Ingredient	Guaranteed %	Found %	Remarks
CALIFORNIA SPRAY-CHEMICAL COMPANY			
Vapophos 15 Wettable			
Parathion	15.00	14.70	P
GEIGY AGRICULTURAL CHEMICALS			
Geigy Parathion 15 W			
Parathion	15.00	12.70	P
NIAGARA CHEMICAL DIVISION FOOD MACHINERY AND CHEMICAL COMPANY			
Niagara Phos Kil Dust			
Parathion	1.00	.87	P
Do.	1.00	.84	P
TOBACCO STATES CHEMICAL COMPANY, INC.			
1% Parathion Dust			
Parathion	1.00	.75	D

ANALYSES OF PRODUCTS CONTAINING PHENOTHIAZINE

Registrant Product Active Ingredient	Guaranteed %	Found %	Remarks
GREEVERS, INC.			
Phenothiazine Drench Powder			
Phenothiazine	98.84	96.00	XP

ANALYSES OF PRODUCTS CONTAINING PHENOTHIAZINE (Con't)

Registrant Product Active Ingredient	Guaranteed %	Found %	Remarks
RALSTON PURINA COMPANY			
Purina Cattle & Sheep Wormer			
Phenothiazine	66.00	66.00	P

ANALYSES OF PRODUCTS CONTAINING SODIUM FLUORIDE

Registrant Product Active Ingredient	Guaranteed %	Found %	Remarks
COOPERATIVE SEED AND FARM SUPPLY			
Southern States Sodium Fluoride			
Sodium Fluoride	95.00	Met	P
NATIONAL PACKAGE DRUGS, INC.			
Drugmaster Sodium Fluoride (Blue)			
Sodium Fluoride	95.00	Met	P
RALSTON PURINA COMPANY			
Purina Lice Powder			
Sodium Fluoride	35.00	Met	P
SENORET CHEMICAL COMPANY			
Terro-Roach Kill			
Sodium Fluoride	40.00	Met	P
W. R. SWEENEY MANUFACTURING, INC.			
Sweeney's Sodium Fluoride			
Sodium Fluoride	90.00	Met	P
Do.	90.00	Met	P
TOBACCO STATES CHEMICAL COMPANY, INC.			
Tobacco States Sodium Fluoride			
Sodium Fluoride	90.00	Met	P
Do.	90.00	Met	P

ANALYSES OF PRODUCTS CONTAINING SODIUM HYPOCHLORITE

Registrant Product Active Ingredient	Guaranteed %	Found %	Remarks
ALSTON MANUFACTURING COMPANY			
Bob White Laundry Bleach			
Sodium Hypochlorite	5.25	4.03	XP
BLEACH PRODUCTS COMPANY			
Blink Bleach			
Sodium Hypochlorite	5.25	5.40	P
Do.	5.25	5.20	P
White Star Bleach			
Sodium Hypochlorite	5.25	5.66	P
CLOROX CHEMICAL COMPANY			
Clorox			
Sodium Hypochlorite	5.25	4.40	P
Do.	5.25	5.28	P

ANALYSES OF PRODUCTS CONTAINING SODIUM HYPOCHLORITE (Con't)

Registrant Product Active Ingredient	Guaranteed %	Found %	Remarks
CLOROX CHEMICAL COMPANY (con't)			
Clorox (con't)			
Sodium Hypochlorite	5.25	5.09	P
Do.	5.25	5.33	P
Do.	5.25	5.26	P
Do.	5.25	5.25	P
CUMBERLAND MANUFACTURING COMPANY			
Bri-Tex Laundry Bleach			
Sodium Hypochlorite	5.25	3.07	D
Do.	5.25	4.92	P
Do.	5.25	2.93	D
Do.	5.25	4.56	P
J. C. EDENTON COMPANY			
Southern Quality Bleach			
Sodium Hypochlorite	5.25	4.76	XP
ERBRICH PRODUCTS COMPANY			
Time Saver Laundry Bleach			
Sodium Hypochlorite	5.25	4.74	P
Plee-Zing Bleach & Disinfectant			
Sodium Hypochlorite	5.25	5.07	XP
Little Mammie Household Bleach			
Sodium Hypochlorite	5.25	4.88	P
Do.	5.25	4.81	P
GREAT ATLANTIC AND PACIFIC TEA COMPANY			
Bright Sail Laundry Bleach			
Sodium Hypochlorite	5.25	5.78	P
Do.	5.25	5.32	P
Do.	5.25	5.50	P
McKNIGHT KEATON GROCERY			
Chloro-San Household Bleach			
Sodium Hypochlorite	5.25	4.81	P
PARKVIEW MARKETS, INC.			
Parkview Laundry Bleach			
Sodium Hypochlorite	5.50	4.74	XP
JOHN PUFL PRODUCTS COMPANY			
Fleecy White Bleach			
Sodium Hypochlorite	5.25	5.36	P
Do.	5.25	5.55	P
Do.	5.25	5.42	P
Do.	5.25	4.78	P
PUREX CORPORATION LTD.			
Purex Bleach			
Sodium Hypochlorite	5.25	5.70	P
Do.	5.25	5.46	P
Purex Dry Bleach			
Sodium Hypochlorite	8.0C	0.00	D

ANALYSES OF PRODUCTS CONTAINING SODIUM HYPOCHLORITE (Con't)

Registrant Product	Guaranteed %	Found %	Remarks
ROMAN CLEANSER COMPANY			
Roman Cleanser Bleach			
Sodium Hypochlorite	5.25	4.82	P
Do.	5.25	5.30	P
Do.	5.25	5.59	P
Do.	5.25	6.00	P
Do.	5.25	5.65	P
Do.	5.25	5.33	P
Do.	5.25	5.00	P
SAPO ELIXER CHEMICAL COMPANY			
Sapo Brand Bleach			
Sodium Hypochlorite	5.25	4.24	P
Do.	5.25	4.00	P
Do.	5.25	5.25	P
THE SINCLAIR MANUFACTURING COMPANY			
White Monday			
Sodium Hypochlorite	5.25	5.40	P
Do.	5.25	5.46	P
Do.	5.25	5.12	P
Do.	5.25	5.50	P
Do.	5.25	5.13	P
Sunrae			
Sodium Hypochlorite	5.25	5.53	P
Do.	5.25	5.02	P
Do.	5.25	5.53	P
Do.	5.25	5.40	P
SNO WASH DISTRIBUTOR			
Sno Wash Bleach			
Sodium Hypochlorite	3.00	2.62	XP
Do.	3.00	3.00	P
F. UDDO AND SONS			
Sure-Klean Bleach			
Sodium Hypochlorite	5.25	3.48	D

ANALYSES OF PRODUCTS CONTAINING SULFUR

Registrant Product Active Ingredient	Guaranteed %	Found %	Remarks
ACME QUALITY PAINTS, INC.			
Acme Lime Sulfur			
Sulfur	5.00	5.95	P
CHIPMAN CHEMICAL COMPANY, INC.			
Chipman Dry Lime Sulfur			
Sulfur	5.00	5.64	XP

ANALYSES OF PRODUCTS CONTAINING TDE

Registrant Product Active Ingredient	Guaranteed %	Found %	Remarks
BELKNAP HARDWARE & MFG. COMPANY			
Tomahawk Dust Rhothane			
TDE	10.00	11.53	P
COOPERATIVE SEED & FARM SUPPLY			
Tomato-Tobacco Dust No. 10			
TDE	10.00	10.71	P
FARM AND GARDEN SUPPLY			
Rhothane Tobacco Worm Dust			
TDE	10.00	9.73	P
L. C. McLONEY & SONS			
Rothane 25% TDE			
TDE	25.00	28.30	P
NIAGARA CHEMICAL DIVISION FOOD MACHINERY & CHEMICAL CORP.			
Niagara DDD Dust for Tobacco			
TDE	10.00	10.35	P
PFEIFFER INSECTICIDE COMPANY			
Pfeiffer's Tobacco Worm Dust			
TDE	10.00	.41	XD
Do.	10.00	10.02	XP
ROHM AND HAAS COMPANY			
Rhothane WP-50			
TDE	50.00	51.20	P
Do.	50.00	51.20	P
TOBACCO STATES CHEMICAL COMPANY, INC.			
Tobacco States Brand 10% Rhothane Dust			
TDE	10.00	10.03	P
Do.	10.00	9.91	P
Tobacco States Brand Tobacco Insect Spray			
TDE	25.00	23.60	P
Do.	25.00	24.80	P

ANALYSES OF PRODUCTS CONTAINING 2, 4-D

Registrant Product Active Ingredient	Guaranteed %	Found %	Remarks
ACME QUALITY PAINTS			
Weed-No-More			
2, 4-D	12.00	12.60	P
DONALDSON COMPANY, INC.			
Killer Kane Kartridge			
2, 4-D	30.00	31.30	P
E. I. DuPONT de NEMOURS & COMPANY			
Lawn Weed Killer No. 2			
2, 4-D	26.70	28.30	P

ANALYSES OF PRODUCTS CONTAINING 2, 4-D (Con't)

Registrant Product Active Ingredient	Guaranteed %	Found %	Remark
O. M. SCOTT AND SONS COMPANY			
Scott's Weed and Feed			
2, 4-D	2.30	1.58	P
Do	2.30	1.48	P
SWIFT AND COMPANY			
End-O-Weed			
2, 4-D	22.40	22.60	P
THOMPSON-HAYWARD CHEMICAL COMPANY			
Ded Weed for Lawns			
2, 4-D	14.00	16.15	P
UNITED COOPERATIVES, INC.			
Unico 2, 4-D Ester Weed Killer			
2, 4-D	47.90	47.90	P
Do	44.00	46.00	P
Unico 2, 4-D Amine Weed Killer			
2, 4-D	49.50	52.20	P

ANALYSES OF PRODUCTS CONTAINING ZINEB

Registrant Product Active Ingredient	Guaranteed %	Found %	Remarks
CHEMICAL FORMULATORS, INC.			
Chemform Brand Zineb Fungicide			
Zineb	65.00	75.20	P
COOPERATIVE SEED & FARM SUPPLY SERVICE			
Z-10 Dust			
Zineb	6.50	6.83	P
E. I. DuPONT de NEMOURS & COMPANY			
DuPont Fungicide			
Zineb	65.00	75.20	P
Do.	65.00	73.30	P
KENTUCKY DISTRIBUTORS			
Dithane Z-78			
Zineb	65.00	66.60	XP
TOBACCO STATES CHEMICAL COMPANY, INC.			
Tobacco States Brand Barmold			
Zineb	5.00	6.18	P
Do.	5.00	4.24	P
Tobacco States Brand Dithane Z-78			
Zineb	65.00	81.20	P

ANALYSES OF PRODUCTS CONTAINING MIXED INGREDIENTS

Registrant Product Active Ingredient	Guaranteed %	Found %	Remarks
AMERICAN CHEMICAL PAINT COMPANY			
A. C. P. Rose and Floral Dust			
Lindane	.50	2.11	P
Sulfur	20.00	19.97	P
Ferbam	7.60	6.06	P
DDT	5.00	5.16	P
Ovotran	2.50	2.45	P
BELKNAP HARDWARE & MFG. COMPANY			
Tomahawk Dust			
DDT	3.00	3.18	P
Rotenone	.75	.55	D
CALIFORNIA SPRAY-CHEMICAL CORP.			
Improved Isotox Garden Spray M			
Lindane	5.00	5.46	P
Malathion	12.50	13.11	P
T. D. E.	5.00	5.16	P
Ortho Home Orchard Spray			
Ferbam	12.25	9.07	D
Do	12.25	9.33	D
DDT	8.00	7.98	P
Do	8.00	8.00	P
Lindane	2.00	2.35	P
Do	2.00	1.90	P
T. D. E.	8.00	7.73	P
Do	8.00	6.20	D
Aramite	4.25	3.96	P
Do	Not Analyzed		
Ortho Lawn & Garden			
Dieldrin	3.40	2.45	P
Gamma Isomer of BHC	1.00	.97	P
CHEMICAL FORMULATORS, INC.			
Chemform Tomato Dust			
DDT	2.00	2.30	P
Zineb	5.00	6.22	P
WILLIAM COOPER AND NEPHEWS			
Cooper's Sheep Drench			
Copper Sulfate	26.00	25.30	XP
Nicotine Alkaloid	10.40	11.30	P
COOPERATIVE SEED & FARM SUPPLY			
Southern States 675 Dust			
Copper	5.00	4.91	P
Rotenone	.75	1.40	P
E. I. DuPONT de NEMOURS & COMPANY			
DuPont Fruit Tree Spray			
Ferbam	15.20	15.90	P
Methoxychlor	12.50	12.78	P

ANALYSES OF PRODUCTS CONTAINING MIXED INGREDIENTS

Registrant Product Active Ingredient	Guaranteed %	Found %	Remarks
DuPont Tomato Dust			
Copper	6.75	7.85	P
Methoxychlor	5.00	5.01	P
NIAGARA CHEMICAL DIVISION FOOD MACHINERY & CHEMICAL CORP.			
Pomo-Green Dust or Spray			
Lindane	1.00	1.88	P
Sulfur	62.00	63.86	P
DDT	5.00	4.14	P
Niagara Garden Dust or Spray			
Copper	5.00	5.19	P
Rotenone	1.00	1.00	P
RALSTON PURINA COMPANY			
Purina Range Cattle Spray			
Lindane	.45	Not Analyzed	
Toxaphene	.45	53.40	P
RIGO MANUFACTURING COMPANY			
Kill-Ko 3 in 1 Garden Dust			
Copper	4.00	5.93	P
Rotenone	.75	.75	P
TOBACCO STATES CHEMICAL COMPANY, INC.			
Tobacco States Home Orchard Fruit Spray			
DDT	7.50	7.16	P
Lead Arsenate	28.80	31.20	P
Tomato Multi-Purpose Dust			
T. D. E.	5.00	4.75	P
Zineb	5.00	11.00	P
Tobacco States Brand Rose Dust			
Zineb	6.00	7.36	P
DDT	5.00	5.62	P
Lindane	1.00	.85	P
Aramite	1.50	1.90	P
Tobacco States Hopper & Worm Dust			
Dieldrin	1.28	1.18	P
T. D. E.	10.00	10.00	P
UNITED COOPERATIVES, INC.			
Unico General Purpose Fruit Spray			
Lead Arsenate	25.00	25.40	P
DDT	10.00	10.64	P

KENTUCKY ECONOMIC POISONS LAW

An act concerning regulation of the manufacture, sale, transportation, distribution and use of economic poisons and devices including fungicides, rodenticides, and herbicides.

217.540 Definitions for KRS 217.540 to 217.640. As used in KRS 217.540 to 217.640, unless the context requires otherwise:

(1) "Economic poison" means any substance or mixture of substances intended for preventing, destroying, repelling or mitigating any insects, rodents, fungi, bacteria, weeds or other forms of plant or animal life or viruses (except viruses on or in living man or other animals) which the director shall declare to be a pest;

(2) "Device" means any instrument or contrivance intended for trapping, destroying, repelling or mitigating insects or rodents or destroying, repelling or mitigating fungi, bacteria or weeds, or such other pests as may be designated by the director, but not including simple mechanical devices such as rat traps of equipment used for the application of economic poisons when sold separately therefrom;

(3) "Insecticide" means any substance or mixture of substances intended for preventing, destroying, repelling, or mitigating any insects which may be present in any environment whatsoever;

(4) "Fungicide" means any substance or mixture of substances intended for preventing, destroying, repelling or mitigating any fungi or plant disease;

(5) "Rodenticide" means any substance or mixture of substances intended for preventing, destroying, repelling or mitigating rodents or any other vertebrate animal which the director shall declare to be a pest;

(6) "Herbicide" means any substance or mixture of substances intended for preventing, destroying, repelling or mitigating any weed;

(7) "Weed" means any plant which grows where not wanted;

(8) "Insect" means any of the numerous small invertebrate animals generally having the body more or less obviously segmented, for the most part belonging to the class insecta, comprising six-legged, usually winged forms as for example, beetles, bugs, bees, flies and to other allied classes of arthropods whose members are wingless and usually have more than six legs, as for example, spiders, mites, ticks, centipedes, and wood lice, also nematodes and other worms, or any other invertebrates which are destructive, constitute a liability, and may be classed pests;

(9) "Fungi" means all non-chlorophyll-bearing thallophytes (that is, all nonchlorophyll-bearing plants of a lower order than mosses and liverworts) as for example, rusts, smuts, mildews, molds, yeasts, bacteria and viruses, except those on or in living man or other animals;

(10) "Ingredient statement" or "guaranteed analysis statement" means either (1) a statement of the name and percentage of each active ingredient, together with the total percentage of the inert ingredients, in the economic poisons; and in addition, in case the economic poisons contain arsenic in any form, a statement of the percentage of total and water soluble arsenic, each stated as elemental (metallic) arsenic; or (2) a statement of the name of each active ingredient in the descending order of percentages, together with the name of each and total percentage of the inert ingredients, if any there be, in the economic poison (except option one shall apply if the preparation is highly toxic to man, determined as provided in KRS 217.580), and in case the economic poisons contain arsenic in any form a statement of the percentage of total and water soluble arsenic, each stated as elemental (metallic) arsenic;

(11) "Active ingredient" means an ingredient which will prevent, destroy, repel or mitigate insects, fungi, rodents, weeds or other pests;

(12) "Inert ingredient" means an ingredient which is not an active ingredient;

(13) "Antidote" means the most practical immediate treatment in case of poisoning and includes first aid treatment;

(14) "Person" means any individual, partnership, association, corporation or organized group of persons whether incorporated or not;

(15) "Director" means the Director of the Kentucky Agricultural Experiment Station;

(16) "Registrant" means the person registering any economic poison pursuant to the provisions of KRS 217.540 to 217.640;

(17) "Label" means the written, printed or graphic matter on or attached to, the economic poison or device, or the immediate container thereof, and the outside container or wrapper of the retail package, if any there be, of the economic poison or device;

(18) "Labeling" means all labels and other written, printed or graphic matter:

(a) Upon the economic poison or device or any of its containers or wrappers;

(b) Accompanying the economic poison or device at any time;

(c) To which reference is made on the label or in literature accompanying the economic poison or device, except when accurate, non-misleading reference is made to current official publications of the Agricultural Experiment Station, the College of Agriculture of the University or Kentucky, the Department of Agriculture, Labor and Statistics, the Department of Health, or similar Federal institutions or other official agencies of this state or other states when such agencies are authorized by law to conduct research in the field of economic poisons;

(19) "Adulterated" means any economic poison the strength or purity of which falls below the professed standard or quality as expressed on labeling or under which it is sold, or any substance of which has been substituted wholly or in part, or any valuable constituent of which has been wholly, or in part, abstracted;

(20) "Misbranded" shall mean any economic poison or device:

(a) The labeing of which bears any statement, design or graphic representation relative thereto or to its ingredients which is false or misleading in any particular;

(b) Which is an imitation of or is offered for sale under the name of another economic poison;

(c) The labeling of which bears any false reference to registration under KRS 217.540 to 217.640;

(d) The accompanying labeling of which does not contain directions for use which are necessary and, if complied with, adequate for the protection of the public;

(e) The label of which does not contain a warning or caution statement which may be necessary and, if complied with, adequate to prevent injury to living man and other verbebrate animals, vegetation, and useful invertebrate animals;

(f) The label of which does not bear an ingredient statement of guaranteed analysis statement on that part of the immediate container and on the outside container or wrapper, if there be one, through which the ingredient statement or guaranteed analysis statement on the immediate container cannot be clearly read, of the retail package which is presented or displayed under customary conditions of purchase;

(g) In which any word, statement, or other information required by or under the authority of KRS 217.540 to 217.640 to appear on the labeling is not prominently placed thereon which such conspicuousnes (as compared with other words, statements, designs or graphic matter in the labeling) and in such terms as to render it likely to be read and understood by the ordinary individual under customary conditions or purchase and use; or

(h) Which, in the case of insecticide, fungicide or herbicide, when used as directed or in accordance with commonly recognized safe practice, shall be injurious to living man or other vertebrate animals or vegetation, to which it is applied, or to the person applying such economic poison, excepting pests and weeds. (1956, c. 218, 1; effective July 1, 1956)

217.550 Prohibitions relating to the distribution, sale or transportation of economic poisons. It shall be unlawful for any person to distribute, sell or offer for sale within the state or deliver for transportation or transport in intrastate commerce or between points within this state through any point outside this state any of the following:

(1) Any economic poison which is not registered pursuant to the provisions of KRS 217.570, or any economic poison if any of the claims made for it or any of the directions for its use differ in substance from the representations made in connection with its registration, or if the composition of an economic poison differs from its composition as represented in connection with its registration; provided, that in the discretion of the director, a change in the labeling or formula of an economic poison may be made, within a registration period, without requiring reregistration of the product;

(2) Any economic poison, except in the registrant's or the manufacturer's unbroken immediate container, unless there is affixed to the container, and to the outside container or wrapper of the retail package, if there be one, through which the required information on the immediate container cannot be clearly read, a label bearing:

(a) The name and address of the manufacturer, registrant or person for whom manufactured;

(b) The name, brand or trade-mark under which said article is sold; and

(c) The net weight or measure of the content subject, however to such reasonable variations as the director may permit;

(3) Any economic poison which contains any substance or substances in quantities highly toxic to man, determined as provided in KRS 217.580, unless the label shall bear, in addition to any other matter required by KRS 217.540 to 217.640:

(a) The skull and crossbones;

(b) The word "poison" prominently in red, on a background of distinctly contrasting color; and

(c) A statement of an antidote for the economic poison;

(4) The economic poisons commonly known as lead arsenate, basic lead arsenate, calcium arsenate, magnesium arsenate, zinc arsenate, zinc arsenite, sodium flouride, sodium fluosilicate, and barium fluosilicate unless they have been distinctly colored or discolored as provided by regulations issued in accordance with KRS 217.540 to 217.640, or any other white powder economic poison which the director, after investigation of and after public hearing on the necessity for such action for the protection of the public health and the feasibility of such coloration or discoloration, shall by regulation, require to be distinctly colored or discolored; unless it has been so colored or discolored; provided, that the director may exempt any economic poison, to the extent that it is intended for a particular use or uses, from the coloring or discoloring required or authorized by this subsection if he determines that such coloring or discoloring for such use or uses is not necessary for the protection of the public health;

(5) Any economic poison which is adulterated or misbranded, or any device which is misbranded. (1956, c. 218, 2; effective July 1, 1956)

217.560 Unlawful practices. It shall be unlawful:

(1) For any person to detach, alter, deface, or destroy, in whole or in part, any label or labeling provided for in KRS 217.540 to 217.640 or the rules and regulations promulgated hereunder, or to add any substance to, or take any substance from an economic poison in a manner that may defeat the purposes of KRS 217.540 to 217.640;

(2) For any person to use for his own advantage or to reveal, other than to the director, or officials or employees of the state or officials or employees of the United States Department of Agriculture, or other Federal agencies, or to the courts in response to a subpoena, or to physicians, and in emergencies to pharmacists and other qualified persons for use in the preparation of antidotes, in accordance with such directions as the director may prescribe, any information relative to formulas of products acquired by authority of KRS 217.570;

(3) For any person to oppose or interfere in any way with the director or his duly authorized agents in carrying out the duties imposed by KRS 217.540 to 217.640. (1956 c. 218, 3; effective July 1, 1956)

217.570 Registration of economic poisons; renewal.

(1) Every economic poison which is distributed, sold or offered for sale within this state or delivered for transportation or transported in intrastate commerce or between points within the state through any point outside this state shall be registered with the director. The director may register and permit the sale of any such economic poison which has been duly registered without protest under the provisions of the Federal Insecticide, Fungicide and Rodenticide Act, but products so registered shall be subject to the inspection fees provided for herein, and to all other provisions of KRS 217.540 to 217.640. All registration of products whall expire on the thirty-first day of December following date of issuance, unless such registration shall be renewed annually, in which event expiration date shall be extended for each year of renewal registration, or until otherwise terminated; provided that:

(a) Products which have the same formula, and are manufactured by the same person, the labeling of which contains the same claims, and the labels of which bear a designation identifying the product as the same economic poison may be registered as a single economic poison; additional names and labels shall be added by supplement statements during the current period of registration;

(b) Within the discretion of the director or his authorized representative, a change in the labeling or formulas of an economic poison may be made within the current period of registration, without requiring a re-registration of the product, provided the name of the item is not changed.

(2) The registrant shall file with the director, a statement containing:

(a) The name and address of the registrant and the name and address of the person whose name will appear on the label, if other than the registrant;

(b) The name of the economic poison;

(c) A complete copy of the labeling accompanying the economic poison and a statement of all claims made and to be made for it including directions for use; and

(d) If requested by the director, a full description of the tests made and results thereof upon which the claims are based. In the case of renewal of registration, a statement shall be required only with respect to information which is different from that furhished when the economic poison was registered or last re-registered;

(3) The registrant, before selling or offering for sale any economic poison in this state, shall register each brand or grade of such economic poison with the director upon forms furnished by the director, and for the purposes of defraying expenses connected with the enforcement of KRS 217.340 to 217.640, shall pay to the director an annual inspection fee of five dollars for each and every brand or grade to be offered for sale in this state provided, however, that any registrant may register annually any number of brands after the payment of annual fees aggregating fifty dollars. There shall be issued to the registrant by the director a license entitling the registrant to sell all duly registered brand in this state until the expiration of the license;

(4) The director, whenever he deems it necessary in the administration of KRS 217.540 to 217.640, may require the submission of the complete formula of any economic poison. If it appears to the director that the composition of the article is such as to warrant the proposed claims for it and if the article and its labeling and other material required to be submitted comply with the requirements of KRS 217.540 to 217.640, he shall register the article;

(5) If it does not appear to the director that the article is such as to warrant the proposed claims for it or if the article and its labeling and other material required to be submitted do not comply with the provisions of KRS 217.540 to 217.640, he shall notify the registrant of the manner in which the article, labeling, or other material required to be submitted fail to comply with KRS 217.540 to 217.640, so as to afford the registrant an opportunity to make the necessary corrections.

(6) If, upon receipt of such notice, the registrant insists that such corrections are not necessary and requests in writing that the article be registered, the commissioner shall register the article under protest, and such registration shall be accompanied by a warning in writing to the registrant of the apparent failure of the article to comply with the provisions of KRS 217.540 to 217.640;

(7) The director is authorized and empowered to refuse to register, or to cancel the registration of, any brand of economic poison as herein provided, upon satisfactory proof that the registrant has been guilty of fraudulent and deceptive practices in evasions or attempted evasions of the provisions of KRS 217.540 to 217.640 or any rules and regulations promulgated thereunder; provided, that no registration shall be revoked or refused until the registrant shall have been given a hearing by the director;

(8) Notwithstanding any other provision of KRS 217.540 to 217.640, registration is not required in the case of an economic poison shipped from one plant within this state to another plant within this state operated by the same person. (1956, c. 218, 5; effective July 1, 1956)

217.580 Authority of director.

(1) The director is authorized, after opportunity for a hearing:

(a) To declare as a pest any form of plant or invertebrate animal life or virus which is injurious to plants, animals, articles or substances;

(b) To determine whether economic poisons are highly toxic to man;

(c) To determine standards of coloring or discoloring for economic poisons and to subject economic poisons to the requirements for coloration or discoloration imposed by KRS 217.540 to 217.640.

(2) The director is further authorized:

(a) To effect the collection and examination of samples of economic poisons and devices to determine compliance with the requirements of KRS 217.540 to 217.640; and he shall have the authority at all reasonable hours to enter into any car, warehouse, store, building, boat, vessel or place supposed to contain economic poisons or devices, for the purpose of inspection or sampling, and to procure samples for analysis or examination from any lot, package or parcel of economic poison, or any device;

(b) To publish from time to time, in such forms as he may deem proper, reports of the results of the analyses based on official samples of economic poisons sold within the state;

(c) After due public hearing to make, promulgate, alter, change, rescind such rules and regulations relating to the sale and distribution of economic poisons as he may find necessary to carry into effect the full intent and meaning of KRS 217.540 to 217.640;

(d) To cooperate with, and enter into agreements with, any other agency of this state, the United State Department of Agriculture, and any other state or agency thereof for the purpose of carrying out the provisions of KRS 217.540 to 217.640 and securing uniformity of regulations (1956, c. 218, 6; effective July 1, 1956)

217.590 Violations of KRS 217.540 to 217.640, duties of director relating to; penalties.

(1) If it shall appear from examination or evidence that any of the provisions of KRS 217.540 to 217.640 or the rules and regulations issued thereunder have been violated, the director may cause notice of such violations to be given to the registrant, distributor, and processor, from whom any sample or evidence was taken. Any party so notified shall be given an opportunity to be heard under such rules and regulations as may be prescribed by the director. If it appears after such hearing that there have been a sufficient number of violations of KRS 217.540 to 217.640 or the rules and regulations issued thereunder, the director may certify the facts to the Commonwealth's attorney or the county attorney for the county in which the violation shall have occurred

and furnish that officer with a copy of the results of any examination of such sample duly authenticated by the officer making the examination. It shall be the duty of every such attorney to whom the director shall report any violation of KRS 217.540 to 217.640 to cause proceedings to be prosecuted without delay for the fines and penalties in such cases. Any person convicted of violating any provisions of KRS 217.540 to 217.640 or the rules and regulations issued thereunder shall be adjudged guilty of a misdemeanor and shall be subject to a penalty of not less than twenty-five dollars nor more than five hundred dollars;

(2) Nothing in this section shall be construed as requiring the director to report minor violations for the institution of proceedings under KRS 217.540 to 217.640 whenever the director believes that the public interest will be adequately served in the circumstance by a suitable written notice or warning. (1956, c. 218 7; effective July 1, 1956)

217.600 When penalties not applicable. The penalties provided for violations of KRS 217.550 shall not apply to:

(1) Any carrier, while lawfully engaged in transporting an economic poison within this state, if such carrier shall, upon request, permit the director or his designated agent to copy all records showing the transactions in and movements of the articles;

(2) Public officials of this state and of the federal government engaged in the performance of their official duties;

(3) The manufacturer or shipper of an economic poison for experimental use only:

(a) By or under the supervision of an agency of this state or of the federal government authorized by law to conduct research in the field of economic poisons; or

(b) By others if the economic poison is not sold and if the container thereof is plainly and conspicuously marked "For experimental use only—Not to be sold," together with the manufacturer's name and address; provided, however, that if a written permit has been obtained from the director, economic poisons may be sold for experimental purposes subject to such restrictions and conditions as may be set forth in the permit;

(4) Any preparation, drug or chemical intended to be used or sold solely for medicinal use or for toilet purposes. (1956, c. 218, 8; effective July 1, 1956)

217.610 Director to issue written "stop sale, use or removal" order; when; appeal. It shall be the duty of the director to issue and enforce a written or printed "stop sale, use of removal" order to the owner or custodian of any lot of economic poison and to hold at a designated place when the director finds said economic poison is being offered or exposed for sale in violation of any of the provisions of KRS 217.540 to 217.640 until the law has been complied with and said economic poison is released in writing by the director or said violation has been otherwise legally disposed of by written authority; provided that the owner or custodian of such economic poison shall have the right to appeal from such order to a court of competent jurisdiction in the county where the said economic poison or poisons are found, praying for a judgment as to the justification of said order, and for the discharge of such economic poison from the order prohibiting the sale in accordance with the findings of the court; and provided further that the provisions of this paragraph shall not be construed as limiting the right of the enforcement officer to proceed as authorized by other provisions of KRS 217.540 to 217.640. The director shall release the economic poison so withdrawn when the requirements of the provisions of KRS 217.540 to 217.640 have been complied with and upon payment of all costs and expenses incurred in connection with the withdrawal. (1956, c. 218, 9; effective July 1, 1956)

217.620 Seizure of economic poison; when. Any lot of economic poison not in compliance with the provisions of KRS 217.540 to 217.640 shall be subject to seizure on complaint of the director to a court of competent jurisdiction in the county in which said economic poison is located. In the event the court finds the said economic poison to be in violation of KRS 217.540 to 217.640 and orders the condemnation of said economic poison, it shall be disposed of in any manner consistent with the quality of the economic poison and the laws of the state; provided, that in no instance shall the disposition of said economic poison be ordered by the court without first giving the claimant an opportunity to apply to the court for release of said economic poison or for permission to process or relabel said product to bring in into compliance with KRS 217.540 to 217.640. (1956, c. 218, 10; effective July 1, 1956)

217.630 Authority vested in director may be executed by employees of Agricultural Experiment Station. All authority vested in the director by virtue of the provisions of KRS 217.540 to 217.640 may, with like force and effect, be executed by such employees of the Kentucky Agricultural Experiment Station as the director may from time to time designate for said purpose. (1956, c. 218, 11; effective July 1, 1956)

217.640 Jurisdiction vested in director; repealing clause. Jurisdiction in all matters pertaining to the distribution, sale and transportation of economic poisons is by KRS 217.540 to 217.640 vested exclusively in the director and all acts and parts of acts inconsistent with KRS 217.540 to 217.640 are hereby expressly repealed including the provisions of Sections 217.010 and 217.400 of the Kentucky Revised Statutes which cover economic poisons subject to KRS 217.540 to 217.640 (1956, c. 218, 13; effective July 1, 1956)

3M - 6-58