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COMMERCIAL FERTILIZERS

Report for 1956

H. J. FISHER
Chief Chemist

THE CONNECTICUT AGRICULTURAL EXPERIMENT STATION, NEW HAVEN, CONNECTICUT

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REPORT ON INSPECTION AND ANALYSIS OF COMMERCIAL FERTILIZERS, 1956

H. J. FISHER, Chief Chemist[1]

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 semiannually.

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).

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 publica-

[1]Analyses were made by Messrs. O. L. Nolan and Sherman Squires, Miss Helen Kocaba, Mrs. Norma Spencer and Miss Sunrae Agostini; inspection and sampling by Mr. R. Richard Nichols; compilations by Mr. Nolan, Miss Evelyn Caputo and Miss Eleanor Hopcraft.

tion 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 $2.00.

REGISTRATIONS

Late Registrations for 1955

To the brands registered for 1955 in our last report should be added the following:

Glidden Company, 1825 N. Laramie Ave., Chicago, Ill.
Glidden Quality Products 44% Protein Solvent Extracted Soybean Oil Meal

Registrations for 1956

For 1956, 92 firms and individuals registered 454 brands of fertilizer at this Station for sale in the State. As required by statute, the brands are listed as follows:

J. & L. Adikes, Inc., 182nd Place & 93rd Ave., Jamaica 23, N. Y.
Gro-Well Bone Meal
Gro-Well Cow Manure
Gro-Well Gro-Manure
Gro-Well Sheep Manure

Agricultural Supply Co., 221 Richmond Ave., West Haven, Conn.
Yale Special Mixture

Agriculture Products Corp., 307 White St., Danbury, Conn.
Orgurea

Alaska Fertilizer Co., 84 Seneca St., Seattle 1, Wash.
Alaska Fish Fertilizer

E. T. Allen Co., P. O. Box 951, Atlanta 1, Ga.
EMPIRE — 41% Protein Cottonseed Meal
Expello Brand 41% Protein Cottonseed Meal

Allied Chemical & Dye Corp., Nitrogen Div., Hopewell, Va.
"ARCADIAN" 12-12-12 Granular Fertilizer
"ARCADIAN" A-N-L Fertilizer Compound
"ARCADIAN" Nitrana Solution 2
"ARCADIAN" Nitrana Solution 4
"ARCADIAN" Nitrate of Soda
"ARCADIAN" Urea 45 Fertilizer Compound
Sulphate of Ammonia (20.6%N)

The American Agricultural Chemical Co., 285 River St., No. Weymouth, Mass.
AA Quality Fertilizer 0-15-30
AA Quality Fertilizer 0-20-20
AA Quality Fertilizer 5-8-7
AA Quality Fertilizer 5-10-5
AA Quality Fertilizer 5-10-10
AA Quality Fertilizer 8-12-12
AA Quality Fertilizer 8-16-16
AA Quality Fertilizer 10-6-2
AA Quality Fertilizer 10-6-4
AA Quality Fertilizer 10-10-10
Agrico Bulb Food 5-9-6
Agrico Country Club 6-10-4
Agrico Country Club 8-6-4
Agrico Country Club 10-6-4
Agrico Phosphate & Potash 0-20-20
Agrico Rose Food 5-9-6
Agrico for Broadleaf Evergreens 6-10-4
Agrico for Corn 4-12-8
Agrico for Gardens 5-10-5
Agrico for Lawns, Trees and Shrubs 6-10-4
Agrico for New England 5-8-7
Agrico for New England 8-12-12
Agrico for Potatoes 5-10-10 with 1.2 Magnesium
Agrico for Seeding Down 3-12-12
Agrico for Tobacco 6-3-6
Agrico for Top Dressing 7-7-7
Agrico for Top Dressing 10-10-10
Agrico for Turf 6-8-2
Agrico for Turf 10-6-4
Agrinite
Bone Meal
Castor Pomace
20% Granular Superphosphate
Muriate of Potash
18% Normal Superphosphate
Phos-Feed Brand Dicalcium Phosphate
Phosphate Rock 0-30^{T}-0
Pulverized Sheep Manure

American Cyanamid Co., 30 Rockefeller Plaza, New York 20, N. Y.
AERO Cyanamid, Granular
AERO Cyanamid, Special Grade
AERO-PHOS Florida Natural Phosphate 31%
AERO-PHOS Florida Natural Phosphate 33%
AEROPRILLS Fertilizer Grade Ammonium Nitrate
Lawn and Garden Cyanamid

Apothecaries Hall Co., 8-28 Benedict St., Waterbury, Conn.
Aluminum Sulfate, Standard-Ground
Bell Cow Brand 41% Prime Cottonseed Meal
Castor Pomace
Cotton Hull Ashes
Dry Ground Fish
Emjeo
Green-Gro Bone Meal
Green-Gro Fertilizer Mixture
Green-Gro Landscape & Golf Course Fertilizer
Green-Gro Lawn Fertilizer
Green-Gro Urea-Form
Liberty Fertilizer 0-10-20
Liberty Fertilizer 0-14-14
Liberty Fertilizer 0-15-30
Liberty Fertilizer 0-20-20

Apothecaries Hall Co., 8-28 Benedict St., Waterbury, Conn. — Cont'd.

Liberty Fertilizer 3-12-12 with 0.11 Boron
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 8-8-8
Liberty Fertilizer 8-16-16
Liberty Fertilizer 10-10-10
Liberty Green Gro All Organic
Liberty High Grade Market Gardeners
Liberty Special Fertilizer for Fruit & Grass
Liberty Super Bacco, 6-4-7 with 1.2 Magnesium
Liberty Super Spud Special Potato Fertilizer with 1.2 Magnesium
Liberty Tobacco Mixture 5-5-15
Liberty Tobacco Mixture 6-3-6
Liberty Tobacco Mixture with Castor Pomace
Muriate of Potash
Nitrate of Potash
Precipitated Bone
Sheep Manure
Sulphate of Amonia
Sulphate of Potash
Superphosphate 20%

Archer-Daniels-Midland Co., P. O. Box 839, Minneapolis 2, Minn.

Archer Quality 36% Protein Solvent Extracted Linseed Oil Meal (Fertilizer)

Armour Fertilizer Works, Box J, Carteret, N. J.

Armour's All Organic
Armour's Big Crop Fertilizer 0-20-20
Armour's Big Crop Fertilizer 5-8-7
Armour's Big Crop Fertilizer 5-10-5
Armour's Big Crop Fertilizer 5-10-10
Armour's Big Crop Fertilizer 7-7-7
Armour's Big Crop Fertilizer 10-10-10
Armour's Big Crop Superphosphate
Armour's Bone Meal
Armour's Gold Bond Tobacco Grower
Armour's Pulverized Sheep Manure
Armour's Shredded Cattle Manure
Armour Vertagreen Plant Food 5-10-5
Armour Vertagreen Plant Food for Commercial Crops 6-12-12
Armour Vertagreen Plant Food for Commercial Crops 8-8-8
Armour Vertagreen Plant Food for Professional Use 10-6-4

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

Cow-Eta Brand 36% Protein Cottonseed Meal
Cow-Eta Brand 41% Protein Cottonseed Meal

Associated Seed Growers, Inc., Main St., Cambridge, N. Y.

Asgrow Azalea Food 7-7-7
Asgrow Bone Meal
Asgrow Bulb Food 4-12-8
Asgrow Evergreen Food 10-6-4
Asgrow Lawn Food
Asgrow Plant Food 5-10-5
Asgrow Rose Food 5-10-5
Asgrow Sheep Manure
Asgrow Soluble Fertilizer 20-20-20
Japedizer

Atkins & Durbrow, Inc., Box 55, Port Colborne, Ontario, Canada

A & D Driconure
Driconure 3-2-1

H. J. Baker & Bro., 600 Fifth Ave., New York, N. Y.

Nitroganic

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

Bartlett Green Tree Food

The Borden Co., Chemical Div., 350 Madison Ave., New York 17, N. Y.

Borden's "38"

The Boswell Co., Atlanta, Ga.

Pure Gold 41% Protein Cottonseed Meal

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

Breck's Garden Gro
Breck's Greenite (all organic)
Breck's Quick-Life
Breck's Turf-Gro
Breck's Velturf

Brookside Nurseries, 228 Brookside Rd., Darien, Conn.

Natures Nutrients

The Buckeye Cellulose Corp., 6th & Main Sts., Cincinnati, Ohio

Buckeye 41% Protein Cottonseed Meal for Fertilizer

California Spray-Chemical Corp., Lucas & Ortho Way, Richmond, Calif.

ORTHO-GRO Liquid Plant Food
ORTHO Lawn Groom

The Carac Corporation, 162 Babylon Tnpke., Freeport, N. Y.

Carac Evergreen & Shrub Fertilizer
Carac Rose & Plant Fertilizer
Carac 46-0-0 Nitrogen Concentrate

Carbola Chemical Co., Inc., Natural Bridge, N. Y.

CCC Triple 20 Plant Food

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

Chilean Nitrate of Soda—Champion Brand

Cocke and Company, 32 Peachtree St., N. W., Atlanta 3, Ga.

Cocke-Sure Brand Prime Quality 36% Protein Cottonseed Meal
Cocke-Sure Brand Prime Quality 41% Protein Cottonseed Meal

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

Corenco 0-15-30
Corenco 0-20-20 Legume Special
Corenco 4-12-16 Ladino Special
Corenco 5-3-5 Peerless Tobacco Grower
Corenco 5-5-15 Tobacco Starter
Corenco 5-8-7 Potato & General Crop
Corenco 5-10-5 Home Garden
Corenco 5-10-5 Onion Special—Super Truck
Corenco 5-10-5 Rose Special
Corenco 5-10-10 Peerless Potato
Corenco 5-10-10 Peerless Potato with 1.20 Magnesium
Corenco 6-3-6 Perfection Tobacco Grower
Corenco 6-3-6 Premium Tobacco Grower
Corenco 6-8-8 Potato Special
Corenco 6-8-8 Potato Special with 1.2 Magnesium

Consolidated Rendering Co., 178 Atlantic Ave., Boston, Mass. — Cont'd.
Corenco 7-7-7 Complete Fruit and Top Dressing
Corenco 8-6-4 Landscape Fertilizer
Corenco 8-6-4 Turf Green
Corenco 8-16-16 Two-in-One
Corenco 10-6-2
Corenco 10-6-4
Corenco 10-10-10
Corenco Granular Superphosphate 20%
Corenco Ground Bone
Corenco Liquid Fertilizer Concentrate
Corenco Liquid Green
Corenco Organic Turf Fertilizer
Corenco Sheep Manure
Corenco Spurz-on
Corenco Superphosphate 20%
Muriate of Potash
Sulphate of Ammonia

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"

Davison Chemical Co. Div., W. R. Grace & Co., 101 N. Charles St., Baltimore 3, Md.
Davco Granulated Fertilizer 0-15-30
Davco Granulated Fertilizer 0-20-20
Davco Granulated Fertilizer 5-8-7
Davco Granulated Fertilizer 5-10-5
Davco Granulated Fertilizer 5-10-10
Davco Granulated Fertilizer 6-8-8
Davco Granulated Fertilizer 8-16-16
Davco Granulated Fertilizer 10-10-10
Davco Granulated 20% Superphosphate
Muriate of Potash 60% Regular

E. I. du Pont de Nemours and Company, Wilmington, Del.
DU PONT NU GREEN Fertilizer Compound
DU PONT Soluble Plant Food 19-22-16
DU PONT URAMITE Fertilizer Compound

Eastern States Farmers' Exchange, Inc., 26 Central St., W. Springfield, Mass.
Castor Pomace
Eastern States 0-15-30 with 0.2 Boron
Eastern States 0-25-25
Eastern States 5-10-10 with 1.2 Magnesium
Eastern States 8-4-8 (Tobacco) with 1.2 Magnesium
Eastern States 8-12-12 with 1.2 Magnesium
Eastern States 8-12-12 L.C. with 1.2 Magnesium
Eastern States 8-16-16 with 0.6 Magnesium
Eastern States 10-10-10 with 0.6 Magnesium
Eastern States 10-10-10 S.M. with 1.2 Magnesium
Eastern States Starter 64
Muriate of Potash
Nitrogen Solution 37
Superphosphate

The Espoma Company, P. O. Box #108, Millville, N. J.
Espoma
Espoma Garden Fertilizer
Espoma Rose Food
Holly-Tone

Faesy & Besthoff, Inc., 325 Spring St., New York 13, N. Y.
F & B Broadleaf High Organic 6-10-4
F & B Pure Bone Meal
F & B Rose Food 8-10-4
F & B Starter-Grower All-Purpose 15-30-15

Ferro Corporation, 4150 E. 56th St., Cleveland, Ohio
Ferro Agricultural F.T.E. No. FN-501
Ferro Agricultural F.T.E. No. FN-502
Ferro F.T.E.

Fertilene Corporation of America, 251 Central Park West, New York, N. Y.
Fertilene Complete Liquid Fertilizer

Fiestar, Inc., 665 Fifth Ave., New York 22, N. Y.
Fiestar

Forward House Div., Olin Mathieson Chem. Corp., 745 Fifth Ave., New York 22, N. Y.
Plantrons

The Garden Center Inc., 53 LaSalle Rd., West Hartford, Conn.
The Garden Center of West Hartford Lawn Food

Garden Supply Sales Corp., 2120 Lake Ave., Rahway, N. J.
Farmanure

Geigy Agricultural Chemicals, 89 Barclay St., New York 8, N. Y.
Sequestrene NaFe Iron Chelate

Goldenrod Oil Meal Sales Co., 727 Beale Ave., P. O. Box 152, Memphis 1, Tenn.
Goldenrod Brand 41% Protein Cottonseed Meal — Prime Quality

Goulard & Olena, Inc., Skillman, N. J.
G & O Cottonseed Meal 41% Protein
G & O Ground Bone Fertilizer
G & O Muriate of Potash
G & O Prizegro 5-10-5
G & O Raw Bone Meal
G & O Rhodo-Azalea Food
G & O Rose Food
G & O Sheep & Guano Manure
G & O Special Food for Bulbs
G & O 20% Superphosphate
G & O Tree & Shrub Food
Godfrey's Hi-Organic No-Filler 10-6-4

Grace Chemical Co., Div. of W. R. Grace & Co., Box 4906, Memphis, Tenn.
Grace Urea Prills

Gregory-Doyle, Inc., West 11th St., Huntington Sta., New York, N. Y.
Gregory-Doyle 8-16-16

A. H. Hoffman, Inc., Landisville, Pa.
Hoffman Cow Manure (Dehydrated)
Hoffman Sheep Manure (Kiln-Dried)

Humphreys-Godwin Co., 2246 Park Ave., Memphis, Tenn.
Dixie Brand 41% Cottonseed Meal

Kahn Bros. Co., 4425 S. Halsted St., Chicago, Ill.
All-Organic

Spencer Kellogg and Sons, Inc., 98 Delaware Ave., Buffalo, N. Y.
Castor Pomace
Spencer Kellogg's 34% Protein Old Process (Expeller) Linseed Oil Meal
Spencer Kellogg's 44% Protein Toasted Soybean Oil Meal — Solvent Extracted

Lawn-Tex Corp., 1640 W. Fulton St., Chicago, Ill.
Organi-Green

Lebanon Chemical Corporation, Box 532, Lebanon, Pa.
Azalea Food
Bone Meal
Cow Manure
Fertilizer 5-10-10
Fertilizer 10-6-4
Granulated 20% Superphosphate
Hi Organic
Plant Food
Rose Food
Sheep Manure
Spray Gro
Sulphate of Ammonia
Turf Organic
Uni-Form 10-6-4

Lee Patten Seed Co., 360 Ninth St., Jersey City, N. J.
Patco Lawn Food

L. B. Lovitt & Co., 314 Cotton Exchange Bldg., Memphis, Tenn.
"LOVIT BRAND" 41% Protein Cottonseed Meal, Prime Quality

The Mamlon Co., 1089 Whalley Ave., New Haven 15, Conn.
FER-MEL General Purpose Plant Food
FER-MEL Turf & Tree Food

McArdle's Seed Co., 388 Greenwich Ave., Greenwich, Conn.
McArdle's Hi-Organic 10-6-4

Monsanto Chemical Co., 1700 South Second, St. Louis 4, Mo.
Folium

Natural Plant Food Co., 210 W. California, Oklahoma City 2, Okla.
Longhorn Brand Cattle Manure
Ramshorn Brand Sheep Manure

Nitro-Form Agricultural & Chemical, 92 Sunnyside Ave., Woonsocket, R. I.
Nitro-Form

Old Deerfield Fertilizer Co., Inc., 20 Sugar Loaf St., South Deerfield, Mass.
Old Deerfield 5-5-15 Tobacco Starter
Old Deerfield 5-8-7
Old Deerfield 5-10-10 Potato Fertilizer
Old Deerfield 6-3-6 Complete Tobacco
Old Deerfield 6-3-6-2 Tobacco w/1000# C/S Meal
Old Deerfield 6-4-7 Hi-Grade Complete Tobacco
Old Deerfield 7-7-7
Old Deerfield Castor Pomace
Old Deerfield Cotton Hull Ash
Old Deerfield Superphosphate, 20%

Old Fox Agricultural Sales Inc., 49 Valley St., East Providence, R. I.
Old Fox Bone Meal
Old Fox Brand 0-12-24
Old Fox Brand 0-15-30
Old Fox Brand 0-20-0
Old Fox Brand 0-20-20
Old Fox Brand 4-16-20
Old Fox Brand 5-8-7
Old Fox Brand 5-10-5 Garden Food
Old Fox Brand 5-10-10

Old Fox Brand 5-10-10 with 1.2 Magnesium
Old Fox Brand 6-3-6 Tobacco Fertilizer with 1.2 Magnesium
Old Fox Brand 7-7-7
Old Fox Brand 8-6-2 Turf Food
Old Fox Brand 8-6-2 Turf Food with 2.5 Chlordane
Old Fox Brand 10-6-4
Old Fox Brand 10-10-10
Old Fox Brand Muriate of Potash
Old Fox Brand Organo

Olds & Whipple, Inc., 168 State St., Hartford, Conn.
O & W 0-20-20 Fertilizer
O & W 4-8-4 Complete Lawn 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 & General Purpose Fertilizer
O & W 5-10-5 Fertilizer
O & W 5-10-10 Potato Fertilizer
O & W 5-10-10 Potato Fertilizer with 1.2 Magnesium
O & W 6-3-6 Blue Label Tobacco Fertilizer — Potash derived from Cotton Hull Ashes
O & W 6-3-6 Pomace Base Fertilizer — Potash derived from Cotton Hull Ash
O & W 6-3-6 Special Tobacco Fertilizer
O & W 6-8-8 Special Potato Fertilizer
O & W 6-8-8 Special Potato Fertilizer with 1.2 Magnesium
O & W 7-7-7 Top Dressing and Grass Fertilizer
O & W 8-12-12 High Grade General Purpose Fertilizer with 1.8 Magnesium
O & W 10-6-4 Luxura
O & W 10-10-10 Fertilizer
O & W Bone Meal
O & W Castor Pomace
O & W Cotton Hull Ashes
O & W Granulated 20% Superphosphate
O & W Menhaden Dry Ground Fish
O & W Muriate of Potash
O & W Nitro-Gro 4-4-0 All Organic Plant Food
O & W Sheep Manure
O & W Sulphate of Potash
O & W Sulphate of Potash Magnesia
O & W Triple Superphosphate
Precipitated Bone Phosphate

Olin Mathieson Chemical Corp., 10 Light St., Baltimore 3, Md.
Mathieson Ammo-Phos Fertilizer 13-13-13

The Frank S. Platt Co., Boston Post Rd., Branford, Conn.
Platt's Concentrated 10-5-5 Lawn Fertilizer

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

The Rackliffe Oil Co., 114 Franklin Sq., New Britain, Conn.
Lawn-Ade

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

The Rogers & Hubbard Co., Off Bank St., Portland, Conn.
Cotton Hull Ash
Gro-Fast All Organic
Gro-Fast Aluminum Sulphate
Gro-Fast Bone Meal
Gro-Fast Cow Manure
Gro-Fast Evergreen Food
Gro-Fast Plant Food

The Rogers & Hubbard Co., Off Bank St., Portland, Conn. — Cont'd.
Gro-Fast Rose Food
Gro-Fast Sheep Manure
Gro-Fast SOL (Water Soluble Concentrate)
Hoof Meal
Hubbard Alfalfa Fertilizer
Hubbard Alfalfa Fertilizer with Borax
Hubbard Castor Pomace
Hubbard Climax Tobacco Fertilizer
Hubbard Dairy Fertilizer
Hubbard Double Strength Fertilizer
Hubbard Garden Fertilizer
Hubbard General Crop Fertilizer
Hubbard General Crop Fertilizer with 1.2 Magnesium
Hubbard Golf Course Fertilizer 8-6-2
Hubbard Golf Course Fertilizer 8-6-2 with Chlordane
Hubbard Golf Course Fertilizer 10-6-4
Hubbard Hi-Organic 5-10-10
Hubbard Hi-Organic 6-8-8
Hubbard Hi-Organic 6-12-12
Hubbard Hi-Top Fertilizer
Hubbard Hi-Yield Fertilizer
Hubbard Muriate of Potash
Hubbard Nitrate of Potash
Hubbard Potato Fertilizer
Hubbard Potato Fertilizer with 1.2 Magnesium
Hubbard Potato Fertilizer with Sulphate of Potash
Hubbard Sulphate of Ammonia
Hubbard Superphosphate
Hubbard Tobacco Grower
Hubbard Tobacco Starter
Hubbard Top Dressing
Hubbard Valley Brand
Hubbard Vegetable Fertilizer
Hubbard Weed-Kil Lawn Food
Precipitated Bone

Ruhm Phosphate & Chemical Co., P. O. Box 361, Columbia, Tenn.
Red Seal Brand Ruhm's Phosphate Rock

St. Louis National Stockyards Co., Exchange Bldg., National Stock Yards, Ill.
Wizard Brand Cow Manure
Wizard Brand Sheep Manure

O. M. Scott & Sons Co., Marysville, Ohio
Scott's Organic
Scott's Turf Builder
Scott's Weed & Feed

Sears, Roebuck & Co., 925 So. Homan Ave., Chicago 7, Ill.
Cross Country Azalea Food
Cross Country Bone Meal
Cross Country Bulb Food
Cross Country Cattle Manure
Cross Country Evergreen Food
Cross Country Instant Rose Food
Cross Country Instant Tomato Food
Cross Country Lawn Food
Cross Country Plant Food
Cross Country Rose Food
Cross Cpuntry Sheep Manure
Cross Country Sulfate of Ammonia
Cross Country Wat-R-Mix

Sewerage Commission of the City of Milwaukee, P. O. Box 2079, Milwaukee 1, Wis.
Milorganite

Shea Chemical Corp., Adams, Mass.
Shea Dicalcium Phosphate Feeding Grade

The Sherwin-Williams Co., 101 Prospect Ave. N.W., Cleveland, Ohio
Sherwin-Williams 34% Linseed Oil Meal (A Blend of Expellent and Solvent Extracted Meals)

M. L. Shoemaker Div., Wilson & Co., Delaware Ave. & Venango St., Philadelphia, Pa.
M. L. Shoemaker "Swift-Sure" Tobacco Starter

Soil Builders International Corp., 33 West 42nd St., New York 36, N. Y.
Glorion

The Southern Cotton Oil Co., Columbus, Miss.
SCO-CO Brand 41% Protein Cottonseed Meal

Spencer Chemical Co., Dwight Bldg., Kansas City, Mo.
"Mr. N." Ammonium Nitrate Fertilizer

Super Lawn Corporation, 355 Clinton Place, Newark, N. J.
Super Lawn

Swift & Co., Plant Food Div., 440 Church St., Hartford 1, Conn.
Blenn
Brimm
Golden Vigoro
Instant Vigoro
Pasturgro 2-12-12
Pasturgro 5-10-10
Red Steer 0-10-20
Red Steer 0-15-30
Red Steer 0-20-20
Red Steer 5-8-7
Red Steer 5-10-10
Red Steer 7-7-7
Red Steer 8-16-16
Red Steer 10-10-10
Vigoro
Vigoro C. G.
Vigoro Camellia & Azalea
Vigoro Complete Rose Food
Vigoro Plus Chlordane

Triple A Mills, Townsend Harbor, Mass.
Sure-Gro (Poultry Manure) Fertilizer

Universal Chemical Co., Lynn, Mass.
Electra Plant Food

Valley Feed & Supply Co., Inc., Union Rd., Spring Valley, N. Y.
Adorna
C-D Organic Dry Manure

The Van Iderstine Co., 37-30 Review Ave., Long Island City, N. Y.
Vico Steamed Bone Meal Fertilizer

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

Oscar F. Warner, 24 East Aurora St., Waterbury, Conn.
Warner's Grubedizer
Warner's Lawn Fertilizer
Warner's Tree Food

Garfield Williamson Inc., 1072 Westside Ave., Jersey City 6, N. J.
Plantspur
Wonderlawn Complete 10-6-4 Lawn Food

Andrew Wilson, Inc., Baltusrol Way, Springfield, N. J.
Wilson's Eureka Plant Food

F. H. Woodruff & Sons, Inc., 9 Depot St., Milford, Conn.
Gro-Sod Lawn Food

Woodruff Fertilizer & Chemical Works, Inc., Sackett Point Rd., North Haven, Conn.
Woodruff's 0-15-30 Fertilizer
Woodruff's 0-20-20 Fertilizer
Woodruff's 5-8-7 Fertilizer
Woodruff's 5-10-5 Fertilizer
Woodruff's 5-10-10 Fertilizer
Woodruff's 7-7-7 Fertilizer
Woodruff's 8-6-4 Fertilizer
Woodruff's 10-10-10 Fertilizer
Woodruff's Lawn & Tree Food 10-5-5
Woodruff's Muriate of Potash 60%
Woodruff's Superphosphate 20%
Woodruff's Tobacco Fertilizer
Woodruff's Tobacco Starter

Young & Halstead Co., 3 East Main St., Mt. Kisco, N. Y.
Professional Tree Food 7-7-7

FERTILIZER INSPECTION FOR 1956

The Connecticut fertilizer law does not provide for *compulsory* limitation of the grades of fertilizer that may be sold in this State. It has in fact been the belief of this Station that no farmer should be prevented from purchasing any grade of fertilizer he wished, no matter how low in plant food units it might be or how ill adapted to the needs of his crops, so long as he made the purchase with his eyes open. However, because all authorities are agreed that a small number of grades can take care of all of the needs of agriculture, and that standardization on a few grades will promote economy in the manufacture of fertilizer and so help to keep prices down, ever since the compulsory limitation imposed by War Food Order No. 5 during World War II was revoked (on September 30, 1945) the New England agronomists have compiled lists of *recommended* fertilizer ratios and minimum grades.

On October 7, 1952 the agronomists and fertilizer dealers of southern New England met at Storrs and agreed upon the following list for the 1952-1953 season:

Ratio	*Minimum Grade*
0-1-1	0-14-14
0-1-2	0-10-20
1-1-1	8- 8- 8
1-1-3	5- 5-15 (Tobacco fertilizer)
1-2-1	5-10- 5
1-2-2	5-10-10
2-1-2	6- 3- 6 (Tobacco fertilizer)
3-4-4	6- 8- 8
4-3-1	8- 6- 2 (For maintenance of established turf)
5-8-7	5- 8- 7

This list has not been changed up to the present time.

That most Connecticut farmers realize the desirability of using recommended grades is shown by the fact that 77 per cent of the mixed fertilizers sold during the 1955-1956 season were of the recommended ratios and minimum grades. A fertilizer of a recommended 1-1-1 ratio but just under the minimum grade of 8-8-8, namely the 7-7-7, accounted for another 4 per cent.

During the past season the Station agent collected samples of all registered brands that could be found on the market. Certain 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 submit unofficial samples from each carload for analysis by this Station, but in addition an attempt is made by our agent to take official samples from as many of these shipments as possible. The total number of fertilizer samples of all kinds analyzed in 1956 was 891.

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, 1955 and June 30, 1956 (these tonnage figures do not include fertilizer distributed under the Federal Agricultural Conservation Program):

CLASSIFICATION OF FERTILIZER MATERIALS AND FERTILIZER TONNAGE

(Tonnage is for the period July 1, 1955 to June 30, 1956)

	Page	No. of Samples	Tonnage	
I. Containing chiefly nitrogen:				
Nitrate of ammonia	21	4	667	
Nitrate of soda	21	5	489	
Sulphate of ammonia	21	3	19	
Cyanamid and urea	21	14	365	
Castor pomace	22	10	1,950	
Cottonseed meal	22	112	6,047	
Horn and hoof meal	24	2	16	
Linseed oil meal	24	11	406	
Soybean oil meal	24	5	77	
Other materials	24	3	289	
				10,325
II. Containing chiefly phosphoric acid:				
Superphosphate 18%	25	2	512	
20%	25	17	5,561	
46%	26	2	78	
Precipitated bone	26	27	801	
Phosphate rock	26	1	54	
				7,006
III. Containing chiefly potash:				
Muriate of potash	27	10	742	
Sulphate of potash	27	9	153	
Sulphate of potash-magnesia		.....	68	
Cottonhull ashes	27	14	555	
				1,518
IV. Containing nitrogen and phosphoric acid:				
Dry ground fish	28	14	503	
Bone meal	28	14	634	
Other materials	29	2	921	
				2,058
V. Containing nitrogen and potash:				
Nitrate of potash	27	7	20	
				20
VI. Mixed fertilizers:				
Commercial mixtures	30	267	50,927[1]	
Special and home mixtures	....	113	3,623	
				54,550
VII. Miscellaneous:				
Aluminum sulphate	59	1	8	
Borax	....	1	16	
Sheep and cattle manure	46	25	980	
Limestone and similar materials	48	21	.....	
Fertilizers sold in small packages	49	100	.....	
Lawn sprays	58	8	3	
Other miscellaneous materials	59	39	176	
Check meals and fertilizers	....	28	.....	
				1,183
Totals		891		76,660

[1]For distribution of this tonnage see next page.

Mixed Fertilizer Tonnage

Grades Approved for Connecticut

Grade	Tons	Grade	Tons
0-10-10	222	6-12-12	212
0-12-24	171	8- 4- 8	461
0-14-14	138	8- 6- 2	311
0-15-30	1,658	8- 8- 8	142
0-20-20	1,271	8-16-16	2,232
0-25-25	414	10-10-10	5,614
5- 5-15	235	12-12-12	104
5- 8- 7	2,248	12-24-12	1
5-10- 5	2,075	15-15-15	3
5-10-10	10,072	15-30-15	5
6- 3- 6	8,025	16-32-16	3
6- 8- 8	3,499	18-18-18	11
		Total	39,127

Other Grades

(50 tons or more)

1- 1 -1	121	6- 4- 7	283
2- 2- 2	77	6- 7- 4	349
3- 2- 1	36	6- 8- 2	198
3-12-12	165	6- 8- 6	92
4- 8- 4	81	6-10- 4	1,565
4- 8- 8	710	7- 7- 7	2,158
4-10- 0	68	7-11- 5	52
4-12- 4	52	8- 6- 4	766
4-16-20	88	8-12-12	1,171
4.75- 4- 0	63	9- 7- 4	966
5- 2- 3	96	10- 5- 5	214
5- 3- 5	286	10- 6- 2	57
5- 4- 0	520	10- 6- 4	1,086
5- 5- 5	60		
		Total	11,380

(Less than 50 tons)

1- 1- 0	5	5- 6- 4	12
2-12-12	30	5- 8- 6	47
3- 1- 1	12	5- 9- 6	23
3-2.5- 1.5	8	7- 8- 5	5
4- 4- 0	10	7-10- 5	24
4- 4- 2	35	12- 4- 4	12
4- 6- 4	23	12- 6- 4	5
4-10- 4	32	23-21-17	11
4-12- 6	32	24-12-12	21
4-12- 8	33	Other grades	35
5- 5- 0	5		
		Total	420
		Grand Total	50,927

I. Materials Chiefly Valuable for Nitrogen

The past year saw a decline in production of Connecticut tobacco resulting from increased substitution of the new tobacco "paper" for tobacco leaves in the manufacture of cigars. A direct consequence of this was a drop in consumption of vegetable meals as fertilizer from 11,232 tons in 1955 to 8,480 tons in 1956. In spite of this 25 per cent decline, 82 per cent of the primarily nitrogenous materials purchased for fertilizer use in this State during the 1956 season were still vegetable meals — 59 per cent cottonseed meal, 19 per cent castor pomace, and the balance linseed and soybean oil meals.

Analyses of the 79 official samples of nitrogenous fertilizers are given in Table 1. Seventy-one of these met their guaranties and eight were deficient. The substandard samples included all four official samples of nitrate of ammonia and two out of six and two out of eight samples respectively of cyanamid and urea.

II. Materials Chiefly Valuable for Phosphoric Acid

Analyses of 15 official samples of 20 per cent superphosphate, two samples of the 18 per cent and one of the 46 per cent grades, are given in Table 2; all of these met their guaranties. Four out of five samples of precipitated bone were also satisfactory, as was the one sample of phosphate rock.

III. Materials Chiefly Valuable for Potash

Ten official samples of muriate of potash, two of sulphate of potash and six of cotton hull ashes were analyzed as shown in Table 3. The only deficient sample was one of muriate of potash.

IV. Materials Supplying Nitrogen and Phosphoric Acid

This group consists chiefly of dry ground fish and bone meal. Guaranties of "available" phosphoric acid are not required of such natural organic products, and most of them bear guaranties of total nitrogen and total phosphoric acid only. Five official samples of dry ground fish, 14 of bone meal and one of "Milorganite" (a treated sewage sludge) were analyzed in 1956. All samples met their guaranties for both nitrogen and phosphoric acid, with the exception of two bone meals which were low in nitrogen. Analyses are given in Table 4.

V. Materials Supplying Nitrogen and Potash

There is only one fertilizer material now on the market falling into this classification, namely, nitrate of potash. Fertilizer grade potassium nitrate is required to contain at least 12 per cent of nitrogen and 44 per cent of potash.

Two official samples, whose analyses are given in Table 3, met their guaranties of 13 per cent nitrogen and 44 per cent of potash.

VI. Mixed Fertilizers

Commercial Mixtures

Analyses of 263 official samples of mixed fertilizers are given in Table 5. Results are summarized as follows:

Total number of samples		263
Samples deficient in:		
one item	94	
two items	8	
three items	1	103
Percentage of samples meeting all guaranties		61
Total guaranties made		745[1]
Guaranties not met:		
nitrogen	64	
phosphoric acid	28	
potash	20	112
Percentage met		85

Eighty-five per cent of all guaranties were substantially met or exceeded.

[1]Two hundred and twenty-one samples with three guaranties, 41 with two guaranties and one with no major element guaranty (guaranties for minor elements not included).

Nineteen official samples guaranteed magnesium (usually 1.2 per cent) in addition to the major components; all of these met their guaranties. Two samples met their claims for boron (0.20 and 0.65 per cent respectively). One sample guaranteed copper, zinc, iron and sulphur in addition to nitrogen, phosphoric acid and potash, while another ("Ferro F.T.E. (Fritted Trace Elements)") carried no major element guaranty but did declare six minor elements (manganese, iron, zinc, copper, boron and molybdenum). No deficiency in any of these minor elements was found.

Special and Home Mixtures

One hundred and thirteen samples of special and home mixtures were analyzed during the year, the great majority for tobacco growers. Because the composition of these samples is of no public interest, their analyses are not tabulated in this bulletin.

State Purchases of Fertilizer

Fertilizer materials and mixed goods supplied to State institutions on State purchase orders are regularly included in our annual inspection. Fertilizers so supplied are not exempt from payment of registration fees and tonnage taxes unless they are furnished to The Connecticut Agricultural Experiment Station for experimental purposes.

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

Materials	No. of Samples	Reference
Supplying nitrogen	11	Table 1
Supplying phosphoric acid	6	Table 2
Supplying potash	4	Table 3
Supplying nitrogen and phosphoric acid	3	Table 4
Mixed fertilizers	33	Table 5
Aluminum sulfate	1	Table 10
Total	58	

VII. Miscellaneous

Sheep and cattle manures. These products bear guaranties of nitrogen, total phosphoric acid and potash, although some brands guarantee "available" instead of total phosphoric acid. Of the 23 official samples analyzed during the 1955-1956 season 20 met all guaranties, two were low in nitrogen and one was deficient in phosphoric acid. Analyses are given in Table 6.

Limestone and similar materials. Because the legal definition of "commercial fertilizers" (G.S. 6733) specifically excludes "marl and lime", no regular inspection of liming materials is made. Occasional samples of limestone, hydrated lime and gypsum ("land plaster") are analyzed for farmers or State or Federal agencies, and analyses of 19 such samples are given in Table 7.

Fertilizers sold in small packages. Fertilizers sold only in packages of 10 pounds or less net weight are not required to be registered. No attempt, therefore, is made to sample all the small package fertilizers on the market, but such brands as come to the attention of our agent are picked up and analyzed as a matter of public interest. During the 1955-1956 season 100 samples were analyzed, of which 78 met all their guaranties; this is a distinctly higher percentage than the 61 found for fertilizers sold in 100-lb. bags, and is the second successive year for which this superiority of the smaller packages has been noted. Analyses are given in Table 8.

Lawn sprays. Last year considerable interest was shown in a new method of selling fertilizers, namely, by direct application to consumers' lawns as dilute aqueous solutions. All of the firms engaging in this practice were oil dealers, who had entered the custom fertilizer application business in the hope of keeping their trucks and drivers busy during their summer off-season.

This new practice offered quite a sampling problem for us, because it was much more difficult for our agent to locate oil trucks on their rounds with loads of liquid fertilizer than to find bagged fertilizers lying quietly in known warehouses. Nevertheless 19 diluted liquid fertilizer samples were obtained and analyzed in 1955.

Either the business has not proved to be so profitable as was expected or the trucks are getting harder to find, because this year we were able to obtain only four samples. Results of analysis of these are reported in Table 9; all samples met their guaranties.

Other miscellaneous materials. Twenty-nine other miscellaneous products were examined; analyses are given in Table 10.

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 three samples were analyzed in connection with collaborative studies of methods for the determination of phosphoric acid conducted by the Association of Official Agricultural Chemists. Twenty-eight 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 counted. The proportion of guaranties substantially met was 87 per cent.

	No. of samples	No. of guaranties	Deficiencies
Nitrate of ammonia	4	4	4
Nitrate of Soda	5	5	0
Sulphate of ammonia	3	3	0
Cyanamid	6	6	2
Urea	8	8	2
Castor pomace	9	9	0
Cottonseed meal	35	35	0
Horn and hoof meal	1	1	0
Linseed oil meal	4	4	0
Soybean oil meal	1	1	0
Miscellaneous nitrogenous materials	3	3	0
Superphosphate	18	18	0
Precipitated bone	5	5	1
Phosphate rock	1	1	0
Muriate of potash	10	10	1
Nitrate of potash	2	2	0
Sulphate of potash	5	5	0
Cotton hull ashes	6	6	0
Dry ground fish	5	10	0
Bone meal	14	28	2
"Milorganite"	1	2	0
Mixed fertilizer	263	745	113
Sheep and cattle manure	23	69	3
Totals	422	970	128
Per cent guaranties met			87

TABLE 1. ANALYSES OF MATERIALS SUPPLYING CHIEFLY NITROGEN[1]

Station No.	Manufacturer or jobber	Sampled from stock of	Per cent nitrogen: Found	Per cent nitrogen: Guaranteed
	Nitrate of Ammonia			
7693[2]	AEROPRILLS. American Cyanamid Co., New York, N. Y.	Cheshire: Connecticut Reformatory	**33.20**	33.50
8050[2]	AEROPRILLS. American Cyanamid Co., New York, N. Y.	Southbury: Southbury Training School	**33.20**	33.50
8134	AEROPRILLS. American Cyanamid Co., New York, N. Y.	Norwich: Eastern States Farmers' Exchange, Inc.	**33.25**	33.50
8283	Spencer. Spencer Chemical Co., Kansas City, Mo.	North Haven: Woodruff Fertilizer & Chemical Works, Inc.	**33.00**	33.50
	Nitrate of Soda			
8279[3]	Arcadian. Allied Chemical & Dye Corp., New York, N. Y.	Windsorville: Apothecaries Hall Co.	16.34	16.00
7697[2,4]	Chilean, Champion Brand. Chilean Nitrate Sales Corp., New York, N. Y.	Cheshire: Connecticut Reformatory	16.00	16.00
8133[2,5]	Chilean, Champion Brand. Chilean Nitrate Sales Corp., New York, N. Y.	Norwich: Norwich State Hospital	16.06	16.00
8135[6]	Chilean, Champion Brand. Chilean Nitrate Sales Corp., New York, N. Y.	Norwich: Eastern States Farmers' Exchange, Inc.	16.00	16.00
8273[7]	Chilean, Champion Brand. Chilean Nitrate Sales Corp., New York N. Y.	South Windsor: South Windsor Tobacco Co.	16.32	16.00
	Sulphate of Ammonia			
8127[2]	Allied Chemical & Dye Corp., New York, N. Y.	Enfield: N. G. Osborn Prison Farm	20.86	20.60
8042	Consolidated Rendering Co., Boston, Mass.	West Haven: New Haven Rendering Co.	20.68	20.50
8044	Hubbard. The Rogers & Hubbard Co., Portland, Conn.	Portland: The Rogers & Hubbard Co.	20.52	20.50
	Cyanamid			
8119	AERO. American Cyanamid Co., New York, N. Y.	East Windsor Hill: South Windsor Equipment Co.	**20.88**	21.00
8125[2]	AERO. American Cyanamid Co., New York, N. Y.	Enfield: N. G. Osborn Prison Farm	21.22	21.00
8132[2]	AERO. American Cyanamid Co., New York, N. Y.	Norwich: Norwich State Hospital	**20.86**	21.00
8282	AERO. American Cyanamid Co., New York, N. Y.	Buckland: Eastern States Farmers' Exchange, Inc.	22.88	21.00
8285	AERO. American Cyanamid Co., New York, N. Y.	Wilson: Chirstensen-Rand Inc.	21.00	21.00
8288	Lawn & Garden. American Cyanamid Co., New York, N. Y.	Greenwich: McArdle's Seed Co.	21.00	21.00

[1]Deficiencies are in boldface type.
[2]State Purchases.
[3]Sodium: Guaranteed, 26.0%; found, 26.68.
[4]Sodium: Guaranteed, 26.0%; found, 26.38.
[5]Sodium: Guaranteed, 26.0%; found, 26.41.
[6]Sodium: Guaranteed, 26.0%; found, 26.59.
[7]Sodium: Guaranteed, 26.0%; found, 27.98.

TABLE 1. ANALYSES OF MATERIALS SUPPLYING CHIEFLY NITROGEN[1]

Station No.	Manufacturer or jobber	Sampled from stock of	Per cent nitrogen Found	Per cent nitrogen Guaranteed
	Urea			
8046	"Arcadian". Allied Chemical & Dye Corp., New York, N. Y.	North Haven: Eastern States Farmers' Exchange, Inc.	45.15	45.00
8278	Green Gro Urea-Form. Apothecaries Hall Co., Waterbury, Conn.	Windsorville: Apothecaries Hall Co.	38.90	38.00
8286	Borden's "38". The Borden Company, New York, N. Y.	New Canaan: Silliman's Inc.	**37.20**	38.00
7692[2]	DU PONT NU GREEN. E. I. du Pont de Nemours & Co., Wilmington, Del.	Cheshire: Connecticut Reformatory	45.15	45.00
8122	DU PONT NU GREEN. E. I. du Pont de Nemours & Co., Wilmington, Del.	Glastonbury: E. J. Bantle	45.00	45.00
8128[2]	DU PONT NU GREEN. E. I. du Pont de Nemours & Co., Wilmington, Del.	Enfield: N. G. Osborn Prison Farm	**44.35**	45.00
8289	DU PONT URAMITE. E. I. du Pont de Nemours & Co., Wilmington, Del.	Greenwich: McArdle's Seed Co.	37.90	38.00
8118	Nitro-Form. Woonsocket Color & Chemical Co., Woonsocket, R. I.	Hartford: Cadwell & Jones, Inc.	38.35	38.00
	Castor Pomace			
7683	American Agricultural Chemical Co., North Weymouth, Mass.	Bloomfield: American Sumatra Tobacco Corp.	5.90	4.50
7684	American Agricultural Chemical Co., North Weymouth, Mass.	Bloomfield: American Sumatra Tobacco Corp.	6.08	4.50
8049[2]	Spencer Kellogg & Sons, Inc., Edgewater, N. J.	Middletown: Long Lane School	6.61	5.50
8141	Spencer Kellogg & Sons, Inc., Edgewater, N. J.	Hartford: Cadwell & Jones, Inc.	6.30	5.50
8295	Spencer Kellogg & Sons, Inc., Edgewater, N. J.	Windsorville: Apothecaries Hall Co.	6.28	5.50
8123	Old Deerfield Fertilizer Co., Inc., South Deerfield, Mass.	Glastonbury: E. J. Bantle	6.10	5.50
8271	The Rogers & Hubbard Co., Portland, Conn.	South Windsor: South Windsor Tobacco Co.	6.12	4.50
8272	The Rogers & Hubbard Co., Portland, Conn.	South Windsor: South Windsor Tobacco Co.	6.06	4.50
8274	The Rogers & Hubbard Co., Portland, Conn.	South Windsor: South Windsor Tobacco Co.	6.34	4.50
	Cottonseed Meal			
7404	Empire 41%. E. T. Allen Co., Atlanta, Ga.	Simsbury: Cullman Bros., Inc.	7.03	6.56
7639	Empire 41%. E. T. Allen Co., Atlanta, Ga.	Simsbury: Cullman Bros., Inc.,	6.60	6.56
7642	Empire 41%. E. T. Allen Co., Atlanta, Ga.	Bloomfield: The Hartman Tobacco Co.	6.70	6.56

[1]Deficiencies are in boldface type.
[2]State Purchases.

TABLE 1. ANALYSES OF MATERIALS SUPPLYING CHIEFLY NITROGEN[1]

Station No.	Manufacturer or jobber	Sampled from stock of	Per cent nitrogen Found	Per cent nitrogen Guaranteed
7643	Empire 41%. E. T. Allen Co., Atlanta, Ga.	Bloomfield: The Hartman Tobacco Co.	6.57	6.56
7656	Expello Brand 41%. E.T. Allen Co., Atlanta, Ga.	Simsbury: Cullman Bros., Inc.	6.92	6.56
7396	Pure Gold 41%. The Boswell Co., Atlanta, Ga.	Simsbury: Cullman Bros., Inc.	6.61	6.56
7397	Pure Gold 41%. The Boswell Co., Atlanta, Ga.	Simsbury: Cullman Bros., Inc.	6.77	6.56
7398	Pure Gold 41%. The Boswell Co., Atlanta, Ga.	Simsbury: Cullman Bros., Inc.	6.58	6.56
7400	Pure Gold 41%. The Boswell Co., Atlanta, Ga.	Granby: Cullman Bros., Inc.	6.86	6.56
7402	Pure Gold 41%. The Boswell Co., Atlanta, Ga.	Granby: Cullman Bros., Inc.	6.72	6.56
7405	Pure Gold 41%. The Boswell Co., Atlanta, Ga.	Simsbury: Cullman Bros., Inc.	6.66	6.56
8477	Pure Gold 41%. The Boswell Co., Atlanta, Ga.	East Windsor Hill: General Cigar Co.	6.84	6.56
8478	Pure Gold 41%. The Boswell Co., Atlanta, Ga.	East Windsor Hill: General Cigar Co.	6.94	6.56
7646	Buckeye 41%. The Buckeye Cellulose Corp., Cincinnati, Ohio	Bloomfield: The Hartman Tobacco Co.	6.61	6.56
7647	Buckeye 41%. The Buckeye Cellulose Corp., Cincinnati, Ohio	Bloomfield: The Hartman Tobacco Co.	6.72	6.56
7649	Buckeye 41%. The Buckeye Cellulose Corp., Cincinnati, Ohio	Bloomfield: American Sumatra Tobacco Corp.	6.78	6.56
7650	Buckeye 41%.The Buckeye Cellulose Corp., Cincinnati, Ohio	Bloomfield: American Sumatra Tobacco Corp.	6.76	6.56
7703	Cocke-Sure 36%. Cocke and Co., Atlanta, Ga.	Norwalk: Libner Grain Co., Inc.	6.34	5.76
7395	Cocke-Sure 41%. Cocke and Co., Atlanta, Ga.	Portland: The Rogers & Hubbard Co.	6.59	6.56
7403	Cocke-Sure 41%. Cocke and Co., Atlanta, Ga.	Granby: Cullman Bros., Inc.	6.62	6.56
7640	Cocke-Sure 41%. Cocke and Co., Atlanta, Ga.	West Suffield: Hatheway & Steane Corp.	6.64	6.56
7644	Cocke-Sure 41%. Cocke and Co., Atlanta, Ga.	Bloomfield: The Hartman Tobacco Co.	6.72	6.56
7645	Cocke-Sure 41%. Cocke and Co., Atlanta, Ga.	Bloomfield: The Hartman Tobacco Co.	7.08	6.56
7648	Cocke-Sure 41%. Cocke and Co., Atlanta, Ga.	Bloomfield: American Sumatra Tobacco Corp.	6.83	6.56
7651	Cocke-Sure 41%. Cocke and Co., Atlanta, Ga.	Bloomfield: American Sumatra Tobacco Corp.	6.82	6.56
7653	Cocke-Sure 41%. Cocke and Co., Atlanta, Ga.	Hazardville: L. B. Haas & Co.	6.69	6.56
7655	Cocke-Sure 41%. Cocke and Co., Atlanta, Ga.	Hazardville: L. B. Haas & Co.	6.67	6.56
8051[2]	Cocke-Sure 41%. Cocke and Co., Atlanta, Ga.	Storrs: University of Connecticut	6.55	6.56

[1]Deficiencies are in boldface type.
[2]State Purchase.

TABLE 1. ANALYSES OF MATERIALS SUPPLYING CHIEFLY NITROGEN[1]

Station No.	Manufacturer or jobber	Sampled from stock of	nitrogen Per cent Found	nitrogen Per cent Guaranteed
8139	G & O Prime 41%. Goulard & Olena, Inc., Skillman, N. J.	Hartford: Cadwell & Jones. Inc.	6.76	6.56
8126	Dixie Brand 41%. Humphreys-Godwin Co., Memphis, Tenn.	West Suffeld: H. L. Oppenheimer & Sons	6.67	6.56
8269	Dixie Brand 41%. Humphreys-Godwin Co., Memphis, Tenn.	South Windsor South Windsor Tobacco Co.	6.62	6.56
8120	"Lovit Brand" 41%. L. B. Lovitt & Co., Memphis, Tenn.	Glastonbury: E. J. Bantle	6.66	6.56
8270	"Lovit Brand" 41%. L. B. Lovitt & Co., Memphis, Tenn.	South Windsor: South Windsor Tobacco Co.	6.72	6.56
7652	SCO-CO Brand 41%. The Southern Cotton Oil Co., Columbus, Miss.	Hazardville: L. B. Haas & Co.	6.73	6.56
7654	SCO-CO Brand 41%. The Southern Cotton Oil Co., Columbus, Miss.	Hazardville: L. B. Haas & Co.	6.77	6.56
	Horn and Hoof Meal			
8276	The Rogers & Hubbard Co., Portland, Conn.	South Windsor: South Windsor Tobacco Co.	14.82	14.50
	Linseed Oil Meal			
7401	Spencer Kellogg's 34%. Spencer Kellogg & Sons, Inc., Edgewater, N. J.	Granby: Cullman Bros., Inc.	6.00	5.44
7641	Spencer Kellogg's 34%. Spencer Kellogg & Sons, Inc., Edgewater, N. J.	West Suffeld: Hatheway & Steane Corp.	5.93	5.44
7698[8]	Sherwin-Williams 34%. The Sherwin-Williams Co., Cleveland, Ohio	Hazardville: L. B. Haas & Co.	5.74	5.00
7699[9]	Sherwin-Williams 34%. The Sherwin-Williams Co., Cleveland, Ohio	Hazardville: L. B. Haas & Co.	5.74	5.00
	Soybean Oil Meal			
7399	Spencer Kellogg's 44%. Spencer Kellogg & Sons, Inc., Buffalo, N. Y.	Simsbury: Cullman Bros., Inc.	7.50	7.04
	Miscellaneous			
8293	Orgurea. Agriculture Products Corp., Danbury, Conn.	Danbury: Agriculture Products Corp.	24.38	22.00
8280	A-N-L. Allied Chemical & Dye Corp., New York, N. Y.	Windsorville: Apothecaries Hall Co.	20.78	20.50
8045	Agrinite. The American Agricultural Chemical Co., No. Weymouth, Mass.	Fairfield: Fairfield Grain & Seed Co.	7.53	7.00

[1]Deficiencies are in boldface type.
[8]Potash: Guaranteed, 1.0%; found, 1.74%.
[9]Potash: Guaranteed, 1.0%; found, 1.61%.

TABLE 2. ANALYSES OF SUPERPHOSPHATE, ETC.[1]

Station No.	Manufacturer or jobber	Sampled from stock of	Per cent phosphoric acid Citrate-insoluble	Per cent phosphoric acid Total	Per cent phosphoric acid "Available" Found	Per cent phosphoric acid "Available" Guaranteed
	Superphosphate					
7998	18% Normal. The American Agricultural Chemical Co., North Weymouth, Mass.	Branford: Collins & Freeman, Inc.	0.73	19.40	18.67	18.00
8093	18% Normal. The American Agricultural Chemical Co., North Weymouth, Mass.	Pawcatuck: The C. W. Campbell Co.	0.55	19.20	18.65	18.00
7781[2]	20% Granular. The American Agricultural Chemical Co., North Weymouth, Mass.	Southbury: Southbury Training School	1.10	21.70	20.60	20.00
7702[2]	20% Granulated. Apothecaries Hall Co., Waterbury, Conn.	Enfield: N. G. Osborn Prison Farm	0.62	22.00	21.38	20.00
7729[2]	20% Granulated. Apothecaries Hall Co., Waterbury, Conn.	Middletown: Conn. State Hospital	0.82	22.45	21.63	20.00
8317	Armour Big Crop Granular 20%. Armour Fertilizer Works, Carteret, N. J.	Plantsville: C. A. Cowles, Inc.	1.90	22.15	20.25	20.00
7827	Corenco 20%. Consolidated Rendering Co., Boston, Mass.	New Haven: R. G. Davis & Sons, Inc.	0.12	21.40	21.28	20.00
7853[2]	Corenco 20%. Consolidated Rendering Co., Boston, Mass.	Niantic: Farm for Women	0.07	21.80	21.73	20.00
8152	Corenco 20%. Consolidated Rendering Co., Boston, Mass.	West Haven: New Haven Rendering Co.	0.55	22.70	22.15	20.00
7874	Davco Granulated 20%. Davison Chemical Corp., Baltimore, Md.	Norwich: Checkerboard Feed Store	0.90	21.75	20.85	20.00
7704	20% Granular. Eastern States Farmers' Exchange, Inc., West Springfield, Mass.	Falls Village: Grover Atwood	0.86	21.90	21.04	20.00
8215	G & O 20%. Goulard & Olena, Inc., Skillman, N. J.	New Canaan: Silliman's Inc.	0.28	21.60	21.32	20.00
7907	20% Granulated. Lebanon Chemical Corp., Lebanon, Pa.	Hartford: Cadwell & Jones, Inc.	0.95	22.70	21.75	20.00
7735[2]	20% Granulated. Olds & Whipple, Inc., Hartford, Conn.	Middletown: Long Lane School	0.88	22.30	21.42	20.00

TABLE 2. ANALYSES OF SUPERPHOSPHATE, ETC.[1]

Station No.	Manufacturer or jobber	Sampled from stock of	Per cent phosphoric acid: Citrate-insoluble	Total	"Available": Found	"Available": Guaranteed
7857[2]	20% Granulated. Olds & Whipple, Inc., Hartford, Conn.	Norwich: Norwich State Hospital	0.88	22.20	21.32	20.00
7673	O & W Triple. Olds & Whipple, Inc., Hartford, Conn.	Bloomfield: The Hartmon Tobacco Co.	0.48	46.80	46.32	46.00
8002	Hubbard 20%. The Rogers & Hubbard Co., Portland, Conn.	Guilford: Fred C. Morse & Son	0.30	20.10	19.80	20.00
7951	Woodruff's 20%. Woodruff Fertilizer & Chemical Works, Inc., North Haven, Conn.	North Haven: Woodruff Fertilizer & Chemical Works, Inc.	0.78	22.20	21.42	20.00
	Precipitated Bone Phosphate					
7682	The American Agricultural Chemical Co., North Weymouth, Mass.	Bloomfield: The Hartman Tobacco Co.	5.36	43.60	38.24	30.00
7667	Apothecaries Hall Co., Waterbury, Conn.	West Suffield: Hatheway & Steane Corp	0.44	42.50	42.06	38.00
7669	Apothecaries Hall Co., Waterbury, Conn.	West Suffield: Hatheway & Steane Corp	0.72	41.20	40.48	38.00
8023	The Rogers & Hubbard Co., Portland, Conn.	South Windsor: South Windsor Tobacco Co.	0.43	45.90	45.47	40.00
8010	Shea Chemical Corp., Adams, Mass.	Hazardville: L. B. Haas & Co.	2.25	41.15	**38.90**	42.35
	Phosphate Rock					
8154	AA Quality. The American Agricultural Chemical Co., North Weymouth, Mass.	West Haven: New Haven Rendering Co.	27.93	31.80[3]	3.87	3.00

[1]Deficiencies are in boldface type.
[2]State Purchases.
[3]Guaranteed 30.0%.

TABLE 3. ANALYSES OF POTASH SALTS, ETC.[1]

Staiton No.	Manufacturer or jobber	Sampled from stock of	Per cent potash: Found	Per cent potash: Guaranteed
	Muriate of Potash			
7701[2]	Apothecaries Hall Co., Waterbury, Conn.	Enfield: N. G. Osborn Prison Farm	61.32	60.00
8294	Apothecaries Hall Co., Waterbury, Conn.	Windsorville: Apothecaries Hall Co.	60.04	60.00
7689[2]	Consolidated Rendering Co., Boston, Mass.	Cheshire: Connecticut Reformatory	59.84	60.00
8131[2]	Consolidated Rendering Co., Boston, Mass.	Niantic: Farm for Women	61.72	60.00
8281	Consolidated Rendering Co., Boston, Mass.	Colchester: P. Cutler, Inc.	61.12	60.00
8292	Davison Chemical Co., Baltimore, Md.	New Milford: Checkerboard Feed Store	60.80	60.00
8140	Goulard & Olena, Inc., Skillman, N. J.	Hartford: Cadwell & Jones, Inc.	56.84	60.00
8048[2]	Olds & Whipple, Inc., Hartford, Conn.	Middletown: Long Lane School	62.28	60.00
8043	The Rogers & Hubbard Co., Portland, Conn.	Portland: The Rogers & Hubbard Co.	60.96	60.00
8284	Woodruff Fertilizer & Chemical Works, Inc., North Haven, Conn.	North Haven: Woodruff Fertilizer & Chemical Works, Inc.	60.40	60.00
	Nitrate of Potash			
7670[3]	Apothecaries Hall Co., Waterbury, Conn.	West Suffield: Hatheway & Steane Corp.	46.12	44.00
8275[4]	The Rogers & Hubbard Co., Portland, Conn.	South Windsor: South Windsor Tobacco Co.	44.96	44.00
	Sulphate of Potash			
7666	Apothecaries Hall Co., Waterbury, Conn.	Simsbury: Cullman Bros., Inc.	52.56	48.00
7664	Apothecaries Hall Co., Waterbury, Conn.	Simsbury: Cullman Bros., Inc.	52.80	48.00
7672	Olds & Whipple, Inc., Hartford, Conn.	Bloomfield: The Hartman Tobacco Co.	22.28	21.50
8121	Olds & Whipple, Inc., Hartford, Conn.	Glastonbury: E. J. Bantle	50.96	48.00
8267	Olds & Whipple, Inc., Hartford, Conn.	Hazardville: L. B. Haas & Co.	52.20	48.00
	Cotton Hull Ashes			
7665	Apothecaries Hall Co., Waterbury, Conn.	Simsbury: Cullman Bros., Inc.	36.84	.....
7671	Apothecaries Hall Co., Waterbury, Conn.	West Suffield: Hatheway & Steane Corp.	37.24	.....
8041	Old Deerfield Fertilizer Co., Inc., South Deerfield, Mass.	Glastonbury: E. J. Bantle	34.94	35.00
7674	Olds & Whipple, Inc., Hartford, Conn.	Bloomfield: The Hartman Tobacco Co.	37.40	35.00
8129	Olds & Whipple, Inc., Hartford, Conn.	Hazardville: L. B. Haas & Co.	36.56	35.00
8277	The Rogers & Hubbard Co., Portland, Conn.	South Windsor: South Windsor Tobacco Co.	40.96	40.00

[1]Deficiencies are in boldface type.
[2]State Purchases.
[3]Nitrogen: Guaranteed, 13.0%; found, 13.16%.
[4]Nitrogen: Guaranteed, 13.0%; found, 13.30%.

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

Station No.	Manufacturere or jobber	Sampled from stock of	Per cent nitrogen: Ammonia found	Per cent nitrogen: Total found	Per cent nitrogen: Total guaranteed	Per cent phosphoric acid: Total found	Per cent phosphoric acid: Total guaranteed	Mechanical analyses (in percentage): Finer than 1/50 inch	Mechanical analyses (in percentage): Coarser than 1/50 inch
	Dry Ground Fish								
7625	Apothecaries Hall Co., Waterbury, Conn.	Simsbury: Cullman Bros., Inc.	....	10.53	9.50	7.50	5.00	....	....
7668	Apothecaries Hall Co., Waterbury, Conn.	West Suffield: Hatheway & Steane Corp.	....	10.50	9.50	7.02	5.00	....	....
7686	O & W Menhaden. Olds & Whipple, Inc., Hartford, Conn.	Hazardville: L. B. Haas & Co.	....	9.62	9.00	6.85	5.00	....	....
7687	O & W Menhaden. Olds & Whipple, Inc., Hartford, Conn.	Hazardville: L. B. Haas & Co.	....	10.04	9.00	7.88	5.00	....	....
7947	O & W Menhaden. Olds & Whipple, Inc., Hartford, Conn.	Glastonbury: E. J. Bantle	....	10.14	9.00	7.38	5.00	....	....
	Bone Meal								
8239	Gro-Well. J. & L. Adikes, Inc., Jamaica, N. Y.	Wilton: Young's Nurseries, Inc.	0.00	2.20	2.25	29.50	21.25	73.0	27.0
8157	The American Agricultural Chemical Co., North Weymouth, Mass.	Ansonia: A. Hodos & Sons, Inc.	0.04	2.53	1.50	28.20	25.00	70.0	30.0
7896[2]	Apothecaries Hall Co., Waterbury, Conn.	Newtown: Fairfield State Hospital	0.02	**2.07**	2.25	28.30	22.00	71.0	29.0
7940	Armour. Armour Fertilizer Works, Carteret, N. J.	East Windsor Hill: South Windsor Equipment Co.	0.00	2.33	2.30	23.70	23.00	66.0	34.0
8169[3]	Asgrow. Associated Seed Growers, Inc., Cambridge, N. Y.	Milford: Associated Seed Growers Inc.	0.04	2.14	2.00	30.30	26.00	67.0	33.0
7736[2]	Corenco. Consolidated Rendering Co., Boston, Mass.	Middletown: Long Lane School	0.00	2.93	2.00	25.30	22.00	50.0	50.0
7854[2]	Corenco. Consolidated Rendering Co., Boston, Mass.	Norwich: Uncas on Thames Sanitorium	0.04	2.77	2.00	25.85	22.00	50.0	50.0
7828	F & B Pure Steamed. Faesy & Besthoff, New York, N. Y.	New Haven: R. G. Davis & Sons, Inc.	0.03	2.59	2.47	25.80	23.00	71.5	28.5
8224	G & O Raw. Goulard & Olena Inc., Skillman, N. J.	Greenwich: McArdle's Seed Co.	0.02	4.50	4.00	24.40	22.00	41.5	58.5
8321	Lebanon. Lebanon Chemical Corp., Lebanon, Pa.	Hartford: Cadwell & Jones, Inc.	0.00	2.62	2.30	26.10	20.00	63.5	36.5
7943	O & W. Olds & Whipple, Inc., Hartford, Conn.	Glastonbury: E. J. Bantle	0.04	**2.00**	2.47	28.20	22.00	67.0	33.0
8265	O & W. Olds & Whipple, Inc., Hartford, Conn.	East Hartford: Olds & Whipple, Inc.	0.08	2.40	2.47	27.40	22.00	60.5	39.5
7724	Gro-Fast. The Rogers & Hubbard Co., Portland, Conn.	Danbury: Meeker Hardware	0.02	2.22	2.00	27.50	23.00	54.5	45.5
8246	Vico Steamed. The Van Iderstine Co., Long Island City, N. Y.	Stamford: Stamford Grain Co.	0.05	2.47	2.47	28.75	23.00	68.0	32.0
	Milorganite								
8092[4]	Sewerage Commission of the City of Milwaukee, Wis.	Pawcatuck: The C. W. Campbell Co.	0.08	5.60	5.50	4.98	4.75	....	....

[1]Deficiencies are in boldface type.
[2]State Purchases.
[3]"Available" phosphoric acid: Guaranteed, 16.0%; found, 19.30%.
[4]Found: Nitrogen, organic, water-soluble, 0.32%; nitrogen, organic, insoluble, 5.20%; "available" phosphoric acid, 4.23% (guaranteed 4.0%).

TABLE 5. ANALYSES OF MIXED FERTILIZERS CONTAINING NITROGEN, PHOSPHORIC ACID AND POTASH[1]

Station No.	Manufacturer and brand	Place of sampling	Per cent nitrogen: Nitrate	Ammoniacal	Organic water-soluble	Organic water-insoluble	Total	Per cent phosphoric acid: Citrate-insoluble	Total	So-called "available"	Per cent potash: As muriate	Total	Magnesium per cent
	Agricultural Supply Co., West Haven, Conn.												
7720	Yale Special Mixture 8-6-2	Wallingford	0.00	4.82	2.54	0.64	8.00	0.20	6.55	**6.35**	2.41	2.78	....
	Allied Chemical & Dye Corp., Hopewell, Va.												
7718	"Arcadian" 12-12-12 Granular Fertilizer	East Wallingford	4.42	6.76	0.50	0.10	11.78	0.52	12.90	12.38	11.40	12.20	....
	The American Agricultural Chemical Co., North Weymouth, Mass.												
8159	AA Quality Fertilizer 0-15-30	Ansonia	....	....	....	....	....	0.53	14.45	**13.92**	18.92	29.88	....
7923	AA Quality Fertilizer 0-20-20	Wapping	....	....	....	....	....	0.85	20.70	19.85	13.05	**18.25**	....
8204	AA Quality Fertilizer 5-8-7	East Granby	0.49	4.44	0.00	0.07	5.00	0.40	8.53	8.13	6.33	7.24	....
8237	AA Quality Fertilizer 5-10-5	Cos-Cob	0.17	5.00	0.00	0.19	5.36	0.48	11.03	10.55	4.00	5.13	....
7856[2]	AA Quality Fertilizer 5-10-10	Norwich	0.00	4.86	0.22	0.10	5.18	0.50	10.35	9.85	8.91	10.15	....
8206	AA Quality Fertilizer 5-10-10	East Granby	0.10	4.74	0.10	0.09	5.03	0.60	10.85	10.25	8.13	**9.72**	....
8101	AA Quality Fertilizer 8-16-16	Colchester	1.66	5.92	0.34	0.12	8.04	0.45	16.98	16.53	15.50	**15.50**	....
8005	AA Quality Fertilizer 10-6-2	Windsor Locks	0.65	9.08	0.04	0.14	9.91	0.33	6.70	6.37	1.37	2.62	....
8236	AA Quality Fertilizer 10-6-4	Cos-Cob	0.00	9.28	0.16	0.17	**9.61**	0.60	7.50	6.90	2.83	4.40	....
8201	AA Quality Fertilizer 10-10-10	East Granby	2.06	6.92	0.10	0.11	**9.19**	0.43	11.30	10.87	4.37	10.12	....
7846	Agrico Country Club 6-10-4	Hamden	0.00	5.06	0.65	0.39	6.10	0.58	10.83	10.25	3.69	4.02	....
8202	Agrico Country Club 8-6-4	East Granby	0.36	5.40	0.56	1.71	8.03	0.50	7.00	6.50	3.45	4.21	....
8205	Agrico Country Club 10-6-4	East Granby	0.18	8.90	0.16	0.29	**9.53**	0.35	7.00	6.65	3.86	4.12	....
8160	Agrico Phosphate & Potash 0-20-20	Ansonia	....	....	....	....	....	0.65	19.35	**18.70**	18.06	22.08	....
8231	Agrico Rose Food 5-9-6	Greenwich	0.38	2.38	0.70	1.80	5.26	0.60	10.08	9.48	6.31	6.31	....
8230	Agrico for Broadleaf Evergreens 6-10-4	Greenwich	0.12	4.86	0.26	0.82	6.06	0.60	11.48	10.88	3.61	4.08	....
8203	Agrico for Corn 4-12-8	East Granby	0.17	3.92	0.00	0.13	4.22	0.78	12.80	12.02	7.41	8.45	....
7901	Agrico for Gardens 5-10-5	West Hartford	0.00	4.20	0.45	0.25	4.90	1.15	11.15	10.00	4.49	**4.65**	....
7712	Agrico for Lawns, Trees & Shrubs 6-10-4	Fairfield	0.31	5.00	0.28	0.41	6.00	0.92	11.20	10.28	3.98	4.12	....
7905	Agrico for New England 5-8-7	Hartford	0.00	4.48	0.00	0.24	**4.72**	0.63	8.95	8.32	6.93	7.06	....
7925	Agrico for New England 5-8-7	Wapping	0.00	4.60	0.01	0.27	**4.88**	0.65	9.35	8.70	6.23	7.06	....
7922	Agrico for Potatoes 5-10-10 with 1.2 Magnesium	Wapping	0.00	4.80	0.00	0.18	4.98	0.60	10.58	9.98	9.36	10.51	1.17
8163	Agrico for Seeding Down 3-12-12	Ansonia	0.24	2.28	0.36	0.23	3.11	0.95	12.90	11.95	7.28	12.12	....
8327	Agrico for Tobacco 6-3-6	Wapping	0.00	1.48	2.01	2.63	6.12	0.10	4.02	3.92	0.90	6.31	....
7791[2]	Agrico for Top Dressing 7-7-7	Willimantic	1.30	5.46	0.20	0.04	7.00	0.22	7.55	7.33	6.96	7.33	....
7906	Agrico for Top Dressing 7-7-7	Hartford	1.20	5.48	0.04	0.07	**6.79**	0.30	7.75	7.45	6.49	7.20	....
8326	Agrico for Top Dressing 10-10-10	New London	1.65	8.14	0.14	0.05	9.98	0.15	10.60	10.45	9.03	10.01	....
8059	Agrico for Turf 6-8-2	Ansonia	0.44	2.38	0.96	2.39	6.17	1.07	8.95	7.88	1.46	2.40	....
8162	Agrico for Turf 10-6-4	Wapping	0.32	4.78	1.70	2.70	**9.50**	0.48	6.73	6.25	4.26	4.27	....
	Apothecaries Hall Co., Waterbury, Conn.												
7879	Green Gro Fertilizer Mixture 6-7-4	Norwich	0.39	4.44	0.44	1.32	6.59	0.45	8.70	8.25	3.84	4.68	....
8312	Green Gro Fertilizer Mixture 6-7-4	Danbury	0.52	4.68	0.26	1.22	6.68	0.40	8.75	8.35	4.17	5.00	....
8054	Green Gro Landscape & Golf Course Fertilizer 8-6-2	Windsorville	0.26	6.12	0.44	1.58	8.40	0.78	7.95	7.17	1.98	4.15	....
8024	Green Gro Lawn Fertilizer 6-7-4	Windsorville	0.35	4.30	0.46	1.46	6.57	0.30	9.18	8.88	3.74	4.33	....
8008	Liberty Fertilizer 0-10-20	West Suffield	....	....	....	....	....	0.88	11.65	10.77	18.10	20.03	....
8370	Liberty Fertilizer 0-10-20	Windsorville	....	....	....	....	....	0.98	11.90	10.92	16.60	20.46	....
8200	Liberty Fertilizer 0-14-14	Bloomfield	....	....	....	....	....	0.65	14.65	14.00	12.04	16.12	....
8375	Liberty Fertilizer 0-15-30	Windsorville	....	....	....	....	....	0.25	14.00	**13.75**	29.47	31.18	....
8313	Liberty Fertilizer 0-20-20	Danbury	....	....	....	....	....	0.58	19.65	**19.07**	20.15	22.78	....
8056	Liberty Fertilizer 3-12-12	Windsorville	0.65	2.36	0.38	0.05	3.44	0.55	13.33	12.78	12.58	13.74	....
8199	Liberty Fertilizer 4-12-4	Bloomfield	0.00	3.80	0.83	0.29	4.92	1.18	13.60	12.42	1.66	5.70	....

[1]Deficiencies are in boldface type.
[2]State Purchases.

TABLE 5. ANALYSES OF MIXED FERTILIZERS CONTAINING NITROGEN, PHOSPHORIC ACID AND POTASH[1]

Station No.	Manufacturer and brand	Place of sampling	Per cent nitrogen: Nitrate	Ammoniacal	Organic water-soluble	Organic water-insoluble	Total	Per cent phosphoric acid: Citrate-insoluble	Total	So-called "available"	Per cent potash: As muriate	Total	Magnesium per cent
7734[2]	Liberty Fertilizer 5-10-5	Middletown	0.48	4.02	0.14	0.40	5.04	0.70	11.80	11.10	3.68	5.38	....
8207	Liberty Fertilizer 5-10-5	Suffield	0.60	3.80	0.48	0.25	5.13	2.40	12.45	10.05	4.61	5.63	....
7880	Liberty Fertilizer 5-10-10	Norwich	0.81	3.90	0.50	0.18	5.39	1.70	11.15	**9.45**	9.42	10.01	....
8368	Liberty Fertilizer 5-10-10 with 1.2 Magnesium	Windsorville	0.97	3.50	0.32	0.21	5.00	0.58	10.78	10.20	7.12	10.15	1.32
8055	Liberty Fertilizer 6-8-8 with 1.2 Magnesium	Windsorville	0.71	5.32	0.36	0.22	6.61	0.83	10.00	9.17	5.94	9.18	1.42
8369	Liberty Fertilizer 8-16-16	Windsorville	1.21	6.48	0.35	0.06	8.10	1.03	16.20	**15.17**	2.72	17.75	....
8057	Liberty Fertilizer 10-10-10	Windsorville	0.80	7.16	0.46	0.06	**8.48**	0.73	11.55	10.82	8.29	10.01	....
8376	Liberty Green Gro All Organic 5-4-0	Windsorville	0.00	0.08	0.20	5.42	5.70	1.30	6.40	5.10	....	....	....
8064	Liberty High Grade Market Gardeners 5-8-7	New London	0.49	4.16	0.40	0.33	5.38	1.28	10.20	8.92	6.72	7.84	....
7691[2]	Liberty Special for Fruit and Grass 7-7-7	Cheshire	0.41	5.20	0.76	0.20	**6.57**	0.56	8.22	7.66	7.16	8.42	....
7895[2]	Liberty Special for Fruit and Grass 7-7-7	Newtown	0.00	4.80	1.02	0.29	**6.11**	0.95	9.65	8.70	7.80	8.42	....
8063	Liberty Special for Fruit and Grass 7-7-7	New London	0.85	6.00	0.28	0.19	7.32	0.93	7.85	6.92	5.88	6.99	....
8373	Liberty Super Bacco 6-4-7 with 1.2 Magnesium	Windsorville	0.80	0.12	2.22	3.00	6.14	0.35	6.26	5.91	0.41	8.83	1.14
8367	Liberty Super Spud Special Potato Fertilizer 6-8-8 with 1.2 Magnesium	Windsorville	0.32	5.82	0.56	0.25	6.95	0.45	9.83	9.38	6.21	8.53	1.45
8372	Liberty Tobacco Mixture 5-5-15	Windsorville	1.25	0.20	3.04	1.49	5.98	0.35	5.73	5.38	0.72	18.93	....
8374	Liberty Tobacco Mixture 6-3-6 with 1.2 Magnesium	Windsorville	0.00	0.28	3.09	3.47	**6.84**	0.23	5.41	5.18	0.19	**5.16**	1.63
8371	Liberty Tobacco Mixture 6-3-6 with Castor Pomace	Windsorville	1.15	0.16	2.00	3.07	6.38	0.18	6.00	5.82	1.18	7.77	....
	Armour Fertilizer Works, Carteret, N. J.												
7942	Armour's All Organic 5-5-0	East Windsor Hill	0.00	0.12	0.27	5.15	5.54	....	6.35	....	....	....	....
8380	Armour's Big Crop Fertilizer 0-20-20	East Windsor Hill	....	....	....	....	....	0.93	17.80	**16.87**	20.28	21.12	....
8107	Armour's Big Crop Fertilizer 5-8-7	Bolton Notch	0.20	4.00	0.24	0.08	**4.52**	0.98	13.38	12.40	8.39	8.49	....
8381	Armour's Big Crop Fertilizer 5-10-5	East Windsor Hill	0.27	4.36	0.22	0.15	5.00	1.00	11.75	10.75	4.13	5.25	....
7941	Armour's Big Crop Fertilizer 5-10-10	East Windsor Hill	0.00	4.56	0.29	0.12	4.97	0.98	11.00	10.02	9.20	10.48	....
8316	Armour's Big Crop Fertilizer 7-7-7	Plantsville	0.31	5.72	0.04	0.15	**6.22**	0.93	10.65	9.72	6.15	7.14	....
7927	Armour's Big Crop Fertilizer 10-10-10	East Windsor Hill	0.48	8.82	0.00	0.12	**9.42**	0.70	11.15	10.45	7.13	**9.22**	....
8378	Armour's Gold Bond Tobacco Grower 6-3-6	East Windsor Hill	0.14	0.36	2.70	2.68	**5.88**	0.33	4.23	3.90	0.62	6.06	....
8108	Armour Vertagreen Plant Food 5-10-5	Bolton Notch	0.13	4.96	0.16	0.17	5.42	0.48	11.45	10.97	3.11	5.22	....
8106	Armour Vertagreen Plant Food for Commercial Crops 6-12-12	Bolton Notch	0.54	5.42	0.00	0.08	6.04	0.83	11.70	**10.87**	12.54	13.71	....
7928	Armour Vertagreen Plant Food for Commercial Crops 8-8-8	East Windsor Hill	0.44	6.80	0.40	0.04	**7.68**	0.95	9.50	8.55	7.28	8.39	....
8379	Armour Vertagreen Plant Food for Professional Use 10-6-4	East Windsor Hill	0.24	6.60	1.18	1.73	**9.75**	0.63	7.00	6.37	3.89	4.15	....
	Associated Seed Growers, Inc., Cambridge, N. Y.												
8170	Asgrow Lawn Food 10-6-4	Milford	0.71	2.50	4.42	2.02	**9.65**	0.58	6.95	6.37	4.36	4.46	....
8171	Japedizer 8-6-4	Milford	0.46	4.00	2.10	1.66	8.22	0.45	6.70	6.25	4.32	5.03	....
	H. J. Baker, & Bro., New York, N. Y.												
7989	Nitroganic 5-4-0	North Haven	0.00	0.12	0.41	5.03	5.53	1.75	6.95	5.20	....	....	....
	The F. A. Bartlett Tree Expert Co., Stamford, Conn.												
8243	Bartlett Green Tree Food 6-8-6	Stamford	0.35	5.18	0.20	0.68	6.41	0.60	8.08	7.48	5.95	7.10	....
	Joseph Breck & Sons, Corp., Boston, Mass.												
8098	Breck's Greenite (all organic) 5-4-0	Norwichtown	0.00	0.06	0.49	4.23	**4.78**	0.93	5.15	4.22	....	....	....
8248	Breck's Turf-Gro 8-6-2	Stamford	0.19	5.32	0.74	1.73	7.98	0.70	7.23	6.53	0.19	2.31	....
8249	Breck's Velturf 10-6-4	Stamford	0.00	0.44	2.14	6.75	**9.33**	0.28	6.50	6.22	4.29	4.87	....

[1]Deficiencies are in boldface type.
[2]State Purchases.

TABLE 5. ANALYSES OF MIXED FERTILIZERS CONTAINING NITROGEN, PHOSPHORIC ACID AND POTASH[1]

Station No.	Manufacturer and brand	Place of sampling	Per cent nitrogen: Nitrate	Ammoniacal	Organic water-soluble	Organic water-insoluble	Total	Per cent phosphoric acid: Citrate-insoluble	Total	So-called "available"	Per cent potash: As muriate	Total	Magnesium per cent
	California Spray-Chemical Corp., Richmond, Calif.												
8431	ORTHO-GRO Liquid Plant Food 10-5-5	Darien	0.81	0.81	9.63	0.00	11.25	....	5.36	5.36	....	5.20	....
	Consolidated Rendering Co., Boston, Mass.												
8155	Corenco 0-15-30	West Haven	....	....	....	....	....	0.55	14.80	**14.25**	25.11	**28.66**	....
7891[2]	Corenco 0-20-20 Legume Special	Newtown	....	....	....	....	....	0.60	18.05	**17.45**	23.93	24.30	....
8102	Corenco 0-20-20 Legume Special	Colchester	....	....	....	....	....	0.73	20.80	20.07	17.16	**17.16**	....
7706	Corenco 5-8-7 Potato & General Crop	Seymour	0.87	3.76	0.34	0.13	5.10	0.16	9.37	9.21	6.36	7.54	....
8014	Corenco 5-10-5 Home Garden	Thompsonville	1.12	3.60	0.16	0.30	5.18	0.65	11.00	10.35	4.30	5.25	....
8393	Corenco 5-10-5 Onion Special—Super Truck	West Haven	0.86	4.06	0.38	0.23	5.53	0.38	10.70	10.32	5.03	5.22	....
7774	Corenco 5-10-10 Peerless Potato	Waterbury	0.86	3.84	0.68	0.15	5.53	0.32	10.50	10.18	8.23	10.44	....
8151	Corenco 5-10-10 Peerless Potato with 1.2 Magnesium	West Haven	1.34	3.40	0.00	0.12	**4.86**	0.48	10.60	10.12	6.51	10.97	1.71
8366	Corenco 6-3-6 Perfection Tobacco Grower	Springfield, Mass.	1.29	0.08	2.80	2.20	6.37	0.23	4.31	4.08	0.41	6.48	....
8365	Corenco 6-3-6 Premium Tobacco Grower	Springfield, Mass.	0.23	0.24	3.16	2.10	**5.73**	0.20	4.30	4.10	0.39	6.45	....
8217	Corenco 6-8-8 Potato Special	West Haven	1.29	4.24	0.04	0.13	**5.70**	0.23	8.95	8.72	7.25	8.63	....
8156	Corenco 6-8-8 Potato Special with 1.2 Magnesium	West Haven	1.02	4.24	0.12	0.18	**5.56**	0.55	9.18	8.63	6.60	8.16	1.31
7881	Corenco 7-7-7 Complete Fruit and Top Dressing	New Haven	0.85	5.98	0.14	0.19	7.16	0.28	8.50	8.22	4.93	7.13	....
7708	Corenco 8-6-4 Landscape Fertilizer	Bridgeport	0.00	4.52	1.68	1.62	**7.82**	0.35	6.57	6.22	4.13	4.52	....
7738[2]	Corenco 8-16-16 Two-in-One	Meriden	0.00	5.52	2.36	0.15	8.03	0.70	17.30	16.69	14.33	**15.58**	....
8150	Corenco 8-16-16 Two-in-One	West Haven	0.00	5.06	2.78	0.16	8.00	0.55	16.70	16.15	14.46	**15.53**	....
7742[2]	Corenco 10-6-2 Fertilizer	New Britain	0.46	9.06	0.38	0.13	10.03	0.16	6.18	6.02	1.54	2.15	....
7798[2]	Corenco 10-6-4 Fertilizer	Storrs	0.67	7.82	0.62	0.24	**9.35**	0.18	7.58	7.40	3.86	4.87	....
7903[2]	Corenco 10-6-4 Fertilizer	Hartford	0.45	8.12	0.38	0.11	**9.06**	0.18	7.70	7.52	3.28	4.08	....
7855[2]	Corenco 10-10-10 Fertilizer	Norwich	1.10	7.70	0.50	0.25	**9.55**	0.38	10.95	10.57	7.95	9.96	....
8009	Corenco 10-10-10 Fertilizer	West Suffield	0.81	8.08	0.48	0.13	**9.50**	0.40	10.78	10.38	11.54	13.31	....
8430	Corenco Liquid Fertilizer Concentrate 5-10-10	West Haven	0.00	3.14	1.60	0.00	**4.74**	0.00	9.59	**9.59**	1.86	10.55	....
8196	Corenco Liquid Green 10-5-5	Wilson	0.00	1.86	8.16	0.00	10.02	0.03	5.32	5.29	4.36	5.03	....
8015	Corenco Organic Turf Fertilizer 4.75-4-0	Thompsonville	0.00	0.14	0.37	4.89	5.40	1.18	6.30	5.15	....	....	....
8007	Corenco Spurz-On 3-2.5-1.5	West Suffield	0.00	0.56	1.26	1.68	3.50	....	3.95	....	0.90	1.99	....
	The Davey Tree Expert Co., Kent, Ohio												
8244	Davey Tree Food 12-4-4	Old Greenwich	0.80	10.54	0.50	0.53	12.37	0.53	5.15	4.62	4.93	5.50	....
	R. G. Davis & Sons, Inc., New Haven, Conn.												
7826	Organo 10-5-5	New Haven	0.00	6.00	2.91	1.09	10.00	0.32	6.00	5.68	6.04	6.62	....
	The Davison Chemical Co., Baltimore, Md.												
8310	Davco Granulated Fertilizer 0-15-30	New Milford	....	....	....	....	....	0.68	17.10	16.42	25.03	30.34	....
7872	Davco Granulated Fertilizer 0-20-20	Norwich	....	....	....	....	....	0.88	21.70	20.82	17.10	20.63	....
7873	Davco Granulated Fertilizer 5-8-7	Norwich	0.00	5.00	0.04	0.08	5.12	0.40	8.90	8.50	6.35	7.81	....
8311	Davco Granulated Fertilizer 5-10-5	New Milford	0.00	5.00	0.17	0.09	5.26	0.48	10.70	10.22	5.31	5.87	....
7790	Davco Granulated Fertilizer 5-10-10	Willimantic	0.00	5.00	0.18	0.11	5.29	0.36	10.85	10.49	7.49	10.01	....
7782	Davco Granulated Fertilizer 8-16-16	Willimantic	0.00	7.96	0.09	0.09	8.14	0.84	18.75	17.91	13.39	16.33	....
7783	Davco Granulated Fertilizer 10-10-10	Willimantic	0.00	9.68	0.20	0.04	9.92	0.36	11.20	10.84	9.46	11.20	....

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[2]State Purchases.

TABLE 5. ANALYSES OF MIXED FERTILIZERS CONTAINING NITROGEN, PHOSPHORIC ACID AND POTASH[1]

Station No.	Manufacturer and brand	Place of sampling	Per cent nitrogen: Nitrate	Ammoniacal	Organic water-soluble	Organic water-insoluble	Total	Per cent phosphoric acid: Citrate-insoluble	Total	So-called "available"	Per cent potash: As muriate	Total	Magnesium per cent
	Eastern States Farmers' Exchange, Inc., West Springfield, Mass.												
7793[2]	Eastern States 0-15-30 with 0.2 Boron	Willimantic	....	....	....	....	....	0.32	16.40	16.08	27.43	**29.34**	....
7721	Eastern States 0-25-25	North Haven	....	....	....	....	....	0.22	25.95	25.73	24.01	25.32	....
7871	Eastern States 5-10-10 with 1.2 Magnesium	Norwich	1.30	3.56	0.28	0.12	5.26	0.45	11.23	10.78	9.99	11.58	1.66
8114	Eastern States 8-4-8 (Tobacco) with 1.2 Magnesium	East Hartford	1.29	0.32	3.68	2.67	7.96	0.23	4.63	4.40	0.74	9.04	2.98
8110	Eastern States 8-12-12 with 1.2 Magnesium	Buckland	1.76	5.84	0.24	0.09	7.93	0.53	13.40	12.87	8.43	13.27	1.40
8011	Eastern States 8-12-12 L.C. with 1.2 Magnesium	Hazardville	2.17	5.70	0.02	0.08	7.97	0.45	13.75	13.30	2.55	14.22	1.63
7792	Eastern States 8-16-16 with 0.6 Magnesium	Willimantic	1.68	6.08	0.18	0.16	8.10	0.32	16.90	16.58	14.07	17.05	1.25
7722	Eastern States 10-10-10 with 0.6 Magnesium	North Haven	1.84	7.82	0.20	0.06	9.92	0.36	10.85	10.49	10.13	10.82	0.99
8109	Eastern States 10-10-10 S.M. with 1.2 Magnesium	Buckland	2.05	7.40	0.00	0.08	**9.53**	0.80	11.45	10.65	8.31	11.43	1.43
	The Espoma Company, Millville, N. J.												
8225	Espoma 3-2-1	Greenwich	0.15	2.44	0.52	1.42	4.53	0.43	3.96	3.53	0.78	2.22	....
7992	Espoma Garden Fertilizer 4-6-6	Branford	0.00	4.00	0.32	0.80	5.12	0.50	6.28	**5.78**	6.11	7.50	....
7994	Holly-Tone 4-6-4	Branford	0.00	2.50	0.49	1.93	4.92	0.48	6.85	6.37	3.33	4.12	....
	Ferro Corp., Cleveland, Ohio												
7675[3]	Ferro F. T. E. (Fritted Trace Elements)	Bloomfield	....	....	....	....	....	....	....	....	....	....	....
	Fiestar, Inc., New York, N. Y.												
8401	Fiestar 1-1-0	Darien	0.00	0.02	0.08	0.50	**0.60**	0.27	2.49	2.22	....	....	....
7835	Fiestar 2-2-0	Hamden	0.76	0.08	0.12	0.80	**1.76**	0.23	2.54	2.31	....	....	....
8229	Fiestar 2-2-0	Greenwich	0.00	0.15	0.12	1.11	**1.38**	0.08	2.49	2.41	....	....	....
	Forward House Div. Olin-Mathieson Chem. Corp., New York, N. Y.												
8408[4]	Plantrons 12-24-12	Bridgeport	0.00	6.76	5.11	0.16	12.03	0.28	25.55	25.27	6.31	12.43	....
	The Garden Center Inc., West Hartford, Conn.												
7900	The Garden Center of West Hartford Lawn Food 10-6-4	West Hartford	0.00	5.36	2.23	2.09	**9.68**	0.50	7.15	6.65	4.74	5.57	....
	Goulard & Olena, Inc., Skillman, N. J.												
8214	G & O Prizegro 5-10-5	New Canaan	0.47	3.60	0.52	1.10	5.69	0.48	10.93	10.45	5.46	5.63	....
8218	G & O Rose Food 7-8-5	New Canaan	0.32	4.56	0.32	1.15	**6.35**	0.83	10.58	9.75	4.21	5.03	....
8212	G & O Special Food for Bulbs 5-6-15	New Canaan	0.23	3.70	0.42	1.49	5.84	0.48	7.20	6.72	11.67	14.85	....
8219	G & O Tree & Shrub Food 9-7-4	New Canaan	0.00	5.00	1.75	1.11	**7.86**	0.45	9.85	9.40	1.54	6.55	....
7715	Godfrey's Hi-Organic No-Filler 10-6-4	Fairfield	0.00	6.80	1.77	1.46	10.03	0.46	6.58	6.12	4.95	5.22	....
	Gregory-Doyle, Inc., Huntington Station, N. Y.												
7731[2]	Gregory-Doyle 8-16-16	Middletown	1.35	2.66	3.18	0.12	**7.31**	0.94	15.20	**14.26**	14.37	**15.38**	....
7894[2]	Gregory-Doyle 8-16-16	Newtown	1.29	4.92	1.14	0.11	**7.46**	1.20	14.95	**13.75**	16.11	16.97	....

[1]Deficiencies are in boldface type.

[2]State Purchases.

[2]Boron, found 0.26%.

[3]Manganese found, 2.7%, guaranteed, 2.52%; iron found, 7.37%, guaranteed, 7.00%; zinc found, 4.08%; guaranteed, 3.2%; copper found, 3.29%, guaranteed, 3.2%; boron found, 0.65%, guaranteed, 0.62%; molybdenum found, 0.12%, guaranteed, 0.13%.

[4]Copper found, 0.21%, guaranteed, 0.1%; zinc found, 0.09%, guaranteed, 0.1%; iron found, 0.51%, guaranteed 0.1%; sulphur found, 9.15%, guaranteed, 9.0%.

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	Lawn-Tex Corp., Chicago, Ill.												
7993	Organi-Green 5-5-0	Branford	0.00	0.10	0.46	5.12	5.68	1.28	6.90	5.62	....	....	....
8227	Organi-Green 5-5-0	Greenwich	0.00	0.08	0.33	5.25	5.66	1.25	6.50	5.25	....	....	....
	Lebanon Chemical Corp., Lebanon, Pa.												
7918	Lebanon Azalea Food 7-7-7	Hartford	0.57	4.68	0.24	1.11	**6.60**	0.50	8.00	7.50	7.44	8.83	....
7917	Lebanon Fertilizer 5-10-10	Hartford	1.28	3.48	0.16	0.18	5.10	0.68	10.88	10.20	8.01	**9.00**	....
8320	Lebanon Fertilizer 10-6-4	Hartford	0.80	8.64	0.18	0.18	**9.80**	0.15	6.23	6.08	4.01	4.65	....
7897	Lebanon Hi-Organic 8-8-8	West Hartford	0.25	4.36	0.96	2.34	7.91	0.80	7.10	**6.30**	8.19	8.63	....
7919	Lebanon Plant Food 5-10-5	Hartford	1.07	3.16	0.26	0.16	**4.65**	0.45	10.13	**9.68**	5.14	5.97	....
8322	Lebanon Rose Food 7-7-7	Hartford	0.55	4.28	0.16	1.15	**6.14**	0.10	8.40	8.30	7.00	8.29	....
8319	Lebanon Turf-Organic 5-4-0	Hartford	0.00	0.24	0.31	4.70	5.25	1.18	6.41	5.23	....	....	....
7898	Uni-Form 10-6-4	West Hartford	0.43	3.52	2.28	3.49	**9.72**	0.63	6.65	6.02	4.04	4.30	....
8323	Uni-Form 10-6-4	Hartford	0.58	2.92	2.64	4.39	10.53	0.50	6.53	6.03	3.81	4.34	....
	McArdle's Seed Co., Greenwich, Conn.												
8226	McArdle's Hi-Organic 10-6-4	Greenwich	0.71	6.40	1.00	1.66	**9.77**	0.86	8.48	7.62	4.13	4.65	....
	The Mamlon Co., New Haven, Conn.												
8238	Fer-Mel Turf & Tree Food 24-12-12	New Haven	0.78	3.40	17.56	0.06	**21.80**	0.05	14.40	14.35	10.33	16.42	....
	Old Deerfield Fertilizer Co., Inc., South Deerfield, Mass.												
7945	Old Deerfield 5-8-7 Fertilizer	Glastonbury	0.44	4.00	0.76	0.20	5.40	0.68	9.30	8.62	4.98	7.64	....
7946	Old Deerfield 5-10-10 Fertilizer	Glastonbury	0.00	2.98	1.20	0.73	4.91	1.30	11.40	10.10	6.16	11.66	....
7944	Old Deerfield 7-7-7 Fertilizer	Glastonbury	0.18	5.54	1.02	0.26	7.00	0.58	8.70	8.12	6.08	7.61	....
	Old Fox Agricultural Sales, Inc., East Providence, R. I.												
8091	Old Fox Brand 0-12-24	Pawcatuck	....	....	....	....	....	0.25	12.48	12.23	18.91	25.82	....
7892[2]	Old Fox Brand 0-15-30	Newtown	....	....	....	....	....	0.28	15.00	**14.72**	27.44	**27.44**	....
7799[2]	Old Fox Brand 0-20-20	Storrs	....	....	....	....	....	0.28	20.40	20.12	18.92	19.88	....
7800[2]	Old Fox Brand 0-20-20	Mansfield	....	....	....	....	....	0.26	20.30	20.04	18.13	**19.10**	....
8080[2]	Old Fox Brand 0-20-20	Pawcatuck	....	....	....	....	....	0.40	20.80	20.40	14.20	20.12	....
7700[2]	Old Fox Brand 5-8-7	Enfield	0.45	4.36	0.12	0.18	5.11	0.40	8.60	8.20	6.04	7.54	....
8072	Old Fox Brand 5-8-7	Groton	0.61	3.96	0.12	0.07	**4.76**	0.30	9.05	8.75	6.20	7.06	....
7696[2]	Old Fox Brand 5-10-10	Cheshire	0.88	4.00	0.06	0.06	5.00	0.48	11.22	10.74	9.38	10.51	....
7779[2]	Old Fox Brand 5-10-10	Southbury	0.00	4.48	0.69	0.15	5.32	1.54	11.20	**9.66**	9.38	10.33	....
7825[2]	Old Fox Brand 5-10-10	Mansfield	0.67	4.36	0.14	0.13	5.30	0.96	10.93	9.97	9.22	10.55	....
7797[2]	Old Fox Brand 7-7-7	Storrs	0.00	6.12	0.80	0.08	7.00	0.40	8.28	7.88	7.34	7.91	....
8070	Old Fox Brand 7-7-7	Groton	0.42	6.84	0.24	0.03	7.53	0.18	7.25	7.07	6.14	8.08	....
8079	Old Fox Brand 8-6-2 Turf Food	Pawcatuck	0.41	5.64	0.70	1.37	8.12	0.68	6.63	5.95	2.05	2.22	....
8078	Old Fox Brand 8-6-2 Turf Food with 2.5 Chlordane	Pawcatuck	0.35	5.42	1.02	1.25	8.04	0.63	7.10	6.47	2.46	2.59	....
8022[2]	Old Fox Brand 10-6-4	Portland	0.00	5.38	2.27	1.56	**9.21**	0.63	7.75	7.12	4.56	4.78	....
7744	Old Fox Brand 10-10-10	Waterbury	0.32	9.36	0.50	0.23	10.41	0.35	10.38	10.03	9.23	10.33	....
7893[2]	Old Fox Brand 10-10-10	Newtown	0.31	9.00	0.60	0.09	10.00	0.25	10.35	10.10	10.21	11.24	....
8081	Old Fox Brand 10-10-10	Pawcatuck	0.16	8.46	0.54	0.20	**9.36**	0.25	11.65	11.40	8.69	11.01	....

[1]Deficiencies are in boldface type.
[2]State Purchases.

TABLE 5. ANALYSES OF MIXED FERTILIZERS CONTAINING NITROGEN, PHOSPHORIC ACID AND POTASH[1]

Station No.	Manufacturer and brand	Place of sampling	Per cent nitrogen: Nitrate	Ammoniacal	Organic water-soluble	Organic water-insoluble	Total	Per cent phosphoric acid: Citrate-insoluble	Total	So-called "available"	Per cent potash: As muriate	Total	Magnesium per cent
	Olds & Whipple, Inc., Hartford, Conn.												
7663	O & W 0-20-20 Fertilizer	East Hartford	....	....	....	....	....	0.28	19.80	**19.52**	23.81	25.37	....
7690[2]	O & W 0-20-20 Fertilizer	Cheshire	....	....	....	....	....	0.54	21.50	20.96	18.18	21.90	....
7780[2]	O & W 0-20-20 Fertilizer	Southbury	....	....	....	....	....	0.46	20.95	20.49	18.23	21.23	....
8258	O & W 4-8-4 Complete Lawn Fertilizer	East Hartford	0.34	3.78	0.16	0.78	5.06	0.43	8.73	8.30	5.01	5.38	....
8382	O & W 5-3-5 Complete Tobacco Fertilizer	East Hartford	0.00	0.28	1.74	3.02	5.04	0.15	3.76	3.61	0.56	5.25	....
8264	O & W 5-5-15 High Grade Tobacco Starter	East Hartford	1.34	0.20	2.72	0.96	5.22	0.30	6.85	6.55	1.24	15.08	....
8261	O & W 5-8-6 Luxura	East Hartford	0.15	3.54	1.34	1.41	6.44	0.43	9.85	9.42	3.85	**4.66**	....
7614	O & W 5-8-7 Potato & General Purpose Fertilizer	East Hartford	0.98	3.94	0.22	0.14	5.28	0.25	8.80	8.55	6.32	7.61	....
7904[2]	O & W 5-8-7 Potato & General Purpose Fertilizer	Hartford	0.67	4.12	0.14	0.25	5.18	0.30	9.00	8.70	6.31	7.37	....
8260	O & W 5-8-7 Potato & General Purpose Fertilizer	East Hartford	1.08	4.32	0.32	0.12	5.84	0.23	9.23	9.00	5.05	7.84	....
7615	O & W 5-10-5 Fertilizer	East Hartford	0.41	4.34	0.32	0.18	5.25	0.75	11.67	10.92	3.94	5.28	....
8257	O & W 5-10-5 Fertilizer	East Hartford	0.67	5.00	0.38	0.15	6.20	0.28	10.73	10.45	6.01	6.01	....
7617	O & W 5-10-10 Potato Fertilizer	East Hartford	0.22	4.58	0.36	0.17	5.33	0.25	10.82	10.57	8.95	10.66	....
8308	O & W 5-10-10 Potato Fertilizer	East Hartford	0.71	4.26	0.44	0.09	5.50	0.33	11.25	10.92	8.34	11.12	....
8262	O & W 5-10-10 Potato Fertilizer with 1.2 Magnesium	East Hartford	0.81	4.12	0.20	0.09	5.22	0.30	10.93	10.63	9.65	11.05	1.57
7618	O & W 6-3-6 Blue Label Tobacco Fertilizer	East Hartford	1.02	0.20	1.56	3.54	6.32	0.20	3.92	3.72	0.49	6.10	....
8307	O & W 6-3-6 Special Tobacco Fertilizer	East Hartford	2.18	3.86	0.16	0.08	6.28	0.15	3.90	3.75	0.86	6.45	....
7695[2]	O & W 6-8-8 Special Potato Fertilizer	Cheshire	0.84	4.84	0.08	0.15	5.91	0.22	9.87	9.65	6.52	8.05	....
8263	O & W 6-8-8 Special Potato Fertilizer with 1.2 Magnesium	East Hartford	0.83	4.50	0.22	0.13	**5.68**	0.20	9.65	9.45	0.48	9.22	2.14
8254	O & W 7-7-7 Top Dressing & Grass Fertilizer	Manchester	0.84	6.00	0.46	0.20	7.50	0.15	8.05	7.90	6.60	7.44	....
8309	O & W 8-12-12 High Grade General Purpose Fertilizer with 1.8 Magnesium	East Hartford	1.24	6.40	0.00	0.20	**7.84**	0.63	13.55	12.92	11.02	14.33	1.81
8259	O & W 10-6-4 Luxura	East Hartford	0.00	4.28	4.09	1.85	10.22	0.38	6.90	6.52	4.91	4.91	....
7661[2]	O & W 10-10-10 Fertilizer	Portland	0.20	1.20	5.86	2.40	**9.66**	0.35	9.00	**8.65**	9.35	14.02	....
7662[2]	O & W 10-10-10 Fertilizer	Portland	0.00	1.36	6.05	2.37	**9.78**	0.15	9.00	**8.85**	13.27	13.27	....
7616	O & W Nitro-Gro All Organic Plant Food 4-4-0	East Hartford	0.00	0.10	0.33	4.48	4.91	0.05	6.74	6.69	....	....	....
	Olin-Mathieson Chemical Corp., Baltimore, Md.												
8220	Mathieson Ammo-Phos Fertilizer 13-13-13	New Canaan	0.00	13.24	0.19	0.11	13.54	0.45	14.85	14.40	11.92	14.65	....
	The Frank S. Platt Co., Branford, Conn.												
8153	Platt's Concentrated 10-5-5 Lawn Fertilizer	West Haven	0.36	5.68	2.92	1.07	10.03	0.45	6.30	5.85	5.71	6.65	....
	Ra-Pid-Gro Corp., Danville, N. Y.												
7730[2]	Ra-Pid-Gro 23-21-17	Middletown	4.44	4.96	14.88	0.00	24.28	0.00	19.25	**19.25**	....	**16.76**	....
	The Rogers & Hubbard Co., Portland, Conn.												
7739	Gro-Fast All-Organic 5-4-0	Meriden	0.00	0.08	0.29	4.81	5.18	0.80	8.32	7.52	....	....	....
8075	Gro-Fast Evergreen Food 4-10-4	Stonington	0.00	1.74	1.11	1.17	4.02	0.55	12.03	11.48	4.13	4.62	....
7740	Gro-Fast Plant Food 5-10-5	Meriden	0.36	2.04	1.76	1.14	5.30	0.48	10.95	10.47	5.22	5.22	....
8255	Gro-Fast Rose Food 7-10-5	Manchester	0.47	2.88	1.76	1.51	**6.62**	1.85	14.65	12.80	0.23	5.68	....
8387	Hubbard Alfalfa Fertilizer 0-20-20	Portland	....	....	....	....	....	0.40	22.00	21.60	17.21	**19.26**	....
8391	Hubbard Alfalfa Fertilizer 0-20-20	Portland	....	....	....	....	....	0.33	18.80	**18.47**	19.88	20.37	....
8388	Hubbard Dairy Fertilizer 0-10-20	Portland	....	....	....	....	....	0.18	10.75	10.57	19.50	20.63	....
8411	Hubbard Double Strength Fertilizer 8-16-16	Portland	1.50	6.48	0.52	0.17	8.67	0.50	15.80	**15.30**	6.84	18.00	....
7723	Hubbard Garden Fertilizer 5-10-5	Danbury	1.25	3.56	0.18	0.32	5.31	0.88	11.78	10.90	5.21	5.50	....
7999	Hubbard General Crop Fertilizer 5-10-10	Guilford	1.34	3.58	0.26	0.24	5.42	0.85	10.95	10.10	8.91	10.37	...

[1]Deficiencies are in boldface type.
[2]State Purchases.

TABLE 5. ANALYSES OF MIXED FERTILIZERS CONTAINING NITROGEN, PHOSPHORIC ACID AND POTASH[1]

Station No.	Manufacturer and brand	Place of sampling	Per cent nitrogen: Nitrate	Ammoniacal	Organic water-soluble	Organic water-insoluble	Total	Per cent phosphoric acid: Citrate-insoluble	Total	So-called "available"	Per cent potash: As muriate	Total	Magnesium per cent
8384	Hubbard General Crop Fertilizer 5-10-10 with 1.2 Magnesium	Portland	0.87	4.16	0.22	0.21	5.46	0.43	11.65	11.22	9.27	10.15	1.84
7725	Hubbard Golf Course Fertilizer 8-6-2	Hamden	1.25	3.40	1.98	1.48	8.11	0.34	6.80	6.46	2.58	2.75	....
7726	Hubbard Golf Course Fertilizer 10-6-4	Hamden	0.59	4.80	2.46	2.34	10.19	0.40	6.98	6.58	3.80	4.05	....
8386	Hubbard Hi-Organic 5-10-10	Portland	0.57	2.88	0.72	1.11	5.28	0.50	11.40	10.90	10.05	10.40	....
7619	Hubbard Hi-Organic 6-8-8	Portland	0.72	3.14	1.14	1.17	6.17	0.10	8.72	8.62	8.05	8.15	....
8412	Hubbard Hi-Organic 6-12-12	Portland	0.78	3.64	0.52	1.02	5.96	0.50	13.30	12.80	7.66	14.14	....
7621	Hubbard Hi-Top Fertilizer 10-10-10	Portland	0.10	8.58	1.02	0.10	**9.80**	0.10	10.20	10.10	8.96	10.12	....
8392	Hubbard Hi-Yield Fertilizer 8-12-12	Portland	1.05	6.64	0.36	0.26	8.31	0.40	11.80	**11.40**	11.50	12.60	....
8383	Hubbard Potato Fertilizer 6-8-8	Portland	0.80	4.72	0.58	0.25	6.35	0.55	9.15	8.60	0.76	8.12	....
8385	Hubbard Potato Fertilizer 6-8-8	Portland	0.88	4.92	0.20	0.16	6.16	0.30	9.40	9.10	8.25	9.00	....
8413	Hubbard Potato Fertilizer 6-8-8 with 1.2 Magnesium	Portland	0.89	4.20	0.28	0.25	**5.62**	1.70	11.03	9.33	5.06	9.98	2.06
7622	Hubbard Tobacco Grower 6-3-6	Portland	0.77	0.38	1.62	3.21	5.98	0.10	3.80	3.70	0.64	6.59	....
8389	Hubbard Tobacco Grower 6-3-6	Portland	0.81	0.32	2.00	3.17	6.30	0.28	3.60	3.32	0.42	6.79	....
8415	Hubbard Tobacco Grower 6-3-6	Portland	0.00	0.62	2.66	3.25	6.53	0.13	4.04	3.91	0.93	7.27	....
7623	Hubbard Top Dressing 7-7-7	Portland	0.77	6.12	0.24	0.17	7.30	0.10	8.32	8.22	6.12	7.20	....
8390	Hubbard Valley Brand 6-3-6	Portland	1.41	0.84	2.26	1.86	6.37	0.18	4.85	4.67	0.50	8.01	....
8097	Hubbard Vegetable Fertilizer 5-8-7	Norwichtown	0.89	4.16	0.24	0.21	5.50	0.45	9.80	9.35	5.90	7.23	....
7737[2]	Hubbard Weed-Kil Lawn Food 6-10-4	Middletown	0.30	4.72	0.28	1.08	6.38	0.66	10.95	10.29	3.73	4.33	....
	O. M. Scott & Sons, Co., Marysville, Ohio												
7776	Scott's Organic 5-2-3	Waterbury	0.17	1.36	0.36	3.38	5.27	0.24	3.86	3.62	1.29	3.23	....
7884	Scott's Turf Builder 9-7-4	New Haven	0.00	7.78	0.32	1.25	9.35	0.38	7.93	7.55	4.34	4.55	....
7773	Scott's Weed & Feed 7-11-5	Waterbury	0.00	5.88	0.37	2.05	8.30	0.23	10.90	**10.67**	3.74	**4.78**	....
	Sears, Roebuck & Co., Chicago, Ill.												
7829	Cross Country Lawn Food 5-5-0	Hamden	0.00	0.04	0.61	4.72	5.37	1.24	6.50	5.26	....	....	....
7831	Cross Country Plant Food 5-10-5	Hamden	0.92	3.72	0.28	0.08	5.00	0.44	10.65	10.21	4.59	5.13	....
	M. L. Shoemaker Co., Inc., Div. Wilson & Co. Philadelphia, Pa.												
8006	M. L. Shoemaker "Swift-Sure" Tobacco Starter 4-10-0	West Suffield	0.58	3.06	0.10	0.58	4.32	1.15	12.95	11.80	....	....	....
	Soil Builders International Corp., New York, N. Y.												
7991	Glorion 4-8-8	Branford	0.65	2.58	0.36	0.61	4.20	1.33	9.10	7.77	4.87	8.18	....
	Super Lawn Corp., Newark, N. J.												
8433	Super Lawn Liquid Fertilizer 12-8-4	Hartford	0.26	2.92	7.10	0.00	**10.28**	0.03	7.18	7.15	2.92	4.24	....
	Swift & Co., Hartford, Conn.												
8105	Blenn 5-10-5	Middletown	0.52	4.26	0.02	0.32	5.12	0.73	10.70	9.97	5.30	5.77	....
7775	Golden Vigoro 6-10-4	Waterbury	0.00	1.34	1.57	3.30	6.21	1.70	12.50	10.80	0.58	4.52	....
8103	Swift's Red Steer Brand 5-8-7	Middletown	0.75	3.72	0.40	0.15	5.02	0.33	9.28	8.95	6.20	7.10	....
8104	Swift's Red Steer Brand 7-7-7	Middletown	0.79	5.68	0.20	0.15	**6.82**	0.18	7.78	7.60	6.44	7.47	....
7887	Vigoro 6-10-4	Newtown	0.56	4.50	0.68	0.27	6.01	0.88	10.88	10.00	4.05	4.62	....
8095	Vigoro Plus Chlordane 6-10-4	Norwich	0.32	4.86	0.24	0.38	**5.80**	0.65	11.07	10.42	3.74	4.12	....

[1]Deficiencies are in boldface type.
[2]State Purchase.

TABLE 5. ANALYSES OF MIXED FERTILIZERS CONTAINING NITROGEN, PHOSPHORIC ACID AND POTASH[1]

Station No.	Manufacturer and brand	Place of sampling	Per cent nitrogen: Nitrate	Ammoniacal	Organic water-soluble	Organic water-insoluble	Total	Per cent phosphoric acid: Citrate-insoluble	Total	So-called "available"	Per cent potash: As muriate	Total	Magnesium per cent
	Universal Chemical Co., Lynn, Mass.												
8228	Electra Plant Food 5-10-3	Greenwich	0.58	3.16	0.14	1.88	5.76	0.45	10.58	10.13	3.24	3.26	....
	Valley Feed & Supply Co., Inc., Spring Valley, N. Y.												
8250	Adorna 3-1-1	Stamford	0.00	0.08	0.40	3.08	3.56	2.13	4.51	2.38	0.93	1.30	....
	Oscar F. Warner, Waterbury, Conn.												
7772	Warner's Lawn Food 8-6-4	Waterbury	0.00	2.08	3.92	2.24	8.24	1.36	7.60	6.24	4.44	5.22	....
7745	Warner's Tree Food 12-6-4	Waterbury	0.39	1.92	7.90	1.99	12.20	0.52	7.80	7.28	4.25	4.68	....
	Garfield Williamson, Inc., Jersey City, N. J.												
8404	Plantspur 4-4-2	Darien	0.00	2.62	0.31	1.50	4.43	0.53	5.72	5.19	2.66	3.96	....
8405	Wonderlawn Complete 10-6-4 Lawn Food	Darien	0.25	6.96	1.52	0.77	**9.50**	0.38	7.60	7.22	....	5.16	....
	F. H. Woodruff & Sons, Inc., Milford, Conn.												
7620	Gro-Sod Lawn Food 10-6-4	Portland	1.45	4.92	2.08	1.08	**9.53**	0.20	6.40	6.20	4.21	4.49	....
8684	Gro-Sod Lawn Food 10-6-4	Milford	0.28	4.24	2.96	2.08	**9.56**	0.63	6.95	6.32	3.81	4.05	....
	Woodruff Fertilizer & Chemical Works, Inc., North Haven, Conn.												
8166	Woodruff's 0-20-20 Fertilizer	North Haven	....	....	....	....	....	2.58	28.60	26.02	5.48	**15.45**	....
7950	Woodruff's 5-8-7 Fertilizer	North Haven	0.00	4.36	0.38	0.44	5.18	0.53	8.85	8.32	6.84	7.64	....
7847	Woodruff's 5-10-5 Fertilizer	Hamden	0.00	3.18	1.52	0.37	5.07	0.53	10.98	10.45	5.92	6.31	....
7949	Woodruff's 5-10-10 Fertilizer	North Haven	0.00	4.20	0.52	0.35	5.07	0.85	11.45	10.60	9.26	10.12	....
8167	Woodruff's 7-7-7 Fertilizer	North Haven	0.00	1.04	4.56	0.38	6.98	0.40	8.58	8.18	6.16	7.47	....
7834	Woodruff's 8-6-4 Fertilizer	Hamden	0.00	2.78	4.33	1.18	8.29	0.60	9.02	8.42	3.82	4.12	....
7990	Woodruff's 8-6-4 Fertilizer	North Haven	0.00	3.08	3.85	1.13	8.06	0.80	8.63	7.83	2.97	4.08	....
7948	Woodruff's 10-10-10 Fertilizer	North Haven	0.00	2.44	6.54	0.24	**9.22**	0.78	11.32	10.54	8.83	10.08	....
7688[2]	Woodruff's Lawn & Tree Food 10-5-5	New Haven	0.14	2.32	7.44	0.52	10.42	0.32	6.26	5.94	3.70	5.10	....
7836	Woodruff's Lawn & Tree Food 10-5-5	Hamden	0.00	2.52	6.36	1.21	10.09	0.63	6.78	6.15	4.85	5.07	....
8165	Woodruff's Tobacco Fertilizer 6-3-6	North Haven	1.43	0.20	1.80	2.85	6.28	0.35	4.10	3.75	0.08	7.06	....
8164	Woodruff's Tobacco Starter 5-5-15	North Haven	1.26	0.32	2.08	1.14	**4.80**	0.30	5.35	5.05	0.84	17.23	....
	Young & Halstead Co., Mt. Kisco, N. Y.												
8400	Professional Tree Food 7-7-7	Darien	0.47	6.06	0.38	0.27	7.18	0.65	8.65	8.00	8.27	8.63	....

[1]Deficiencies are in boldface type.
[2]State Purchase.

TABLE 6. ANALYSES OF SHEEP MANURE, ETC[1]

Station No.	Manufacturer and brand	Place of sampling	Per cent nitrogen: Ammoniacal	Per cent nitrogen: Organic water-soluble	Per cent nitrogen: Organic water-insoluble	Per cent nitrogen: Total found	Per cent nitrogen: Total guaranteed	Per cent phosphoric acid: Citrate-insoluble	Per cent phosphoric acid: Total found	Per cent phosphoric acid: Total guaranteed	Per cent phosphoric acid: So-called "available" found	Per cent potash: Total found	Per cent potash: Total guaranteed	Sand per cent
8399	Gro-Well Cow Manure. J. L Adikes, Jamaica, N. Y.	Darien: The Planter's Barn	0.20	0.21	0.62	1.03	1.00	0.18	**0.63**	1.00	0.45	1.51	1.00	63.21
7924	Pulverized Sheep Manure. The American Agricultural Chemical Co., North Weymouth, Mass.	Wapping: Sherwood Waldon	0.08	0.28	1.06	1.42	1.25	....	2.30	1.00	....	5.31	2.00	24.94
7743	Liberty Sheep Manure. Apothecaries Hall Co., Waterbury, Conn.	Waterbury: Warren F. Kaynor Reg. Tech. School	0.08	0.32	1.18	1.58	1.00	0.20	2.20	....	2.00[2]	5.07	1.00	26.76
8062	Liberty Sheep Manure. Apothecaries Hall Co., Waterbury, Conn.	New London: New London Grain Co.	0.08	0.30	1.12	1.50	1.00	1.07	2.30	....	1.23[2]	4.52	1.00	25.59
8172	Armour Pulverized Sheep Manure. Armour Fertilizer Works, Carteret, N. J.	Milford: Associated Seed Growers, Inc.	0.16	0.53	1.17	1.86	1.25	....	2.15	1.00	....	4.27	2.00	32.87
7997	A & D Driconure. Atkins & Durbrow, Inc., New York, N. Y.	Branford: Collins & Freeman, Inc.	0.44	0.27	1.19	1.90	1.00	0.43	1.95	....	1.53[3]	1.42	1.00	31.70
7705	Corenco Brand Sheep Manure. Consolidated Rendering Co., Boston, Mass.	Seymour: Seymour Grain & Coal Co.	0.00	0.24	1.10	1.34	1.25	....	2.55	1.00	....	4.18	2.00	33.37
8245	Davey Shredded Cattle Manure. The Davey Tree Expert Co., Kent, Ohio	Old Greenwich: The Davey Tree Expert Co.	0.54	0.76	1.75	3.05	2.00	0.60	3.27	....	2.67[3]	2.18	1.00	7.00
7882	Farmanure. Garden Supply Sales, Rahway, N. J.	New Haven: Jackson-Marvin Hardware Co., Inc.	0.36	1.12	1.70	3.18	2.00	0.60	3.60	....	3.00[3]	2.09	1.00	11.15
8213	G & O Sheep & Guano Manure. Goulard & Olena, Inc., Skillman, N. J.	New Canaan: Silliman's Inc.	0.28	0.18	1.18	1.64	1.50	0.13	1.12	1.00	0.99	1.04	1.00	58.50
7711	Lebanon Cow Manure. Lebanon Chemical Corp., Lebanon, Pa.	Fairfield: Fairfield Grain & Seed Co.	0.28	0.11	1.95	2.34	1.50	0.36	2.35	....	1.99[3]	3.20	2.00	27.52
8318	Lebanon Sheep Manure. Lebanon Chemical Corp., Lebanon, Pa.	Hartford: Cadwell & Jones, Inc.	0.08	0.00	2.40	2.48	1.50	0.48	1.70	....	1.22[3]	2.53	2.00	22.34
8071	Ramshorn Brand Sheep Manure. Natural Plant Food Co., Oklahoma City, Okla.	Groton: The C. W. Campbell Co.	0.20	0.21	1.76	2.17	2.00	....	1.75	1.00	....	2.59	2.00	20.31
8253	O & W Sheep Manure. Olds & Whipple, Inc., Hartford, Conn.	Manchester: Larsen's Hardware	0.12	0.27	1.75	2.14	1.25	0.40	2.03	....	1.63[3]	2.97	2.00	14.29
7714	Premier Dehydrated Cow Manure. Premier Peat Moss Corp., New York, N. Y.	Fairfield: Godfrey Garden Shop	0.72	0.23	1.08	2.03	2.00	0.32	2.20	....	1.88[3]	1.51	1.00	24.04
7624	Gro-Fast Sheep Manure. The Rogers & Hubbard Co., Portland, Conn.	Portland: The Rogers & Hubbard Co.	0.20	0.27	1.03	1.50	1.25	....	1.75	1.00	....	2.28	2.00	35.24
7830	Cross Country Cattle Manure. Sears, Roebuck & Co., Chicago, Ill.	Hamden: Sears, Roebuck & Co.	0.16	0.08	1.63	1.87	1.50	0.26	1.35	1.10	1.09[3]	2.34	2.00	24.89
8012	Wizard Brand Cow Manure. St. Louis National Stockyards Co., National Stockyards, Ill.	Thompsonville: Brainard Nursery & Seed Co.	0.06	0.29	1.61	1.96	2.00	0.48	2.10	....	1.62[3]	1.93	2.00	34.70
8013	Wizard Brand Sheep Manure. St. Louis National Stockyards Co., National Stockyards, Ill.	Thompsonville: Brainard Nursery & Seed Co.	0.23	0.00	1.49	**1.72**	2.00	0.45	1.60	....	1.15[3]	2.00	2.00	27.54
8158	Sure-Gro Poultry. Triple A Mills, Townsend Harbor, Mass.	Ansonia: A. Hodos & Sons, Inc.	0.46	0.90	1.71	**3.07**	3.25	....	4.40	2.50	....	2.12	1.50	2.08
8489	C-D Organic Dry. Valley Feed & Supply Co., Inc., Spring Valley, N. Y.	West Suffield: H. L. Oppenheimer & Sons	0.24	0.43	0.87	1.54	1.00	0.22	1.68	....	1.46[3]	1.07	1.00	47.16
8058	Bovung. Walker-Gordon Laboratory Co., Plainsboro, N. J.	New London: The G. M. Williams Co.	0.38	0.56	1.39	2.33	2.00	0.25	2.05	....	1.80[3]	2.72	1.00	1.66
8394	Bovung. Walker-Gordon Laboratory Co., Plainsboro, N. J.	West Haven: New Haven Rendering Co.	0.16	0.60	1.45	2.21	2.00	0.38	1.91	1.00	1.53[3]	2.46	1.00	2.09

[1]Deficiencies are in boldface type.
[2]Guaranteed, 0.25%.
[3]Guaranteed, 1.00%.

TABLE 7. ANALYSES OF LIMESTONE AND SIMILAR MATERIALS[1]

Station No.	Manufacturer or dealer and brand	Sampled from stock of or sent by	Calcium oxide, per cent Guaranteed	Calcium oxide, per cent Found	Magnesium oxide, per cent Guaranteed	Magnesium oxide, per cent Found
	Apothecaries Hall Co., Waterbury, Conn.					
5967	Hydrated Lime	Suffield: Hatheway-Steane Corp.	....	47.58	....	30.00
5968	Hydrated Lime	Suffield: Hatheway-Steane Corp.	....	46.84	....	30.61
5969	Hydrated Lime	Suffield: Hatheway-Steane Corp.	....	46.91	....	30.49
5970	Hydrated Lime	Suffield: Hatheway-Steane Corp.	....	47.33	....	30.93
5769[2]	Land Plaster	Simsbury: Cullman Bros., Inc.	30.00	34.94	....	....
5979	Land Plaster	Suffield: Hatheway-Steane Corp.	30.00	35.70	....	....
5980	Land Plaster	Suffield: Hatheway-Steane Corp.	30.00	33.32	....	....
6318	Land Plaster	Simsbury: Cullman Bros., Inc.	30.00	33.47	....	....
	Connecticut Adamant Plaster Co., New Haven, Conn.					
5992[3]	Land Plaster	Simsbury: Cullman Bros., Inc.	30.00	32.37	....	....
5993[4]	Land Plaster	Simsbury: Cullman Bros., Inc.	30.00	33.29	....	....
	Manufacturer Unknown					
6340	Land Plaster	Simsbury: Cullman Bros., Inc.	....	34.17	....	....
6284	Land Plaster	Simsbury: Cullman Bros., Inc.	....	32.57	....	....
6285	Land Plaster	Simsbury: Cullman Bros., Inc.	....	33.27	....	....
6339	Magnesian Lime	Simsbury: Cullman Bros., Inc.	....	47.25	....	32.32
8526	Lime	New Haven: George Zeidenberg	....	60.43	....	....
	New England Lime Co., Canaan, Conn.					
6152	Agricultural Hydrated Lime	Simbury: Cullman Bros., Inc.	47.00	47.72	31.00	31.71
6265	Agricultural Hydrated Lime	Simbury: Cullman Bros., Inc.	47.00	47.68	31.00	31.00
6286	Hydrated Lime	Simsbury: Cullman Bros., Inc.	....	72.78	....	0.36
	O. M. Scott & Sons Co., Marysville, Ohio					
8291[5]	Scott's Soil Improver	Manchester: Larsen's Hardware	28.00	27.96	9.24	10.38

[1]Deficiencies are in boldface type.
[2]Calcium sulphate: Guaranteed, 64.50%; found, 85.0%.
[3]Calcium sulphate: Guaranteed, 64.50%; found, 78.76%.
[4]Calcium sulphate: Guaranteed, 64.50%; found, 81.0%.
[5]Sulphur: Guaranteed, 8.03%, found, 10.86%; passing 100 mesh sieve, 22.5%; 50 mesh sieve, 72.5%; 20 mesh sieve, 98.0%; 8 mesh sieve, 100%.

TABLE 8. ANALYSES OF SMALL PACKAGE FERTILIZERS[1]

Station No.	Manufacturer and brand	Treatment	Per cent nitrogen: Nitrate	Ammoniacal	Organic water-soluble	Organic water-insoluble	Total	Per cent phosphoric acid: Citrate-insoluble	Total	So-called "available"	Per cent potash: As muriate	Total
	A-M-R Chemical Co., Inc., Brooklyn, N. Y.											
8252	Kem Liquid Plant Food .08-.16-.10	Stamford	0.08	0.00	0.00	0.00	0.08	0.00	0.21	0.21	....	0.14
	J & L Adikes, Inc., Jamaica, N. Y.											
8241	Gro-Well Rose Food 3-12-6	Wilton	0.32	2.72	0.28	1.18	4.50	0.63	12.65	12.02	5.44	6.21
	The American Agricultural Chemical Co., North Weymouth, Mass.											
8409	Agrico Bulb Food 5-9-6	Bridgeport	0.45	2.16	0.44	1.79	4.84	0.93	9.98	9.05	6.38	6.38
8094	Agrico for Broadleaf Evergreens 6-10-4	Pawcatuck	0.31	4.02	0.54	1.11	5.98	0.70	11.08	10.38	4.30	4.36
8000	Agrico for Gardens 5-10-5	Branford	0.34	4.30	0.21	0.20	5.05	1.03	11.40	10.37	4.50	5.03
8112	Agrico for Lawns, Trees & Shrubs 6-10-4	Buckland	0.44	5.06	0.14	0.48	6.12	0.73	11.08	10.35	4.36	4.36
7848	Agrico Rose Food 5-9-6	Hamden	0.11	2.30	0.80	1.97	5.18	0.53	10.10	9.57	5.05	6.62
	American Chemical Paint Co., Amber, Pa.											
8233	Gro-Stuf 20-20-20	Greenwich	0.32	1.40	19.28	....	21.00	0.05	20.60	20.55	6.74	21.33
	Apothecaries Hall Co., Waterbury, Conn.											
8017	Green Gro Acid Fertilizer 8-5-5	Thompsonville	0.51	5.26	0.44	1.11	**7.32**	0.45	6.55	6.10	5.21	5.97
7878[2]	Green Gro Bone Meal 2.25-22.0	Norwich	....	0.00	....	....	2.82	....	25.60	....	....	....

[1]Deficiencies are in boldface type.
[2]Mechanical analysis: Fine, 31.0%; coarse, 69.0%

TABLE 8. ANALYSES OF SMALL PACKAGE FERTILIZERS[1]

Station No.	Manufacturer and brand	Place of sampling	Per cent nitrogen: Nitrate	Ammoniacal	Organic water-soluble	Organic water-insoluble	Total	Per cent phosphoric acid: Citrate-insoluble	Total	So-called "available"	Per cent potash: As muriate	Total
7877	Green Gro Home Garden Fertilizer 5-8-7	Norwich	0.00	3.68	0.65	1.63	5.96	0.53	9.30	8.77	3.43	3.70
7709	Green Gro Rose Food 5-7-6	Seymour	0.57	3.84	0.20	0.92	5.53	0.52	8.67	8.15	6.27	7.30
7777[3]	Green Gro Sheep Manure 1-0.25-1	Waterbury	....	0.00	0.44	1.20	1.64	0.22	2.00	1.78	....	4.84
	Armour Fertilizer Works, Carteret, N. J.											
8096[4]	Armour Sheep Manure 1.25-1-2	Norwich	0.00	0.20	0.33	1.15	1.68	....	1.99	....	....	4.08
	Associated Seed Growers, Inc., Cambridge, N. Y.											
8173[5]	Asgrow Bone Meal 2-26.0	Milford	....	0.02	....	....	2.83	9.60	27.60	18.00	....	....
8192	Asgrow Plant Food 5-10-5	Milford	0.60	3.84	0.54	0.27	5.25	0.53	10.65	10.12	3.44	6.82
	Atkins & Durbrow, Inc., New York, N. Y.											
8208[6]	A & D Driconure 1-1-1	Suffield	0.00	0.92	0.30	2.03	3.25	0.40	3.26	2.86	....	2.09
	Atlas Fish Fertilizer Co., San Francisco, Calif.											
8016	Atlas Fish Emulsion Fertilizer 5-1-1	Thompsoville	0.00	0.68	4.06	0.54	5.28	0.18	1.18	1.00	1.17	1.17
	The Borden Co., New York, N. Y.											
8124	Borden "38"	Branford	....	....	....	....	**36.85**	....	....	....	....	....
8287	Borden "38"	New Canaan	....	....	....	....	37.90	....	....	....	....	....
	Brainard Nursery & Seed Co., Thompsonville, Conn.											
8018	For Your Garden Landscape Fertilizer 8-6-4	Thompsonville	0.00	4.66	2.25	0.69	**7.60**	0.35	7.00	6.65	3.35	4.71
8019[7]	For Your Garden Pulverized Cattle Manure 2-1-1	Thompsonville	0.00	0.18	0.19	1.83	2.20	0.33	1.75	1.42	....	2.31
	Joseph Breck & Sons, Boston, Mass.											
8021	Breck's Quick-Life Instant Plant Food 16-32-16	Middletown	0.00	7.42	8.17	0.00	**15.59**	0.18	29.90	**29.72**	17.40	19.10
	California Spray-Chemical Corp., Richmond, Calif.											
8004	Ortho-Gro Liquid Plant Food 10-5-5	Clinton	0.72	0.85	8.58	0.00	10.15	0.15	5.20	5.05	....	**4.74**
	The Carac Corp., Freeport, N. Y.											
8410	Carac Evergreen & Shrub Fertilizer 25-14-18	Bridgeport	0.22	1.28	25.40	0.00	26.90	0.38	16.10	15.72	....	19.43
8290	Carac Nitrogen Concentrate 46-0-0	Stamford	....	....	....	....	46.00	....	....	....	....	....
8247	Carac Rose & Plant Fertilizer 22-18-22	Stamford	0.00	0.44	22.60	0.00	23.04	....	19.00	19.00	....	24.58
	Clinton Nurseries, Clinton, Conn.											
7796	New Era African Violet Food 5-12-9	Willimantic	2.48	3.18	0.26	0.11	6.03	0.08	12.15	12.07	....	10.15
7886[8]	New Era Cow Manure 2-1-1	New Haven	0.00	0.18	0.27	1.55	2.00	0.10	1.29	1.19	....	0.98
8003	New Era Rose Food 5-10-5	Clinton	1.07	3.88	0.16	0.29	5.40	1.23	11.90	10.67	5.21	5.87
8001	New Era Vitamin Plant Food 7-15-8	Branford	2.00	2.96	2.32	0.10	7.38	0.25	15.30	15.05	....	9.00
	Consolidated Rendering Co., Boston, Mass.											
7719[9]	Corenco Ground Bone 2-22	Wallingford	....	0.08	....	....	2.74	....	27.80	....	....	....

[1]Deficiencies are in boldface type.
[3]Sand, 27.82%.
[4]Sand, 26.59%.
[5]Mechanical analysis: Fine, 74.0%; coarse, 26.0%.
[6]Sand, 1.91%.
[7]Sand, 22.21%.
[8]Sand, 4.08%.
[9]Mechanical analysis: Fine, 56.0%; coarse, 44.0%

TABLE 8. ANALYSES OF SMALL PACKAGE FERTILIZERS[1]

Station No.	Manufacturer and brand	Place of sampling	Per cent nitrogen: Nitrate	Ammoniacal	Organic water-soluble	Organic water-insoluble	Total	Per cent phosphoric acid: Citrate-insoluble	Total	So-called "available"	Per cent potash: As muriate	Total
8396	Corenco Home Garden Fertilizer 5-10-5	West Haven	0.86	4.04	0.20	0.22	5.32	0.25	10.28	10.03	5.74	6.45
8398	Corenco Landscape Fertilizer 8-6-4	West Haven	0.00	4.64	1.59	0.57	**6.80**	0.33	7.10	6.77	5.76	5.94
8395	Corenco Rhododendron-Azalea & Blueberry Special 7-7-7	West Haven	0.27	5.86	0.64	0.23	7.00	0.50	8.00	7.50	7.04	7.77
8397	Corenco Rose Special 5-10-5	West Haven	0.15	1.56	2.44	0.95	5.10	1.18	11.85	10.67	4.94	5.10
7889[10]	Corenco Sheep Manure 2-1-2	Newtown	0.00	0.14	0.46	1.85	2.45	0.55	2.25	1.70	....	3.13
	Eastern States Farmers' Exchange, Inc. West Springfield, Mass.											
8111	Eastern States Starter 64 16-32-16	Buckland	4.80	7.78	3.48	0.00	16.06	0.03	32.30	32.27	....	16.73
	The Espoma Co., Millville, N. J.											
7995	Espoma Rose Food 6-6-4	Branford	0.00	3.94	0.32	1.88	6.14	0.40	7.25	6.85	3.39	4.08
	Faesy & Besthoff, Inc., New York, N. Y.											
8073[11]	F & B Pure Bone Meal 2.47-23.0	Groton	....	0.07	....	....	**2.21**	....	29.10	....	....	....
7996	F & B Starter-Grower All Purpose 15-30-15	Branford	0.00	6.28	8.74	0.00	15.02	0.18	31.20	31.02	11.50	15.70
	Forward House Div., Olin-Mathieson Chem. Corp., New York, N. Y.											
7885	Plantrons 12-24-12	New Haven	0.17	11.70	0.36	0.14	12.37	0.25	24.90	24.65	11.34	**11.62**
	Garden Research Laboratories, New York, N. Y.											
8061	RX-15 15-30-15	New London	0.00	6.52	7.08	0.00	**13.60**	0.28	33.10	32.82	14.86	16.38
	Garden Supply Sales Corp., Rahway, N. J.											
8256[12]	Farmanure 2-1-1	Manchester	0.00	0.26	2.05	1.86	4.17	0.28	3.44	3.16	....	1.61
	Goulard & Olena, Inc., Skillman, N. J.											
8138[13]	G & O Aluminum Sulphate	West Hartford	....	....	....	....	....	....	....	....	....	....
8211[14]	G & O Cattle Manure 1.85-0.75-1.75	Windsor Locks	0.00	0.16	0.29	1.95	2.40	0.45	1.76	1.31	....	3.04
8223	G & O Prizegro 5-10-5	New Canaan	0.57	3.82	0.30	0.81	5.50	0.65	11.65	11.00	3.73	5.73
8222	G & O Rose Food 7-8-5	New Canaan	0.16	4.54	1.26	1.46	7.42	0.83	8.75	7.92	4.05	4.05
8137	G & O Sulphate of Ammonia 20.75	West Hartford	....	....	....	....	21.00	....	....	....	....	....
7899	G & O Superphosphate 20%	West Hartford	....	....	....	....	....	0.48	21.40	20.92	....	....
8403	G & O Tomato Food 3-12-13	Darien	0.17	2.10	0.72	0.54	3.53	0.98	12.50	**11.52**	13.11	15.70
7716	Mr. Strawberry Big 3-13-7	Fairfield	0.19	0.00	0.74	2.10	3.03	1.88	16.17	14.29	7.40	7.74
	Heller Greenhouse Laboratories, Colorado Springs, Colo.											
8113	Heller-Gro Complete Plant Food 15-15-15	Buckland	1.95	0.67	15.89	0.00	18.51	0.07	14.60	**14.53**	0.05	19.08
	A. H. Hoffman, Inc., Landisville, Pa.											
8099	Hoffman Azalea & Evergreen Food 4-6-10	Norwichtown	0.00	4.06	0.26	1.32	5.64	0.15	5.65	5.50	1.82	12.27
7876[15]	Hoffman Cow Manure 2-1-1	Norwich	0.00	0.08	0.61	1.67	2.36	0.33	2.15	1.82	....	2.53
8100	Hoffman Organic-Base Rose Food 5-10-5	Norwichtown	0.00	3.94	0.34	0.93	5.21	0.28	10.38	10.10	4.90	5.25
7852[16]	Hoffman Raw Bone Meal 3.70-18.5	Hamden	....	0.04	....	....	4.50	....	23.95	....	....	....
7851[17]	Hoffman Sheep Manure 1.5-1-2	Hamden	0.00	0.00	0.26	1.29	1.55	0.43	2.05	1.62	....	5.22
	Horticultural Chemical Co., Jersey City, N. J.											
8251	Loft's General Purpose 100% Soluble Plant Food 12-14-14	Stamford	0.00	13.36	0.33	0.03	13.72	0.00	6.10	6.10	12.82	17.65

[1]Deficiencies are in boldface type.
[10]Sand, 15.04%.
[11]Mechanical analysis: Fine, 81.0%; coarse, 19.0%.
[12]Sand, 0.59%.
[13]Aluminum found, 9.68%.
[14]Sand, 22.89%.
[15]Sand, 13.86%.
[16]Mechanical analysis: Fine, 39.5%; coarse, 60.5%.
[17]Sand, 19.65%.

TABLE 8. ANALYSES OF SMALL PACKAGE FERTILIZERS[1]

Station No.	Manufacturer and brand	Place of sampling	Per cent nitrogen: Nitrate	Ammoniacal	Organic water-soluble	Organic water-insoluble	Total	Per cent phosphoric acid: Citrate-insoluble	Total	So-called "available"	Per cent potash: As muriate	Total
	The Hy-Trous Corp., Boston, Mass.											
7778	Hy-Trous 4-8-4	Waterbury	1.15	1.87	1.00	0.00	4.02	0.13	8.09	7.96	....	4.62
	Lebanon Chem. Corp., Lebanon, Pa.											
8136[18]	Lebanon Aluminum Sulphate	West Hartford	....	....	....	....	....	....	....	....	....	....
8324	Lebanon Azalea Food 7-7-7	Hartford	0.98	3.16	0.10	1.44	**5.68**	0.45	8.05	7.60	6.68	8.12
7713[19]	Lebanon Bone Meal 2.30-20	Fairfield	....	0.00	....	....	3.31	....	24.20	....	....	....
7902[20]	Lebanon Cow Manure 1.5-1-2	West Hartford	0.00	0.25	0.00	2.33	2.58	0.45	1.65	1.20	....	2.75
7921	Lebanon Hi-Organic 8-8-8	Hartford	1.00	3.72	0.20	1.68	**6.60**	0.85	11.55	10.70	7.13	8.08
8325	Lebanon Plant Food 5-10-5	Hartford	1.38	3.46	0.02	0.16	5.02	0.33	10.48	10.15	4.77	6.18
	Miller Chemical & Fertilizer Corp., Baltimore, Md.											
8168	VHPF 6-25-15	Milford	4.84	1.60	0.20	0.10	6.74	0.13	28.65	28.52	....	17.33
	Natural Plant Food Co., Oklahoma City, Okla.											
8074[21]	Longhorn Brand Cattle Manure 2-1-2	Mystic	0.00	0.12	0.32	1.80	2.24	....	1.75	....	....	2.65
	Park-Barnes, Inc., Hermosa Beach, Calif.											
7875	Black Magic African Violet Blossom Booster 4-10-10	Norwich	0.00	0.23	3.99	0.00	4.22	0.07	10.10	10.03	....	**9.64**
8432	Black Magic Liquid Fertilizer 10-5-5	Darien	0.26	0.77	9.53	0.00	10.56	....	5.48	5.48	....	5.10
7794	Black Magic Plant Food 2-3-2	Willimantic	0.00	0.08	0.01	2.27	2.36	0.32	4.14	3.82	0.65	4.12
	Pedigreed Seed Co., New York, N. Y.											
7717[22]	Loft's Lawn Food 5-10-4	Fairfield	0.46	2.12	0.56	2.52	5.66	0.44	9.28	**8.84**	5.73	5.73
	Plantabbs Corp., Baltimore, Md.											
8221	Fulton's Plantabbs J1-15-20	New Canaan	7.93	3.40	0.04	0.03	11.40	0.03	18.40	18.37	....	27.63
	Plant Marvel Laboratories, Chicago, Ill.											
8020	Plant Marvel 12-31-14	Middletown	3.87	9.60	0.56	0.00	14.03	0.18	33.80	33.62	....	**13.12**
	Ra-Pid-Gro Corp., Dansville, N. Y.											
7920	Ra-Pid-Gro 23-21-17	Hartford	4.94	3.60	15.52	0.00	24.06	0.05	18.00	**17.95**	....	18.50
	The Rogers & Hubbard Co., Portland, Conn.											
7741	Gro-Fast Acid Fertilizer 4-10-4	Meriden	0.00	1.96	1.49	1.30	4.75	0.44	11.40	10.96	3.90	4.08
8130[23]	Gro-Fast Aluminum Sulphate 9%	New Haven	....	....	....	....	....	....	....	....	....	....
7727[24]	Gro-Fast Bone Meal 2-23	Hamden	....	0.03	....	....	2.79	....	27.25	....	....	....
7850[25]	Gro-Fast Cow Manure 2-1-1	Hamden	0.00	0.28	0.30	1.55	2.13	0.18	1.80	1.62	....	2.43
7728	Gro-Fast Evergreen Food 4-10-4	Hamden	0.00	1.54	1.85	1.41	4.80	0.28	11.60	11.32	3.78	4.36
8076	Gro-Fast Plant Food 5-10-5	Stonington	0.45	2.04	1.78	1.05	5.32	0.50	10.63	10.13	4.75	5.19
7795	Gro-Fast Rose Food 7-10-5	Willimantic	0.33	2.80	2.96	1.56	7.65	1.48	13.25	11.77	0.52	5.57
8077	Gro-Fast Sol (Water Soluble Concentrate) 16-20-16	Stonington	2.69	4.56	6.64	0.04	**13.93**	0.05	20.05	20.00	10.98	**15.28**
8414	Gro-Fast Sol (Water Soluble Concentrate) 16-20-16	Portland	0.00	9.74	4.19	0.00	13.93	0.10	28.10	28.00	11.43	13.90
	Rose Manufacturing Co., Beacon, N. Y.											
8232	Viol-Ogen Plant Food 13-26-13	Greenwich	3.17	4.34	8.38	0.03	15.92	0.10	18.80	**18.70**	17.00	20.38

[1]Deficiencies are in boldface type.

[18]Aluminum found, 10.07%.

[19]Mechanical analysis: Fine, 56.0%; coarse, 44.0%.

[20]Sand, 17.84%.

[21]Sand, 18.01%.

[22]Boron found, 0.04%, guaranteed, 0.0001%; calcium found, 6.59%, guaranteed, 0.009%; zinc found, 0.010%, guaranteed, 0.001%; copper found, 0.12%; guaranteed, 0.002%; iron found, 0.34%, guaranteed, 0.001%; manganese found, 0.13%, guaranteed, 0.005%; magnesium found, 0.51%, guaranteed, 0.0055%.

[23]Aluminum: Found, 9.95%; guaranteed, 9.0%.

[24]Mechanical analysis: Fine, 72.0%; coarse, 28.0%.

[25]Sand, 1.91%.

TABLE 8. ANALYSES OF SMALL PACKAGE FERTILIZERS[1]

Station No.	Manufacturer and brand	Place of sampling	Per cent nitrogen: Nitrate	Ammoniacal	Organic water-soluble	Organic water-insoluble	Total	Per cent phosphoric acid: Citrate-insoluble	Total	So-called "available"	Per cent potash: As muriate	Total
	Sears, Roebuck & Co., Chicago, Ill.											
7832	Cross Country Azalea-Camellia Food 7-7-7	Hamden	0.00	5.86	0.72	0.12	**6.70**	0.24	8.45	8.21	6.19	7.03
8407[26]	Cross Country Bone Meal 2-26	Norwalk	....	0.00	....	....	2.06	....	29.35	....	....	....
7833[27]	Cross Country Cattle Manure 1.5-0.75-2	Hamden	0.00	0.12	0.64	0.90	1.66	....	1.70	....	....	2.40
	Soil Builders International Corp., New York, N. Y.											
7890	Glorion 4-8-8	Newtown	0.22	2.20	0.72	0.86	4.00	0.82	8.10	**7.28**	....	7.02
	Stern's Garden Products, Inc., Geneva, N. Y.											
7849[28]	Stern's Miracid 21-7-7	Hamden	0.00	13.88	9.02	0.10	23.00	0.07	7.85	7.78	4.77	5.50
8060	Stern's Miracle-Gro 15-30-15	New London	0.00	5.88	9.12	0.06	15.06	0.23	30.50	30.27	8.75	16.13
	Stim-U-Plant Laboratories, Columbus, Ohio											
8402	Stim-U-Plant African Violet Food 5-8-7	Darien	2.50	3.58	0.00	0.17	6.25	0.98	10.93	9.95	....	9.22
	Swift & Co., Plant Food Division, Hartford, Conn.											
8210	Instant Vigoro 19-28-14	Windsor Locks	3.98	5.88	10.42	0.07	20.35	0.07	28.40	28.33	....	**13.04**
7888	Vigoro Camellia & Azalea 5-10-10	Newtown	0.25	4.14	0.22	0.64	5.25	0.58	10.63	10.05	8.38	10.04
7710	Vigoro Complete Plant Food 6-10-4	Seymour	0.41	5.00	0.12	0.35	**5.88**	0.64	10.87	10.23	3.74	4.30
8209	Vigoro Complete Rose Food 6-10-4	Suffield	0.31	3.20	0.50	1.70	**5.81**	0.95	11.40	10.45	1.46	4.05
	Universal Chemical Co., Lynn, Mass.											
8234	Electra Plant Food 5-10-3	Greenwich	0.62	2.20	0.26	1.95	5.03	0.53	10.85	10.32	2.10	3.18
	Walker-Gordon Laboratory, Plainsboro, N. J.											
8242[29]	Bovung 2-1-1	Saugatuck	0.00	0.12	0.55	1.54	2.21	0.33	2.44	2.11	....	2.49
	Garfield Williamson, Inc., Jersey City, N. J.											
8240	Plantspur 4-4-2	Wilton	0.00	4.47	0.00	1.06	5.53	0.23	5.60	5.37	2.60	3.35
	Andrew Wilson, Inc., Springfield, N. J.											
8235	Wilson's Orchid Fertilizer 10-10-10	Greenwich	7.78	2.40	0.20	0.00	10.38	....	**9.78**	....	....	11.85

[1]Deficiencies are in boldface type.
[26]Mechanical analysis: Fine, 67.5%; coarse, 32.5%.
[27]Sand, 28.35%.
[28]Iron sulphate; found, 0.17%; guaranteed, 20%.
[29]Sand, 2.27%.

TABLE 9. LAWN SPRAYS

Station No.	Manufacturer and brand of concentrate used	Dealer	Composition of diluted spray: Per cent nitrogen, Guaranteed	Per cent nitrogen, Found	Per cent phosphoric acid, Guaranteed	Per cent phosphoric acid, Found	Per cent potash, Guaranteed	Per cent potash, Found
	Fertilene Corp., of America New York, N. Y.							
8426	Fertilene Liquid Fertilizer 15-10-5	Waterbury: Wm. E. Wesson, Inc.	0.15	0.26	0.10	0.16	0.05	0.087
	Smith Equipment & Supply Co., Chicago, Ill.							
8428	Fertil-Ade No. 1 10-8-6	East Hartford: The Savin Fuel Co.	0.10	0.12	0.08	0.094	0.06	0.077
	Super Lawn Corp., Newark, N. J.							
8434	Super Lawn Liquid Fertilizer 12-8-4	Hartford: Parksville Coal & Oil Co.	0.12	0.13	0.08	0.081	0.04	0.051
	The Virilium Corp., Medway, Mass.							
8427	Virilium 12-8-4	Waterbury: F. & S. Oil Co.	0.15	0.31	0.10	0.19	0.05	0.107

8047[2]	Aluminum sulfate, standard-ground	....	....	....	....	....	....	....	....	9.63[3]	....
7333	Blueberry fertilizer	12.54	7.65	....	5.80	....	....	....	....	....	....
7357	By-product of manufacture of aureomycin and terramycin	2.52	5.72	....	0.22	....	....	....	....	....	....
7613	Chamberlain & Barkley Fertilizer 8-6-4	7.38[4]	6.27	5.92	7.68	4.58	....	....	....	....	....
8704	Chicago sludge	5.22[5]	7.33	6.38	....	....	....	....	....	....	....
6502	Fertilizer	0.95	6.52	....	6.96	....	....	....	....	....	....
6503	Fertilizer	1.24	5.30	....	3.86	....	....	....	....	....	....
6504	Fertilizer	1.49	8.20	....	6.55	....	....	....	....	....	....
7485	Fertilizer	7.58	5.45	....	0.25	....	....	....	....	....	....
8756	Fertilizer	1.35	4.08	....	0.82	....	....	....	....	....	....
8757	Fertilizer	2.13	5.95	....	2.81	....	....	....	....	....	....
8758	Fertilizer	2.39	2.25	....	0.53	....	....	....	....	....	....
8759	Fertilizer	2.18	2.75	....	0.67	....	....	....	....	....	....
8760	Fertilizer	2.58	3.15	....	1.23	....	....	....	....	....	....
8761	Fertilizer	2.72	3.60	....	1.45	....	....	....	....	....	....
8762	Fertilizer	2.73	0.30	....	0.16	....	....	....	....	....	....
8161	Fertilizer 4-8-7	4.44	8.38	....	7.37	....	....	....	....	....	....
8817	Fertilizer 8-6-4	7.38[6]	7.20	....	5.50	....	....	....	....	....	....
8069	Humphrey manure	2.10	1.14	....	1.61	....	....	....	....	....	....
8713	Hydrate organic by-product	2.63	7.18	....	0.47	....	....	....	....	....	....
6462	"Lush Miracle Plant Mix"[7]	....	....	....	....	....	....	....	....	0.48	0.024

[1]Deficiencies are in boldface type.
[2]State Purchase.
[3]Guaranteed, 9.00%.
[4]Nitrate nitrogen, 0.58%; ammonia nitrogen, 5.06%; soluble organic nitrogen, 1.01%; insoluble nitrogen, 0.73%.
[5]Ammonia nitrogen, 0.04%; soluble organic nitrogen, 0.41%; insoluble nitrogen, 4.77%.
[6]Nitrate nitrogen, 0.67%; ammonia nitrogen, 6.48%; insoluble nitrogen, 0.23%.
[7]Iron, 0.36%; manganese, 0.018%; copper, 0.004%; zinc and nickel, faint traces.

TABLE 10. ANALYSES OF OTHER MISCELLANEOUS MATERIALS

Station No.	Material	Total nitrogen per cent	Total phosphoric acid, per cent	"Available" phosphoric acid, per cent	Water-soluble potash, per cent	Chlorine per cent	Moisture per cent	Ash per cent	Organic matter per cent	Aluminum per cent	Boron per cent
7824	Mink manure	3.90	9.90	....	0.73	....	....	....	....	....	....
7861	Manure used for growing mushrooms	1.41[8]	1.30	1.02	1.48	....	8.70	61.85	29.45	....	....
6343	"Nature's Nutrients"	5.18	8.05	6.15	6.65	....	....	....	....	....	....
8584	"Orcoa"	0.83	0.68	....	0.28	....	....	30.54	....	....	....
8791	Plant food	23.40[9]	17.20	....	18.68	....	....	....	....	....	....
8792	Plant food	24.45[10]	16.65	....	18.43	....	....	....	....	....	....
7707	Rabbit skins and furs	13.14[11]	0.80	....	0.59	....	....	....	....	....	....
5981	"Swift Sure"	4.50	12.82	11.74	....	....	....	....	....	....	....

[8]Soluble organic nitrogen, 0.36%; insoluble nitrogen, 1.05%; magnesium, 0.18%; sand, 46.35%.
[9]Nitrate nitrogen, 5.26%; ammonia nitrogen, 3.52%; soluble organic nitrogen as urea, 14.62%.
[10]Nitrate nitrogen, 5.03%; ammonia nitrogen, 3.00%; soluble organic nitrogen as urea, 16.42%.
[11]Ammonia nitrogen, 0.32%; soluble organic nitrogen, 0.72%; insoluble nitrogen, 12.10%.

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