
Bulletin 551

December, 1951

COMMERCIAL FERTILIZERS

Report for 1951



H. J. FISHER
Chief Chemist

THE CONNECTICUT AGRICULTURAL EXPERIMENT
STATION, NEW HAVEN, CONNECTICUT

CONTENTS

	Page
CONNECTICUT LAW AND REGULATIONS REGARDING COMMERCIAL FERTILIZERS	5
Official definitions of fertilizer terms and materials	6
REGISTRATIONS	7
FERTILIZER INSPECTION FOR 1951	16
CLASSIFICATION OF FERTILIZER MATERIALS AND FERTILIZER TONNAGE	18
Mixed fertilizer tonnage	19
I. Raw materials chiefly valuable for nitrogen	19
II. Raw materials chiefly valuable for phosphoric acid	20
III. Raw materials chiefly valuable for potash	20
IV. Raw materials supplying nitrogen and phosphoric acid	20
V. Raw materials supplying nitrogen and potash	20
VI. Mixed fertilizers	20
Commercial mixtures	20
Special and home mixtures	21
State purchases of fertilizer	21
VII. Miscellaneous	22
MAINTENANCE OF GUARANTIES	22
TABLES OF ANALYSES	24
1. Materials supplying chiefly nitrogen	24
2. Superphosphate, etc.	28
3. Potash salts, etc.	30
4. Ground fish, bone, etc.	32
5. Mixed fertilizers	34
6. Sheep manure, etc.	50
7. Limestone and similar materials	52
8. Small package fertilizers	53
9. Other miscellaneous materials	58
INDEX	59

REPORT ON INSPECTION AND ANALYSIS OF COMMERCIAL FERTILIZERS, 1951

H. J. FISHER, Chief Chemist¹

CONNECTICUT LAW AND REGULATIONS REGARDING COMMERCIAL FERTILIZERS

The term "commercial fertilizers", as used in the Connecticut fertilizer statute, includes "any and every substance imported, manufactured, prepared or sold for fertilizing or manuring or soil amendment purposes, except barnyard manure and stable manure which have not been artificially treated or manipulated, marl and lime". An amendment of the law in 1949 permitted fertilizers to be labelled with guaranties of elements other than nitrogen, phosphorus and potassium, but did not change the requirement that mixed fertilizers must contain at least 0.82 per cent of nitrogen and 1 per cent of either phosphoric acid or potash for guaranties of these elements to be made. Phosphorus must be declared as available phosphoric acid (except in the case of bone, tankage and other natural organic materials, where total phosphoric acid is guaranteed) and potassium as water-soluble potash; all other elements must be guaranteed in terms of percentages of the elements, not as oxides or salts. A registration fee of \$10.00, payable annually, is charged for each element guaranteed in each brand of fertilizer; there is also a six cent tonnage tax, payable semi-annually.

While manufacturers usually register their own fertilizers, if a retailer sells a fertilizer manufactured by an out-of-state firm, and that firm refuses to register, under the law the retailer is responsible for registration fees and tonnage taxes. *The retailer, therefore, should assure himself that the requirements of the law have been met by the manufacturers of the brands which he handles, or himself be prepared to meet all these requirements.*

The law exempts from registration, and from other requirements, only (1) fertilizers passing through the State in transit; (2) fertilizers and fertilizer materials shipped to regular fertilizer factories to be used for manufacturing purposes, and (3) fertilizers and fertilizer chemicals sold to The Connecticut Agricultural Experiment Station for experimental purposes.

Cottonseed, linseed, peanut and soybean oil meals, when sold or used for fertilizer purposes, must be registered as fertilizers and the specified fees paid thereon. For such products the registration fee is \$10.00 per brand. This fee and the tonnage tax are entirely apart from the registration fee required by the feeding stuffs law for vegetable meals used as feeds (there is no tonnage tax on feeds).

¹Analyses were made by Messrs. O. L. Nolan and Sherman Squires and Miss Helen Kocaba; inspection and sampling by Mr. George Smith; compilations by Mr. Nolan and Miss Lillian Goffi.

Because manufacturers or jobbers do not know how much, if any, of their vegetable meal tonnage is sold or used as fertilizer, local dealers and purchasers report their sales or purchases to this Station. The information is not for publication but is used to inform manufacturers of the total sales of their meal as fertilizer in this state. It is expected that the fees provided for by statute will be paid by the manufacturer or other party responsible for the brands.

Official Definitions of Fertilizer Terms and Materials

It is expected that fertilizers sold in this state will comply with the regulations and standards of the Association of American Fertilizer Control Officials. A copy of the "Official Publication" of that Association giving these definitions and regulations may be obtained from the secretary-treasurer, B. D. Cloaninger, Drawer 392, Clemson, South Carolina, for \$1.00.

REGISTRATIONS

Late Registrations for 1950

To the brands registered for 1950 in our last report should be added the following:

Maurice Pincoffs Co., Cotton Exchange Bldg., Houston 2, Tex.

Pinco Brand Cottonseed Meal

Registrations for 1951

For 1951, 74 firms and individuals registered 354 brands of fertilizer at this Station for sale in the State. As required by statute, the brands are listed as follows:

Agricultural Supply Co., 221 Richmond Ave., West Haven, Conn.

Yale Special Mixture

Ted Alkire, Box 1468, Lubbock, Tex.

Kireal Cotton Hull Ash

Allied Chemical & Dye Corp., The Barrett Div., 40 Rector St., New York 6, N. Y.

A-N-L Brand Fertilizer Compound

ARCADIAN the American Nitrate of Soda
Sulphate of Ammonia

The American Agricultural Chemical Co., 285 River St., No. Weymouth 91, Mass.

AA Quality Fertilizer 0-12-18

AA Quality Fertilizer 0-14-14

AA Quality Fertilizer 3-12-6

AA Quality Fertilizer 3-12-12

AA Quality Fertilizer 5-5-15

AA Quality Fertilizer 5-8-7

AA Quality Fertilizer 5-10-5

AA Quality Fertilizer 5-10-10

AA Quality Fertilizer 6-3-6

AA Quality Fertilizer 7-7-7

AA Quality Phosphate Rock

Agrico Country Club Fertilizer 6-10-4

Agrico Country Club Fertilizer 8-6-2

Agrico for Broadleaf Evergreens 6-10-4

Agrico for Corn 4-12-4

Agrico for Gardens 5-10-5

Agrico for Grain 3-12-6

Agrico for Lawns, Trees and Shrubs 6-10-4

Agrico for New England 5-8-7

Agrico for Potatoes 5-10-10

Agrico for Potatoes 5-10-10-1.2

Agrico for Seeding Down 3-12-12

Agrico for Tobacco 6-3-6

Agrico for Top Dressing 7-7-7

Agrico for Truck 5-10-5

Agrico for Turf 6-8-2

Agrico Phosphate and Potash 0-12-18

Agrico Phosphate and Potash 0-14-14

Agrico Rose Food 5-9-6

Agrinite

**The American Agricultural Chemical Co.,
285 River St., No. Weymouth 91, Mass.—Cont'd.**

Bone Meal
Castor Pomace
Muriate of Potash
18% Normal Superphosphate
Pulverized Sheep Manure

American Cyanamid Co., 30 Rockefeller Plaza, New York 20, N. Y.

20% AERO Cyanamid, Granular
20.6% AERO Cyanamid, Granular
AERO Cyanamid, Special Grade
AERO-PHOS Florida Natural Phosphate
AEROPRILLS Ammonium Nitrate Fertilizer

Apothecaries Hall Co., 28 Benedict St., Waterbury, Conn.

Bone Meal 2.25
Bone Meal 3.70
Castor Pomace
Cotton Hull Ashes
Dry Ground Fish
Liberty Fertilizer 0-14-14
Liberty Fertilizer 0-20-20
Liberty Fertilizer 3-12-12
Liberty Fertilizer 4-12-4
Liberty Fertilizer 5-10-5
Liberty Fertilizer 5-10-10
Liberty Fertilizer 5-10-10 with 1.2% Magnesium
Liberty Fertilizer 6-8-8
Liberty Fertilizer 6-8-8 with 1.2% Magnesium
Liberty Fertilizer 8-16-16
Liberty Green Gro Fertilizer 6-7-4
Liberty High Grade Market Gardeners 5-8-7
Liberty High Grade Market Gardeners 5-8-7 with 1.2% Magnesium
Liberty High Grade Market Gardeners with Sulphate of Potash 5-8-7
Liberty Landscape and Golf Course 8-6-2
Liberty Special for Fruit and Grass 7-7-7
Liberty Tobacco Mixture 5-3-5
Liberty Tobacco Mixture 6-3-6
Liberty Tobacco Mixture with Castor Pomace 6-3-6
Liberty Tobacco Mixture with Cottonhull Ashes 6-3-6
Liberty Tobacco Starter 4-10-0
Liberty Tobacco Starter 5-5-15
Magnesium Sulphate, Fertilizer Grade
Muriate of Potash
Nitrate of Potash
Precipitated Bone
Sheep Manure
Sulphate of Ammonia
Sulphate of Potash
Superphosphate

Archer-Daniels-Midland Co., 600 Roanoke Bldg., Minneapolis, Minn.

Archer Quality 32% Protein Expeller Linseed Oil Meal
Archer Quality 36% Protein Solvent Extracted Linseed Oil Meal

Armour Fertilizer Works, 120 Broadway, New York 5, N. Y.

Armour's Big Crop Fertilizer 0-20-20
Armour's Big Crop Fertilizer 5-8-7
Armour's Big Crop Fertilizer 5-10-10
Armour's Big Crop Fertilizer 7-7-7
Armour's Big Crop Fertilizer 20% Superphosphate

Armour Fertilizer Works, 120 Broadway, New York 5, N. Y.—Cont'd.

Armour's Big Crop Fertilizer Tobacco Special 6-3-6
Armour's Bone Meal Fertilizer
Armour's Pulverized Sheep Manure
Armour's Vertagreen Plant Food 5-10-5
Armour's Vertagreen Plant Food for Commercial Crops 6-12-12
Armour's Vertagreen Plant Food for Professional Use 10-6-4

Ashcraft-Wilkinson Co., 601 Trust Co. of Georgia Bldg., Atlanta 3, Ga.

Cow-Eta Brand 41% Protein Cottonseed Meal

Associated Seed Growers, Inc., Railroad Ave., Milford, Conn.

Asgrow Lawn Food
Japedizer

Atkins & Durbrow, Inc., 165 John St., New York 38, N. Y.

DRICONURE

The F. A. Bartlett Tree Expert Co., 60 Canal St., Stamford, Conn.

Bartlett Green Tree Food

The Boswell Co., 171 Blackland Rd., N. W., Atlanta, Ga.

Pure Gold 41% Protein Cottonseed Meal
Wooster Brand 44% Solvent Extracted Soybean Meal

Joseph Breck & Sons Corp., 401 Summer St., Boston 10, Mass.

Brexone Graden-Gro
Brexone Turf-Gro

The Buckeye Cotton Oil Co., 6th & Main Sts., Cincinnati, Ohio

Buckeye 41% Protein Cottonseed Meal for Fertilizer

Central Chemical Corp., Lebanon, Pa.

Farmrite Gardenrite
Farmrite Sulfate of Ammonia

Chilean Nitrate Sales Corp., 120 Broadway, New York 5, N. Y.

Chilean Nitrate of Soda—Champion Brand

Consolidated Rendering Co., 178 Atlantic Ave., Boston 10, Mass.

Corenco 0-14-14 Top Dresser
Corenco 4-12-4 Complete Manure
Corenco 4-12-16 Ladino Special
Corenco 5-5-15 Tobacco Starter
Corenco 5-8-7 Potato and General Crop
Corenco 5-10-5 Home Garden
Corenco 5-10-5 Onion Special-Super Truck
Corenco 5-10-10 Peerless Potato
Corenco 5-10-10-1.2 with Water Soluble Magnesium
Corenco 6-3-6 Perfection Tobacco Grower
Corenco 6-3-6 Premium Tobacco Grower
Corenco 6-8-8 Potato Special
Corenco 7-7-7 Complete Fruit and Top Dressing
Corenco 8-6-4 Landscape
Corenco Ground Bone 1.5%
Corenco Ground Bone 2%
Corenco Sheep Manure
Corenco Special Ground Bone
Corenco Spurz-on
Corenco Superphosphate 20%
Muriate of Potash
Sulphate of Potash

The Davey Tree Expert Co., 117 S. Water St., Kent, Ohio

Davey Shredded Cattle Manure
Davey Tree Food

R. G. Davis & Sons, 560 Grand Ave., New Haven, Conn.

"Organo"

The Davison Chemical Corp., Charles & Fayette Sts., Baltimore 3, Md.

Davco Granulated Fertilizer 0-14-14
Davco Granulated Fertilizer 0-20-20
Davco Granulated Fertilizer 4-12-16
Davco Granulated Fertilizer 5-8-7
Davco Granulated Fertilizer 5-10-5
Davco Granulated Fertilizer 5-10-10
Davco Granulated Fertilizer 7-7-7
Davco Granulated Fertilizer 8-16-16
Davco Granulated Superphosphate 20%
Muriate of Potash
Potato Special Davco "Premium" Fertilizer 5-10-10 with 1.2 Magnesium

The Doggett-Pfeil Co., 642 Morris Turnpike, Springfield, N. J.

Clay's London Fertilizer

The Doughten Seed Co., 151 Twelfth St., Jersey City 2, N. J.

Faith Soil Food with Insect Control

E. I. du Pont de Nemours & Co., Inc., Wilmington 98, Del.

DU PONT NU GREEN Fertilizer Compound
DU PONT URAMON Fertilizer Compound

Eastern States Farmers' Exchange, Inc., 26 Central St., West Springfield, Mass.

Eastern States 0-19-19 with 5% Borax
Eastern States 0-20-20
Eastern States 5-10-10-0.6
Eastern States 5-15-15-0.6
Eastern States 6-4-6-1.2 Tobacco
Eastern States 8-4-8-1.2 Tobacco
Eastern States 8-12-12-1.2 L. C. S.
Eastern States 8-12-12-1.2 S. M.
Eastern States 8-16-8-0.6
Eastern States 8-16-16-0.6
Eastern States 10-10-10-0.6
Eastern States Muriate of Potash
Eastern States Plant Starter
Eastern States Sulfate of Ammonia
Eastern States Sulfate of Potash
Eastern States Superphosphate—Granulated and Pulverized

The Espoma Co., P. O. Box 108, Millville, N. J.

Espoma
Holly-Tone

Faesy & Besthoff, Inc., 325 Spring St., New York 13, N. Y.

High Organic Pelletized All-Purpose 6-12-6
Pure Bone Meal
Rose Food 8-10-4

Ford Motor Co., 3000 Schaefer Road, Dearborn, Mich.

Ford Ammonium Sulphate

Fox Point Chemical Co., 49 Valley St., East Providence, R. I.

Old Fox Brand 0-12-24
Old Fox Brand 0-20-0

Fox Point Chemical Co., 49 Valley St., East Providence, R. I.—Cont'd.

Old Fox Brand 0-20-20
Old Fox Brand 4-12-8
Old Fox Brand 5-8-7
Old Fox Brand 5-10-10-0.6
Old Fox Brand 7-7-7

Goulard & Olena, Inc., Skillman, N. J.

Freedz-N'-Weedz 2-4, D
G & O Dahlia-Lily-Gladiola 5-6-15
G & O Ground Bone Fertilizer
G & O Rose Food

Heeman Manufacturing Co., 515 Palmer St., Wooster, Ohio

Wooster Lawn Builder with 2-4, D
Wooster Plant Builder

A. H. Hoffman, Inc., Landisville, Lancaster County, Pa.

Hoffman Cow Manure (Dehydrated)
Hoffman Sheep Manure (Kiln-Dried)

Hoover Soil Service, Gilman, Ill.

A Soft Phosphate with Colloidal Clay

Humphreys-Godwin Co., 2246 Park Ave., Memphis, Tenn.

Dixie Brand 41% Cottonseed Meal

International Minerals & Chemical Corp., P. O. Box 230, Woburn, Mass.

International 5-8-7-0.6
International 5-10-10-0.6
International Castor Pomace
International 20% Superphosphate
International Tobacco 6-3-6

International Vegetable Oil Mill, Union & North Sts., Greenville, Miss.

Cottonseed Meal

Spencer Kellogg & Sons, Inc., 98 Delaware Ave., Buffalo 5, N. Y.

Castor Pomace
Spencer Kellogg's 32% Protein Old Process Linseed Oil Meal
Spencer Kellogg's 34% Protein Old Process Linseed Oil Meal
Spencer Kellogg's 44% Protein Toasted Soybean Oil Meal—Solvent Extracted

L. B. Lovitt & Co., 314 Cotton Exchange Bldg., Memphis, Tenn.

"Lovit Brand" 41% Protein Cottonseed Meal

The Mamlon Co., 1089 Whalley Ave., New Haven 15, Conn.

FER-MEL Water Soluble Turf Food

Marianna Sales Co., 510 Cotton Exchange Bldg., Memphis, Tenn.

"WHITE MULE BRAND" 41% Protein Cottonseed Meal

McCormick & Co., Inc., McCormick Bldg., Baltimore 2, Md.

HY-GRO

"Na-Churs" Plant Food Co., 121 Garden St., Marion, Ohio

"Na-Churs" Liquid Fertilizer 5-5-10
"Na-Churs" Liquid Fertilizer 5-10-5

Old Deerfield Fertilizer Co., Inc., 20 Sugarloaf St., So. Deerfield, Mass.

"Churn" Brand Sterilized Feeding Bone Meal
 Old Deerfield Castor Pomace
 Old Deerfield Cotton Hull Ash 35%
 Old Deerfield Cotton Hull Ash 40%
 Old Deerfield Dry Ground Fish
 Old Deerfield High Grade Sulphate of Potash
 Old Deerfield Lawnshrub Fertilizer 6-5-5
 Old Deerfield Muriate of Potash 60%
 Old Deerfield 5-5-15 Tobacco Starter
 Old Deerfield 5-8-7 Fertilizer
 Old Deerfield 5-10-5 Fertilizer
 Old Deerfield 5-10-10 Fertilizer
 Old Deerfield 6-3-6 Complete Tobacco
 Old Deerfield 7-7-7 Fertilizer
 Old Deerfield 20% Superphosphate
 Precipitated Bone
 Triple Superphosphate 47%

Olds & Whipple, Inc., 168 State St., Hartford, Conn.

Horn and Hoof Meal
 Muriate of Potash 60%
 Nitrate of Potash
 O & W Bone Meal
 O & W Castor Pomace
 O & W Cotton Hull Ash
 O & W Menhaden Dry Ground Fish
 O & W Sulphate of Potash
 O & W Superphosphate
 O & W Triple Superphosphate
 O & W Uramon Fertilizer Compound
 O & W 0-14-14 Fertilizer
 O & W 0-20-20 Fertilizer
 O & W 4-8-4 Complete Lawn and Grass Fertilizer
 O & W 4-12-4 Market Garden Fertilizer
 O & W 5-3-5 Complete Tobacco Fertilizer-Potash derived from Cotton Hull Ash
 O & W 5-5-15 High Grade Tobacco Starter
 O & W 5-8-6 Luxura
 O & W 5-8-7 Potato and General Purpose Fertilizer
 O & W 5-8-7 Potato and General Purpose Fertilizer with Sulphate of Potash
 O & W 5-10-10 Potato Fertilizer
 O & W Potato 5-10-10 Fertilizer with 1.2% magnesium
 O & W 6-3-6 Blue Label Tobacco Fertilizer
 O & W 6-3-6 Blue Label Tobacco Fertilizer-Potash derived from Cotton Hull Ash
 W/0.13 Cu
 O & W 6-3-6 Pomace Base Fertilizer-Potash derived from Cotton Hull Ash
 O & W 7-7-7 Top Dressing and Grass Fertilizer
 Precipitated Bone Phosphate
 Sheep Manure
 Sulphate of Potash and Magnesia

Pedigreed Seed Co., 44 W. Broadway, New York 7, N. Y.

Lofts Lawn Food

Perkins Oil Co., 727 Beale Ave., Memphis, Tenn.

Golden Rod Brand 41% Protein Cottonseed Meal—Prime Quality

The Frank S. Platt Co., Inc., 450 State St., New Haven, Conn.

Platt's Special 10-5-5 Lawn Fertilizer

Premier Peat Moss Corp., 535 Fifth Ave., New York 17, N. Y.

Premier-Nure

The Pulverized Manure Co., 503 Exchange Bldg., Chicago 9, Ill.

Wizard Brand Cow Manure
Wizard Brand Pulverized Sheep Manure

Ra-Pid-Gro Corp., 88 Ossian St., Dansville, N. Y.

Ra-Pid-Gro

Ray & King, 211 Ave. M, Lubbock, Tex.

Cotton Bur Ashes

The Rogers & Hubbard Co., Bank St., Portland, Conn.

Castor Pomace
Gro-Fast Aluminum Sulphate
Gro-Fast Acid Fertilizer
Gro-Fast Bone Meal
Gro-Fast Cow Manure
Gro-Fast Plant Food
Gro-Fast Rose Food
Gro-Fast Sheep Manure
Horn and Hoof Meal
Hubbard 6-8-8 for Potatoes
Hubbard 10-6-2
Hubbard Alfalfa Fertilizer 0-14-14
Hubbard Alfalfa Fertilizer 0-14-14 W/0.55 Boron
Hubbard Corn Fertilizer
Hubbard Cottonhull Ash
Hubbard Dairy Fertilizer
Hubbard Double Strength Fertilizer
Hubbard Fertilizer 10-5-5
Hubbard Fertilizer 10-10-10
Hubbard Garden Fertilizer
Hubbard General Crop Fertilizer
Hubbard Golf Course Fertilizer
Hubbard High Potash Fertilizer
Hubbard Potato Fertilizer 5-8-7
Hubbard Seeding Fertilizer
Hubbard Tobacco Grower
Hubbard Top Dressing Fertilizer
Hubbard Valley Brand 6-3-6
Hubbard Vegetable Fertilizer 5-8-7
Hubbard Weed-Kil Lawn Food
Muriate of Potash
Organico
Superphosphate

Rose Manufacturing Co., 6 Main St., Beacon, N. Y.

Triogen Rose Food

Ruhm Phosphate & Chemical Co., 8 So. Michigan Ave., Chicago 3, Ill.

Red Seal Brand Ruhm's Phosphate Rock

O. M. Scott & Sons Co., Marysville, Ohio

Scott's Turf Builder
Scott's Weed and Feed

Sears, Roebuck and Co., 925 S. Homan Ave., Chicago 7, Ill.

Cross Country Bulb Food
Cross Country Cattle Manure 1.5-0.75-2
Cross Country Cattle Manure 1.5-1-2
Cross Country Cattle Manure 1.75-0.8-2

Sears, Roebuck and Co., 925 S. Homan Ave., Chicago 7, Ill.—Cont'd.

Cross Country Plant Food
Cross Country Rose Food
Cross Country Sheep Manure 1.5-0.75-2
Cross Country Sheep Manure 1.5-1-2
Cross Country Sheep Manure 1.75-0.75-3

Sewerage Commission of the City of Milwaukee, P. O. Box 2079, Milwaukee 1, Wis.
Milorganite**M. L. Shoemaker, Inc., Div. Wilson & Co., Delaware Ave. & Venango St., Philadelphia 34, Pa.**

M. L. Shoemaker's "Swift-Sure" Tobacco Starter

The Smith Agricultural Chemical Co., 618 No. Champion Ave., Columbus 16, Ohio

Sacco Plant Food
WEDO with 2,4-D

The Southern Cotton Oil Co., Atlanta, Ga.

SCO-CO Brand Cottonseed Meal (41% Protein)

Wendell S. Still, Middle Country Rd., Selden, N. Y.

Farmanure

Stumpp & Walter Co., 132 Church St., New York 8, N. Y.

Sawco Bone Fertilizer
Sawco Economy Fertilizer
Sawco Emerald Grass Fertilizer
Sawco General Garden Fertilizer 4-12-4
Sawco General Garden Fertilizer 5-10-5
Sawco Golf Fertilizer
Sawco Muriate of Potash
Sawco Rose Food
Sawco Superphosphate
Sawco Treewiz
Sawconure

Swift & Co., 25 Faneuil Hall Sq., Boston 9, Mass.

Blenn
Bone Meal
Brimm
Red Steer 5-8-7
Red Steer 10-6-4
Sheep Manure
Vigoro 5-10-5
Vigoro C. G.

Tennessee Corp., Lockland, Cincinnati 15, Ohio

Loma 5-10-5
Loma 5-10-5 Mineralized
Loma 8-8-8 Mineralized

The Terre Co., Rochelle Park, N. J.

Terre Lawn-Spur
Terre Rodo-Gro

Thomason Phosphate Dept., International Minerals & Chemical Corp., 407 So. Dearborn St., Chicago 5, Ill.

Four Leaf Powdered Rock Phosphate

Universal Chemical Co., 106 Ontario St., Lynn, Mass.

Electra Plant Food

The Van Iderstine Co., 37-30 Review Ave., Long Island City 1, N. Y.

Vico Steamed Bone Meal—Fertilizer

Walker-Gordon Laboratory Co., Plainsboro, N. J.

Bovung

Oscar F. Warner, 24 E. Aurora St., Waterbury, Conn.

Warner's Grubedizer

Warner's Lawn Fertilizer

Warner's Tree Food

West Tennessee Soya Mill, Inc., Tiptonville, Tenn.

44% Protein Soybean Oil Meal

Garfield Williamson, Inc., 1072 Westside Ave., Jersey City 6, N. J.

Plantspur

F. H. Woodruff & Sons, Inc., Depot St., Milford, Conn.

Gro-Sod-Lawn Food

Woodruff Fertilizer Works, Inc., Sackett Point Rd., No. Haven, Conn.

Muriate of Potash 60%

Woodruff's Castor Pomace

Woodruff's 0-14-14 Fertilizer with 0.11 Boron

Woodruff's 5-8-7 Fertilizer

Woodruff's 5-10-10 Fertilizer

Woodruff's 6-8-8 Fertilizer

Woodruff's 7-7-7 Fertilizer

Woodruff's Lawn & Tree Food 10-6-4

Woodruff's Superphosphate 20%

Woodruff's Tobacco Fertilizer with Cottonseed Base 6-3-6

Woodruff's Tobacco Fertilizer with Pomace Base 6-3-6

Woodruff's Tobacco Starter 5-5-15

FERTILIZER INSPECTION FOR 1951

The Connecticut fertilizer law does not provide for compulsory limitation of the grades of fertilizers that may be sold in this State, but the New England agronomists usually compile annual lists of recommended fertilizer ratios and minimum grades that they believe are sufficient to take care of all the requirements of New England agriculture. At the annual New England Fertilizer Conference on February 27 and 28, 1950, the following list was approved for the 1950-1951 fertilizer season:

<i>Ratio</i>	<i>Minimum Grade</i>
0-1-1	0-14-14
1-1-1	7- 7- 7
1-1-3	5- 5-15
1-2-1	5-10- 5
1-2-2	5-10-10
2-1-2	6- 3- 6
3-4-4	6- 8- 8
5-8-7	5- 8- 7

It is on the basis of this list that we compiled the report on page 19 of the tons of fertilizer grades "approved for Connecticut" consumed during the 1950-1951 season. Recently, at a meeting in Boston on September 28, 1951, the New England agronomists issued a new list for the 1951-1952 season in which the phosphoric acid percentages were reduced to compensate for the market shortage in superphosphate caused by the world-wide shortage in sulphur. (Sulphur is needed to make sulphuric acid, which is an essential ingredient in the manufacture of superphosphate by present processes.) In their announcement to the fertilizer industry the agronomists stated that "The evidence seems clear that the accumulation of phosphorus in soils which have been heavily fertilized for a period of years is so large that reduced amounts can be used with little or no crop reduction for a period of years, and possibly indefinitely". This list for the 1951-1952 season is as follows:

<i>Ratio</i>	<i>Minimum Grade</i>
0-1-2	0-10-20
1-1-1	8- 8- 8
1-1-3	5- 5-15 (Tobacco fertilizer)
2-1-2	6- 3- 6 (Tobacco fertilizer)
2-3-4	6- 9-12
3-4-4	6- 8- 8

During the season the Station agent collected samples of all registered brands that could be found on the market. Certain registered fertilizer materials, particularly vegetable meals, are purchased almost wholly by tobacco growers for direct shipment in carload lots from outside the State. Most tobacco growers submitted unofficial samples from each

carload for analysis by this Station, but in addition an attempt was made by our agent to take official samples from as many of these shipments as possible. Nevertheless, vegetable meal samples analyzed in 1951 were 69 less than in 1950, which partially accounts for the decline in total number of samples from 824 to 712.

The following tabulation lists the total number of samples analyzed, both official and unofficial, of each class of fertilizer, as well as the tonnage sold in the period between July 1, 1950 and June 30, 1951 (these tonnage figures do not include fertilizer distributed under the Federal Agricultural Adjustment Program):

CLASSIFICATION OF FERTILIZER MATERIALS AND FERTILIZER TONNAGE

(Tonnage is for the period July 1, 1950 to June 30, 1951)

	Page	No. of samples	Tonnage	
I. Containing chiefly nitrogen:				
Nitrate of ammonia	24	1	414	
Nitrate of soda	24	11	1,101	
Sulphate of ammonia	24	7	157	
Cyanamid and urea	24	6	117	
Castor pomace	25	10	3,172	
Cottonseed meal	25	91	9,361	
Horn and hoof meal	26	2	106	
Linseed oil meal	26	5	1,071	
Peanut meal .....	..	..	70	
Soybean oil meal	26	12	1,351	
Other materials	27	3	335	
				17,255
II. Containing chiefly phosphoric acid:				
Superphosphate 18%	28	1	812	
20%	28	14	5,340	
47%	28	3	34	
Precipitated bone	29	12	502	
Phosphate rock	29	4	310	
				6,998
III. Containing chiefly potash:				
Muriate of potash	30	12	1,762	
Sulphate of potash	30	7	272	
Sulphate of potash-magnesia ..	..	1	42	
Cottonhull ashes	30	12	1,451	
				3,527
IV. Containing nitrogen and phosphoric acid:				
Bone meal	32	19	1,143	
Dry ground fish	32	10	964	
Other materials	33	2	845	
				2,952
V. Containing nitrogen and potash:				
Nitrate of potash	30	4	383	
				383
VI. Mixed fertilizers:				
Commercial mixtures	34	217	52,450 ¹	
Special and home mixtures ..	..	111	594	
				53,044
VII. Miscellaneous:				
Borax .....	..	..	7	
Sheep manure, etc.	50	19	938	
Limestone and similar materials .	52	8	..	
Fertilizers sold in small packages	53	46	..	
Other miscellaneous materials ..	58	30	31	
Check meals and fertilizers ..	..	32	..	
				976
Totals		712		85,135

¹ For distribution of this tonnage see next page.

Mixed Fertilizer Tonnage*Grades Approved for Connecticut*

<i>Grade</i>	<i>Tons</i>	<i>Grade</i>	<i>Tons</i>
0-14-14	1,269	6- 8- 8	1,186
0-19-19	358	6-12-12	67
0-20-20	974	7- 7- 7	3,085
5- 5-15	614	8- 4- 8	1,190
5- 8- 7	7,886	8- 8- 8	1
5-10- 5	2,747	8-16- 8	664
5-10-10	7,819	8-16-16	1,128
6- 3- 6	15,088	10-10-10	930
		13-26-13	1
		Total	45,007

*Other Grades**(More than 50 tons)*

0-10-20	117	6- 7- 4	179
0-12-18	129	6- 8- 2	67
3-12- 6	147	6- 8- 6	106
3-12-12	216	6-10- 4	510
4- 4- 2	80	7-11- 5	56
4- 8- 4	50	8- 6- 2	545
4-10-10	232	8- 6- 4	524
4-12- 4	1,204	8-12-12	961
5- 3- 5	784	9- 7- 4	369
5-15-15	297	10- 5- 5	100
6- 4- 6	320	10- 6- 4	157
		Total	7,150

(Less than 50 tons)

0-12-24	8	5- 9- 6	5
2- 2- 1	24	5-10- 3	5
3.5-3.5-1.5	15	5-15-10	27
4- 6- 4	6	7- 8- 5	20
4-10- 4	23	7-10- 5	20
4-12- 8	23	12- 4- 4	19
4-12-16	41	23-21-17	5
5- 6-15	7	25-10-10	6
5- 8- 6	20	Other grades	19
		Total	293
		Grand Total	52,450

I. Raw Materials Chiefly Valuable for Nitrogen

Sulphate of ammonia and ammonia solutions are probably the cheapest sources of nitrogen for commercial mixed fertilizers, but little of either is sold in Connecticut for use as such. Eighty-seven per cent (15,025 tons) of the primarily nitrogenous fertilizers purchased for fertilizer use in Connecticut during the 1951 season were vegetable meals. The explanation for this is that tobacco growers are so convinced that vegetable meals

are necessary for the production of cigar wrapper tobacco of good quality that they are willing to pay the very high price. (Cottonseed meal sells for approximately \$49.00 a ton wholesale.)

Analyses of the 47 official samples of nitrogenous fertilizers are given in Table 1. All except three of these (one sample each of sulphate of ammonia, cyanamid and "Organico") substantially met their guaranties.

II. Raw Materials Chiefly Valuable for Phosphoric Acid

Analyses of 14 official samples of 20 per cent superphosphate and one of the 18 per cent and two of the 47 per cent grades are given in Table 2. One of the 20 per cent and both 47 per cent superphosphates were below guaranty. Five samples of precipitated bone and four of phosphate rock met their guaranties.

III. Raw Materials Chiefly Valuable for Potash

Ten official samples of muriate of potash, four of sulphate of potash and seven of cottonhull ashes were analyzed. All samples except one of muriate of potash and three of cottonhull ashes met their guaranties.

Analyses are given in Table 3.

IV. Raw Materials Supplying Nitrogen and Phosphoric Acid

This group comprises chiefly dry ground fish and bone meal. Guaranties of "available" phosphoric acid are not required on such products, and most of them bear guaranties of total nitrogen and total phosphoric acid only. All of the three official samples of dry ground fish considerably exceeded their guaranties; of the 16 official samples of bone meal, four were deficient in nitrogen. Of two samples of "Milorganite", a treated sewage sludge, one was deficient in nitrogen.

Analyses are given in Table 4.

V. Raw Materials Supplying Nitrogen and Potash

There is only one fertilizer material falling in this class, namely, nitrate of potash. Fertilizer grade nitrate of potash must contain not less than 12 per cent of nitrogen and 44 per cent of potash. The one official sample analyzed in 1951, listed in Table 3, met its guaranties of 13 per cent nitrogen and 44 per cent potash.

VI. Mixed Fertilizers

Commercial Mixtures

Analyses of 216 official samples of mixed fertilizers are given in Table 5. Results are summarized as follows:

Total number of samples	216	
Samples deficient in:		
one item	60	
two items	7	67
Percentage of samples meeting guaranties		69
Total guaranties made		628 ¹
Guaranties not met:		
nitrogen	40	
phosphoric acid	17	
potash	17	74
Percentage met		88

Eighty-eight per cent of all guaranties were substantially met or exceeded, which is nearly identical with the 87 per cent found in 1950.

Seventeen official samples guaranteed magnesium (usually 1.2 per cent), as well as the major fertilizer components; guaranties were exceeded in all cases. Three samples guaranteed between 0.3 and 0.6 per cent of boron; one guaranteed 0.13 per cent of copper; one guaranteed five minor elements (boron, copper, iron, manganese and zinc), and another guaranteed these same elements plus magnesium. No serious deficiencies were found in any of these guaranties.

Special and Home Mixtures

One hundred and eleven samples of special and home mixtures were analyzed during the year, the great majority for tobacco growers. Because the composition of these samples is not a matter of public interest, their analyses are not tabulated in this bulletin.

State Purchases of Fertilizer

Raw materials and mixed goods supplied to State institutions on State purchase orders are regularly included in our annual inspection. Fertilizers so supplied are subject to registration and tonnage tax (unless supplied to The Connecticut Agricultural Experiment Station for experimental purposes).

Samples representing State purchases are indicated in the several tables. They are summarized as follows:

<u>Materials</u>	<u>No. of Samples</u>	<u>Reference</u>
Supplying nitrogen	4	Table 1
Supplying phosphoric acid	3	Table 2
Supplying potash	3	Table 3
Supplying nitrogen and phosphoric acid	1	Table 4
Mixed fertilizers	17	Table 5
	Total	28

¹ One hundred and ninety-six samples with three guaranties and 20 samples with two guaranties (guaranties for minor elements not included).

VII. Miscellaneous

Sheep and other cattle manures. Eighteen official samples of dried sheep and cow manures were analyzed; of these, two were deficient in nitrogen. Analyses are given in Table 6.

Limestone and similar materials. The legal definition of "commercial fertilizers" specifically excludes "marl and lime" and, therefore, no regular inspection of liming materials is made. Occasional samples are analyzed for farmers or state or federal agencies, and analyses of eight such samples are given in Table 7.

Fertilizers sold in small packages. Fertilizers sold only in packages of 10 pounds or less are not required to be registered. No attempt, therefore, is made to analyze all brands of such fertilizers on the market, but such of them as come to the attention of our agent are sampled and analyzed as a matter of interest. During the 1950-1951 season 45 samples were analyzed, of which 28, or 62 per cent, met their guaranties; this is very little below the 69 per cent found for the mixed fertilizers sold in 100-lb. bags. Analyses are given in Table 8.

Other miscellaneous materials. Thirty other miscellaneous products were examined; analyses of 21 of them are given in Table 9.

This table includes analyses of two official samples of "Gro-Fast Aluminum Sulphate". This salt was registered under the fertilizer law with a guaranty of 9 per cent of aluminum but, because analyses of aluminum sulphate would not fit into any of the previous tables, these analyses were placed in Table 9 even though they are the only official samples in this table.

Check meals and fertilizers. Collaboration was continued with the check analysis programs sponsored by the American Oil Chemists' Society and the F. S. Royster Guano Company, and five samples were analyzed in connection with a collaborative study of methods for the determination of potash conducted by the Association of Official Agricultural Chemists. Thirty-two samples in all were analyzed under these various programs.

MAINTENANCE OF GUARANTIES

The maintenance of guaranties as compiled from analyses of ingredient materials and mixed goods (Tables 1-6) is shown in the following tabulation. Deficiencies of 0.1 per cent or less in nitrogen or 0.2 per cent or less in phosphoric acid and potash are not considered. The proportion of guaranties substantially met was 88 per cent.

	No. of samples	No. of guaranties	Deficiencies
Nitrate of ammonia	1	1	0
Nitrate of soda	5	5	0
Sulphate of ammonia	5	5	1
Cyanamid	3	3	1

Urea	3	3	0
Castor pomace	7	7	0
Cottonseed meal	11	11	0
Horn and hoof meal	1	1	0
Linseed oil meal	4	4	0
Soybean oil meal	4	4	0
Miscellaneous nitrogenous materials	3	3	1
Superphosphate	17	17	3
Precipitated bone	5	5	0
Phosphate rock	4	4	0
Muriate of potash	10	10	1
Nitrate of potash	1	2	0
Sulphate of potash	4	4	0
Cottonhull ashes	7	7	3
Dry ground fish	3	6	0
Bone meal	16	32	4
Milorganite	2	4	1
Mixed fertilizer	216	628	74
Totals	<u>332</u>	<u>756</u>	<u>89</u>
Per cent guaranties met			88

TABLE 1. ANALYSES OF MATERIALS SUPPLYING CHIEFLY NITROGEN¹

Station No.	Manufacturer or jobber	Sampled from stock of	Per cent nitrogen	
			Found	Guaranteed
Nitrate of Ammonia				
6050	AEROPRILLS. American Cyanamid Co., New York, N. Y.	North Haven: Eastern States Farmers' Exchange, Inc.	33.55	33.50
Nitrate of Soda				
6024	Arcadian, The American. Allied Chemical & Dye Corp., New York, N. Y. ...	South Windsor: South Windsor Tobacco Farms	16.12	16.00
6044 ²	Arcadian, The American. Allied Chemical & Dye Corp., New York, N. Y. ...	Cheshire: Conn. Reformatory	16.16	16.00
6227 ²	Arcadian, The American. Allied Chemical & Dye Corp., New York, N. Y. ...	Meriden: Conn. School for Boys	16.00	16.00
5387	Chilean, Champion Brand. Chilean Nitrate Sales Corp., New York, N. Y. ...	Portland: Consolidated Cigar Co., Inc.	16.14	16.00
5399	Chilean, Champion Brand. Chilean Nitrate Sales Corp., New York, N. Y. ...	Glastonbury: E. J. Bantle ...	16.00	16.00
Sulphate of Ammonia				
6224	Allied Chemical & Dye Corp., New York, N. Y.	Meriden: Church-Morse, Inc. .	20.96	20.60
6264	Allied Chemical & Dye Corp., New York, N. Y.	Danbury: H. E. Meeker ...	20.78	20.56
6423	Apothecaries Hall Co., Waterbury, Conn.	Windsorville: Apothecaries Hall Co.	20.74	20.50
6496	Farmrite. Central Chemical Corp., Lebanon, Pa.	Hartford: Cadwell & Jones, Inc.	19.54	20.50
6534	Eastern States. Eastern States Farmers' Exchange, Inc., West Springfield, Mass. ...	Norwich: Eastern States Farmers' Exchange, Inc.	20.80	20.50
Cyanamid				
6047 ²	20.6% AERO. American Cyanamid Co., New York, N. Y.	Cheshire: Conn. Reformatory	20.65	20.60
6202	20.6% AERO. American Cyanamid Co., New York, N. Y.	East Hartford: Eastern States Farmers' Exchange, Inc.	19.96	20.60
6541 ²	20.6% AERO. American Cyanamid Co., New York, N. Y.	Norwich: Norwich State Hospital	20.52	20.60

¹Deficiencies are in bold face type.²State purchases.

TABLE 1. ANALYSES OF MATERIALS SUPPLYING CHIEFLY NITROGEN¹

Station No.	Manufacturer or jobber	Sampled from stock of	Per cent nitrogen	
			Found	Guaranteed
Urea				
6052	DU PONT NU GREEN Fertilizer Compound. E. I. du Pont de Nemours & Co., Inc., Wilmington, Del. . . .	North Haven: Eastern States Farmers' Exchange, Inc.	44.20	44.00
6333	DU PONT URAMON Fertilizer Compound. E. I. du Pont de Nemours & Co., Inc., Wilmington, Del. . . .	North Haven: Woodruff Fertilizer Works, Inc.	42.25	42.00
6652	O & W Uramon Fertilizer Compound. Olds & Whipple, Inc., Hartford, Conn. . . .	East Hartford: Olds & Whipple, Inc.	43.75	42.00
Castor Pomace				
5398	The American Agricultural Chemical Co., North Weymouth, Mass.	Glastonbury: E. J. Bantle	5.61	4.00
6556	Apothecaries Hall Co., Waterbury, Conn.	Cheshire: Cheshire Nursery	6.06	4.50
5401	Spencer Kellogg & Sons, Inc., Buffalo, N. Y.	West Suffield: Hatheway-Steane Corp.	6.10	5.55
5396	Old Deerfield. Old Deerfield Fertilizer Co., Inc., South Deerfield, Mass.	Glastonbury: E. J. Bantle	5.78	4.50
6650	O & W. Olds & Whipple, Inc., Hartford, Conn.	East Hartford: Olds & Whipple, Inc.	5.43	4.50
6443	The Rogers & Hubbard Co., Portland, Conn.	Portland: The Rogers & Hubbard Co.	5.44	4.50
6332	Woodruff's. Woodruff Fertilizer Works, Inc., North Haven, Conn.	North Haven: Woodruff Fertilizer Works, Inc.	5.84	4.50
Cottonseed Meal				
5394	Cow-Eta Brand 41%. Ashcraft-Wilkinson Co., Atlanta, Ga.	Simsbury: Cullman Bros., Inc. . . .	6.87	6.56
5402	Cow-Eta Brand 41%. Ashcraft-Wilkinson Co., Atlanta, Ga.	West Suffield: Hatheway-Steane Corp.	6.71	6.56
6091	Cow-Eta Brand 41%. Ashcraft-Wilkinson Co., Atlanta, Ga.	Scitico: Consolidated Cigar Co., Inc.	6.52	6.56
5388	Pure Gold 41%. The Boswell Co., Atlanta, Ga.	Scitico: Consolidated Cigar Co., Inc.	6.90	6.56
5389	Pure Gold 41%. The Boswell Co., Atlanta, Ga.	Scitico: Consolidated Cigar Co., Inc.	6.84	6.56

TABLE 1. ANALYSES OF MATERIALS SUPPLYING CHIEFLY NITROGEN¹

Station No.	Manufacturer or jobber	Sampled from stock of	Per cent nitrogen	
			Found	Guaranteed
5390	Pure Gold 41%. The Boswell Co., Atlanta, Ga.	Scitico: Consolidated Cigar Co., Inc.	6.68	6.56
6031	Buckeye 41%. The Buckeye Cotton Oil Co., Cincinnati, Ohio	East Windsor Hill: General Cigar Co., Inc.	7.18	6.56
6036	Buckeye 41%. The Buckeye Cotton Oil Co., Cincinnati, Ohio	East Windsor Hill: General Cigar Co., Inc.	7.24	6.56
5393	Dixie Brand 41%. Humphreys-Godwin Co., Memphis, Tenn.	Simsbury: American Sumatra Tobacco	6.84	6.56
6368	"Lovitt Brand" 41%. L. B. Lovitt & Co., Memphis, Tenn.	Windsorville: Apothecaries Hall Co.	6.58	6.56
5395	Golden Rod Brand 41%. Perkins Oil Co., Memphis, Tenn.	Simsbury: Cullman Bros., Inc.	6.79	6.56
Horn and Hoof Meal				
6025	The Rogers & Hubbard Co., Portland, Conn.	South Windsor: South Windsor Tobacco Farms	14.44	14.00
Linseed Oil Meal				
6033	Archer Quality 32%. Archer-Daniels-Midland Co., Minneapolis, Minn.	East Windsor Hill: General Cigar Co., Inc.	5.30	5.12
5400	Archer Quality 36%. Archer-Daniels-Midland Co., Minneapolis, Minn.	West Suffield: Hatheway-Steane Corp.	5.76	5.76
5397	Spencer Kellogg's 32%. Spencer Kellogg & Sons, Inc., Buffalo, N. Y.	Glastonbury: E. J. Bantle	5.54	5.12
6026	Spencer Kellogg's 34%. Spencer Kellogg & Sons, Inc., Buffalo, N. Y.	South Windsor: South Windsor Tobacco Farms	5.80	5.44
Soybean Oil Meal				
5391	Wooster Brand 44%. The Boswell Co., Atlanta, Ga. .	Scitico: Consolidated Cigar Co., Inc.	7.48	7.04
6029	Spencer Kellogg's 44%. Spencer Kellogg & Sons, Inc., Buffalo, N. Y.	South Windsor: South Windsor Tobacco Farms	7.78	7.04
5386	44%. West Tennessee Soya Mill, Inc., Tiptonville, Tenn.	Portland: Consolidated Cigar Co., Inc.	7.80	7.04

TABLE 1. ANALYSES OF MATERIALS SUPPLYING CHIEFLY NITROGEN¹

Station No.	Manufacturer or jobber	Sampled from stock of	Per cent nitrogen	
			Found	Guaranteed
5392	44% West Tennessee Soya Mill, Inc., Tiptonville, Tenn.	Scitico: Consolidated Cigar Co., Inc.	7.90	7.04
	Miscellaneous			
6208 ²	A-N-L. Allied Chemical & Dye Corp., New York, N. Y.	East Windsor Hill: Farmers Hardware Co.	20.60	20.50
6065	Agrinite. The American Agricultural Chemical Co., North Weymouth, Mass. ...	Westville: Jackson - Marvin Hardware Co.	8.90	8.25
6492	Organico. The Rogers & Hubbard Co., Portland, Conn.	Berlin: Berlin Garden Center	7.92	8.25

¹Deficiencies are in bold face type.

²State purchases.

³Found: nitrogen in nitrates, 10.36%; nitrogen in ammonia, 10.24%; magnesium guaranteed, 4.22%; found, 4.30%.

TABLE 2. ANALYSES OF SUPERPHOSPHATE, ETC.¹

Station No.	Manufacturer or jobber	Sampled from stock of	Per cent phosphoric acid			
			Citrate-insoluble	Total	Found	"Available"
	Superphosphate					
6270	18% Normal. The American Agricultural Chemical Co., North Weymouth, Mass.	Danbury: Barnum's Feed Store	0.55	18.95	18.40	18.00
6022	Apothecaries Hall Co., Waterbury, Conn.	West Suffield: Hatheway-Steane Corp.	1.65	22.50	20.85	20.00
6205	Armour's Big Crop Fertilizer 20%. Armour Fertilizer Works, New York, N. Y.	East Windsor Hill: Farmers Hardware Co.	1.27	21.60	20.33	20.00
6173	Corenco 20%. Consolidated Rendering Co., Boston, Mass.	Cos Cob: Belmont Feed Co.	1.05	22.25	21.20	20.00
6271 ²	Corenco 20%. Consolidated Rendering Co., Boston, Mass.	Newtown: Fairfield State Hospital	0.15	21.00	20.85	20.00
6314 ²	Corenco 20%. Consolidated Rendering Co., Boston, Mass.	Southbury: Southbury Training School	1.75	22.60	20.85	20.00
6537	Davco Granulated 20%. The Davison Chemical Corp., Baltimore, Md.	Norwich: Checkerboard Feed Store	1.17	21.95	20.78	20.00
6201	Eastern States Granulated. Eastern States Farmers' Exchange, Inc., West Springfield, Mass.	East Hartford: Eastern States Farmers' Exchange, Inc.	1.55	22.40	20.85	20.00
6378	Old Fox Brand. Fox Point Chemical Co., East Providence, R. I.	Groton: The C. W. Campbell Co.	0.07	20.40	20.33	20.00
6567	International 20%. International Minerals & Chemical Corp., Woburn, Mass.	West Suffield: H. L. Oppenheimer & Sons	1.60	22.45	20.85	20.00
6683	Old Deerfield 20%. Old Deerfield Fertilizer Co., Inc., South Deerfield, Mass.	South Deerfield: Old Deerfield Fertilizer Co., Inc.	0.07	19.15	19.08	20.00
6686	Triple 47%. Old Deerfield Fertilizer Co., Inc., South Deerfield, Mass.	South Deerfield: Old Deerfield Fertilizer Co., Inc.	0.35	46.20	45.85	47.00

6651	O & W Olds & Whipple, Inc., Hartford, Conn.	East Hartford: Olds & Whipple, Inc.	1.75	22.20	20.45	20.00
6687	O & W Triple. Olds & Whipple, Inc., Hartford, Conn.	Simsbury: Cullman Bros., Inc.	0.32	43.90	43.58	47.00
6027	The Rogers & Hubbard Co., Portland, Conn.	South Windsor: South Windsor Tobacco Farms	0.22	21.00	20.78	20.00
6613	Sawco. Stumpp & Walter Co., New York, N. Y.	Stamford: Stumpp & Walter Co.	0.20	21.95	21.75	20.00
6331	20%. Woodruff Fertilizer Works, Inc., North Haven, Conn.	North Haven: Woodruff Fertilizer Works, Inc.	1.70	22.30	20.60	20.00
Precipitated Bone Phosphate						
6034	Apothecaries Hall Co., Waterbury, Conn.	East Windsor Hill: General Cigar Co., Inc.	0.55	43.85	43.30	38.00
6011	Old Deerfield Fertilizer Co., Inc., South Deerfield, Mass.	Glastonbury: E. J. Bantle	1.25	40.30	39.05	38.00
6028	Old Deerfield Fertilizer Co., Inc., South Deerfield, Mass.	South Windsor: South Windsor Tobacco Farms	1.70	39.85	38.15	38.00
6510 ²	Olds & Whipple, Inc., Hartford, Conn.	Windsor: Conn. Agricultural Experiment Station Tobacco Laboratory	1.77	41.20	39.43	38.00
6653	Olds & Whipple, Inc., Hartford, Conn.	East Hartford: Olds & Whipple, Inc.	1.12	41.05	39.93	38.00
Phosphate Rock						
6280 ³	AA Quality. The American Agricultural Chemical Co., North Weymouth, Mass.	West Haven: The American Agricultural Chemical Co.	27.40	30.50	3.10	3.00
6621 ⁴	AERO-PHOS Florida Natural. American Cyanamid Co., New York, N. Y.	Darien: Brookside Nurseries	29.40	33.05	3.65	3.00
6688 ⁵	A Soft Phosphate with Colloidal Clay. Hoover Soil Service, Gilman, Ill.	Sharon: Walter Huber	13.45	18.00	4.55	2.00
6066 ⁵	Red Seal Brand Ruhm's. Ruhm Phosphate & Chemical Co., Chicago, Ill.	Westville: Jackson-Marvin Hardware Co. .	26.12	30.20	4.08	3.00

¹ Deficiencies are in bold face type.

² State purchases.

³ Total phosphoric acid guaranteed, 30.0%.

⁴ Total phosphoric acid guaranteed, 33.0%.

⁵ Total phosphoric acid guaranteed, 18.0%.

TABLE 3. ANALYSES OF POTASH SALTS, ETC.¹

Station No.	Manufacturer or jobber	Sampled from stock of	Per cent potash	
			Found	Guaranteed
Muriate of Potash				
6218	The American Agricultural Chemical Co., North Weymouth, Mass.	East Hartford: The American Agricultural Chemical Co. .	59.56	58.00
6258	Consolidated Rendering Co., Boston, Mass.	Bethel: Marble & Risser . . .	60.80	60.00
6700	The Davison Chemical Corp., Baltimore, Md.	New Milford: Check-R-Board Feed Store	52.48	50.00
6053	Eastern States. Eastern States Farmers' Exchange, Inc., West Springfield, Mass. . .	North Haven: Eastern States Farmers' Exchange, Inc. . .	62.32	60.00
6054	Eastern States. Eastern States Farmers' Exchange, Inc., West Springfield, Mass. . .	North Haven: Eastern States Farmers' Exchange, Inc. . .	62.00	60.00
6684	Old Deerfield. Old Deerfield Fertilizer Co., Inc., South Deerfield, Mass.	South Deerfield: Old Deerfield Fertilizer Co., Inc.	60.00	60.00
6049 ²	Olds & Whipple, Inc., Hartford, Conn.	Cheshire: Connecticut Reformatory	62.20	60.00
6273 ²	Olds & Whipple, Inc., Hartford, Conn.	Newtown: Fairfield State Hospital	62.32	60.00
6353	The Rogers & Hubbard Co., Portland, Conn.	Torrington: Litchfield County Co-op. Assoc.	60.92	60.00
6244	Sawco. Stumpp & Walter Co., New York, N. Y. . . .	Stamford: Stumpp & Walter Co.	48.89	50.00
6614	Sawco. Stumpp & Walter Co., New York, N. Y. . . .	Stamford: Stumpp & Walter Co.	50.64	50.00
6334	60%. Woodruff Fertilizer Works, Inc., North Haven, Conn.	North Haven: Woodruff Fertilizer Works, Inc.	62.24	60.00
Nitrate of Potash				
6006	Apothecaries Hall Co., Waterbury, Conn.	Scitico: Consolidated Cigar Co.	46.64	44.00
6012 ³	Olds & Whipple, Inc., Hartford, Conn.	Glastonbury: E. J. Bantle . . .	46.80	44.00
Sulphate of Potash				
6008	Apothecaries Hall Co., Waterbury, Conn.	Simsbury: Cullman Bros., Inc.	52.08	48.00
6315 ²	Consolidated Rendering Co., Boston, Mass.	Southbury: Southbury Training School	52.36	48.00
6509 ²	Consolidated Rendering Co., Boston, Mass.	Windsor: Conn. Agricultural Experiment Station Tobacco Laboratory	49.36	48.00

TABLE 3. ANALYSES OF POTASH SALTS, ETC.¹

Station No.	Manufacturer or jobber	Sampled from stock of	Per cent potash	
			Found	Guaranteed
6566	Old Deerfield High Grade. Old Deerfield Fertilizer Co., Inc., South Deerfield, Mass.	West Suffield: H. L. Oppenheimer & Sons	52.48	49.00
6460	O & W. Olds & Whipple, Inc., Hartford, Conn.	East Hartford: Olds & Whipple, Inc.	51.96	48.00
Cottonhull Ashes				
6007	Kireal. Ted Alkire, Lubbock, Tex.	Simsbury: Cullman Bros., Inc.	34.94	33.00
6023	Apothecaries Hall Co., Waterbury, Conn.	West Suffield: Hatheway-Steane Corp.	33.50	unit basis
6013	Old Deerfield 35%. Old Deerfield Fertilizer Co., Inc., South Deerfield, Mass.	Glastonbury: E. J. Bantle ...	35.32	35.00
6004	Old Deerfield 40%. Old Deerfield Fertilizer Co., Inc., South Deerfield, Mass.	Scitico: Consolidated Cigar Co., Inc.	39.12	40.00
6032	O & W. Olds & Whipple, Inc., Hartford, Conn.	East Windsor Hill: General Cigar Co., Inc.	41.84	35.00
6030	Hubbard. The Rogers & Hubbard Co., Portland, Conn.	South Windsor: South Windsor Tobacco Farms	43.44	45.00
7353	Hubbard. The Rogers & Hubbard Co., Portland, Conn.	South Windsor: South Windsor Tobacco Farms	41.40	45.00

¹Deficiencies are in bold face type.²State purchases.³Nitrogen guaranteed, 13.0%; found, 13.56%.

TABLE 4. ANALYSES OF GROUND FISH, BONE, ETC.¹

Station No.	Manufacturer or jobber	Sampled from stock of	Per cent nitrogen		Per cent phosphoric acid		Mechanical analysis (in percentage)	
			Total found	Total guaranteed	Total found	Total guaranteed	Finer than 1/50 inch	Coarser than 1/50 inch
Dry Ground Fish								
6021	Apothecaries Hall Co., Waterbury, Conn.	West Suffield: Hatheway-Steane Corp.	9.98	9.00	7.81	5.00	....	....
6005	Old Deerfield. Old Deerfield Fertilizer Co., South Deerfield, Mass.	Scitico: Consolidated Cigar Co., Inc.	9.82	9.00	6.88	5.00	....	....
6014	O & W Menhaden. Olds & Whipple, Inc., Hart- ford, Conn.	Glastonbury: E. J. Bantle	10.00	9.00	7.15	5.00	....	....
Bone Meal								
6268	The American Agricultural Chemical Co., North Weymouth, Mass.	Danbury: Barnum's Feed Store	3.21	2.50	25.10	20.00	46.0	54.0
6009	Apothecaries Hall Co., Waterbury, Conn.	Simsbury: Cullman Bros., Inc.	2.62	2.25	25.35	22.00	53.0	47.0
6351	Apothecaries Hall Co., Waterbury, Conn.	Torrington: Torrington Grain Co. . .	2.50	2.25	25.95	22.00	58.0	42.0
6168	Apothecaries Hall Co., Waterbury, Conn.	Greenwich: McArdle's Seed Store ...	4.28	3.70	22.10	20.00	26.0	74.0
6207	Armour's. Armour Fertilizer Works, New York, N. Y.	East Windsor Hill: Farmers Hard- ware Co.	2.69	2.30	25.45	23.00	52.5	47.5
6281	Corenco. Consolidated Rendering Co., Boston, Mass.	West Haven: New Haven Rendering Co.	1.42	1.50	30.15	27.00	50.0	50.0
6558	Corenco. Consolidated Rendering Co., Boston, Mass.	Thompsonville: Brainard Nursery & Seed Co.	1.54	2.00	32.05	23.00	67.0	33.0
6561	Corenco Special. Consolidated Rendering Co., Boston, Mass.	Thompsonville: Brainard Nursery & Seed Co.	3.98	3.70	21.55	20.00	31.0	69.0
6266	Pure. Faesy & Besthoff, Inc., New York, N. Y. . .	Danbury: Heyman Hardware Co. . .	2.31	2.47	28.00	23.00	62.0	38.0

6261 ²	G & O Ground. Goulard & Olena, Inc., Skillman, N. J.	Bethel: Nelson Hardware Co.	3.47 ³	2.40	19.30	20.00	43.0	57.0
6010	"Churn" Brand Sterilized Feeding. Old Deerfield Fertilizer Co., Inc., South Deerfield, Mass.	Portland: Consolidated Cigar Co., Inc.	1.06	0.80	33.00	32.00	83.5	16.5
6035	O & W. Olds & Whipple, Inc., Hartford, Conn.	East Windsor Hill: General Cigar Co., Inc.	2.24	2.47	27.80	22.00	68.0	32.0
6192	Gro-Fast. The Rogers & Hubbard Co., Portland, Conn.	New Haven: The Roland T. Warner Co.	2.25 ⁴	2.00	26.95	23.00	73.0	27.0
6678 ⁵	Gro-Fast. The Rogers & Hubbard Co., Portland, Conn.	Norwich: Uncas-on-Thames	2.38	2.00	26.60	23.00	63.0	37.0
6234	Sawco. Stumpp & Walter Co., New York, N. Y.	Stamford: Stumpp & Walter Co.	2.58	2.47	25.55	22.00	66.0	34.0
6440	Vico Steamed. The Van Iderstine Co., Long Island City, N. Y.	Portland: The Rogers & Hubbard Co.	2.22	2.47	27.70	23.00	60.5	39.5
Milorganite								
6189	Sewerage Commission of the City of Milwaukee, Milwaukee, Wis.	Hamden: Hamden Chemical Co. ...	5.90 ⁶	6.00	3.66 ⁷	2.75	....	....
6547	Sewerage Commission of the City of Milwaukee, Milwaukee, Wis.	Norwalk: Libner Grain Co., Inc. ...	5.68	6.00	3.21 ⁸	2.75	....	....

¹Deficiencies are in bold face type.

²Sand found, 13.34%.

³Nitrogen in ammonia, 0.53%.

⁴Nitrogen in ammonia, 0.50%.

⁵State purchase.

⁶Found: nitrogen in ammonia, 0.04%; nitrogen organic water-soluble, 0.32%; nitrogen organic insoluble, 5.54%.

⁷Guaranteed "available" phosphoric acid, 2.0%; found, 2.81%.

⁸Guaranteed "available" phosphoric acid, 2.0%; found, 2.46%.

TABLE 5. ANALYSES OF MIXED FERTILIZERS

Station No.	Manufacturer and brand	Place of sampling
	Agricultural Supply Co., West Haven, Conn.	
6061	Yale Special Mixture 8-6-2	New Haven
	The American Agricultural Chemical Co., North Weymouth, Mass.	
6448	AA Quality Fertilizer 5-5-15	East Hartford
6589	AA Quality Fertilizer 5-8-7	East Hartford
6449	AA Quality Fertilizer 5-10-5	East Hartford
6279	AA Quality Fertilizer 5-10-10	West Haven
6602	AA Quality Fertilizer 6-3-6	East Hartford
6445	AA Quality Fertilizer 7-7-7	East Hartford
6701	AA Quality Fertilizer 7-7-7	East Hartford
6274	Agrico Country Club Fertilizer 6-10-4	West Haven
6275	Agrico Country Club Fertilizer 8-6-2	West Haven
6162	Agrico for Broadleaf Evergreens 6-10-4	Greenwich
6446	Agrico for Corn 4-12-4	East Hartford
6533	Agrico for Gardens 5-10-5	Willimantic
6163	Agrico for Lawns, Trees and Shrubs 6-10-4	Greenwich
6269	Agrico for New England 5-8-7	Danbury
6232	Agrico for Potatoes 5-10-10	Wallingford
6444	Agrico for Potatoes 5-10-10-1.2	East Hartford
6214	Agrico for Seeding Down 3-12-12	East Hartford
6215	Agrico for Tobacco 6-3-6	East Hartford
6267	Agrico for Top Dressing 7-7-7	Danbury
6447	Agrico for Truck 5-10-5	East Hartford
6505	Agrico for Turf 6-8-2	Hartford
6217	Agrico Phosphate and Potash 0-12-18	East Hartford
6216	Agrico Phosphate and Potash 0-14-14	East Hartford
6552	Agrico Rose Food 5-9-6	Bridgeport
	Apothecaries Hall Co., Waterbury, Conn.	
6346	Liberty Fertilizer 0-14-14	Watertown
6347	Liberty Fertilizer 0-20-20	Watertown
6422	Liberty Fertilizer 3-12-12	Windsorville
6348	Liberty Fertilizer 4-12-4	Watertown
6165	Liberty Fertilizer 5-10-5	Greenwich
6309	Liberty Fertilizer 5-10-10	New Milford
6363	Liberty Fertilizer 5-10-10 with 1.2 Mg	Windsorville
6360	Liberty Fertilizer 6-8-8 with 1.2 Mg	Windsorville
6164	Liberty Green-Gro Fertilizer 6-7-4	Greenwich
6167	Liberty High Grade Market Gardeners 5-8-7	Greenwich
6361	Liberty High Grade Market Gardeners 5-8-7 with 1.2 Mg	Windsorville

¹Deficiencies are in bold face type.

CONTAINING NITROGEN, PHOSPHORIC ACID AND POTASH¹

Per cent nitrogen					Per cent phosphoric acid			Per cent potash		Magnesium
In nitrates	In ammonia	Organic water-soluble	Organic water-insoluble	Total	Citrate-insoluble	Total	So-called "available"	As muriate	Total	
0.14	4.86	2.20	0.60	7.80	0.37	7.15	6.78	2.17	2.58	.....
0.41	3.54	0.12	0.69	4.76	1.05	6.92	5.87	0.90	13.76	.....
0.00	4.44	0.10	0.22	4.76	0.60	8.75	8.15	3.71	6.56	.....
0.00	4.54	0.14	0.30	4.98	0.95	11.08	10.13	4.32	5.04	.....
0.61	4.12	0.12	0.11	4.96	1.00	11.00	10.00	7.14	7.64	.....
0.35	0.84	2.92	1.80	5.91	0.40	3.80	3.40	0.86	6.98	.....
0.47	5.40	0.04	0.37	6.28	0.62	9.08	8.46	7.56	8.63	.....
0.54	5.56	0.34	0.46	6.90	0.57	8.18	7.61	6.92	7.18	.....
0.37	4.52	0.24	0.87	6.00	0.90	11.25	10.35	4.04	4.04	.....
0.81	5.04	0.52	1.75	8.12	0.65	6.80	6.15	2.04	2.04	.....
0.58	4.82	0.10	0.52	6.02	0.82	11.05	10.23	3.39	4.08	.....
0.00	3.64	0.08	0.18	3.90	1.30	13.15	11.85	4.12	4.12	.....
0.00	4.74	0.09	0.17	5.00	0.97	11.32	10.35	4.52	5.20	.....
0.54	4.42	0.28	0.80	6.04	0.97	11.23	10.26	3.40	3.82	.....
0.00	5.00	0.00	0.16	5.16	0.75	9.10	8.35	6.68	6.68	.....
0.60	4.04	0.12	0.08	4.84	0.78	11.05	10.27	10.38	10.38	.....
0.00	4.84	0.06	0.18	5.08	0.65	10.65	10.00	9.97	10.64	1.51
0.00	2.92	0.06	0.06	3.04	0.70	13.07	12.37	12.26	12.26	.....
0.42	0.56	2.66	2.54	6.18	0.25	3.75	3.50	0.45	5.84	.....
0.48	5.80	0.12	0.55	6.95	0.67	8.10	7.43	5.40	7.22	.....
0.00	4.50	0.20	0.21	4.91	0.97	10.60	9.63	3.34	5.14	.....
0.00	2.86	0.64	2.50	6.00	0.75	9.82	9.07	2.64	2.64	.....
.....	.....	.....	.....	.....	0.60	13.15	12.55	16.53	17.86	.....
.....	.....	.....	.....	.....	0.42	14.30	13.88	13.82	14.62	.....
0.52	2.38	0.50	1.67	5.07	1.15	10.32	9.17	6.04	6.38	.....
.....	.....	.....	.....	.....	0.40	15.53	15.13	12.80	14.62	.....
.....	.....	.....	.....	.....	0.25	19.65	19.40	17.95	21.12	.....
1.37	1.76	0.00	0.06	3.19	0.27	13.30	13.03	10.17	13.12	.....
0.57	3.06	0.34	0.41	4.38	1.45	14.00	12.55	3.71	4.16	.....
0.52	4.20	0.20	0.48	5.40	0.72	11.25	10.53	4.44	5.22	.....
0.63	4.20	0.20	0.30	5.33	0.65	12.18	11.53	9.18	10.28	.....
0.00	4.40	0.31	0.37	5.08	0.47	11.95	11.48	9.44	10.22	2.71
0.46	5.30	0.06	0.35	6.17	0.45	9.70	9.25	8.36	9.00	2.52
0.50	4.56	0.30	0.94	6.30	0.25	9.50	9.25	3.93	4.88	.....
0.49	4.18	0.06	0.53	5.26	0.25	10.02	9.77	6.83	7.98	.....
0.41	4.22	0.10	0.63	5.36	0.00	9.78	9.78	6.18	7.36	2.61

TABLE 5. ANALYSES OF MIXED FERTILIZERS

Station No.	Manufacturer and brand	Place of sampling
Apothecaries Hall Co.,—Cont'd. Waterbury, Conn.		
6359	Liberty High Grade Market Gardeners with Sulphate of Potash 5-8-7	Windsorville
6364	Liberty Landscape and Golf Course 8-6-2	Windsorville
6350	Liberty Special for Fruit and Grass 7-7-7	Torrington
6603	Liberty Tobacco Mixture 5-3-5	Windsorville
6362	Liberty Tobacco Mixture 6-3-6	Windsorville
6367	Liberty Tobacco Mixture with Castor Pomace 6-3-6 ..	Windsorville
6366	Liberty Tobacco Mixture with Cottonhull Ashes 6-3-6 ..	Windsorville
6365	Liberty Tobacco Starter 4-10-0	Windsorville
6702	Liberty Tobacco Starter 5-5-15	Windsorville
Armour Fertilizer Works, New York, N. Y.		
6203	Armour's Big Crop Fertilizer 5-8-7	East Windsor Hill ..
6204	Armour's Big Crop Fertilizer 5-10-10	East Windsor Hill ..
6209	Armour's Big Crop Fertilizer 7-7-7	East Windsor Hill ..
6210	Armour's Big Crop Fertilizer Tobacco Special 6-3-6 ..	East Windsor Hill ..
6161	Armour's Vertagreen Plant Food 5-10-5	Greenwich
6703	Armour's Vertagreen Plant Food 5-10-5	East Windsor Hill ..
6211	Armour's Vertagreen Plant Food for Commercial Crops 6-12-12	East Windsor Hill ..
6206	Armour's Vertagreen Plant Food for Professional Use 10-6-4	East Windsor Hill ..
Associated Seed Growers, Inc., Milford, Conn.		
6425	Asgrow Lawn Food 10-6-4	Milford
6308	Japedizer 8-6-4	New Milford
6426	Japedizer 8-6-4	Milford
The F. A. Bartlett Tree Expert Co., Stamford, Conn.		
6252	Bartlett Green Tree Food 6-8-6	Stamford
Joseph Breck & Sons Corp., Boston, Mass.		
6354	Brexone Garden-Gro 5-10-10-1.2	Torrington
6355	Brexone Turf-Gro 8-6-2	Torrington
Central Chemical Corp., Lebanon, Pa.		
6495	Farmrite Gardenrite 5-10-5	Hartford

¹Deficiencies are in bold face type.

CONTAINING NITROGEN, PHOSPHORIC ACID AND POTASH¹

In nitrates	Per cent nitrogen				Per cent phosphoric acid			Per cent potash		Magnesium
	In ammonia	Organic water-soluble	Organic water-insoluble	Total	Citrate-insoluble	Total	So-called "available"	As muriate	Total	
0.43	4.32	0.14	0.40	5.29	0.27	9.35	9.08	0.76	8.04	.....
0.38	7.28	0.18	0.77	8.61	0.32	6.93	6.61	2.86	2.86	.....
0.41	6.48	0.16	0.45	7.50	0.37	8.33	7.96	7.48	7.68	.....
1.36	0.04	1.46	2.50	5.36	0.22	4.50	4.28	1.29	7.48	.....
1.08	0.04	2.44	2.48	6.04	0.22	5.08	4.86	0.43	7.26	.....
1.13	0.10	2.16	3.28	6.67	0.07	3.44	3.37	0.31	7.94	.....
1.32	0.16	1.84	2.84	6.16	0.12	5.58	5.46	0.47	6.60	.....
0.72	2.16	1.60	0.65	4.13	0.87	13.20	12.33			.....
1.04	0.68	1.94	1.72	5.38	0.47	6.63	6.16	1.33	14.74	.....
0.36	4.10	0.14	0.27	4.87	0.77	9.23	8.46	6.98	7.66	.....
0.35	4.36	0.00	0.23	4.94	0.72	11.18	10.46	8.93	9.06	.....
0.57	6.24	0.08	0.25	7.14	0.55	8.03	7.48	6.29	7.32	.....
0.51	1.08	2.04	2.02	5.65	0.32	3.89	3.57	0.84	6.36	.....
0.17	4.52	0.18	0.27	5.14	0.90	12.40	11.50	3.51	4.96	.....
0.16	4.58	0.26	0.18	5.18	1.10	11.33	10.23	3.39	5.00	.....
0.52	5.24	0.06	0.12	5.94	0.52	13.55	13.03	9.37	11.06	.....
0.50	6.96	0.40	1.38	9.24	0.67	8.22	7.55	4.44	4.78	.....
0.11	4.44	4.16	1.54	10.25	0.40	6.83	6.43	3.51	4.80	.....
1.12	5.80	0.12	1.43	8.47	0.40	7.05	6.65	3.79	4.92	.....
0.24	4.76	1.78	1.40	8.18	0.25	7.33	7.08	4.40	6.66	.....
0.45	4.76	0.34	0.22	5.77	0.57	9.50	8.93	5.49	7.04	.....
0.93	3.30	.....	0.23	4.46	1.00	13.45	12.45	7.94	10.24	1.77
0.72	5.76	0.24	0.58	7.30	0.75	8.65	7.90	0.16	2.12	.....
0.74	3.68	0.20	0.16	4.78	0.50	11.02	10.52	4.73	5.56	.....

TABLE 5. ANALYSES OF MIXED FERTILIZERS

Station No.	Manufacturer and brand	Place of sampling
Consolidated Rendering Co., Boston, Mass.		
6283	Corenco 0-14-14 Top Dresser	West Haven
6157	Corenco 4-12-4 Complete Manure	New Haven
6282	Corenco 4-12-16 Ladino Special	West Haven
6605	Corenco 5-5-15 Tobacco Starter	West Suffield
6158	Corenco 5-8-7 Potato and General Crop	New Haven
6284	Corenco 5-10-5 Home Garden	West Haven
6254	Corenco 5-10-5 Onion Special—Super Truck	Newtown
6312 ²	Corenco 5-10-5 Onion Special—Super Truck	Southbury
6338 ²	Corenco 5-10-5 Onion Special—Super Truck	Mt. Carmel
6043 ²	Corenco 5-10-10 Peerless Potato	Cheshire
6159	Corenco 5-10-10 Peerless Potato	New Haven
6226 ²	Corenco 5-10-10 Peerless Potato	Meriden
6562	Corenco 5-10-10-1.2 with Water Soluble Magnesium	Thompsonville
6568	Corenco 5-10-10-1.2 with Water Soluble Magnesium	West Suffield
6606	Corenco 6-3-6 Perfection Tobacco Grower	West Suffield
6285	Corenco 6-8-8 Potato Special	West Haven
6041 ²	Corenco 7-7-7 Complete Fruit and Top Dressing	Cheshire
6171	Corenco 7-7-7 Complete Fruit and Top Dressing	Cos Cob
6228 ²	Corenco 7-7-7 Complete Fruit and Top Dressing	Meriden
6064	Corenco 8-6-4 Landscape	Westville
6616	Corenco 8-6-4 Landscape	Darien
6557	Corenco Spurz-on 3.5-3.5-1.5	Thompsonville
The Davey Tree Expert Co., Kent, Ohio		
6177	Davey Tree Food 12-4-4	Old Greenwich
R. G. Davis & Sons, Inc., New Haven, Conn.		
6069	"Organo" 10-5-5	New Haven
The Davison Chemical Corp., Baltimore, Md.		
6538	Davco Granulated Fertilizer 0-14-14	Norwich
6539	Davco Granulated Fertilizer 0-20-20	Norwich
6535	Davco Granulated Fertilizer 5-8-7	Norwich
6536	Davco Granulated Fertilizer 5-10-5	Norwich
6289	Davco Granulated Fertilizer 5-10-10	New Milford
6656	Davco Granulated Fertilizer 7-7-7	Norwich
The Doggett-Pfeil Co., Springfield, N. J.		
6646	Clay's London Fertilizer 4-8-0	Darien

¹Deficiencies are in bold face type.²State purchases.

CONTAINING NITROGEN, PHOSPHORIC ACID AND POTASH¹

Per cent nitrogen					Per cent phosphoric acid			Per cent potash		Magnesium
In nitrates	In ammonia	Organic water-soluble	Organic water-insoluble	Total	Citrate-insoluble	Total	So-called "available"	As muriate	Total	
.....	.....	.....	.....	.....	0.17	14.45	14.28	13.21	15.02	.....
0.90	3.00	0.12	0.15	4.17	1.22	13.15	11.93	3.67	5.08	.....
0.74	2.86	0.38	0.08	4.06	0.65	12.85	12.20	14.01	15.12	.....
0.69	0.12	2.28	1.91	5.00	0.22	5.92	5.70	0.80	15.08	.....
0.73	4.26	0.10	0.08	5.17	0.55	8.68	8.13	5.86	6.92	.....
0.82	4.08	0.00	0.10	5.00	0.85	11.00	10.15	5.53	5.92	.....
0.76	3.80	0.16	0.11	4.83	0.85	10.88	10.03	4.07	5.02	.....
1.00	4.14	0.00	0.10	5.24	0.85	11.15	10.30	4.29	5.20	.....
0.73	4.00	0.18	0.09	5.00	0.85	10.98	10.13	4.11	4.94	.....
0.89	4.34	0.13	0.18	5.54	0.67	11.00	10.33	9.56	10.07	.....
1.06	4.42	0.14	0.20	5.82	0.82	11.18	10.36	8.52	9.92	.....
1.15	4.42	0.04	0.16	5.77	0.67	11.00	10.33	9.18	10.02	.....
0.00	3.02	1.73	0.11	4.86	1.12	11.30	10.18	7.56	9.44	1.40
0.61	4.36	0.18	0.25	5.40	0.45	10.78	10.33	9.52	12.04	1.10
0.59	0.04	2.26	3.53	6.42	0.25	4.19	3.94	1.54	6.29	.....
0.86	5.36	0.08	0.14	6.44	0.50	9.30	8.80	7.84	8.92	.....
0.37	5.76	0.58	0.23	6.94	0.08	8.18	8.10	6.49	7.34	.....
0.72	3.52	1.08	0.18	5.50	0.75	10.75	10.00	5.69	6.56	.....
0.68	5.96	0.38	0.25	7.27	0.18	8.28	8.10	6.21	8.22	.....
0.24	5.02	2.20	0.68	8.14	0.47	6.62	6.15	3.51	4.48	.....
0.00	4.72	2.28	0.68	7.68	0.42	6.67	6.25	3.75	4.08	.....
0.54	0.86	1.58	1.96	4.94	.....	4.18	.....	0.88	2.14	.....
.....
1.15	9.82	0.14	0.95	12.06	0.35	4.69	4.34	3.40	4.52	.....
.....
0.37	6.20	2.20	1.21	9.98	0.35	5.62	5.27	5.13	6.08	.....
.....
.....	.....	.....	.....	.....	0.62	15.22	14.60	13.76	14.59	.....
.....	.....	.....	.....	.....	0.52	20.05	19.53	20.00	20.00	.....
0.45	5.00	0.00	0.05	5.50	0.45	9.00	8.55	6.91	6.91	.....
0.36	4.70	0.00	0.06	5.12	0.52	10.60	10.08	5.38	5.58	.....
0.28	4.80	0.10	0.04	5.22	0.55	11.18	10.63	9.50	10.00	.....
0.00	7.57	0.00	0.07	7.64	0.25	7.72	7.47	5.75	6.76	.....
.....
0.19	2.72	0.14	1.56	4.61	2.02	10.15	8.13	.....	.....	.....

TABLE 5. ANALYSES OF MIXED FERTILIZERS

Station No.	Manufacturer and brand	Place of sampling
	The Doughten Seed Co., Jersey City, N. J.	
6493	Faith Soil Food with Insect Control 5-9-4	Hartford
	Eastern States Farmers' Exchange, Inc., West Springfield, Mass.	
6051 ²	Eastern States 0-19-19 with Borax	North Haven
6255	Eastern States 0-20-20	Bethel
6200	Eastern States 5-10-10-0.6	East Hartford
6197	Eastern States 5-15-15-0.6	East Hartford
6358	Eastern States 6-4-6-1.2 Tobacco	South Windsor
6199	Eastern States 8-4-8-1.2 Tobacco	East Hartford
6357	Eastern States 8-12-12-1.2 L. C.	East Hartford
6288	Eastern States 8-12-12-1.2 S. M.	New Milford
6256	Eastern States 8-16-8-0.6	Bethel
6198	Eastern States 8-16-16-0.6	East Hartford
6287	Eastern States 10-10-10-0.6	New Milford
6257	Eastern States Plant Starter 10-52-17	Bethel
	The Espoma Co., Millville, N. J.	
6231	Espoma 3-2-1	Yalesville
6611	Holly-Tone 4-6-4	Greenwich
	Faesy & Besthoff, Inc., New York, N. Y.	
6058	High Organic Pelletized All-Purpose 6-12-6	Pawcatuck
	Fox Point Chemical Co., East Providence, R. I.	
6581	Old Fox Brand 0-12-24	Pawcatuck
6582	Old Fox Brand 0-20-20	Pawcatuck
6583	Old Fox Brand 4-12-8	Pawcatuck
6059	Old Fox Brand 5-8-7	Pawcatuck
6579	Old Fox Brand 5-10-10-0.6	Groton
6060	Old Fox Brand 7-7-7	Pawcatuck
	Goulard & Olena, Inc., Skillman, N. J.	
6494	Feedz-N'-Weedz with 2-4,D 6-10-4	Hartford
6498	G & O Dahlia, Lily, Gladiola 5-6-15	Hartford
6569	G & O Rose Food 7-8-5	Windsor Locks
	Heeman Manufacturing Co., Wooster, Ohio	
6233	Wooster Lawn Builder with 2-4,D 8-8-4	Wallingford
6246	Wooster Plant Builder 6-10-4	Stamford

¹Deficiencies are in bold face type.²Boron found, 0.62%; guaranteed, 0.3-0.6%.

CONTAINING NITROGEN, PHOSPHORIC ACID AND POTASH¹

In nitrates	Per cent nitrogen				Per cent phosphoric acid			Per cent potash		Magnesium
	In ammonia	Organic water-soluble	Organic water-insoluble	Total	Citrate-insoluble	Total	So-called "available"	As muriate	Total	
0.38	1.48	0.32	2.95	5.13	0.47	9.85	9.38	3.42	5.06	.....
.....	.....	.....	.....	.....	0.77	18.10	17.33	17.12	20.90	.....
.....	.....	.....	.....	.....	0.52	20.45	19.93	17.38	19.92	.....
0.88	3.98	0.15	0.15	5.16	0.67	11.18	10.51	9.30	10.08	1.54
1.25	3.68	0.14	0.10	5.17	1.15	15.70	14.55	15.71	16.02	1.73
2.23	0.72	1.64	1.53	6.12	0.50	5.31	4.81	1.02	7.12	2.32
0.30	0.84	3.56	3.50	8.20	0.22	4.75	4.53	1.12	8.29	1.90
1.54	6.32	0.16	0.16	8.18	0.45	12.83	12.38	1.49	12.38	1.92
1.28	6.16	0.08	0.13	7.65	0.50	14.03	13.53	9.08	12.34	1.72
1.54	6.56	0.12	0.13	8.35	0.70	16.70	16.00	6.49	8.30	1.17
0.00	6.28	1.81	0.12	8.21	0.60	16.50	15.90	14.51	16.68	1.25
0.93	8.60	0.28	0.11	9.92	0.52	12.13	11.61	9.09	9.96	1.46
0.00	9.60	0.00	0.00	9.60	0.02	52.40	52.38	0.00	18.24	.....
0.00	1.66	0.51	1.37	3.54	0.30	3.10	2.80	1.67	2.75	.....
0.20	1.36	0.71	1.61	3.79	0.37	6.90	6.53	3.24	4.62	.....
0.61	3.62	0.33	1.66	6.22	1.42	13.53	12.11	5.24	5.96	.....
.....	.....	.....	.....	.....	0.65	13.48	12.83	19.87	24.06	.....
.....	.....	.....	.....	.....	0.42	16.45	16.03	17.17	19.16	.....
0.66	2.56	0.68	0.10	4.00	1.25	13.00	11.75	7.40	8.12	.....
0.49	4.52	0.16	0.12	5.29	1.40	8.85	7.45	6.38	7.80	.....
0.27	5.00	0.02	0.11	5.40	0.35	10.58	10.23	8.27	10.36	2.15
0.47	6.30	0.10	0.08	6.95	0.65	7.85	7.20	7.16	7.94	.....
1.12	3.46	0.28	0.96	5.82	0.77	11.32	10.55	3.64	4.56	.....
0.00	3.34	0.65	1.71	5.70	0.40	6.72	6.32	15.16	16.45	.....
1.03	5.60	0.00	1.35	7.98	0.50	9.15	8.65	5.16	6.20	.....
0.16	3.48	0.52	3.23	7.39	0.55	14.23	13.68	0.47	2.12	.....
0.00	4.88	0.41	2.11	7.40	0.43	11.02	10.59	4.71	5.10	.....

TABLE 5. ANALYSES OF MIXED FERTILIZERS

Station No.	Manufacturer and brand	Place of sampling
	The Mamlon Co., New Haven, Conn.	
6286	FER-MEL Water Soluble Turf Food 25-15-10	New Haven
	McCormick & Co., Inc., Baltimore, Md.	
6490	HY-GRO 13-26-13	Berlin
	"Na-Churs" Plant Food Co., Marion, Ohio	
6339	"Na-Churs" Liquid Fertilizer 5-5-10	Hamden
	Old Deerfield Fertilizer Co., Inc., South Deerfield, Mass.	
6679	Old Deerfield 5-5-15 Tobacco Starter	South Deerfield
6680	Old Deerfield 5-8-7 Fertilizer	South Deerfield
6682	Old Deerfield 5-10-5 Fertilizer	South Deerfield
6015	Old Deerfield 5-10-10 Fertilizer	Glastonbury
6565	Old Deerfield 6-3-6 Complete Tobacco Fertilizer	West Suffield
6681	Old Deerfield 7-7-7 Fertilizer	South Deerfield
6685	Old Deerfield Lawnshrub Fertilizer 6-5-5	South Deerfield
	Olds & Whipple, Inc., Hartford, Conn.	
6488	O & W 0-14-14 Fertilizer	East Hartford
6048 ²	O & W 0-20-20 Fertilizer	Cheshire
6272 ²	O & W 0-20-20 Fertilizer	Newtown
6580	O & W 4-8-4 Complete Lawn and Grass Fertilizer	Mystic
6456	O & W 4-12-4 Market Garden Fertilizer	East Hartford
6453 ³	O & W 5-3-5 Complete Tobacco Fertilizer-Potash derived from Cotton Hull Ash	East Hartford
6452	O & W 5-5-15 High Grade Tobacco Starter	East Hartford
6458	O & W 5-8-6 Luxura	East Hartford
6042 ²	O & W 5-8-7 Potato and General Purpose Fertilizer	Cheshire
6515	O & W 5-8-7 Potato and General Purpose Fertilizer	Manchester
6459	O & W 5-8-7 Potato and General Purpose Fertilizer with Sulphate of Potash	East Hartford
6451	O & W 5-10-10 Potato Fertilizer	East Hartford
6457	O & W 5-10-10 Potato Fertilizer with 1.2% Mg	East Hartford
6455	O & W 6-3-6 Blue Label Tobacco Fertilizer	East Hartford
6450 ³	O & W 6-3-6 Blue Label Tobacco Fertilizer - Potash derived from Cotton Hull Ash	East Hartford
6454	O & W 7-7-7 Top Dressing and Grass Fertilizer	East Hartford

¹Deficiencies are in bold face type.

²State purchases.

³Copper guaranteed, 0.13%; found, 0.12%.

CONTAINING NITROGEN, PHOSPHORIC ACID AND POTASH¹

Per cent nitrogen					Per cent phosphoric acid			Per cent potash		Magnesium
In nitrates	In ammonia	Organic water-soluble	Organic water-insoluble	Total	Citrate-insoluble	Total	So-called "available"	As muricite	Total	
4.48	3.24	18.32	0.04	26.08	0.00	15.78	15.78	0.00	11.56	....
2.64	4.42	7.00	0.83	14.89	0.00	30.75	30.75	10.15	13.36	....
3.19	2.12	0.07	0.00	5.38	0.00	6.40	6.40	0.00	9.30	....
1.38	0.80	1.69	1.23	5.10	0.55	6.62	6.07	1.52	17.26	....
0.88	3.46	1.06	0.26	5.66	0.75	8.95	8.20	5.53	6.98	....
0.23	4.12	0.82	0.18	5.35	0.70	10.78	10.08	4.19	5.10	....
1.23	4.00	0.04	0.11	5.38	0.55	11.25	10.70	7.14	10.76	....
0.84	0.94	1.44	3.34	6.56	0.30	4.33	4.03	0.96	7.30	....
0.89	5.82	0.34	0.17	7.22	0.45	7.95	7.50	6.68	7.04	....
0.82	4.00	0.92	1.13	6.87	0.37	5.90	5.53	3.87	5.30	....
....	....	....	....	....	0.80	15.47	14.67	3.65	14.10	....
....	....	....	....	....	0.35	20.10	19.75	19.24	22.34	....
....	....	....	....	....	0.40	21.05	20.65	17.53	20.02	....
1.01	2.56	0.22	0.77	4.56	0.55	8.72	8.17	3.85	4.66	....
0.37	3.40	0.44	0.41	4.62	0.72	13.67	12.95	3.50	5.24	....
0.63	0.20	1.52	2.85	5.20	0.17	4.38	4.21	0.49	5.14	....
1.45	0.18	0.58	1.39	4.60	0.67	7.25	6.58	1.24	15.58	....
0.72	2.40	0.44	1.83	5.39	0.92	10.50	9.58	3.61	6.16	....
0.51	4.24	0.26	0.37	5.38	0.30	9.00	8.70	7.50	9.08	....
0.60	4.22	0.08	0.35	5.25	0.25	9.27	9.02	6.69	7.19	....
0.00	3.28	1.96	0.38	5.62	0.30	8.42	8.12	0.61	8.11	....
0.68	4.00	0.36	0.38	5.42	0.57	11.20	10.63	9.12	10.42	....
0.68	4.28	0.00	0.44	5.40	0.60	11.27	10.67	9.21	11.16	1.42
0.62	0.20	1.80	3.64	6.26	0.05	3.46	3.41	0.27	6.48	....
0.62	0.16	1.84	3.38	6.00	0.10	4.01	3.91	0.65	6.80	....
1.06	5.20	0.88	0.36	7.50	0.12	7.95	7.83	7.35	7.48	....

TABLE 5. ANALYSES OF MIXED FERTILIZERS

Station No.	Manufacturer and brand	Place of sampling
	Pedigreed Seed Co., New York, N. Y.	
6649	Lofts Lawn Food 8-12-4	Bridgeport
	The Frank S. Platt Co., Inc., New Haven, Conn.	
6193	Platt's Special 10-5-5 Lawn Fertilizer	New Haven
	Ra-Pid-Gro Corp., Danville, N. Y.	
6194	Ra-Pid-Gro 23-21-17	Wethersfield
	The Rogers & Hubbard Co., Portland, Conn.	
6430	Gro-Fast Acid Fertilizer 4-10-4	Portland
6179	Gro-Fast Plant Food 5-10-5	Darien
6356	Gro-Fast Rose Food 7-10-5	Waterville
6431	Gro-Fast Rose Food 7-10-5	Portland
6432	Hubbard 6-8-8 for Potatoes	Portland
6304	Hubbard Alfalfa Fertilizer 0-14-14	New Milford
6428 ²	Hubbard Alfalfa Fertilizer 0-14-14 with 0.55 Boron ..	Portland
6306	Hubbard Corn Fertilizer 4-12-4	New Milford
6437	Hubbard Dairy Fertilizer 0-10-20	Portland
6311 ³	Hubbard Double Strength Fertilizer 8-16-16	Southbury
6433	Hubbard Double Strength Fertilizer 8-16-16	Portland
6313 ³	Hubbard Fertilizer 10-5-5	Southbury
6310 ³	Hubbard Fertilizer 10-10-10	Southbury
6336 ³	Hubbard Fertilizer 10-10-10	Mt. Carmel
6038	Hubbard Garden Fertilizer 5-10-5	Southport
6424 ³	Hubbard Garden Fertilizer 5-10-5	Shelton
6512 ³	Hubbard Garden Fertilizer 5-10-5	Windsor
6039	Hubbard General Crop Fertilizer 5-10-10	Southport
6196 ³	Hubbard General Crop Fertilizer 5-10-10	Wethersfield
6337 ³	Hubbard General Crop Fertilizer 5-10-10	Mt. Carmel
6037	Hubbard Golf Course Fertilizer 8-6-2	Southport
6438	Hubbard High Potash Fertilizer 5-10-10	Portland
6305	Hubbard Potato Fertilizer 5-8-7	New Milford
6429	Hubbard Seeding Fertilizer 3-12-12	Portland
6307	Hubbard Tobacco Grower 6-3-6	New Milford
6220	Hubbard Top Dressing 7-7-7	Meriden
6604	Hubbard Valley Brand 6-3-6	Suffield
6040	Hubbard Vegetable Fertilizer 5-8-7	Southport
6491	Hubbard Weed-Kil Lawn Food 6-10-4	Berlin

¹ Deficiencies are in bold face type.² Boron found, 0.526%.³ State purchases.

CONTAINING NITROGEN, PHOSPHORIC ACID AND POTASH¹

In nitrates	Per cent nitrogen				Per cent phosphoric acid			Per cent potash		Magnesium
	In ammonia	Organic water-soluble	Organic water-insoluble	Total	Citrate-insoluble	Total	So-called "available"	As muricite	Total	
1.68	5.00	1.06	1.58	9.32	1.02	12.23	11.21	3.28	4.48	....
0.11	5.16	3.80	1.52	10.59	0.45	5.88	5.43	4.64	5.16	....
4.89	4.00	14.88	0.03	23.80	0.00	18.97	18.97	0.00	17.02	....
0.00	2.04	0.75	1.51	4.30	0.42	11.30	10.88	3.80	4.52	....
0.12	2.84	1.22	1.35	5.53	0.45	10.88	10.43	5.01	5.62	....
0.00	3.62	1.02	1.87	6.51	1.50	12.43	10.93	1.08	6.44	....
0.00	3.22	1.36	1.71	6.29	1.07	13.58	12.51	0.97	6.20	....
0.66	5.06	0.52	0.19	6.43	0.42	9.35	8.93	7.62	8.28	....
....	....	....	....	....	0.40	14.60	14.20	11.84	14.02	....
....	....	....	....	....	0.22	14.98	14.76	12.76	13.86	....
0.94	3.20	0.16	0.20	4.50	1.45	12.98	11.53	3.99	4.62	....
....	....	....	....	....	0.10	11.18	11.08	16.48	18.62	....
0.68	7.06	0.18	0.20	8.12	0.45	15.93	15.48	13.42	15.38	....
0.97	6.22	0.58	0.31	8.08	0.42	16.45	16.03	15.50	16.22	....
0.40	4.86	3.54	0.15	8.95	0.27	6.50	6.23	5.09	5.78	....
0.68	9.36	0.24	0.12	10.40	0.22	10.53	10.31	9.20	10.38	....
0.76	9.32	0.28	0.07	10.43	0.27	10.75	10.48	9.20	10.06	....
0.62	4.52	0.20	0.19	5.53	0.90	11.38	10.48	5.34	5.42	....
0.71	4.30	0.26	0.16	5.43	0.92	11.38	10.46	4.86	6.74	....
0.63	4.56	0.06	0.15	5.40	0.87	11.55	10.68	5.13	5.58	....
0.73	4.08	0.60	0.21	5.62	1.15	10.92	9.77	7.11	10.66	....
0.60	4.48	0.00	0.20	5.28	1.12	11.20	10.08	9.79	10.46	....
0.80	4.16	0.18	0.20	5.34	1.10	11.18	10.08	9.38	10.26	....
0.19	4.42	1.82	1.81	8.24	0.35	7.20	6.85	2.46	3.18	....
0.74	2.96	0.60	1.20	5.50	1.07	11.28	10.21	8.36	9.42	....
0.44	2.60	0.94	1.43	5.41	0.42	8.65	8.23	4.60	7.26	....
0.59	2.54	0.14	0.23	3.50	1.15	13.03	11.88	11.42	12.14	....
0.77	0.12	2.20	3.10	6.19	0.20	3.88	3.68	0.66	6.88	....
0.72	6.28	0.10	0.14	7.24	0.00	8.37	8.37	6.38	7.18	....
0.67	0.10	2.44	2.81	6.02	0.15	4.41	4.26	0.84	8.00	....
0.64	4.26	0.14	0.28	5.32	0.75	9.55	8.80	6.51	7.02	....
0.51	4.00	1.00	0.77	6.28	1.50	11.60	10.10	4.93	5.42	....

TABLE 5. ANALYSES OF MIXED FERTILIZERS

Station No.	Manufacturer and brand	Place of sampling
6609	Rose Manufacturing Co., Beacon, N. Y. Triogen Rose Food 5-10-5	Greenwich
6067	O. M. Scott & Sons Co., Marysville, Ohio Scott's Turf Builder 9-7-4	Westville
6223	Scott's Weed and Feed 7-11-5	Meriden
6249 ²	Sears, Roebuck & Co., Chicago, Ill. Cross Country Plant Food 5-10-5-0.03	Stamford
6439	M. L. Shoemaker, Inc., Div. Wilson & Co., Philadelphia, Pa. M. L. Shoemaker's "Swift-Sure" Tobacco Starter 4-10-0	Portland
6648	The Smith Agricultural Chemical Co., Columbus, Ohio Wedo with 2,4-D 6-10-4	Fairfield
6241	Stumpp & Walter Co., New York, N. Y. Sawco Economy Fertilizer 5-10-5	Stamford
6239	Sawco Emerald Grass Fertilizer 6-10-4	Stamford
6612	Sawco General Garden Fertilizer 4-12-4	Stamford
6240	Sawco General Garden Fertilizer 5-10-5	Stamford
6243	Sawco Golf Fertilizer 8-6-2	Stamford
6615	Sawco Rose Food 4-12-4	Stamford
6245	Sawco Treewiz 8-6-2	Stamford
6056	Swift & Co., Boston, Mass. Brimm 5-10-10	Pawcatuck
6057	Red Steer 5-8-7	Pawcatuck
6506	Red Steer 10-6-4	Hartford
6704	Red Steer 10-6-4	Hartford
6188	Vigoro 5-10-5	Hamden
6608 ³	Tennessee Corp., Lockland, Ohio Loma 8-8-8 Mineralized	Greenwich

¹ Deficiencies are in bold face type.² Boron guaranteed, 0.028%; found, 0.019%; copper guaranteed, 0.06%; found, 0.021%; iron guaranteed, 0.037%; found, 0.41%; manganese guaranteed, 0.09%; found, 0.028%; zinc guaranteed, 0.06%; found, 0.022%; magnesium guaranteed, 0.03%; found, 2.96%.³ Boron guaranteed, 0.05%; found, 0.065%; copper guaranteed, 0.15%; found, 0.13%; iron guaranteed, 0.20%; found, 0.31%; manganese guaranteed, 0.50%; found, 0.67%; zinc guaranteed, 0.20%; found, 0.17%.

CONTAINING NITROGEN, PHOSPHORIC ACID AND POTASH¹

In nitrates	Per cent nitrogen				Per cent phosphoric acid			Per cent potash		Magnesium
	In ammonia	Organic water-soluble	Organic water-insoluble	Total	Citrate-insoluble	Total	So-called "available"	As muriate	Total	
0.79	3.32	0.74	0.34	5.19	1.37	12.00	10.63	0.90	5.28	....
0.31	6.36	0.58	2.28	9.53	0.47	8.12	7.65	3.79	4.92	....
0.00	3.76	0.39	3.16	7.31	0.40	12.47	12.07	5.33	6.26	....
1.19	3.56	0.06	0.10	4.91	0.77	10.80	10.03	4.33	4.86	2.96
0.58	2.40	0.60	0.68	4.26	1.05	11.43	10.38	....	....	....
0.52	4.62	0.10	1.04	6.28	0.62	11.60	10.98	3.77	4.00	....
0.73	4.02	0.02	0.25	5.02	0.35	10.60	10.25	6.01	6.50	....
1.82	3.50	0.00	0.34	5.66	0.55	10.55	10.00	4.90	5.10	....
0.75	3.88	0.10	0.24	4.97	0.87	10.57	9.70	5.33	6.48	....
0.90	3.82	0.26	0.24	5.22	0.80	10.97	10.17	5.53	6.02	....
2.18	4.26	0.34	0.16	6.94	0.23	6.25	6.02	3.61	4.04	....
0.80	3.92	0.14	0.24	5.10	0.75	10.55	9.80	5.09	5.82	....
0.00	4.20	1.58	0.29	6.07	0.73	7.50	6.77	2.34	3.14	....
0.13	4.62	0.12	0.24	5.11	0.90	10.95	10.05	8.80	10.48	....
0.36	4.30	0.14	0.16	4.96	0.70	9.28	8.58	6.57	7.62	....
0.55	8.18	0.16	0.15	9.04	0.50	7.70	7.20	4.18	4.18	....
0.32	8.42	0.02	0.16	8.92	0.37	7.55	7.18	4.40	4.50	....
0.43	4.46	0.06	0.09	5.04	0.35	10.35	10.00	4.53	6.88	....
0.84	6.56	0.22	0.38	8.00	0.45	9.15	8.70	6.68	8.00	....

TABLE 5. ANALYSES OF MIXED FERTILIZERS

Station No.	Manufacturer and brand	Place of sampling
	The Terre Co., Rochelle Park, N. J.	
6619	Terre Lawn-Spur 8-6-5	Darien
6620	Terre Rodo-Gro 6-4-4	Darien
	Universal Chemical Co., Lynn, Mass.	
6513	Electra Plant Food 5-10-3	Bloomfield
	Oscar F. Warner, Waterbury, Conn.	
6345	Warner's Grubedizer 8-6-4	Waterbury
6341	Warner's Lawn Fertilizer 8-6-4	Waterbury
6340	Warner's Tree Food 12-6-4	Waterbury
	Garfield Williamson, Inc., Jersey City, N. J.	
6178	Plantspur 4-4-2	Darien
	F. H. Woodruff & Sons, Inc., Milford, Conn.	
6247	Gro-Sod Lawn Food 10-6-4	Stamford
	Woodruff Fertilizer Works, Inc., North Haven, Conn.	
6180 ²	Woodruff's 0-14-14 Fertilizer with 0.11% Boron	Hamden
6187	Woodruff's 5-8-7 Fertilizer	Hamden
6186	Woodruff's 5-10-10 Fertilizer	Hamden
6335	Woodruff's 6-8-8 Fertilizer	North Haven
6330	Woodruff's 7-7-7 Fertilizer	North Haven
6063	Woodruff's Lawn and Tree Food 10-6-4	Westville
6190	Woodruff's Lawn and Tree Food 10-6-4	Hamden
6553	Woodruff's Tobacco Fertilizer with Cottonseed Base 6-3-5	North Haven
6554	Woodruff's Tobacco Fertilizer with Pomace Base 6-3-6	North Haven
6564	Woodruff's Tobacco Starter 5-5-15	Suffield

¹ Deficiencies are in bold face type.

² Boron found, 0.114%.

CONTAINING NITROGEN, PHOSPHORIC ACID AND POTASH¹

In nitrates	Per cent nitrogen				Per cent phosphoric acid			Per cent potash		Magnesium
	In ammonia	Organic water-soluble	Organic water-insoluble	Total	Citrate-insoluble	Total	So-called "available"	As muriate	Total	
0.71	2.06	2.76	2.36	7.89	0.42	6.65	6.23	5.24	6.58	.....
0.25	1.56	1.34	2.62	5.77	0.27	4.24	3.97	0.19	3.80	.....
0.60	2.80	0.20	2.03	5.63	0.45	10.12	9.67	3.36	3.44	.....
0.00	1.88	3.40	2.83	8.11	0.50	6.43	5.93	3.76	4.12	.....
0.64	2.04	3.10	3.04	8.82	0.60	6.55	5.95	4.29	4.70	.....
0.86	2.10	5.66	2.42	11.04	0.40	6.33	5.93	3.76	4.12	.....
0.27	3.06	0.30	0.72	4.35	0.15	5.93	5.78	1.81	2.38	.....
0.91	4.20	2.64	1.52	9.27	0.58	7.17	6.59	3.73	5.02	.....
.....	.....	.....	.....	.....	1.07	13.50	12.43	14.01	15.60	.....
0.71	3.54	0.38	0.23	4.86	0.37	8.55	8.18	6.23	7.18	.....
0.76	3.60	0.52	0.17	5.05	0.40	10.20	9.80	7.81	9.22	.....
0.00	4.06	1.50	0.28	5.84	0.30	8.35	8.05	7.28	8.24	.....
0.67	4.96	0.62	0.15	6.40	0.30	7.93	7.63	6.05	7.34	.....
0.86	3.76	4.40	0.27	9.29	0.42	6.78	6.36	3.54	4.10	.....
0.43	3.88	4.80	0.42	9.53	0.45	6.80	6.35	3.50	4.36	.....
1.56	0.16	1.76	2.66	6.14	0.27	3.84	3.57	0.52	6.82	.....
1.29	0.32	2.18	2.09	5.88	0.22	3.85	3.63	0.51	7.00	.....
1.48	0.42	1.98	1.03	4.91	0.12	5.72	5.60	0.80	15.18	.....

TABLE 6. ANALYSES OF SHEEP MANURE, ETC.¹

Station No.	Manufacturer and brand	Place of sampling
6259	Pulverized Sheep Manure. The American Agricultural Chemical Co., North Weymouth, Mass.	Bethel: Marble & Risser
6166	Sheep Manure. Apothecaries Hall Co., Waterbury, Conn.	Greenwich: McArdle's Seed Store
6540	Armour's Pulverized Sheep Manure. Armour Fertilizer Works, New York, N. Y.	Norwich: Checkerboard Feed Store
6062	DRICONURE. Atkins & Durbrow, Inc., New York, N. Y.	New Haven: Lightbourn & Pond Co.
6070	Corenco Sheep Manure. Consolidated Rendering Co., Boston, Mass.	New Haven: R. G. Davis & Sons, Inc.
6176	Davey Shredded Manure. The Davey Tree Expert Co., Kent, Ohio	Old Greenwich: The Davey Tree Expert Co.
6504	Sheep Manure. Olds & Whipple, Inc., Hartford, Conn.	Hartford: Cadwell & Jones, Inc.
6349	Premier-Nure. Premier Peat Moss Corp., New York, N. Y.	Torrington: Washington Supply Co., Inc.
6263	Wizard Brand Cow Manure. The Pulverized Manure Co., Chicago, Ill.	Danbury: H. E. Meeker
6262	Wizard Brand Pulverized Sheep Manure. The Pulverized Manure Co., Chicago, Ill.	Danbury: H. E. Meeker
6229	Gro-Fast Cow Manure. The Rogers & Hubbard Co., Portland, Conn.	Meriden: The J. E. Raven Hardware Co.
6221	Gro-Fast Sheep Manure. The Rogers & Hubbard Co., Portland, Conn.	Meriden: Church-Morse, Inc. .
6250	Cross Country Cattle Manure. Sears, Roebuck & Co., Chicago, Ill.	Stamford: Sears, Roebuck & Co.
6248	Cross Country Sheep Manure. Sears, Roebuck & Co., Chicago, Ill.	Stamford: Sears, Roebuck & Co.
6160	Farmanure. Wendell S. Still, Selden, N. Y. . .	New Haven: R. G. Davis & Sons, Inc.
6242	Sawconure. Stumpp & Walter Co., New York, N. Y.	Stamford: Stumpp & Walter Co.
6542	Sheep Manure. Swift & Co., Chicago, Ill.	Norwalk: Libner Grain Co., Inc.
6260	Bovung. Walker-Gordon Laboratory Co., Plainsboro, N. J.	Bethel: Marble & Risser

¹ Deficiencies are in bold face type.² Guaranteed available, 1%.³ Guaranteed available, 0.8%.

TABLE 6. ANALYSES OF SHEEP MANURE, ETC.¹

In ammonia	Per cent nitrogen				Per cent phosphoric acid				Per cent potash		Sand
	Organic water-soluble	Organic water-insoluble	Total found	Total guaranteed	Citrate-insoluble	Total found	Total guaranteed	So-called "available" found	Total found	Total guaranteed	
0.00	0.29	1.16	1.45	1.25	0.27	1.40	1.00	1.13	2.75	2.00	41.94
0.04	0.68	0.88	1.60	1.00	0.07	0.40	0.25	0.33	3.24	1.00	43.71
0.02	0.45	1.41	1.88	1.50	....	1.53	1.00	....	1.96	2.00	33.04
0.32	1.22	2.14	3.68	2.00	0.70	2.89	....	2.19 ²	2.86	1.00	6.12
0.00	0.41	1.39	1.80	2.00	0.45	1.56	....	1.11 ²	2.14	2.00	24.35
0.44	1.13	2.00	3.57	2.00	0.85	2.90	....	2.05 ²	1.85	1.00	9.25
0.04	0.21	1.30	1.55	1.25	....	1.68	1.00	....	2.38	2.00	32.63
0.12	0.62	1.37	2.11	2.00	0.35	2.56	....	2.21 ²	1.63	1.00	22.94
0.06	0.57	1.63	2.26	2.00	0.25	1.48	....	1.23 ²	2.62	1.00	13.28
0.02	0.77	1.47	2.26	2.00	0.17	1.99	....	1.82 ²	2.83	2.00	10.11
0.12	0.65	1.71	2.48	2.00	0.20	1.59	....	1.39 ²	2.24	1.00	7.53
0.00	0.10	1.07	1.27	1.25	....	1.03	1.00	....	2.21	2.00	34.36
0.04	0.30	1.70	2.04	1.75	0.35	1.54	....	1.19 ³	2.15	2.00	17.92
0.04	0.21	1.13	1.38	1.50	0.28	1.44	....	1.16 ²	3.00	2.00	40.21
0.40	1.11	2.33	3.84	2.00	0.60	2.79	....	2.19 ²	2.52	1.00	4.20
0.22	0.51	1.39	2.12	2.00	0.25	4.90	....	4.65 ²	2.33	1.00	21.06
0.02	0.40	1.58	2.00	2.00	0.27	1.68	....	1.41 ²	2.60	2.00	25.99
0.00	0.62	1.40	2.02	2.00	0.32	2.21	....	1.89 ²	2.64	1.00	3.88

TABLE 7. ANALYSES OF LIMESTONE AND SIMILAR MATERIALS

Station No.	Manufacturer and brand	Sampled from stock of or sent by	Calcium oxide, per cent	Magnesium oxide, per cent
	Connecticut Adamant Plaster Co., New Haven, Conn.			
5115	Land Plaster	Simsbury: Cullman Bros.	33.34	.....
	New England Lime Co., Canaan, Conn.			
4905	Lime	Simsbury: Cullman Bros.	45.50 ¹	31.00 ²
5157	Agricultural Lime	Simsbury: Cullman Bros.	44.43 ¹	31.36 ²
5335	Agricultural Hydrated Lime	Simsbury: Cullman Bros.	46.29	31.91
5770	High Calcium Hydrated Lime	Simsbury: Cullman Bros.	70.97	0.52
	Olds & Whipple, Inc., Hartford, Conn.			
5651	Land Plaster	Simsbury: Cullman Bros.	34.71	.....
5771	Land Plaster	Simsbury: Cullman Bros.	33.57	.....
	The Terre Co., Rochelle Park, N. J.			
6623	Terre Ground-Tone	Darien: Brookside Nurseries	39.70 ³	3.65

¹ Guaranteed, 47.00%.² Guaranteed, 31.00%.³ Carbon dioxide, 23.53%; sulphur trioxide, 16.14%.

TABLE 8. ANALYSES OF SMALL PACKAGE FERTILIZER¹

Station No.	Manufacturer and brand	Place of sampling	Per cent nitrogen					Per cent phosphoric acid			Per cent potash	
			In nitrates	In ammonia	Organic water-soluble	Organic water-insoluble	Total	Citrate-insoluble	Total	So-called "available"	As muriate	Total
	Armour Fertilizer Works, New York, N. Y.											
6427 ²	Armour's Sheep Manure 1.5-1-2	Orange		0.00	0.24	1.16	1.40		1.29			2.72
6572	Armour's Vertagreen Plant Food 5-10-5	New London ...	0.23	4.62	0.12	0.26	5.23	0.90	12.48	11.58	2.99	5.18
	The Doggett-Pfeil Co., Springfield, N. J.											
6174	D & P 5-10-5 Lawn & Garden Fertilizer	Old Greenwich .	0.83	4.92	0.08	0.49	6.32	1.40	12.32	10.92	3.51	4.56
6175	D & P DAP-GRO No. 2 6-10-4	Old Greenwich .	0.14	1.20	2.72	1.18	5.24	1.17	15.23	14.06	2.42	2.78
6555	D & P Rose Food 5-8-3	North Haven ...	0.00	3.04	0.10	2.36	5.50	1.12	12.58	11.46	4.14	4.14
	Eastern States Farmers' Exchange, Inc., West Springfield, Mass.											
6352	Eastern States Plant Starter 10-52-17 ..	Torrington	0.29	10.70	0.00	0.00	10.99	0.00	52.40	52.40	0.12	16.46
	Faesy & Besthoff, Inc., New York, N. Y.											
6532	All Purpose High Organic Pelletized 6-12-6	Manchester	0.79	3.52	0.50	1.59	6.40	1.15	13.15	12.00	5.16	5.16
6654	Rose Food 8-10-4	Manchester	1.68	2.46	0.42	2.93	7.49	0.60	10.60	10.00	1.97	4.08

¹Deficiencies are in bold face type.²Sand, 42.9%.

TABLE 8. ANALYSES OF SMALL PACKAGE FERTILIZER¹

Station No.	Manufacturer and brand	Place of sampling	Per cent nitrogen				Per cent phosphoric acid			Per cent potash		
			In nitrates	In ammonia	Organic water-soluble	Organic water-insoluble	Total	Citrate-insoluble	Total	So-called "available"	As muricate	Total
	Goulard & Olena, Inc., Skillman, N. J.											
6499 ²	G & O Sheep Manure 2-1-1	Hartford		0.30	0.36	0.93	1.59	.....	1.55 ³	.....	.....	1.10 ⁴
6213	G & O Special 7-8-5 Rose Food	South Windsor	0.75	5.04	0.52	1.41	7.72	0.65	9.22	8.57	5.29	6.22
6497	G & O Special No Filler Rose Food 7-8-5	Hartford	0.79	5.28	0.22	1.17	7.46	0.57	10.30	9.73	5.04	5.38
6507	G & O Tree & Shrub Food 9-7-3	Hartford	0.51	4.30	2.18	2.25	9.24	0.35	9.18	8.83	3.10	3.66
	A. H. Hoffman, Inc., Landisville, Pa.											
6550 ⁵	Hoffman Cow Manure (Dehydrated) 2-1-1	Norwalk .....	.....	0.12	0.53	1.50	2.15	0.22	1.51	1.29	.....	2.27
6253	Hoffman Organic Base Rose Food 5-10-5	Stamford	0.00	4.00	0.44	1.40	5.84	0.15	10.15	10.00	4.92	6.44
6169 ⁶	Hoffman Poultry Manure 3-1-1.5	Greenwich	0.00	0.14	2.08	2.31	4.53	.....	4.15	.....	.....	2.29
6551 ⁷	Hoffman Raw Bone Meal 3.7-20	Bridgeport .....	.....	0.04	.....	.....	4.04	.....	21.40	.....	.....	.....
6549 ⁸	Hoffman Sheep Manure (Kiln Dried) 1.5-1-2	Norwalk	0.00	0.06	0.02	1.20	1.28	.....	1.30	.....	.....	2.28
	Hydroponic Chemical Co., Inc., Copley, Ohio											
6170	Hyponex 7-6-19	Greenwich	6.23	1.20	0.14	0.01	7.58	0.15	8.12	7.97	0.04	21.12
	The Hy-Trous Corp., Boston, Mass.											
6230	Hy-Trous—Liquid Fertilizer 4-8-4	Meriden	1.90	2.37	0.22	0.00	4.49	0.00	7.85	7.85	0.00	5.76

6489	Kem-ical Corp., East Paterson, N. J. Kem—Liquid Plant Food 0.08-0.16-0.1	Hartford	0.02	0.01	0.01	0.05	0.09	0.00	0.18	0.18	0.00	0.24
6571	Mandeville & King Co., Rochester, N. Y. Stim-U-Plant Modern Plant Food Tablet 11-12-15	New London ...	7.11	4.20	0.60	0.04	11.95	0.00	20.38	20.38	0.04	23.60
6212	Olds & Whipple, Inc., Hartford, Conn. O & W 5-8-7 Potato and General Purpose Fertilizer	South Windsor .	0.59	4.00	0.16	0.78	5.53	0.40	9.55	9.15	6.95	7.60
6647	Pedigreed Seed Co., New York, N. Y. Lofts Lawn Food 8-12-4	Westport	1.34	5.00	1.00	1.39	8.73	1.10	12.65	11.55	3.27	4.26
6514	Plantabbs Corp., Baltimore, Md. Fulton's Plantabbs Plant Food Tablets 11-15-20	West Hartford ..	7.59	3.40	0.16	0.02	11.17	0.00	17.45	17.45	0.08	25.94
6195	Ra-Pid-Gro Corp., Dansville, N. Y. Ra-Pid-Gro 23-21-17	Wethersfield ...	4.44	4.10	14.90	0.00	23.44	0.00	20.20	20.20	0.00	15.82
6570 ⁹	The Rogers & Hubbard Co., Portland, Conn. Gro-Fast Bone Meal 2-23	New London ...	.....	.....	.....	.....	2.74	.....	26.60	.....	.....	.....
6225	Gro-Fast Rose Food 7-10-5	Meriden	0.00	2.16	2.96	2.57	7.69	2.25	12.48	10.23	0.80	5.32
6618	Roigina Products, Lincoln, Neb. Roigina (African Violet Plant Food) 11-4-8	New Haven .....	.....	.....	.....	.....	12.00	0.07	5.75	5.68	0.28	9.04

¹Deficiencies are in bold face type.²Sand, 54.53%.³Total phosphoric acid guaranteed, 1.0%.⁴Total potash guaranteed, 1.0%.⁵Sand, 2.1%.⁶Sand, 4.21%.⁷Mechanical analysis: fine, 39.5%; coarse, 60.5%.⁸Sand, 47.94%.⁹Mechanical analysis: fine, 67.5%; coarse, 32.5%.

TABLE 8. ANALYSES OF SMALL PACKAGE FERTILIZER¹

Station No.	Manufacturer and brand	Place of sampling	Per cent nitrogen					Per cent phosphoric acid			Per cent potash	
			In nitrates	In ammonia	Organic water-soluble	Organic water-insoluble	Total	Citrate-insoluble	Total	So-called "available"	As muricite	Total
6265	Rose Manufacturing Co., Beacon, N. Y. Triogen Rose Food 5-10-5	Danbury	0.51	3.44	0.80	0.42	5.17	3.10	12.73	9.63	1.28	4.22
6508	Saratoga Laboratories, Inc., Saratoga Springs, N. Y. Tracc L 8-16-7	Hartford	0.00	8.60	0.24	0.00	8.84	0.00	18.15	18.15	7.19	7.62
6068	O. M. Scott & Sons Co., Marysville, Ohio Scott's Weed & Feed 7-11-5	Westville	0.20	3.24	0.30	3.42	7.16	0.30	10.45	10.15	5.18	7.16
6548	Sears, Roebuck & Co., Chicago, Ill. Cross Country Rose Food (No Filler) 5-10-5	Norwalk	0.60	3.32	0.80	0.41	5.13	2.82	12.95	10.13	1.00	3.96
6587 ²	Cross Country Sheep Manure 1.5-0.75-2	Middletown	.....	0.00	0.34	1.60	1.94	0.32	1.51	1.19	.....	2.26
6584	The Smith Agricultural Chemical Co., Columbus, Ohio Sacco Plant Food 4-12-4	New Haven	0.53	3.32	0.16	0.37	4.38	0.97	13.70	12.73	3.69	4.22
6655 ³	Wendell S. Still, Selden, N. Y. Farmanure 2-1-1	Manchester	.....	0.18	0.90	2.64	3.72	0.37	2.74	2.37	0.51	2.19

Stockdale Fertilizer Co., Morris, Ill.												
6617 ⁴	Ovene (Sheep Manure) 1-1-1	New Haven	0.01	0.00	1.35	1.36	0.40	1.51	1.11	0.66	2.56	
Swift & Co., Boston, Mass.												
6219	Vigoro 5-10-5	New Haven	0.49	4.68	0.08	0.19	5.44	1.22	11.75	10.53	4.84	5.34
6531	Vigoro Tablets 4-12-4	Manchester	0.00	4.00	0.18	0.27	4.45	0.42	14.02	13.60	4.56	4.56
The Terre Co., Rochelle Park, N. J.												
6624	Terre Lawnsur 8-6-5	Darien	0.45	2.62	2.32	3.00	8.39	0.30	5.18	4.88	5.02	5.42
6625	Terre Rodogro 6-4-4	Darien	0.23	2.24	1.42	2.03	5.92	0.35	4.79	4.44	0.23	3.56
Universal Chemical Co., Lynn, Mass.												
6588	Electra Plant Food 5-10-3	East Hartford ..	0.60	2.50	0.20	1.87	5.17	0.82	11.00	10.18	2.94	3.44
Walker-Gordon Laboratory Co., Plainsboro, N. J.												
6607 ⁵	Bovette 2-1-1	New Canaan		0.08	0.69	1.35	2.12	0.20	1.64	1.44	0.51	2.34
6191 ⁶	Bovung 2-1-1	Hamden		0.06	0.69	1.59	2.34	0.27	1.80	1.53	0.58	2.67
Garfield Williamson, Inc., Jersey City, N. J.												
6585	IMP Rose Food 5.5-14.2	Ansonia	0.23	3.22	0.54	1.45	5.44	6.40	18.58	12.18	1.95	2.18
6586	Plantspur 4-4-2	Ansonia	0.43	3.00	0.10	0.75	4.28	0.80	4.80	4.00	1.42	2.16
Andrew Wilson, Inc., Springfield, N. J.												
6610	Wilson's Orchid Fertilizer 10-10-10 ..	Greenwich	7.77	3.84	0.10	0.09	11.80	0.00	14.17	14.17	0.04	2.76

¹ Deficiencies are in bold face type.² Sand, 22.07%.³ Sand, 8.37%.⁴ Sand, 43.18%.⁵ Sand, 1.74%.⁶ Sand, 2.8%.

TABLE 9. ANALYSES OF OTHER MISCELLANEOUS MATERIALS

Station No.	Material	Nitrogen per cent	Total phosphoric acid per cent	"Available" phosphoric acid per cent	Water-soluble potash per cent	Chlorine per cent	Moisture per cent	Calcium per cent	Magnesium per cent	Manganese per cent	Iron per cent	Aluminum per cent	Zinc per cent	Copper parts per million	Boron parts per million
7132	Button dust	...	...	...	...	...	...	36.91	...	...	...	...	...	...	...
4855	Chalker peat	...	0.23	...	...	...	...	0.42	0.06	0.003	0.058	0.135	...	28	21
5515	Chicken manure - peat	1.01	2.59	...	0.52	...	48.0	...	...	...	...	...	...	...	...
5517	Chicken manure - peat	0.89	1.40	...	0.31	...	42.0	...	...	...	...	...	...	...	...
4860	Compost	...	0.82	...	...	...	...	2.10	0.32	0.042	1.02	0.66	0.12	430	130
4861	Compost	...	1.19	...	...	...	...	2.40	0.26	0.05	0.97	0.76	0.11	440	140
2454	Cow manure	...	2.34	...	1.10	...	...	7.00	1.60	0.015	0.30	0.050	0.021	61	38
6441	Gro-Fast Aluminum Sulphate	...	...	...	...	...	...	...	...	...	...	9.42 ¹	...	...	...
6442	Gro-Fast Aluminum Sulphate	...	...	...	...	...	...	...	...	...	...	9.43 ¹	...	...	...
6699	Martin's Granite Dust	...	0.00	0.00	0.25 ²	...	...	...	...	...	...	...	...	...	...
7094	Organic Plant Food	1.48	3.33	2.26	1.14	...	...	...	...	...	...	...	...	...	...
5516	Peat and Sludge	1.00	1.42	...	0.39	...	22.0	...	...	...	...	...	...	...	...
4854	Peat moss	...	0.27	...	...	...	...	0.48	0.11	0.003	0.062	0.036	...	24	31
5416	Pig manure	2.80	3.75	...	0.68	...	23.0	...	...	...	...	...	...	...	...
6316	Sewage sludge	1.31	1.83	...	...	...	...	1.05	0.17	0.015	0.93	0.47	0.23	340	170
6317	Sewage sludge	2.05	2.75	...	...	...	...	1.12	0.20	0.024	1.10	0.48	0.38	610	240
2469	Sheep manure	...	0.55	...	3.66	...	...	1.42	0.41	0.035	0.83	1.08	...	190	120
6090	Super Gran-its	...	0.05	...	0.10	...	...	...	...	...	...	...	...	...	...
4625	Tobacco dust	1.80	0.53	...	2.03	...	...	...	...	...	...	...	...	...	...
4305	Tobacco stems	1.12	0.73	...	6.77	2.46	17.0	...	...	...	...	...	...	...	...
4306	Tobacco stems	1.10	0.71	...	5.81	1.94	19.0	...	...	...	...	...	...	...	...
4307	Tobacco stems	1.08	0.75	...	6.21	1.90	17.0	...	...	...	...	...	...	...	...

¹ Guaranteed 9.00.² Total potash, 3.88 per cent.

INDEX

	Page
Agricultural Supply Co., West Haven, Conn.	7, 34
Alkire, Ted, Lubbock, Tex.	7, 30
Allied Chemical & Dye Corp., New York, N.Y.	7, 24, 27
American Agricultural Chemical Co., The, No. Weymouth, Mass.	7, 25, 27, 28, 29, 31, 32, 34, 50
American Cyanamid Co., New York, N.Y.	8, 24, 29
Apothecaries Hall Co., Waterbury, Conn.	8, 24, 25, 28, 29, 31, 32, 34, 50
Archer-Daniels-Midland Co., Minneapolis, Minn.	8, 26
Armour Fertilizer Works, New York, N.Y.	8, 28, 32, 36, 50, 53
Ashcraft-Wilkinson Co., Atlanta, Ga.	9, 25
Associated Seed Growers, Inc., Milford, Conn.	9, 36
Atkins & Durbrow, Inc., New York, N.Y.	9, 50
Bartlett Tree Expert Co., The, Stamford, Conn.	9, 36
Bone meal, analyses of	32
Boswell Co., The, Atlanta, Ga.	9, 25
Breck & Sons Corp., Joseph, Boston, Mass.	9, 36
Buckeye Cotton Oil Co., The, Cincinnati, Ohio	9, 26
Castor pomace, analyses of	25
Central Chemical Corp., Lebanon, Pa.	9, 24, 36
Chilean Nitrate Sales Corp., New York, N.Y.	9, 24
Connecticut Adamant Plaster Co., New Haven, Conn.	52
Consolidated Rendering Co., Boston, Mass.	9, 28, 30, 32, 38, 50
Cottonhull ashes, analyses of	30
Cottonseed meal, analyses of	25
Cyanamid, analyses of	24
Davey Tree Expert Co., The, Kent, Ohio	10, 38, 50
Davis, R.G., & Sons, Inc., New Haven, Conn.	10, 38
Davison Chemical Corp., The, Baltimore, Md.	10, 28, 30, 38
Doggett-Pfeil Co., The, Springfield, N.J.	10, 38, 53
Doughten Seed Co., The, Jersey City, N.J.	10, 40
Dry ground fish, analyses of	32
Du Pont de Nemours, E. I., & Co., Inc., Wilmington, Del.	10, 25
Eastern States Farmers' Exchange, Inc., West Springfield, Mass.	10, 24, 28, 30, 40, 53
Espoma Co., The, Millville, N.J.	10, 40
Faesy & Besthoff, Inc., New York, N.Y.	10, 32, 40, 53
Fertilizer, analyses of mixed	18, 19, 34
analyses of small packages	53
classification and tonnage	18, 19
guaranties	21, 22
inspection	16
law and regulations	3
terms and materials	6
Ford Motor Co., Dearborn, Mich.	10
Fox Point Chemical Co., East Providence, R.I.	10, 28, 40
Goulard & Olena, Inc., Skillman, N.J.	11, 33, 40, 54
Heeman Manufacturing Co., Wooster, Ohio	11, 40
Hoffman, A.H., Inc., Landisville, Pa.	11, 54
Hoover Soil Service, Gilman, Ill.	11, 29
Horn and hoof meal, analysis of	26
Humphreys-Godwin Co., Memphis, Tenn.	11, 26
Hydroponic Chemical Co., Copley, Ohio	54
Hy-Trous Corp., The, Boston, Mass.	54

INDEX—(Continued)

	Page
International Minerals & Chemical Corp., Woburn, Mass.	11, 28
International Vegetable Oil Mill, Greenville, Miss.	11
Kellogg, Spencer, & Sons, Inc., Buffalo, N. Y.	11, 25, 26
Kem-ical Corp., Paterson, N. J.	55
Limestone, analyses of	52
Linseed oil meal, analyses of	26
Lovitt & Co., L. B., Memphis, Tenn.	11, 26
Mamlon Co., The, New Haven, Conn.	11, 42
Mandeville & King Co., Rochester, N. Y.	55
Marianna Sales Co., Memphis, Tenn.	11
McCormick & Co., Inc., Baltimore, Md.	11, 42
Milorganite	33
Miscellaneous	58
"Na-Churs" Plant Food Co., Marion, Ohio	11, 42
New England Lime Co., Canaan, Conn.	52
Nitrate of ammonia, analyses of	24
Nitrate of soda, analyses of	24
Old Deerfield Fertilizer Co., Inc., So. Deerfield, Mass.	12, 25, 28, 29, 30, 32, 33, 42
Olds & Whipple, Inc., Hartford, Conn.	12, 25, 29, 30, 32, 33, 42, 50, 52, 55
Pedigreed Seed Co., New York, N. Y.	12, 44, 55
Perkins Oil Co., Memphis, Tenn.	12, 26
Plantabbs Corp., Baltimore, Md.	55
Platt, Frank S., Co., Inc., New Haven, Conn.	12, 44
Potash salts, analyses of	30
Precipitated bone, analyses of	29
Premier Peat Moss Corp., New York, N. Y.	12, 50
Pulverized Manure Co., The, Chicago, Ill.	13, 50
Ra-Pid-Gro Corp., Dansville, N. Y.	13, 44, 55
Ray & King, Lubbock, Tex.	13
Registrations	7
Rogers & Hubbard Co., The, Portland, Conn.	12, 25, 26, 27, 29, 30, 33, 44, 50, 55
Roigina Products, Lincoln, Neb.	55
Rose Manufacturing Co., Beacon, N. Y.	13, 46, 56
Ruhm Phosphate & Chemical Co., Chicago, Ill.	13, 29
Saratoga Laboratories, Inc., Saratoga Springs, N. Y.	56
Scott, O. M., & Sons Co., Marysville, Ohio	13, 46, 56
Sears, Roebuck & Co., Chicago, Ill.	13, 46, 50, 56
Sewerage Commission of the City of Milwaukee, Milwaukee, Wis.	14, 33
Sheep manure and other materials	50
Shoemaker, M. L., Inc., Div. of Wilson & Co., Philadelphia, Pa.	14, 46
Smith Agricultural Chemical Co., The, Columbus, Ohio	14, 46, 56
Southern Cotton Oil Co., Atlanta, Ga.	14
Soybean oil meal, analyses of	26
Special and home mixtures	21
Still, Wendell S., Long Island City, N. Y.	14, 50, 56
Stockdale Fertilizer Co., Morris, Ill.	57
Stumpp & Walter Co., New York, N. Y.	14, 29, 30, 33, 46, 50
Sulphate of ammonia, analyses of	24
Superphosphate (acid phosphate), analyses of	28
Swift & Co., Boston, Mass.	14, 46, 50, 57
Tennessee Corp., Lockland, Ohio	14, 46
Terre Co., The, Rochelle Park, N. J.	14, 48, 52, 57
Thomason Phosphate Dept., International Minerals & Chemical Corp., Chicago, Ill.	14

INDEX—(Continued)

	Page
Universal Chemical Co., Lynn, Mass.	15, 48, 57
Urea, analyses of	25
Van Iderstine Co., The, Long Island City, N.Y.	15, 33
Walker-Gordon Laboratory Co., Plainsboro, N.J.	15, 50, 57
Warner, Oscar F., Waterbury, Conn.	15, 48
Western Tennessee Soya Mill, Inc., Tiptonville, Tenn.	15, 26, 27
Williamson, Garfield, Inc., Jersey City, N.J.	15, 48, 57
Wilson, Andrew, Inc., Springfield, N.J.	57
Woodruff, F.H., & Sons, Inc., Milford, Conn.	15, 25, 48
Woodruff Fertilizer Works, Inc., No. Haven, Conn.	15, 29, 30, 48