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COMMERCIAL FERTILIZERS

REPORT FOR 1939



Connecticut
Agricultural Experiment Station
New Haven

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E. M. BAILEY

Chemist in Charge



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Commercial Fertilizers Report for 1939

STATUTE AND REGULATIONS REGARDING COMMERCIAL FERTILIZERS

E. M. BAILEY
Chemist in Charge

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 that have not been artificially treated or manipulated, marl and lime.

The seller is responsible for the proper labelling of each package of fertilizer, for the registration of each brand sold or offered for sale, for the payment of the required analysis fee and for the payment of the tonnage tax. If, however, proper labelling, registration and payments of analysis fees and of tonnage tax have been provided for by the manufacturer or by another responsible person, all sellers of such brands are released from the above mentioned requirements. The retailer, therefore, should assure himself that the requirements of the law have been met by the manufacturer of the brands which he handles, or himself be prepared to meet all these requirements.

It frequently happens that a manufacturer or jobber sells fertilizer materials which are the products of, and which are registered by, another firm or individual. Distributors in such cases should sell such materials by the exact brand names under which they are registered in order that there may be no mistake as to the identity of brands. Any change in the brand names, or failure to make the identity of the brand and its manufacturer clear, makes the distributor liable for the registration of the product as his own brand.

The law exempts from registration, and from other requirements referred to, 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 and soybean 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 for each brand payable annually, and six cents per ton tonnage fee, payable semi-annually.

NOTE: Analyses reported in this bulletin were made by Messrs. Nolan, Mathis and Walden; microscopic examinations by Miss Shephard; inspection and sampling by Mr. Churchill; and compilations by Mrs. Vosburgh.

These fees are entirely apart from those required by the feeding stuffs statute.

Because manufacturers or jobbers often do not know how much, if any, of their brands are sold or used as fertilizers, local dealers report their sales to this Station. The information is not for publication but is used to inform manufacturers of the total sales of their brands as fertilizer in this State. It is expected that the fees will be paid by the manufacturers or other party responsible for the brands.

REGISTRATIONS

Late Registrations for 1938

To the brands registered for 1938 in our last report should be added:

Perkins Oil Co., Memphis, Tenn. (Late 1937 registration)
Golden Rod Brand Cotton Seed Meal

Buckeye Cotton Oil Co., Cincinnati, Ohio
Buckeye 41% Protein Cottonseed Meal, Prime Quality

A. E. Staley Manufacturing Co., Decatur, Ill.
Tobakosoy Fertilizer (Soy Bean Oil Meal)

Summers Fertilizer Co., Inc., Baltimore, Md.
Summers "Best on Earth" 47% Triple Superphosphate (Omitted from 1938 registration)

Registrations for 1939

For 1939, 66 firms and individuals registered 367 brands of fertilizers at this Station for sale in this State. As required by statute, the brands so registered are listed as follows:

The Acme Guano Co., Baltimore, Md.	The American Agricultural Chemical Co., North Weymouth, Mass.
Acme 3-10-4	AA Double Strength Fertilizer 8-16-14
Acme 3-12-6	AA Monarch Fertilizer 4-8-4
Acme 4-8-4	AA Potato and Vegetable Fertilizer 5-8-7
Acme 4-8-5 Vitaflor	AA 16% Superphosphate
Acme 4-8-7	AA 20% Superphosphate
Acme 4-8-10	AA Tobacco Starter 5-5-15
Acme 5-3-5 Tobacco Special	AA Top Dresser 7-7-7
Acme 5-8-7	Agrico for Aroostook with 10% Potash 5-8-10
Acme 5-8-10	Agrico for Corn 3-10-6
Acme 5-10-5	Agrico for Corn 4-12-6
Acme 6-3-6 Tobacco Special	Agrico Country Club Fertilizer 8-6-2
Acme 7-6-6	Agrico Country Club Fertilizer 8-6-4
Acme Fine Ground Bone	Agrico for Fruit 8-8-4
Acme Sheep Manure	Agrico for Gardens 4-10-4
Acme Sulphate of Ammonia	Agrico for Lawns, Trees and Shrubs 7-7-5
Acme 16% Superphosphate	Agrico for New England 4-8-10
Acme 20% Superphosphate	
Castor Pomace	
Ted Alkire, Lubbock, Texas	
"Kireal" Cotton Hull Ash	

Agrico for Potatoes and Vegetables 5-8-7

Agrico for Seeding Down 4-16-20

Agrico for Tobacco 6-3-6

Agrico for Top Dressing 7-7-7

Agrico for Truck 5-10-5

Agrinite (All Organic Turf Food)

Bradley's XL Fertilizer 3-10-4

Castor Pomace

Double A Tobacco Fertilizer 5-3-5

Fine Ground Bone

Fish Meal

Pulverized Sheep and Goat Manure

Sanderson's Formula B 4-8-7

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

'Ammo-Phos' 11-48-0

'Ammo-Phos' 16-20-0

21% 'Aero' Cyanamid Granular

22% 'Aero' Cyanamid Pulverized

American Potash & Chemical Corp., Trona, Calif.
Trona Muriate of Potash

Apothecaries Hall Co., Waterbury, Conn.

Bone Meal 2.47%

Bone Meal 3.70%

Bone and Meat Tankage

Castor Pomace

Cotton Hull Ashes (Sold on unit basis)

Dry Ground Fish

Liberty Corn Fertilizer 3-12-6

Liberty Fish, Bone and Potash 3-10-4

Liberty Green Gro 6-5-3

Liberty High Grade Corn 4-12-4

Liberty High Grade Fertilizer for Fruit 10-5-5

Liberty High Grade Market Gardeners

5-8-7

Liberty High Grade Tobacco Manure

7-3-7

Liberty High Grade Vegetable 5-10-10

Liberty Market Gardeners Special

4-8-4

Liberty Potato and General Crops

4-8-10

Liberty Potato and Vegetable Crop

2-8-10

Liberty Special Fertilizer for Fruit and Grass 7-7-7

7-7-7

Liberty Special Fertilizer for Lawns, Gardens, Flowers, Shrubs and Trees

4-4-0

Liberty Tobacco Mixture 5-3-5

Liberty Tobacco Mixture 6-3-6

Liberty Tobacco Mixture 6-3-7

Liberty Tobacco Starter with Potash

5-5-15

Liberty Top Dresser for Grass and Grain 8-8-8

8-8-8

Liberty Tree and Shrub Food 10-8-8

Liberty Truck Garden and Onion

5-10-5

Nitrate of Potash

Precipitated Bone

Sheep Manure

Superphosphate 16%

Superphosphate Granular 20%

Tankage

Archer-Daniels-Midland Co., Minneapolis, Minn.

34 Per Cent Protein Old Process Linseed Meal

41 Per Cent Protein Soybean Oil Meal

44 Per Cent Protein Soybean Oil Meal

Armour Fertilizer Works, 80 Eighth Ave., New York, N. Y.

Armour's Big Crop Fertilizer 3-12-6

Armour's Big Crop Fertilizer 4-8-4

Armour's Big Crop Fertilizer 4-8-10

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 8-16-20

Armour's Big Crop Superphosphate

0-20-0

Armour's Big Crop Tobacco Special

5-3-5

Armour's Big Crop Tobacco Special

6-3-6

Armour's Big Crop Tobacco Starter

5-5-15

Armour's Bone Meal Fertilizer 2.47-2.3

Armour's Fertilizer 4-8-8

Armour's Fertilizer 8-16-16

Armour's Garden and Lawn Fertilizer

4-8-8

Armour's Special Tree Food Mixture

10-8-6¹

Ashcraft-Wilkinson Co., Atlanta, Ga.

Cow-Eta Brand Cottonseed Meal

41% Soya Bean Meal

44% Soya Bean Meal

Associated Seed Growers, Inc., New Haven, Conn.

Clark's 3-10-6 Fertilizer

Clark's 5-10-5 Fertilizer

Clark's Tip Top Fertilizer 5-8-7

Atkins & Durbrow, Inc., New York, N. Y.

Henure

Improved Driconure

Barrett Co., New York, N. Y.

Arcaadian The American Nitrate of

of Soda

¹Substituted for Armour's Special Putting Green Mixture 8-5-2.

- Arcadian Sulphate of Ammonia
Sulphate of Ammonia
- F. A. Bartlett Tree Expert Co., Stamford, Conn.**
Bartlett Green Tree Food 6-7-4
- The Baugh & Sons Co., Baltimore, Md.**
Baugh's $\frac{3}{4}$ Century Perfection Brand 3-10-6
Baugh's Fish Bone and Potash Mixture 4-8-4
Baugh's Old Dependable Potato Grower 4-8-10
Baugh's Peruvian Guano Substitute 5-8-7
Baugh's Pure Steamed Bone Meal
Baugh's Raw Bone Meal, Warranted Pure
Baugh's Special Top Dresser 7-6-6
Baugh's Truckers Favorite 5-10-5
Baughphos, The Ideal 16% Superphosphate
Baughphos, The Ideal 20% Superphosphate
Muriate of Potash
Sulphate of Ammonia
- Berkshire Chemical Co., Bridgeport, Conn.**
Berkshire 4-8-4 Fertilizer
Berkshire 4-8-7 Fertilizer
Berkshire 4-8-10 Fertilizer
Berkshire 5-8-7 Fertilizer
Berkshire 5-10-5 Fertilizer
Berkshire 6-3-6 Fertilizer
Berkshire 6-6-5 Fertilizer
Berkshire 7-3-7 Fertilizer
Berkshire Castor Pomace
Berkshire Cotton Hull Ash
Berkshire Dry Ground Menhaden Fish
Berkshire Fine Ground Bone
Berkshire Golf Green 8-5-2
Berkshire Raw Bone Meal
Berkshire Sheep and Goat Manure
Berkshire 16% Superphosphate
Berkshire Tobacco Starter Fertilizer 5-5-15
- Bisbee Linseed Co., Philadelphia, Pa.**
Bisbee Brand 32% Protein Old Process Linseed Meal
- Blatchley & Ballard, Inc., Middletown, Conn.**
Belgian Bone Meal
- Central Soya Co., Inc., Fort Wayne, Ind.**
Central 41% Soybean Oil Meal
Central Star Brand Soybean Oil Meal

- Chilean Nitrate Sales Corp., New York, N. Y.**
Champion Brand Chilean Nitrate of Soda
Chilean Nitrate of Soda and Potash
Old Style Chilean Nitrate of Soda
- Consolidated Rendering Co., Boston, Mass.**
Corenco 3-10-4 Animal Brand
Corenco 3-12-6
Corenco 4-8-4 Corn and Vegetable
Corenco 4-8-7 Market Garden
Corenco 4-8-10 Potato Grower
Corenco 5-5-5 Lawn and Shrub Fertilizer
Corenco 5-5-15 Tobacco Starter
Corenco 5-8-7 General Crop Manure
Corenco 5-8-10 Peerless Potato
Corenco 5-10-5 Super Truck
Corenco 6-3-6 Special Tobacco Grower
Corenco 7-3-7 Super Tobacco Grower
Corenco 7-6-6 Complete Fruit and Top Dressing
Corenco 8-16-14 Two in One
Corenco Ground Bone
Corenco Pure Raw Bone Fertilizer
Corenco Sheep Manure
Cottonhull Ashes 27%
Cottonhull Ashes 30%
Ground Tankage
Muriate of Potash
Sulphate of Ammonia
Sulphate of Potash
Superphosphate 16 %
Superphosphate 20 %
- C & R Sales Co., Worcester, Mass.**
Re-Vitalizer 10-5-5
- Davey Tree Expert Co., Kent, Ohio**
Davey Shredded Cattle Manure
Davey Tree Food 10-3-3
- The Davison Chemical Corp., Baltimore, Md.**
Davco Granulated 20% Superphosphate
- E. I. du Pont de Nemours & Co., Inc., Wilmington, Del.**
"Uramon"
- Eastern States Farmers' Exchange, Springfield, Mass.**
Eastern States 0-20-20
Eastern States 4-8-8
Eastern States 4-12-4
Eastern States 4-16-20
Eastern States 5-5-15 Tobacco
Eastern States 6-8-6
Eastern States 7-14-19

- Eastern States 8-4-8 Tobacco
Eastern States 8-16-16
Eastern States 8-16-16 LCS (Low Chlorine Special)
Eastern States 8-20-12
Eastern States 8-24-8
Eastern States 10-6-4
Eastern States 12-16-12
Eastern States Agricultural Urea 42%
Eastern States Calnitro
Eastern States Castor Pomace
Eastern States Cotton Hull Ash
Eastern States Dry Ground Fish
Eastern States Ground Steamed Bone
Eastern States Muriate of Potash
Eastern States Nitrate of Potash
Eastern States Precipitated Bone
Eastern States Sulphate of Ammonia
Eastern States Sulphate of Potash
Eastern States Superphosphate 20%
Eastern States Superphosphate 40%
- Faesy & Besthoff, Inc., New York, N. Y.**
Bone Meal
- Ford Motor Co., Dearborn, Mich.**
Ford Ammonium Sulphate
- General Chemical Co., New York, N. Y.**
Veget-Aid Complete Plant Food 5-10-4
- Glidden Co., Chicago, Ill.**
Glidden 4 Hi New Process Soybean Meal Diamond "G" Brand
- Goulard & Olena, Inc., New York, N. Y.**
G & O Lawn-Garden & Flower Fertilizer 5-8-5
J. B. Greens Formula 10-4-3
- A. H. Hoffman, Inc., Landisville, Pa.**
Hoffman's Bone Meal
Hoffman's Cow Manure
Hoffman's Sheep Manure
- Humphreys-Godwin Co., Memphis, Tenn.**
Dixie Brand Cottonseed Meal
- Independent Mfg. Co., Philadelphia, Pa.**
Independent's Fine Ground Bone Meal
Smith's Mum Manure
- International Agricultural Corp., Boston, Mass.**
Caribee Market Garden 5-10-10
Caribee 7-5-3 (Green & Fairway)
International 4-8-4
International 4-8-10
International 5-8-7
International 6-12-12-2
- International 7-6-6
International 8-16-14
International 16% Superphosphate
International 20% Superphosphate
- Spencer Kellogg & Sons, Inc., Buffalo, N. Y.**
Castor Pomace
Kellogg's 41% Protein Old Process Soybean Oil Meal
- Killen & Hall, Inc., Darien, Conn.**
Killen & Hall (Tree Food 8-5-2)
- L. B. Lovitt & Co., Memphis, Tenn.**
"Lovit Brand" 41% Protein Cottonseed Meal
- McArdle's Seed Store, Greenwich, Conn.**
McArdle's Special Fertilizer 6-5-3
- Natural Guano Co., Aurora, Ill.**
Sheep's Head Sheep Manure
- N. V. Potash Export My., Inc., New York, N. Y.**
N. V. Muriate of Potash 50%
N. V. Muriate of Potash 60%
N. V. Sulphate of Potash
N. V. Sulphate of Potash-Magnesia
- Olds & Whipple, Inc., Hartford, Conn.**
Luxura 5-8-6
O&W 6-3-5 Blue Label Tobacco Fertilizer Potash derived from Cotton Hull Ashes
O&W 6-3-6 Blue Label Tobacco Fertilizer
O&W 6-3-6 Blue Label Tobacco Fertilizer Potash derived from Cotton Hull Ashes
O&W Bone Meal
O&W Castor Pomace
O&W 5-3-5 Complete Tobacco Fertilizer
O&W 5-3-5 Complete Tobacco Fertilizer Potash derived from Cotton Hull Ashes
O&W 3-10-4 Corn Special Fertilizer
O&W Cotton Hull Ashes
O&W Dry Ground Fish
O&W 3-10-6 Fertilizer
O&W 8-16-14 Fertilizer
O&W 5-5-15 H. G. Tobacco Starter and Potash Compound
O&W 4-8-4 Market Garden Fertilizer
O&W Nitrate of Potash
O&W 4-8-7 Potato & General Purpose Fertilizer
O&W 5-8-7 Potato & General Purpose Fertilizer
O&W Precipitated Bone

- O&W Special Tobacco Fertilizer 6-3-7
O&W Superphosphate 16%
O&W Superphosphate 20%
O&W 7-7-7 Top Dressing and Grass Fertilizer
Olds & Whipple Sulphate of Ammonia
- Old Deerfield Fertilizer Co., Inc.,**
So. Deerfield, Mass.
Castor Pomace
Old Deerfield Complete Tobacco 5-3-5
Old Deerfield Cotton Hull Ashes 30%
Old Deerfield Fish
Old Deerfield Grass Top Dressing 7-7-7
Old Deerfield High Grade Tobacco 6-3-7
Old Deerfield Lawnshrub 5-5-5
Old Deerfield Onion and Truck 5-8-7
Old Deerfield Potato and Market Garden 4-8-7
Old Deerfield Steam Bone
Old Deerfield Tobacco Starter Bone and Potash 5-5-15
Valley Onion and Truck 5-8-7
- Outpost Nurseries, Inc., Ridgefield, Conn.**
Outpost Plant Food 8-5-2
- Plantspur Products Co., Ridgefield, N. J.**
Plantspur Fertilizer 3-3-2
- The Frank S. Platt Co., New Haven, Conn.**
Platt's Special 5-8-7 Fertilizer
Platt's Special 10-5-5 Lawn Fertilizer
- Potash Company of America, Baltimore, Md.**
Muriate of Potash 60% K₂O
- The Pulverized Manure Co., Chicago, Ill.**
Wizard Brand Cow Manure
Wizard Brand Pulverized Sheep Manure
- The Rogers & Hubbard Co., Portland, Conn.**
Gro-Fast Plant Food 5-6-6
Hubbard's All Soils Fertilizer 4-8-4
Hubbard's Climax Tobacco Fertilizer 5-3-5
Hubbard's Corn Fertilizer 4-8-7
Hubbard's Corn and Grain Fertilizer 3-10-4
Hubbard's Cotton Hull Ash
Hubbard's Dry Ground Fish
Hubbard's Fine Ground Bone
Hubbard's Golf Course Fertilizer 8-6-2
Hubbard's High Potash Fertilizer 4-8-10
Hubbard's Potato Fertilizer 5-8-7
Hubbard's Raw Knuckle Bone Flour
- Hubbard's Rose Food 7-10-5
Hubbard's Seeding Fertilizer
Hubbard's Sheep and Goat Manure
Hubbard's Strictly Pure Fine Bone
Hubbard's Superphosphate 16%
Hubbard's Superphosphate 20%
Hubbard's Tobacco Grower 6-3-6
Hubbard's Top Dressing
Hubbard's Vegetable Manure
Red H Brand 4-8-4
Red H Brand 4-8-7
Red H Brand 4-8-10
Red H Brand 5-8-7
Red H Brand 7-6-6
Red H Brand 8-16-14
- Ruhm Phosphate & Chemical Co.,**
Mt. Pleasant, Tenn.
Ruhm's Phosphate Rock (Washed & Ground)
- O. M. Scott & Sons Co., Marysville, Ohio.**
Scott's Turf Builder 10-6-4
- Sewerage Commission of the City of Milwaukee, Milwaukee, Wis.**
Milorganite
- M. L. Shoemaker Co., Philadelphia, Pa.**
Shoemaker's "Swift-Sure" 4-10-0
- Soil Builders, Inc., Dunnellon, Florida**
Min-Coll
- A. E. Staley Manufacturing Co.,**
Decatur, Ill.
Staley's Tobakosoy
- Standard Wholesale Phosphate & Acid Works, Inc., Baltimore, Md.**
Standard 4-8-4
Standard 5-8-7
Standard 5-10-10
- Stumpp & Walter Co., New York, N. Y.**
Sawconure 3-1-1
Sawconite 6-3-1
Sawco Bone 2.47-24.00%
Sawco Emerald Grass Fertilizer 5-7-3
Sawco General Garden Fertilizer 5-10-5
Sawco Pulverized Sheep Manure 2-1-2
- Summers Fertilizer Co., Inc., Baltimore, Md.**
Summers "Best on Earth" 3-10-6
Summers "Best on Earth" 4-8-4
Summers "Best on Earth" 4-8-7
Summers "Best on Earth" 4-8-10
Summers "Best on Earth" 5-8-7
Summers "Best on Earth" 5-8-10

- The Toledo Soybean Products Co.,**
Toledo, Ohio
"Super Duo" Soybean Oil Meal—41% Protein
- Walker-Gordon Laboratory Co., Inc.,**
Plainsboro, N. J.
Bovung
- Thomas Wood & Sons, Inc., Montclair, N. J.**
Woodgro Dehydrated Pure Cow Manure
- F. H. Woodruff & Sons Co., Inc.,**
Milford, Conn.
Gro-Sod Lawn Food 10-6-4
- The Woodruff Fertilizer Works, Inc.,**
Orange, Conn.
Woodruff's 3-10-6 Fertilizer
Woodruff's 8-16-16 Fertilizer
Woodruff's Big Crop Fertilizer 5-8-7
Woodruff's Corn Fertilizer 4-16-4
Woodruff's Market Garden Fertilizer 4-8-4
Woodruff's Nitrogenous Tankage 8%
Woodruff's Superphosphate 20%
Woodruff's Top Dresser 7-6-6
Woodruff's Yankee Special Fertilizer 5-10-5
- Summers "Best on Earth" 5-10-5
Summers "Best on Earth" 7-6-6
Summers "Best on Earth" 10-6-4
Summers "Best on Earth" Sheep Manure
Summers "Best on Earth" Steam Bone Meal¹
Summers "Best on Earth" 16% Superphosphate
Summers "Best on Earth" 20% Superphosphate¹
Summers "Best on Earth" Tankage
- Swift & Co. Fertilizer Works, Baltimore, Md.**
Bone Meal Fertilizer
Roselawn 5-8-7
Swift's Sheep Manure 1.85-1-1.75
Swift's Special Golf Fertilizer 6-12-4
Swift's Special Golf Fertilizer 12-6-4
Vigoro 4-12-4
- Synthetic Nitrogen Products Corp.,**
New York, N. Y.
Calcium Nitrate (Nitrate of Lime)
Nitrophoska 15-30-15
Urea
- Tennessee Corp., Lockland, Ohio**
Loma (5-10-4)
Soil-Prep (4-2-2)
- I. P. Thomas & Son Co., Camden, N. J.**
I. P. Thomas 3-10-6
I. P. Thomas 5-8-7

¹Substituted for 8-16-14

INSPECTION OF 1939

The Station Agent has visited 63 towns and villages in the State and has drawn 381 official samples of fertilizer, including all the registered brands that could be found. The classification of these and other samples is given in the summary:

CLASSIFICATION OF FERTILIZER MATERIAL, 1939

I. <i>Containing Chiefly Nitrogen</i>	
Nitrate of soda.....	10
Calcium nitrate.....	5
Cyanamid.....	1
Urea.....	2
Uramon.....	4
Ammonium sulfate.....	8
Castor pomace.....	12
Cottonseed meal.....	117
Linseed meal.....	7
Soybean oil meal.....	21
Agrinite (All Organic Turf Food).....	1
II. <i>Containing Chiefly Phosphoric Acid</i>	
Superphosphate.....	40
Precipitated bone.....	4
Natural phosphate.....	1
III. <i>Containing Chiefly Potash</i>	
Muriate of potash.....	8
Sulphate of potash.....	3
Cottonhull ashes.....	54
Wood ashes.....	2
Sulphate potash and magnesia.....	1
IV. <i>Containing Nitrogen and Potash</i>	
Nitrate of potash.....	11
Nitrate of soda containing potash.....	1
V. <i>Containing Nitrogen and Phosphoric Acid</i>	
Dry ground fish.....	25
Tankage, etc.....	11
Ground bone.....	38
VI. <i>Mixed Fertilizers</i>	
Commercial mixtures.....	225
Special and home mixtures.....	47
VII. <i>Miscellaneous</i>	
Sheep manure, etc.....	25
Lime.....	48
Other miscellaneous.....	45
Check meals and fertilizers.....	42
Tobacco stems, etc.....	5
Total.....	824

I. RAW MATERIALS CHIEFLY VALUABLE FOR NITROGEN

Nitrate of Soda, etc.

In this group are included mineral sources of nitrogen; also urea and cyanamid which are classed as organics, and agrinite.

Analyses of five official samples are given in Table 1, page 18.

Two samples of Old Style Chilean Nitrate of Soda were somewhat under guaranty. Both were from the same source. The goods were purchased in bulk and bagged by the distributor. The deficiency was apparently due to contamination incidental to bagging.

All other official samples in this group substantially met or exceeded guaranties except 3107.

Samples drawn and submitted by purchasers are not included in the tabulation.

Vegetable Products

Official samples of castor pomace, cottonseed and soybean meals are summarized in Table 2, page 19.

One sample, 3153, was 0.24 percent low in nitrogen. All others substantially met or exceeded guaranties.

Many samples, chiefly cottonseed meal, drawn and submitted by purchasers, were examined but are not included in the table.

II. RAW MATERIALS CHIEFLY VALUABLE FOR PHOSPHORIC ACID

Analyses of official samples of materials in this group are given in Table 3, page 20.

As formerly made, superphosphate contained 16 percent of available phosphoric acid and a considerable amount of calcium sulphate. In recent years, by largely or entirely removing the gypsum incidental to the older process, the available phosphoric acid content has been greatly increased. Thus so-called "double" and "triple" superphosphates are on the market. Superphosphates are better designated by making the grade as a part of the name, e.g. 16, 20 or 40 percent superphosphate, as the case may be.

Guaranties for all the samples in this group were substantially met or exceeded except in 2320. Four other samples of the same manufacture fully met guaranties.

III. RAW MATERIALS CHIEFLY VALUABLE FOR POTASH

Analyses of official samples of potash salts and cottonhull ashes are given in Table 4, page 22.

All samples met or exceeded guaranties except 2498 but this deficiency was negligible.

Five samples of cottonhull ashes, registered by Old Deerfield Fertilizer Co., were analyzed for purchasers. They ranged from 28.62 percent potash; average 33.7; guaranteed 30 percent.

IV. RAW MATERIALS SUPPLYING NITROGEN AND POTASH

Official samples of materials in this group are given in Table 5, page 23.

Samples 2335 and 2597 are both from the same stock. The deficiencies shown were due to contamination with water-insoluble material. The samples represented a 50-bag lot of which 30 bags were recalled by the manufacturer from the warehouse to the plant and not offered for sale. The manufacturer proposed to trace the other 20 bags and make suitable adjustment with purchasers.

V. RAW MATERIALS SUPPLYING NITROGEN AND PHOSPHORIC ACID

Analysis of official samples of dry ground fish, tankage and ground bone are given in Tables 6, 7, and 8, pages 24-27.

Sample 2781, dry ground fish, was a little under guaranty in nitrogen. All other guaranties were met. Old Deerfield Fertilizer Co. registered dry ground fish 9.46-5.00. Three purchasers' samples examined analyzed 10.20-7.35; 10.14-7.23; and 10.00-7.10.

Two samples, 2549 and 2778, were deficient in nitrogen. Sample 2778 was from stock supplied in a State purchase and, according to our information was supplied on specification calling for "7 percent tankage". The material supplied was fish scrap mixed with soybean meal and was 0.76 percent low in nitrogen. Such a mixture is not properly designated by either the name "tankage" or "fish tankage". The former means bone and meat tankage; the latter means a product made from rendered or unrendered fish, and is known as fish tankage, fish scrap, dry ground fish or fish meal. A mixture of fish scrap and soybean meal should be sold as such and so labelled.

Sample 3043 represents "process" or nitrogenous tankage sold as a source of nitrogen only.

Milorganite, 3109, is an activated sewage sludge.

Among the ground bones, sample 2644 showed a slight deficiency in nitrogen. Samples 2582 and 2583 were both below guaranty in phosphoric acid while showing a considerable overage in nitrogen. The analysis as well as the microscopic character of the bone, indicate raw, rather than steamed bone. Sample 1581 was low in both nitrogen and phosphoric acid. All other samples substantially met or exceeded the guaranties made.

VI. MIXED FERTILIZERS

Analyses of 224 official samples of mixed fertilizers are given in Table 9, page 28. The results may be summarized as follows:

Total number of samples.....	224
Samples deficient in:	
One item.....	66
Two items.....	15
Three items.....	1
Percentage of samples meeting guaranties in all respects.....	82
Total guaranties made.....	63
Guaranties not met:	
Nitrogen.....	55
Phosphoric acid.....	26
Potash.....	18
Percentages of guaranties met.....	99
	85

A summary of chemical deficiencies is given in Table 9 a, page 44. Samples meeting guaranties within 0.1 percent or less in nitrogen, and within 0.2 percent or less in available phosphoric acid and potash, are not included in the tabulation.

Balancing shortages against overruns in plant food, the following brands show commercial deficiencies in excess of \$1.00 per ton according to our analysis: Acme 4-8-7 (average of two analyses), \$1.54; Stumpp and Walter Sawco 5-10-5 (average of two analyses), \$1.63.

Only four samples showed activity values for the insoluble organic nitrogen less than those accepted for satisfactory quality. In all of these however, the water-insoluble nitrogen was small, and the water-soluble nitrogen plus the active insoluble organic nitrogen equalled or exceeded the nitrogen guaranties.

The acid-forming or base-forming character of the various brands analyzed this year has been judged by the tentative method adopted by the Association of Official Agricultural Chemists, and the results have been included in the reports made to purchasers and to manufacturers.

The significance of the symbols used is explained in the Table. Following the practice of last year, samples have not been rated as acid-forming unless the acidity equivalent exceeded 50 pounds of calcium carbonate per ton of fertilizer. Values of ± 50 have been rated as near neutral "N". Thus in any instances where two samples of the same brand are given different ratings, e.g. "N" and "A", the samples are not necessarily very different in their residual soil reaction. These data are not to be interpreted as prejudicial to acid-forming fertilizers, because the practice of liming the soil systematically counteracts not only the natural acidity of the soil but any acidity due to fertilizer applications as well. In recent years there is, however, some practice among manufacturers of fertilizers to include limestone in their mixtures to correct the residual effects of acid-forming ingredients. Dolomite is preferable for this purpose.

¹Five samples with only two guaranties each.

Special and Home Mixtures

Analyses of fertilizers mixed by the users, or for them, are given in Table 10, page 45.

State Purchases of Fertilizers

Mixed fertilizers and raw materials sold on State purchase orders are subject to registration and tonnage tax, the only exemption being for such goods as are sold to the Experiment Station for experimental purposes. State purchases have been included in our regular inspection and official samples drawn. Such samples are indicated in the several tables of analyses by footnotes. They appear as follows:

Samples	Material	Reference
1	Nitrate of soda	Table 1, page 18
7	Superphosphate	Table 3, page 20
1	Precipitated bone	Table 3, page 20
1	Muriate of potash	Table 4, page 22
1	Tankage	Table 7, page 25
2	Ground bone	Table 8, page 26
16	Mixed fertilizers	Table 9, page 28
1	Sheep manure	Table 11, page 48

The materials supplied were of the substance and quality called for and fully or substantially met the guaranties and/or specifications except in the following particulars. The "tankage" supplied was a mixture of fish tankage and soybean meal as already noted. It was deficient in nitrogen in the amount of 0.76 percent, or a commercial shortage, based on the price quoted, of approximately \$4.00 per ton. Apparently purchases of this tankage did not exceed 2.1 tons. According to our information the specification for bone meal called for steamed bone meal 1/20, but the article supplied was apparently raw bone meal. The guaranties given in Table 9 are those registered. If the specifications govern there was no shortage in total units of plant food supplied. If judged by the guaranties as registered, the overrun in nitrogen more than offsets the shortage in phosphoric acid, and there is no commercial deficiency. In the mixed goods nine samples analyzed substantially met or exceeded guaranties; balancing shortages against overruns there were no considerable commercial deficiencies in the other seven.

VII. MISCELLANEOUS

Analyses of commercial animal and poultry manures are given in Table 11, page 48.

Liming materials are listed, with analyses, in Table 12, page 50.

Among other miscellaneous materials, those given in Table 13, page 54 are recorded for reference.

Forty-two samples of check cottonseed meal and check fertilizers have been analyzed in the collaborative programs of the American Oil Chemists Society and of the F. R. Royster Guano Company. These programs are for the purpose of checking methods of analysis and procedure for the materials mentioned and are participated in by State, commercial and industrial laboratories.

TABLE I. ANALYSIS OF NITRATE OF SODA, ETC.

Station No.	Manufacturer or Jobber	Sampled from stock of	Percent nitrogen	
			Found	Guaranteed
Nitrate of Soda				
2323	Arcadian, The American Barrett Co., New York, N.Y.	Portland: The Rogers & Hubbard Co.	16.12	16.00
2584	Champion Brand Chilean. Chilean Nitrate Sales Corp., New York, N.Y.	New Canaan: Silliman Hardware Co.	16.08	16.00
3118	Old Style Chilean. Chilean Nitrate Sales Corp., New York, N.Y.	Portland: The Rogers & Hubbard Co.	15.82	16.00
3258 ¹	Old Style Chilean. Chilean Nitrate Sales Corp., New York, N.Y.	Mansfield: Mansfield State Training School	16.00	16.00
3298	Old Style Chilean. Chilean Nitrate Sales Corp., New York, N.Y.	Portland: The Rogers & Hubbard Co.	15.76	16.00
Calcium Nitrate (Nitrate of Lime)				
2342	Eastern States Calnitro. Eastern States Farmers' Exch'ge, Springfield, Mass.	East Hartford: Eastern States Farmers' Exchange	20.74	20.50
Cyanamid				
2332	21% 'Aero' Granular, American Cyanamid Co., New York, N.Y.	East Windsor: Apothecaries Hall Co.	21.12	21.00
Urea				
2585	Eastern States. Eastern States Farmers' Exchange, Springfield, Mass.	Bethel: Eastern States Farmers' Exchange	42.10	42.00
2435	"Uramon". E. I. du Pont de Nemours and Co., Inc., Wilmington, Del.	Hartford: Olds & Whipple Inc.	42.30	42.00
Sulphate of Ammonia				
3160	Acme. The Acme Guano Co., Baltimore, Md.	Suffield: Spencer Bros.	20.40	20.50
3425	Acme. The Acme Guano Co., Baltimore, Md.	Suffield: Spencer Bros.	20.50	20.50
2919	Arcadian. Barrett Co., New York, N.Y.	Portland: The Rogers & Hubbard Co.	20.72	20.56
2485	Baugh & Sons Co., Baltimore, Md.	Hamden: Hamdem Lehigh Coal Co.	20.80	20.57
2502	Consolidated Rendering Co., Boston, Mass.	New Haven: L. T. Frisbie Co.	20.78	20.50
2980	Eastern States. Eastern States Farmers Exchange, Springfield, Mass.	Willimantic: Eastern States Farmers' Exch'ge	20.82	20.50
3009	Ford. Ford Motor Co., Dearb'n, Mich.	Middletown: Longworth-Carlson Co.	21.00	20.80
3259	Olds & Whipple's. Olds & Whipple, Inc., Hartford, Conn.	E. Hartford: Olds & Whipple, Inc.	20.52	20.50
Agrinite				
3107	(All Organic Turf Food). The American Agricultural Chemical Co., North Weymouth, Mass.	Watertown: Watertown Golf Club	8.20	8.50

¹Supplied on order from State Purchasing Department.

TABLE 2. ANALYSES OF CASTOR POMACE, COTTONSEED MEAL, ETC.

Station No.	Manufacturer or Jobber	Sampled from stock of	Percent nitrogen	
			Found	Guaranteed
Castor Pomace				
3268	Acme. Acme Guano Co., Baltimore, Md.	Spencer Bros., Suffield	5.63	4.75
3013	The American Agricultural Chemical Co., North Weymouth, Mass.	The American Agricultural Chemical Co., West Haven	5.78	4.50
2333	Apothecaries Hall Co., Waterbury, Conn.	Apothecaries Hall Co., East Windsor	5.96	4.50
2994	Berkshire. Berkshire Chemical Co., Bridgeport, Conn.	Apothecaries Hall Co., East Windsor	5.94	4.50
2343	Eastern States. Eastern States Farmers' Exch'ge, Springfield, Mass.	Eastern States Farmers' Exchange, East Hartford	5.84	5.00
2917	Spencer Kellogg & Sons, Inc., Buffalo, N. Y.	The Rogers & Hubbard Co., Middletown	6.18	4.52
2388	O & W. Olds & Whipple, Inc., Hartford, Conn.	Olds & Whipple, Inc., Hartford	5.74	4.50
3152	O & W. Olds & Whipple, Inc., Hartford, Conn.	E. J. Bantle, Glastonbury	5.60	4.50
3235	O & W. Olds & Whipple, Inc., Hartford, Conn.	Olds & Whipple, Inc., Hartford	5.57	4.50
Cottonseed Meal				
3153	Cow-Eta. Ashcraft-Wilkinson Co., Atlanta, Ga.	E. J. Bantle, Glastonbury	6.32	6.56
3151	Dixie. Humphreys-Godwin Co., Memphis, Tenn.	E. J. Bantle, Glastonbury	7.11	6.58
3255	Dixie. Humphreys-Godwin Co., Memphis, Tenn.	Joseph Samuelwitch, Windsor Locks	6.61	6.56
3336	"Lovit" 41%. L. B. Lovitt & Co., Memphis, Tenn.	Apothecaries Hall Co., East Windsor	6.53	6.56
Soy Bean Meal				
3150	Central Star. Central Soya Co., Inc., Fort Wayne, Ind.	E. J. Bantle, Glastonbury	6.95	7.04
3208	Central Star. Central Soya Co., Inc., Fort Wayne, Ind.	James Davis, Suffield	7.53	7.04
3166	Tobakosoy. A. E. Staley Mfg. Co., Decatur, Ill.	Rockville Grain & Coal Co., Rockville	7.00	6.56

TABLE 3. ANALYSES OF SUPERPHOSPHATE, ETC.

Station No.	Manufacturer or Wholesale Dealer	Dealer or Purchaser	Phosphoric acid			
			Citrate-insoluble	Total	"Available"	
					Found	Guaranteed
	Superphosphate		%	%	%	%
2666	Acme 16%. Acme Guano Co., Baltimore, Md.....	W. B. Welden, Simsbury.....	0.35	16.48	16.13	16.00
3176 ¹	Acme 16%. Acme Guano Co., Baltimore, Md.....	Long Lane Farm, Middletown.....	0.36	16.45	16.09	16.00
2320 ¹	Acme 20%. Acme Guano Co., Baltimore, Md.....	Cheshire Reformatory, Cheshire.....	0.67	19.85	19.18	20.00
2922 ¹	Acme 20%. Acme Guano Co., Baltimore, Md.....	School for Boys, Meriden.....	0.85	20.90	20.05	20.00
2596 ¹	Acme 20%. Acme Guano Co., Baltimore, Md.....	Cheshire Reformatory, Cheshire.....	0.67	20.72	20.05	20.00
2705	AA 16%. The American Agricultural Chemical Co., North Weymouth, Mass.....	Fred C. Morse & Son, Guilford.....	1.11	17.29	16.18	16.00
2566	AA 20%. The American Agricultural Chemical Co., North Weymouth, Mass.....	Clapboard Hill Feed Co., New Canaan.....	1.18	21.62	20.44	20.00
2329	Granular 20%. Apothecaries Hall Co., Waterbury, Ct.	Apothecaries Hall Co., East Windsor	0.90	22.54	21.64	20.00
2331	16%. Apothecaries Hall Co., Waterbury, Conn.....	Apothecaries Hall Co., East Windsor	0.40	17.23	16.83	16.00
3007	Armour's Big Crop 20%. Armour Fertilizer Works, New York, N. Y.....	Larry Trimmer, Hartford.....	0.98	21.30	20.32	20.00
2456	Baughphos, The Ideal 16%. The Baugh & Sons Co., Baltimore, Md.....	Hamden Lehigh Coal Co., Hamden..	0.40	18.11	17.71	16.00
2458	Baughphos, The Ideal 20%. The Baugh & Sons Co., Baltimore, Md.....	Hamden Lehigh Coal Co., Hamden..	0.15	20.21	20.06	20.00
2574	Berkshire 16%. Berkshire Chemical Co., Bridgeport, Conn.....	Silliman Hardware Co., New Canaan	0.46	17.41	16.95	16.00
2503	16%. Consolidated Rendering Co., Boston, Mass.....	L. T. Frisbie Co., New Haven.....	0.24	16.78	16.54	16.00
2504	20%. Consolidated Rendering Co., Boston, Mass.....	L. T. Frisbie Co., New Haven.....	0.36	20.99	20.63	20.00
2780 ¹	20%. Consolidated Rendering Co., Boston, Mass.....	Osborn Prison Farm, Somers.....	0.53	20.81	20.28	20.00
2931	Davco Granulated 20%. The Davison Chemical Corp., Baltimore, Md.....	C. A. Cowles, Inc., Plantsville.....	0.55	21.87	21.32	20.00
2337	Eastern States 40%. Eastern States Farmers' Exchange, Springfield, Mass.....	Eastern States Farmers' Exchange, East Hartford.....	1.69	42.60	40.91	40.00
2341	Eastern States 20%. Eastern States Farmers' Exchange, Springfield, Mass.....	Eastern States Farmers' Exchange, East Hartford.....	0.79	22.71	21.92	20.00
3171	International 16%. International Agricultural Corp., Boston, Mass.....	Checkerboard Feed Store, Norwich..	0.65	17.58	16.93	16.00
2932	International 20%. International Agricultural Corp., Boston, Mass.....	Sunshine Feed Store, Plainville.....	0.95	21.51	20.56	20.00
2389	O & W 16%. Olds & Whipple, Inc., Hartford, Conn..	Olds & Whipple, Inc., Hartford.....	0.35	19.01	18.66	16.00
2673 ¹	O & W 20%. Olds & Whipple, Inc., Hartford, Conn..	Fairfield State Hospital, Newtown...	0.75	21.09	20.34	20.00
2322	Hubbard's 16%. The Rogers & Hubbard Co., Portland, Conn.....	The Rogers & Hubbard Co., Portland.....	0.41	17.24	16.83	16.00
2321	Hubbard's 20%. The Rogers & Hubbard Co., Portland, Conn.....	The Rogers & Hubbard Co., Portland.....	0.03	20.25	20.22	20.00
2921 ¹	Hubbard's 20%. The Rogers & Hubbard Co., Portland, Conn.....	State Hospital, Middletown.....	0.10	20.82	20.72	20.00
2437	Summers "Best-on-Earth" 16%. Summers Fertilizer Co., Inc., Baltimore, Md.....	Laden Bros. Co., Inc., Wallingford...	0.46	18.06	17.60	16.00
2436	Summers "Best-on-Earth" 20%. Summers Fertilizer Co., Inc., Baltimore, Md.....	Laden Bros. Co., Inc., Wallingford...	0.35	20.90	20.55	20.00
2936	Woodruff's. The Woodruff Fertilizer Works, Inc., Orange, Conn.....	The Woodruff Fertilizer Works, Inc., Orange.....	0.70	21.72	21.02	20.00
	Precipitated Bone					
2782	Apothecaries Hall Co., Waterbury, Conn.....	Apothecaries Hall Co., East Windsor	0.06	40.22	40.16	38.00
2379	Eastern States. Eastern States Farmers' Exchange, Springfield, Mass.....	Eastern States Farmers' Exchange, East Hartford.....	1.37	41.76	40.39	38.00
2997	O & W. Olds & Whipple, Inc., Hartford, Conn.....	Olds & Whipple, Inc., Hartford.....	0.28	40.62	40.34	38.00
	Natural Phosphate					
3172 ¹	Min-Coll. Soil Builders, Inc., Dunnellon, Fla.....	Farm for Women, Niantic.....		21.93 ²	....	.

¹Supplied on order from State Purchasing Department.
²Guaranteed 22% total phosphoric acid.

TABLE 4. ANALYSES OF POTASH SALTS, ETC.

Station No.	Manufacturer and Brand	Sampled from stock of	Potash	
			Found	Guaranteed
			%	%
Muriate of Potash				
3242	Trona. American Potash and Chemical Corp., Trona, Calif.	Berkshire Chemical Co. Bridgeport.	61.18	60.00
2497	Baugh & Sons Co., Baltimore, Md.	Hamden Lehigh Coal Co., Hamden.	51.68	60.00
2498	Consolidated Rendering Co., Boston, Mass.	L. T. Frisbie Co. New Haven.	49.84	50.00
2340	Eastern States. Eastern States Farmers' Exchange, Springfield, Mass.	Eastern States Farmers' Exchange, East Hartford.	60.96	60.00
26711	N.V. N.V. Potash Export My., Inc., New York, N. Y.	Cheshire Reformatory, Cheshire.	51.36	50.00
2787	N.V. N.V. Potash Export My., Inc., New York, N. Y.	Apothecaries Hall Co. East Windsor.	61.04	60.00
2324	N.V. N.V. Potash Export My., Inc., New York, N. Y.	The Rogers & Hubbard Co., Portland.	50.48	50.00
2918	Potash Co. of America, Baltimore, Md.	The Rogers & Hubbard Co., Portland.	60.86	60.00
Sulphate of Potash				
2499	Consolidated Rendering Co., Boston, Mass.	L. T. Frisbie Co., New Haven.	49.92	48.00
3154	N.V. N.V. Potash Export My., Inc., New York, N. Y.	E. J. Bantle, Glastonbury.	50.60	48.00
Sulphate Potash-Magnesia				
3215	N.V. N.V. Potash Export My., Inc., New York, N. Y.	Apothecaries Hall Co. East Windsor.	28.80	25.00
Cottonhull Ashes²				
3010	"Kireal". Ted Alkire, Lubbock, Texas.	Eastern States Farmers' Exchange, East Hartford.	40.00	30.00
2330	Apothecaries Hall Co., Waterbury, Conn.	Apothecaries Hall Co. East Windsor.	32.74	30.00 ³
2522	Berkshire. Berkshire Chemical Co., Bridgeport, Conn.	Berkshire Chemical Co. Bridgeport.	31.26	30.00
2722	Eastern States. Eastern States Farmers' Exchange, Springfield, Mass.	Eastern States Farmers' Exchange, East Hartford.	39.52	30.00
2434	Olds & Whipple, Inc., Hartford	Olds & Whipple, Inc., Hartford.	31.10	20.00

¹State Purchase.

²Old Deerfield Fertilizer Company, unofficial samples, see text, page 14.

³Sold on unit basis.

TABLE 5. ANALYSES OF NITRATE OF POTASH, ETC.

Station No.	Manufacturer or Jobber	Nitrogen		Potash	
		Found	Guaranteed	Found	Guaranteed
		%	%	%	%
Sampled from stock of					
3335	Apothecaries Hall Co., Waterbury, Conn.	13.00	13.00	44.05	44.00
2335 ¹	Eastern States. Eastern States Farmers' Exchange, Springfield, Mass.	11.32	13.00	39.42	44.00
2597 ¹	Eastern States. Eastern States Farmers' Exchange, Springfield, Mass.	11.90	13.00	40.44	44.00
2390	O & W. Olds & Whipple, Inc., Hartford, Conn.	13.00	13.00	44.60	44.00
Nitrate of Soda—Potash					
25	Chilean. Chilean Nitrate Sales Corp., New York, N. Y.	15.28	15.00	15.48	14.00

¹See text page 14.

TABLE 6. ANALYSES OF DRY GROUND FISH, ETC.¹

Station No.	Manufacturer or Wholesale Dealer	Sampled from stock of	Nitrogen		Phosphoric acid	
			Total found	Total guaranteed	Total found	Total guaranteed
			%	%	%	%
3238	Fish Meal. The American Agricultural Chemical Co., North Weymouth, Mass.....	E. J. Bantle, Glastonbury.....	9.26	9.00	6.36	4.00
2781	Apothecaries Hall Co., Waterbury, Conn.....	Apothecaries Hall Co., East Windsor	9.24	9.46	8.42	5.00
2524	Berkshire Menhaden. Berkshire Chemical Co., Bridgeport, Conn.....	Berkshire Chemical Co., Bridgeport..	9.88	9.46	6.65	5.00
2339	Eastern States. Eastern States Farmers' Exchange, Springfield, Mass.....	Eastern States Farmers' Exchange, East Hartford.....	9.78	9.00	5.36	5.00
2433	O & W. Olds & Whipple, Inc., Hartford, Conn.....	Olds & Whipple, Inc., Hartford.....	10.00	9.46	7.45	5.00
2920	Hubbard's. The Rogers and Hubbard Co., Portland, Conn.....	The Rogers & Hubbard Co., Portland.....	9.48	9.46	7.44	5.00

¹ For unofficial samples Old Deerfield Fertilizer Co., see text, page 14.

TABLE 7. ANALYSES OF TANKAGE AND SIMILAR MATERIALS

Station No.	Manufacturer and Wholesale Dealer	Sampled from stock of	Nitrogen		Phosphoric acid		Mechanical analysis		Station No.
			Total found	Total guaranteed	Total found	Total guaranteed	Finer than 1-50 inch	Coarser than 1-50 inch	
			%	%	%	%	%	%	
2549	Apothecaries Hall Co., Waterbury, Conn.....	J. B. McArdle, Greenwich...	8.97	9.80	9.76	3.00	29.0	71.0	2549
2501	Ground. Consolidated Rendering Co., Boston, Mass.....	L. T. Frisbie Co., New Haven	8.20	7.40	10.83	9.15	47.5	52.5	2501
2778 ¹	Summers "Best-on-Earth". Summers Fertilizer Co., Inc., Baltimore, Md.	Osborn Prison Farm, Somers	6.24	7.00	9.19	....	29.7	70.3	2778
3043	Woodruff's Nitrogenous. The Woodruff Fertilizer Works, Orange, Conn.	The Woodruff Fertilizer Works, Orange.....	8.18	8.00	....	....	17.9	82.1	3043
3109	Milorganite. Sewage Commission of Milwaukee, Milwaukee, Wis.....	F. L. Wadhams & Sons, Torrington.....	6.04	6.00	3.36 ²	2.75	....	....	3109

¹ State Purchase.

² "Available" found 2.64%; guaranteed 2.00%.

TABLE 8. ANALYSES OF GROUND BONE

Station No.	Manufacturer and Brand	Sampled from stock of	Nitrogen		Phosphoric acid		Mechanical analysis		Station No.
			Total found	Total guaranteed	Total found	Total guaranteed	Finer than 1-50 inch	Coarser than 1-50 inch	
			%	%	%	%	%	%	
2644	Fine Ground. Acme Guano Co., Baltimore Md.	W. B. Welden, Simsbury	3.45	2.47	22.60	23.00	56.6	43.4	2644
2526	Fine Ground. The American Agricultural Chemical Co., North Weymouth, Mass.	Libner Grain Co., Norwalk	2.48	2.47	27.11	23.00	35.7	64.3	2526
2334	Apothecaries Hall Co., Waterbury, Conn.	Apothecaries Hall Co., East Windsor	2.77	2.47	27.38	22.00	64.5	35.5	2334
2328	Apothecaries Hall Co., Waterbury, Conn.	Apothecaries Hall Co., East Windsor	4.00	3.70	21.06	21.00	42.1	57.9	2328
2453	Baugh's Pure Steamed. The Baugh & Sons Co., Baltimore, Md.	Hamden Lehigh Coal Co., Hamden	2.80	2.47	24.40	23.00	52.4	47.6	2453
2457	Baugh's Raw Bone. The Baugh & Sons Co., Baltimore, Md.	Hamden Lehigh Coal Co., Hamden	3.68	3.70	20.77	20.50	39.6	60.4	2457
2567	Berkshire Raw Bone. Berkshire Chemical Co., Bridgeport, Conn.	Bertoff Bros., Old Greenwich	4.22	3.70	23.09	20.00	37.2	62.8	2567
2639	Berkshire Fine. Berkshire Chemical Co., Bridgeport, Conn.	Benjamin Grain Co., Danbury	2.37	2.05	29.20	25.00	71.0	29.0	2639
2581	Belgian. Blatchley and Ballard, Inc., Middletown, Conn.	Bloomfield Farmers' Exchange, Bloomfield	4.16	4.79	17.84	19.73	45.8	54.2	2581
2443	Corenco. Consolidated Rendering Co., Boston, Mass.	Lightborn & Pond Co., New Haven	3.00	2.47	25.63	23.00	62.3	37.7	2443

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			%	%	%	%	%	%	
2448	Corenco Pure Raw. Consolidated Rendering Co., Boston, Mass.	Frank S. Platt Co., New Haven	4.10	3.70	23.56	20.00	43.5	56.5	2448
2338	Eastern States Ground Steamed. Eastern States Farmers' Exchange, Springfield, Mass.	Eastern States Farmers' Exchange, East Hartford	3.41	2.50	23.13	23.00	38.0	42.0	2338
2550	Faesy and Besthoff, Inc., New York, N. Y.	J. B. McArdle, Greenwich	2.36	2.25	29.09	27.00	64.8	35.2	2550
2995	O. & W. Olds & Whipple, Inc., Hartford, Conn.	F. T. Blish Hardware Co., Manchester	2.50	2.47	30.21	22.00	67.0	33.0	2995
2387	Hubbard's Strictly Pure Fine. The Rogers & Hubbard Co., Portland, Conn.	Cadwell & Jones, Hartford	3.84	3.70	22.60	20.00	39.6	60.4	2387
3112	Hubbard's Raw Knuckle Bone Flour. The Rogers & Hubbard Co., Portland, Conn.	The Rogers & Hubbard Co., Portland	4.06	3.70	26.78	24.70	85.5	14.5	3112
2540	Sawco. Stumpp & Walter Co., New York, N. Y.	Stumpp & Walter Co., Stamford	2.75	2.47	27.05	24.00	45.8	54.2	2540
2582 ¹	Summers "Best-on-Earth" Steamed. Summers Fertilizer Co., Inc., Baltimore, Md.	Cheshire Reformatory, Cheshire	4.04	2.47	18.61	22.80	44.6	55.4	2582
2583 ¹	Summers "Best-on-Earth" Steamed. Summers Fertilizer Co., Inc., Baltimore, Md.	Fairfield State Hospital, Newtown	4.09	2.47	18.03	22.80	40.6	59.4	2583
2636	Swift & Co. Fertilizer Works, Baltimore, Md.	H. E. Meeker, Danbury	2.64	2.47	26.99	23.00	47.4	52.6	2636

Analyses

¹State Purchase

TABLE 9. ANALYSES OF MIXED FERTILIZERS

Station No.	Manufacturer and Brand	Place of sampling	Acid-forming (A), Non-acid-forming (NA) or near neutral (N)
The Acme Guano Co., Baltimore, Md.			
2991	Acme 3-10-4	Suffield	A
2663	Acme 3-12-6	Simsbury	A
3423	Acme 3-12-6	Suffield	A
2646	Acme 4-8-4	Simsbury	A
2645	Acme 4-8-5 Vitaflor	Simsbury	NA
3124	Acme 4-8-7	Simsbury	A
2664	Acme 4-8-7	Simsbury	A
3086	Acme 4-8-7	Suffield	A
2641	Acme 4-8-10	Simsbury	A
3204	Acme Tobacco Special 5-3-5	Suffield	A
2665	Acme 5-10-5	Simsbury	A
2643	Acme 5-8-7	Simsbury	A
3165	Acme 5-8-10	Suffield	A
3424	Acme 5-8-10	Suffield	A
2642	Acme 7-6-6	Simsbury	A
3716	Acme 7-6-6	Thompsonville	...
American Agricultural Chemical Co., North Weymouth, Mass.			
3039	AA Double Strength Fertilizer 8-16-14	West Haven	A
2531	AA Monarch Fertilizer 4-8-4	Norwalk	A
2530	AA Potato and Vegetable Fertilizer 5-8-7	Norwalk	A
3011	AA Tobacco Starter 5-5-15	West Haven	NA
2527	AA Top Dresser 7-7-7	Norwalk	A
2739	Agrico for Aroostook with 10% Potash 5-8-10	Manchester	A
2737	Agrico for Corn 3-10-6	Manchester	N
2738	Agrico for Corn 4-12-6	Manchester	A
2946	Agrico Country Club Fertilizer 8-6-4	Danbury	A
2740	Agrico for Fruit 8-8-4	Manchester	A
3045	Agrico for Gardens 4-10-4	West Haven	A
2570	Agrico for Lawns, Trees and Shrubs 7-7-5	New Canaan	A
2640	Agrico for New England 4-8-10	Bristol	A
2529	Agrico for Potatoes and Vegetables 5-8-7	Norwalk	A
2735	Agrico for Seeding Down 4-16-20	Manchester	A
3040	Agrico for Tobacco 6-3-6	West Haven	N
2736	Agrico for Top Dressing 7-7-7	Manchester	A
2569	Agrico for Truck 5-10-5	New Canaan	A
2953	Bradley's XL Fertilizer 3-10-4	West Haven	A
3012	Double A Tobacco Fertilizer 5-3-5	West Haven	NA
2952	Sanderson's Formula B 4-8-7	West Haven	A
American Cyanamid Co., New York, N. Y.			
2336	"Ammo-Phos" 11-48-0	East Hartford	...

In nitrates	Nitrogen				Phosphoric acid			Potash		Station No.
	In ammonia	Organic water-soluble	Organic water-insoluble	Total	Citrate-insoluble	Total	So-called "Available"	As muriate	Total	
%	%	%	%	%	%	%	%	%	%	
0.45	3.42	0.66	0.34	4.87	0.54	11.00	10.46	4.29	5.77	2991
0.32	3.40	0.40	0.26	4.38	0.26	11.13	10.87	3.59	6.14	2663
0.21	2.36	0.22	0.17	2.96	0.62	13.05	12.43	6.38	6.38	3423
0.00	3.24	0.48	0.28	4.00	0.32	8.16	7.84	2.78	5.12	2646
0.00	0.22	0.65	3.35	4.22	5.58	14.57	8.99	4.40	4.40	2645
0.00	3.00	0.42	0.26	3.68	0.46	7.66	7.20	3.39	7.16	3124
0.11	2.76	0.36	0.29	3.52	0.36	7.64	7.28	3.42	6.70	2664
0.00	3.00	0.51	0.42	3.93	0.49	8.36	7.87	4.55	7.54	3086
0.00	3.28	0.39	0.35	4.02	0.42	8.75	8.33	6.98	10.32	2641
0.11	0.36	2.20	2.11	4.78	0.21	5.00	4.79	0.78	7.85	3204
0.63	3.50	0.50	0.31	4.94	0.39	10.40	10.01	5.42	6.81	2665
0.61	3.40	0.48	0.37	4.86	0.53	8.96	8.43	4.35	7.45	2643
0.00	3.92	0.30	0.20	4.42	0.23	7.92	7.69	7.97	9.83	3165
0.00	3.64	0.76	0.22	4.62	0.20	8.29	8.09	8.57	10.30	3424
1.70	3.84	0.64	0.37	6.55	0.40	6.70	6.30	3.77	6.63	2642
.....	.....	.....	.....	6.55	0.45	6.40	5.95	3.84	6.76	3716
0.00	7.56	0.24	0.25	8.05	0.57	15.31	14.74	14.65	14.65	3039
0.41	2.82	0.18	0.49	3.90	0.65	8.45	7.80	4.09	4.09	2531
0.68	3.60	0.12	0.46	4.86	0.40	8.45	8.05	6.78	6.78	2530
3.15	0.16	0.14	1.57	5.02	0.34	6.19	5.85	1.00	17.45	3011
0.34	5.84	0.14	0.42	6.74	0.18	7.80	7.62	6.01	6.92	2527
0.73	3.84	0.24	0.35	5.16	0.51	8.57	8.06	10.65	10.65	2739
0.65	1.90	0.14	0.41	3.10	0.94	11.21	10.27	6.00	6.00	2737
0.71	2.80	0.28	0.38	4.17	0.76	12.90	12.14	6.22	6.22	2738
0.33	6.40	0.32	0.65	7.70	0.31	6.74	6.43	4.18	4.18	2946
1.42	6.00	0.44	0.06	7.92	0.16	8.20	8.04	2.90	4.21	2740
0.00	3.26	0.29	0.81	4.36	0.85	11.22	10.37	4.47	4.47	3045
0.81	4.60	0.20	1.29	6.90	0.93	8.40	7.47	5.28	5.28	2570
0.58	2.36	0.19	0.49	3.62	0.59	8.91	8.32	9.79	9.79	2640
0.70	3.44	0.22	0.46	4.82	0.75	8.75	8.00	6.71	6.71	2529
0.73	2.64	0.36	0.08	3.81	0.37	16.96	16.59	20.04	20.04	2735
0.82	0.30	1.06	3.82	6.00	0.26	3.90	3.64	0.73	6.87	3040
0.43	5.78	0.10	0.42	6.73	0.24	7.86	7.62	7.10	7.10	2736
0.77	3.48	0.16	0.39	4.80	0.77	10.92	10.15	4.91	4.91	2569
0.33	2.12	0.28	0.30	3.03	0.59	11.04	10.45	4.25	4.25	2953
0.40	1.12	0.32	2.79	4.63	0.39	4.50	4.11	0.52	6.06	3012
0.57	2.76	0.14	0.47	3.94	0.61	8.86	8.25	0.62	7.00	2952
0.00	9.80	0.34	0.48	10.62	0.87	49.42	48.55	.....	.....	2336

TABLE 9. ANALYSES OF MIXED FERTILIZERS—Continued

Station No.	Manufacturer and Brand	Place of sampling	Acid-forming (A) Non-acid-forming (NA) or near neutral (N)
Apothecaries Hall Co., Waterbury, Conn.			
2993	Liberty Corn Fertilizer 3-12-6.....	East Windsor.....	A
2786	Liberty Fish Bone and Potash 3-10-4.....	East Windsor.....	N
2875	Liberty Green Gro 6-5-3.....	East Windsor.....	A
2979	Liberty High Grade Corn 4-12-4.....	Abington.....	A
2914	Liberty High Grade Fertilizer for Fruit 10-5-5.....	East Windsor.....	NA
2713	Liberty High Grade Market Gardeners 5-8-7.....	New London.....	A
3213	Liberty High Grade Tobacco Manure 7-3-7.....	East Windsor.....	NA
2714	Liberty Market Gardeners Special 4-8-4.....	New London.....	A
2912	Liberty Potato and General Crops 4-8-10.....	East Windsor.....	N
2982	Liberty Potato and Vegetable 2-8-10.....	Willimantic.....	A
2783	Liberty Special Fertilizer for Fruit and Grass 7-7-7.....	East Windsor.....	NA
2992	Liberty Special Fertilizer 4-4-0 for Lawns, Gardens, Flowers, Shrubs and Trees.....	East Windsor.....	NA
3212	Liberty Tobacco Mixture 6-3-6.....	East Windsor.....	NA
3214	Liberty Tobacco Mixture 6-3-7.....	East Windsor.....	NA
2712	Liberty Top Dresser for Grass and Grain 8-8-8.....	New London.....	A
2784	Liberty Tree and Shrub Food 10-8-8.....	East Windsor.....	NA
2913	Liberty Truck Garden and Onion 5-10-5.....	East Windsor.....	A
Armour Fertilizer Works, New York, N. Y.			
3159	Armour's Big Crop Fertilizer 3-12-6.....	Hartford.....	A
3003	Armour's Big Crop Fertilizer 4-8-4.....	Hartford.....	A
3158	Armour's Big Crop Fertilizer 4-8-10.....	Hartford.....	A
2998	Armour's Big Crop Fertilizer 5-8-7.....	Hartford.....	A
3004	Armour's Big Crop Fertilizer 5-10-5.....	Hartford.....	A
3005	Armour's Big Crop Fertilizer 5-10-10.....	Hartford.....	A
3006	Armour's Big Crop Fertilizer 7-7-7.....	Hartford.....	A
3157	Armour's Big Crop Fertilizer 8-16-20.....	Buckland.....	A
3206	Armour's Big Crop Tobacco Special 5-3-5.....	Suffield.....	NA
3233	Armour's Big Crop Tobacco Special 6-3-6.....	Suffield.....	NA
3205	Armour's Big Crop Tobacco Starter 5-5-15.....	Suffield.....	NA
3008	Armour's Fertilizer 8-16-16.....	Hartford.....	A
3498 ¹	Armour's Fertilizer 8-16-16.....	East Hartford.....	A
3002	Armour's Garden and Lawn Fertilizer 4-8-8.....	Hartford.....	A
Associated Seed Growers, Inc., New Haven, Conn.			
2938	Clark's 3-10-6 Fertilizer.....	Milford.....	NA
2508	Clark's 5-10-5 Fertilizer.....	Milford.....	A
2521	Clark's Tip Top Fertilizer 5-8-7.....	Milford.....	N
The Bartlett Tree Expert Co., Stamford, Conn.			
2539	Bartlett Green Tree Food 6-7-4.....	Stamford.....	A

¹Manufacturers' analysis of their own samples from this stock: N. 2.07, A.P.A 16.05, K₂O 16.35.

In nitrates	Nitrogen				Phosphoric acid			Potash		Station No.
	In ammonia	Organic water-soluble	Organic water-insoluble	Total	Citrate-insoluble	Total	So-called "Available"	As muriate	Total	
	%	%	%	%	%	%	%	%	%	
0.72	1.34	0.72	0.56	3.34	0.89	13.40	12.51	6.28	6.28	2993
1.16	1.10	0.70	0.42	3.38	0.67	11.15	10.48	4.00	4.00	2786
0.69	1.76	1.54	2.27	6.26	0.66	7.55	6.89	4.07	4.88	2875
1.73	1.48	0.62	0.55	4.38	0.86	13.19	12.33	3.59	4.54	2979
8.41	1.14	6.71	0.56	10.71	0.36	5.50	5.14	0.48	4.85	2914
0.85	3.72	0.32	0.59	5.48	0.45	8.61	8.16	7.27	7.27	2713
1.67	0.16	1.74	3.51	7.08	0.24	4.26	4.02	0.40	8.90	3213
0.34	3.10	0.36	0.62	4.42	0.34	9.66	9.32	4.36	4.36	2714
0.66	2.72	0.36	0.37	4.11	0.73	8.70	7.97	9.66	9.66	2912
0.11	1.00	0.43	0.94	2.53	0.64	10.20	9.56	12.10	12.10	2982
4.34	2.44	0.00	0.39	7.17	0.46	8.07	7.61	4.49	7.12	2783
0.00	0.04	0.48	4.18	4.70	2.87	10.65	7.78	....	....	2992
1.28	0.26	0.82	3.68	6.04	0.25	4.36	4.11	0.39	7.01	3212
0.40	0.36	1.62	3.52	5.90	0.21	4.09	3.88	0.45	8.33	3214
2.80	4.58	0.34	0.34	8.06	0.20	8.73	8.53	7.77	7.77	2712
8.51	1.12	0.76	0.44	10.83	0.19	8.61	8.42	0.90	9.10	2784
1.22	3.08	0.52	0.42	5.24	0.78	10.22	9.44	5.13	5.13	2913
0.47	1.58	0.24	0.59	2.88	0.63	12.86	12.23	7.27	7.27	3159
0.43	2.86	0.18	0.53	4.00	0.51	9.06	8.55	4.39	4.91	3003
0.49	2.54	0.20	0.53	3.76	0.43	8.99	8.56	10.21	10.77	3158
0.60	3.34	0.14	0.67	4.75	0.49	9.19	8.70	6.14	6.91	2998
0.41	3.88	0.14	0.57	5.00	0.75	11.49	10.74	5.22	5.22	3004
0.66	3.88	0.04	0.52	5.10	0.64	10.90	10.26	10.58	10.58	3005
0.49	5.48	0.38	0.61	6.96	0.36	7.96	7.60	7.66	7.66	3006
0.88	6.92	0.00	0.18	7.98	0.26	17.10	16.84	18.17	18.17	3157
1.16	0.08	1.12	2.36	4.72	0.20	3.45	3.25	0.48	5.64	3206
0.99	0.08	0.90	3.41	5.38	0.17	3.86	3.69	0.56	7.11	3233
1.96	0.20	1.23	1.16	4.55	0.36	6.20	5.84	1.16	15.35	3205
0.68	6.60	0.40	0.18	7.86	0.32	16.62	16.30	14.78	15.24	3008
....	....	....	....	7.79	0.18	16.39	16.21	....	16.21	3498
0.53	2.62	0.16	0.63	3.94	0.65	9.70	9.05	7.64	8.12	3002
0.73	1.30	0.38	0.75	3.16	0.63	10.28	9.65	6.50	6.50	2938
0.71	2.60	0.66	1.00	4.97	0.42	10.99	10.57	5.21	5.21	2508
0.73	2.85	0.30	1.18	5.06	0.36	8.36	8.00	7.70	7.70	2521
0.00	5.32	1.11	0.90	7.33	1.50	10.02	8.52	4.00	4.00	2539

TABLE 9. ANALYSES OF MIXED FERTILIZERS—Continued

Station No.	Manufacturer and Brand	Place of sampling	Acid-forming (A) Non-acid-forming (NA) or near neutral (N)
The Baugh & Sons Co., Baltimore, Md.			
2483	Baugh's Fish Bone and Potash Mixture 4-8-4	Hamden	N
2454	Baugh's Peruvian Guano Substitute 5-8-7	Hamden	A
2484	Baugh's Special Top Dresser 7-6-6	Hamden	N
2482	Baugh's $\frac{3}{4}$ Century Perfection Brand 3-10-6	Hamden	N
2455	Baugh's Truckers Favorite 5-10-5	Hamden	A
The Berkshire Chemical Co., Bridgeport, Conn.			
2573	Berkshire 4-8-4 Fertilizer	New Canaan	A
2572	Berkshire 4-8-7 Fertilizer	New Canaan	A
2706	Berkshire 4-8-10 Fertilizer	Guilford	N
2525 ¹	Berkshire 5-8-7 Fertilizer	Southport	A
3014	Berkshire 5-8-7 Fertilizer	Bridgeport	A
2950	Berkshire 5-10-5 Fertilizer	Bridgeport	A
3223	Berkshire 6-3-6 Fertilizer	Suffield	NA
2565	Berkshire 6-6-5 Fertilizer	Old Greenwich	A
3046	Berkshire 6-6-5 Fertilizer	Bridgeport	A
3221	Berkshire 7-3-7 Fertilizer	Burnside	NA
2571	Berkshire Golf Green Fertilizer 8-5-2	New Canaan	A
3222	Berkshire Tobacco Starter Fertilizer 5-5-15	Suffield	NA
Consolidated Rendering Co., Boston, Mass.			
2978	Corenco 3-10-4 Animal Brand	Putnam	NA
3241	Corenco 3-12-6	Montwese	N
2638	Corenco 4-8-4 Corn and Vegetable	Danbury	N
2635	Corenco 4-8-7 Market Garden	Bethel	N
2972	Corenco 4-8-10 Potato Grower	Wallingford	N
2954	Corenco 5-5-5 Lawn and Shrub Fertilizer	New Haven	A
3239	Corenco 5-5-15 Tobacco Starter	New Haven	NA
2707	Corenco 5-8-7 General Crop Manure	Guilford	A
2973	Corenco 5-8-10 Peerless Potato	Meriden	A
3042	Corenco 5-10-5 Super Truck	New Haven	A
3110	Corenco 6-3-6 Special Tobacco Grower	New Hartford	NA
3240	Corenco 7-3-7 Super Tobacco Grower	New Haven	NA
2592	Corenco 7-6-6 Complete Fruit and Top Dressing	Bethel	N
3041	Corenco 8-16-14 Two-in-One	New Haven	A
C & R Sales Co., Wooster, Mass.			
3420	Re-Vitalizer 10-5-5	Norwich	A

Station No.	Nitrogen					Phosphoric acid			Potash		Station No.
	In nitrates	In ammonia	Organic water-soluble	Organic water-insoluble	Total	Citrate-insoluble	Total	So-called "Available"	As muriate	Total	
	%	%	%	%	%	%	%	%	%	%	
	0.24	2.84	0.68	0.22	3.98	0.51	8.89	8.38	4.41	4.41	2483
	0.94	2.52	0.64	0.70	4.80	0.89	9.26	8.37	7.00	7.00	2454
	4.58	1.80	0.04	0.54	6.96	0.40	6.66	6.26	5.69	7.57	2484
	0.16	1.96	0.68	0.18	2.98	0.83	10.95	10.12	6.95	6.95	2482
	0.00	4.00	0.55	0.27	4.82	0.81	11.09	10.28	5.10	5.10	2455
The Berkshire Chemical Co., Bridgeport, Conn.											
	0.00	2.92	0.90	0.21	4.03	0.19	8.31	8.12	4.34	4.34	2573
	0.20	2.60	0.96	0.19	3.95	0.22	8.70	8.48	6.84	7.34	2572
	0.22	2.84	0.72	0.26	4.04	0.40	8.86	8.46	10.39	10.39	2706
	0.53	3.67	0.39	0.40	4.99	0.17	8.44	8.27	6.67	6.67	2525
	0.00	3.80	0.97	0.21	4.98	0.24	8.34	8.10	7.63	7.63	3014
	0.31	3.88	0.94	0.22	5.35	0.34	10.46	10.12	5.73	5.73	2950
	0.54	0.06	1.62	4.00	6.22	0.35	4.05	3.70	0.58	7.26	3223
	0.00	5.00	1.10	0.19	6.29	0.13	6.23	6.10	4.83	4.83	2565
	0.00	4.86	0.84	0.30	6.00	0.16	6.59	6.43	5.26	5.26	3046
	1.24	0.08	1.56	3.81	6.69	0.26	3.90	3.64	0.70	7.86	3221
	0.26	2.24	0.82	4.68	8.00	0.10	5.95	5.85	2.21	2.21	2571
	3.00	0.10	0.22	1.92	5.24	0.34	6.35	6.01	1.26	15.35	3222
Consolidated Rendering Co., Boston, Mass.											
	1.11	1.20	0.66	0.12	3.09	0.30	10.41	10.11	4.18	4.18	2978
	0.89	1.00	1.06	0.18	3.13	0.34	12.31	11.97	6.10	6.10	3241
	0.83	2.30	0.62	0.09	3.84	0.11	8.90	8.79	4.61	4.61	2638
	0.95	1.92	0.94	0.16	3.97	0.36	8.65	8.29	7.27	7.27	2635
	0.95	2.14	0.82	0.09	4.00	0.24	8.26	8.02	10.24	10.24	2972
	0.74	1.52	0.75	1.95	4.96	0.70	7.17	6.47	5.74	5.74	2954
	1.40	0.08	1.36	2.52	5.36	0.15	7.20	7.05	0.90	16.28	3239
	0.98	3.00	0.84	0.20	5.02	0.37	8.43	8.06	7.13	7.13	2707
	1.01	3.10	0.86	0.15	5.12	0.21	8.51	8.30	10.21	10.21	2973
	1.30	2.74	0.78	0.18	5.10	0.19	10.37	10.18	5.37	5.37	3042
	0.95	0.16	3.32	2.67	6.10	0.41	3.82	3.41	0.80	7.24	3110
	1.44	0.16	2.68	2.92	7.20	0.32	4.80	4.48	0.61	8.43	3240
	0.85	5.16	0.84	0.11	6.96	0.16	6.16	6.00	6.00	6.00	2592
	1.10	5.62	0.80	0.15	7.67	0.55	14.80	14.25	15.08	15.08	3041
C & R Sales Co., Wooster, Mass.											
	0.16	5.40	2.04	2.15	9.75	0.54	6.02	5.48	0.66	5.99	3420

¹Last year's stock inadvertently shipped in current season.

TABLE 9. ANALYSES OF MIXED FERTILIZERS—Continued

Station No.	Manufacturer and Brand	Place of sampling	Acid-forming (A) Non-acid-forming (NA) or near neutral (N)
Davey Tree Expert Co., Kent, Ohio			
2546	Davey Tree Food 10-3-3.....	Old Greenwich.....	A
Eastern States Farmers' Exchange, Springfield, Mass.			
2383	Eastern States 0-20-20.....	East Hartford.....	NA
2590	Eastern States 0-20-20.....	Bethel.....	NA
2589	Eastern States 4-8-8.....	Bethel.....	NA
2381	Eastern States 4-12-4.....	East Hartford.....	NA
2588	Eastern States 4-16-20.....	Bethel.....	NA
2734	Eastern States 6-8-6.....	Willimantic.....	N
2977	Eastern States 7-14-19.....	Norwich.....	A
3210	Eastern States 8-4-8 Tobacco.....	East Hartford.....	NA
3267	Eastern States 5-5-15 Tobacco.....	Windsor.....	NA
2382	Eastern States 8-16-16.....	East Hartford.....	A
2591	Eastern States 8-16-16.....	Bethel.....	A
3156	Eastern States 8-16-16 LCS (Low Chlorine Special)	East Hartford.....	A
2941	Eastern States 8-20-12.....	Torrington.....	A
2380	Eastern States 8-24-8.....	East Hartford.....	A
2587	Eastern States 8-24-8.....	Bethel.....	A
2586	Eastern States 10-6-4.....	Bethel.....	A
2776	Eastern States 12-16-12.....	East Hartford.....	A
General Chemical Co., New York, N. Y.			
2949	Veget-Aid Complete Plant Food 5-10-1.....	Stamford.....	NA
Goulard & Olena, Inc., New York, N. Y.			
2916	G & O Lawn-Garden and Flower Fertilizer 5-8-5	New Britain.....	A
2915	J. B. Greens Formula 10-4-3.....	New Britain.....	A
3108	J. B. Greens Formula 10-4-3.....	Watertown.....	A
International Agricultural Corp., Boston, Mass.			
2935	Caribee Market Garden 5-10-10.....	Plainville.....	A
3168	Caribee 7-5-3 (Green and Fairway).....	Norwich.....	NA
2934	International 4-8-4.....	Plainville.....	A
3170	International 4-8-10.....	Norwich.....	A
2933	International 5-8-7.....	Plainville.....	A
3167	International 6-12-12-2 ¹	Norwich.....	A
3169	International 7-6-6.....	Norwich.....	A

¹Guaranteed 2% MgO; found 2.11%.

Station No.	Nitrogen					Phosphoric acid			Potash		Station No.
	In nitrates	In ammonia	Organic water-soluble	Organic water-insoluble	Total	Citrate-insoluble	Total	So-called "Available"	As muriate	Total	
	%	%	%	%	%	%	%	%	%	%	
2546	1.55	6.28	0.43	1.77	10.03	0.39	4.20	3.81	3.24	3.24	2546
2383	.....	.....	.....	.....	.....	0.39	20.37	19.98	20.35	20.35	2383
2590	.....	.....	.....	.....	.....	0.35	20.80	20.45	19.88	19.88	2590
2589	0.97	2.80	0.12	0.23	4.12	0.34	8.78	8.44	8.61	8.61	2589
2381	0.00	2.84	1.23	0.46	4.53	1.09	12.74	11.65	4.19	4.96	2381
2588	1.15	3.02	0.08	0.19	4.44	0.45	13.90	13.45	24.28	24.28	2588
2734	1.68	4.02	0.19	0.45	6.34	0.66	9.46	8.80	6.64	6.64	2734
2977	1.78	5.32	0.02	0.19	7.31	0.30	13.73	13.43	19.40	19.40	2977
3210	0.69	0.74	3.14	3.12	7.69	0.30	5.06	4.76	1.00	8.55	3210
3267	2.31	0.08	0.39	2.75	5.53	0.12	6.89	6.77	0.88	16.79	3267
2382	2.03	5.98	0.04	0.15	8.20	0.28	17.35	17.07	16.65	16.65	2382
2591	2.04	6.00	0.08	0.16	8.28	0.26	16.92	16.66	16.78	16.78	2591
3156	2.01	5.68	0.12	0.23	8.04	0.28	16.72	16.44	1.14	17.68	3156
2941	1.87	5.96	0.12	0.25	8.20	0.36	19.71	19.35	13.81	13.81	2941
2380	0.00	6.24	1.53	0.17	7.94	0.66	24.70	24.04	8.03	8.83	2380
2587	0.00	6.54	1.66	0.13	8.33	0.60	23.88	23.28	9.11	9.11	2587
2586	2.97	6.78	0.02	0.23	10.00	0.20	7.90	7.70	5.03	5.03	2586
2776	3.72	7.90	0.22	0.36	12.20	0.12	16.79	16.67	2.19	13.21	2776
2949	0.22	4.00	0.56	0.34	5.12	0.42	11.46	11.04	1.28	5.07	2949
2916	0.28	4.22	0.12	0.48	5.10	0.44	9.69	9.25	5.63	5.63	2916
2915	0.34	3.06	4.90	2.17	10.47	5.66	12.12	6.46	3.06	4.06	2915
3108	0.23	0.20	2.86	7.09	10.38	1.83	6.90	5.07	4.05	4.05	3108
2935	1.09	1.56	1.04	1.25	4.94	0.58	10.65	10.07	1.83	9.94	2935
3168	2.14	1.80	0.52	1.85	6.31	0.25	6.20	5.95	0.53	3.18	3168
2934	0.61	2.48	0.44	0.17	3.70	0.44	8.42	7.98	2.95	4.00	2934
3170	0.79	2.44	0.52	0.15	3.90	0.26	8.31	8.05	8.69	9.28	3170
2933	0.59	3.26	0.54	0.23	4.62	0.37	8.14	7.77	5.30	6.88	2933
3167	1.99	2.80	0.48	0.71	5.98	0.25	12.27	12.02	10.47	11.61	3167
3169	0.49	4.92	0.56	0.48	6.45	0.19	6.96	6.77	4.89	5.60	3169

TABLE 9. ANALYSES OF MIXED FERTILIZERS—Continued

Station No.	Manufacturer and Brand	Place of sampling	Acid-forming (A) Non-acid-forming (NA) or near neutral (N)
2532	Killen & Hall, Inc., Darien, Conn. Killen and Hall (Tree Food 8-5-2)	Darien	A
2548	McArdle's Seed Store, Greenwich, Conn. McArdle's Special Fertilizer 6-5-3	Greenwich	A
3257	Old Deerfield Fertilizer Co., So. Deerfield, Mass. Old Deerfield Complete Tobacco Fertilizer 5-3-5	Somers	NA
2987	Old Deerfield Grass Top Dressing 7-7-7	Hazardville	A
3256	Old Deerfield High Grade Tobacco Fertilizer 6-3-7	West Suffield	N
2988	Old Deerfield Lawnshrub 5-5-5	Hazardville	N
2989	Old Deerfield Potato and Market Garden 4-8-7	Hazardville	NA
3254	Old Deerfield Tobacco Starter Bone and Potash 5-5-15	Windsor Locks	NA
2741	Valley Onion and Truck 5-8-7	Rockville	NA
3155	Olds & Whipple, Inc., Hartford, Conn. Luxura 5-8-6	Hartford	A
2981	O & W 3-10-4 Corn Special Fertilizer	Willimantic	NA
2779 ¹	O & W 3-10-6 Fertilizer	Somers	N
2923 ¹	O & W 3-10-6 Fertilizer	Meriden	NA
2670	O & W 4-8-4 Market Garden Fertilizer	Bloomfield	NA
2996	O & W 4-8-7 Potato and General Purpose	Hartford	NA
3209	O & W 5-3-5 Complete Tobacco Fertilizer	Suffield	NA
3236	O & W 5-3-5 Complete Tobacco Fertilizer (Potash derived from Cottonhull Ashes)	Hartford	NA
3207	O & W 5-5-15 High Grade Tobacco Starter, and Potash Compound	Suffield	NA
2669	O & W 5-8-7 Potato and General Purpose Fertilizer	Bloomfield	A
3232	O & W 6-3-5 Blue Label Tobacco Fertilizer (Potash derived from Cottonhull Ashes)	Suffield	NA
3234	O & W 6-3-6 Blue Label Tobacco Fertilizer	Windsor Locks	N
3211	O & W 6-3-6 Blue Label Tobacco Fertilizer (Potash derived from Cottonhull Ashes)	So. Windsor	NA
2668	O & W 7-7-7 Top Dressing and Grass Fertilizer	Bloomfield	A
2711 ¹	O & W 8-16-14 Fertilizer	Niantic	A
3237	O & W Special Tobacco Fertilizer 6-3-7	Unionville	NA

In nitrates	Nitrogen				Phosphoric acid			Potash		Station No.
	In ammonia	Organic water-soluble	Organic water-insoluble	Total	Citrate-insoluble	Total	So-called "Available"	As muriate	Total	
%	%	%	%	%	%	%	%	%	%	
0.44	4.72	0.40	2.20	7.76	0.38	5.73	5.35	2.00	2.00	2532
0.69	1.72	1.68	2.40	6.49	0.41	6.75	6.34	3.98	3.98	2548
1.20	0.04	0.48	4.10	5.82	0.12	4.75	4.63	0.68	6.87	3257
1.30	4.04	1.25	0.33	6.92	0.34	8.01	7.67	7.37	7.37	2987
0.43	0.12	2.06	3.71	6.30	0.35	5.20	4.85	0.78	8.37	3256
0.50	1.78	1.40	1.82	5.50	0.36	7.56	7.20	5.57	6.19	2988
0.68	2.26	0.54	0.53	4.01	0.35	8.91	8.56	6.72	7.60	2989
1.37	0.16	2.04	1.43	5.00	0.49	7.40	6.91	0.96	16.95	3254
0.65	3.94	0.10	0.46	5.15	0.36	8.57	8.21	7.95	7.95	2741
0.66	2.36	0.16	2.10	5.28	1.80	12.15	10.35	0.56	7.63	3155
0.59	1.68	0.16	0.71	3.14	0.76	11.57	10.81	4.34	4.34	2981
0.54	1.68	0.18	0.96	3.36	0.72	11.80	11.08	6.53	6.53	2779
0.56	1.56	0.22	1.00	3.34	0.82	11.42	10.60	6.59	6.59	2923
0.65	2.54	0.06	0.75	4.00	0.16	8.22	8.06	4.11	4.11	2670
0.40	2.38	0.30	0.95	4.03	0.30	9.00	8.70	7.45	7.45	2996
0.72	0.06	1.30	4.09	6.17	0.27	3.80	3.53	0.40	6.08	3209
0.67	0.08	0.40	4.13	5.28	0.18	4.30	4.12	0.49	5.35	3236
1.44	0.12	2.08	1.30	4.94	0.44	5.50	5.06	1.02	15.86	3207
0.68	3.32	0.24	0.87	5.11	0.19	8.37	8.18	7.24	7.24	2669
0.63	0.08	1.76	3.92	6.39	0.24	4.30	4.06	0.68	6.13	3232
0.59	0.12	1.22	4.16	6.09	0.19	3.56	3.37	3.37	7.76	3234
0.60	0.14	1.64	3.98	6.36	0.35	3.95	3.60	0.70	6.40	3211
2.83	3.28	0.28	0.67	7.06	0.16	7.36	7.20	7.40	7.40	2668
0.44	4.12	2.48	0.72	7.76	0.61	15.40	14.79	16.79	16.79	2711
0.78	0.08	2.14	3.80	6.50	0.17	4.04	3.87	0.54	7.27	3237

¹State Purchase.

TABLE 9. ANALYSES OF MIXED FERTILIZERS—Continued

Station No.	Manufacturer and Brand	Place of sampling	Acid-forming (A), Non-acid-forming (NA) or near neutral (N)
Outpost Nurseries, Inc., Ridgefield, Conn.			
2947	Outpost Plant Food 8-5-2.....	Ridgefield.....	A
Plantspur Products Co., Ridgefield, N. J.			
3044	Plantspur Fertilizer 3-3-2.....	New Haven.....	A
The Frank S. Platt Co., New Haven, Conn.			
2444	Platt's Special 5-8-7 Fertilizer.....	New Haven.....	A
2447	Platt's Special 10-5-5 Lawn Fertilizer.....	New Haven.....	N
The Rogers & Hubbard Co., Portland, Conn.			
2731	Gro-Fast Plant Food 5-6-6.....	Norwich.....	N
2945	Hubbard's All Soils Fertilizer 4-8-4.....	New Milford.....	NA
3114	Hubbard's Climax Tobacco Fertilizer 5-3-5.....	Portland.....	NA
2943	Hubbard's Corn and Grain Fertilizer 3-10-4.....	New Milford.....	NA
3116	Hubbard's Corn Fertilizer 4-8-7.....	Portland.....	NA
2325	Hubbard's Golf Course Fertilizer 8-6-2.....	Portland.....	NA
3111	Hubbard's High Potash Fertilizer 4-8-10.....	New Britain.....	NA
2940	Hubbard's Potato Fertilizer 5-8-7.....	Thomaston.....	N
2326	Hubbard's Rose Food 7-10-5.....	Portland.....	NA
2327	Hubbard's Seeding Fertilizer 3-7-6.....	Portland.....	NA
3113	Hubbard's Tobacco Grower 6-3-6.....	Portland.....	NA
2732	Hubbard's Top Dressing.....	Norwich.....	NA
3117	Hubbard's Vegetable Manure 5-8-10.....	Portland.....	N
2730	Red H Brand 4-8-4.....	Norwich.....	NA
2944	Red H Brand 4-8-7.....	New Milford.....	NA
3270	Red H Brand 4-8-7.....	Portland.....	NA
2709	Red H Brand 4-8-10.....	Clinton.....	NA
2710	Red H Brand 5-8-7.....	Clinton.....	NA
2708	Red H Brand 7-6-6.....	Clinton.....	A
3115	Red H Brand 8-16-14.....	Portland.....	A
O. M. Scott & Sons Co., Marysville, Ohio			
2930	Scott's Turf Builder 10-6-4.....	Meriden.....	A

Nitrogen					Phosphoric acid			Potash		Station No.
In nitrates	In ammonia	Organic water-soluble	Organic water-insoluble	Total	Citrate-insoluble	Total	So-called "Available"	As muriate	Total	
%	%	%	%	%	%	%	%	%	%	
0.23	2.40	0.64	4.53	7.80	0.84	7.40	6.56	2.18	2.18	2947
0.00	2.72	0.02	0.43	3.17	0.44	3.59	3.15	2.45	2.45	3044
0.97	3.06	0.96	0.10	5.09	0.20	8.33	8.13	7.24	7.24	2444
1.75	3.00	3.82	2.02	10.59	0.67	7.54	6.87	0.53	6.16	2447
0.00	2.20	0.11	2.57	4.88	1.21	7.65	6.44	0.90	7.28	2731
0.57	1.68	1.20	0.63	4.08	0.94	9.28	8.34	4.71	4.71	2945
0.59	0.16	0.94	3.33	5.02	0.03	4.20	4.17	0.54	6.49	3114
0.54	1.28	0.72	0.74	3.28	2.71	12.64	9.93	4.52	4.52	2943
0.55	1.48	0.84	1.08	3.95	0.99	10.05	9.06	6.92	6.92	3116
0.88	1.76	2.28	3.88	8.80	1.40	8.00	6.60	2.24	2.24	2325
0.45	1.68	1.32	0.67	4.12	0.65	9.05	8.40	9.81	9.81	3111
0.55	2.42	0.88	1.02	4.87	1.70	10.06	8.36	7.24	7.24	2940
0.29	1.18	2.78	2.51	6.76	1.90	14.53	12.63	1.09	7.51	2326
0.00	2.00	0.26	1.12	3.38	3.16	12.82	9.66	6.12	6.12	2327
0.93	0.06	1.88	3.26	6.13	0.54	5.45	4.91	0.51	6.47	3113
7.04	0.14	0.18	0.28	7.64	1.29	10.16	8.87	8.84	8.84	2732
0.34	2.20	1.41	1.07	5.02	1.31	11.60	10.29	1.10	11.20	3117
0.54	2.40	0.60	0.60	4.14	1.20	9.70	8.50	4.64	4.64	2730
0.61	2.64	0.42	0.43	4.20	0.60	8.93	8.37	6.72	6.72	2944
0.65	2.36	0.44	0.55	4.00	0.68	9.36	8.68	6.32	6.32	3270
0.63	2.74	0.40	0.46	4.23	0.65	8.90	8.25	10.01	10.01	2709
0.68	3.48	0.54	0.39	5.09	0.60	8.91	8.31	7.31	7.31	2710
0.61	6.06	0.10	0.59	7.36	0.45	6.90	6.45	5.80	5.80	2708
2.32	5.70	0.14	0.10	8.26	0.50	16.21	15.71	13.64	13.64	3115
0.00	7.20	0.27	3.29	10.76	0.24	5.96	5.72	3.55	4.91	2930

TABLE 9. ANALYSES OF MIXED FERTILIZERS—Continued

Station No.	Manufacturer and Brand	Place of sampling	Acid-forming (A), Non-acid-forming (NA) or near neutral (N)	Nitrogen					Phosphoric acid			Potash		Station No.	
				In nitrate	In ammonia	Organic water-soluble	Organic water-insoluble	Total	Citrate-insoluble	Total	So-called "Available"	As muriate	Total		
				%	%	%	%	%	%	%	%	%	%	%	
	M. L. Shoemaker & Co., Philadelphia, Pa.														
2777	Shoemaker's "Swift-Sure" 4-10-0	Thompsonville	N	0.36	2.30	0.70	0.67	4.03	1.30	12.20	10.90	....	....	....	2777
	Standard Wholesale Phosphate and Acid Works, Inc., Baltimore, Md.														
2716	Standard 4-8-4	New London	A	0.00	3.16	0.22	0.56	3.94	0.83	9.12	8.29	4.33	4.33	4.33	2716
2715	Standard 5-8-7	New London	A	0.54	3.42	0.50	0.72	5.18	0.69	8.79	8.10	7.03	7.03	7.03	2715
	Stumpp & Walter Co., New York, N. Y.														
2541	Sawco Emerald Grass Fertilizer 5-7-3	Stamford	A	0.00	3.80	0.27	1.38	5.45	0.67	8.67	8.00	3.69	3.69	3.69	2541
2544	Sawco General Garden Fertilizer 5-10-5	Stamford	A	0.19	2.76	0.72	0.43	4.10	0.75	10.84	10.09	4.77	4.77	4.77	2544
3047	Sawco General Garden Fertilizer 5-10-5	Stamford	A	0.00	4.24	0.22	0.38	4.84	0.87	10.27	9.40	4.93	4.93	4.93	3047
	Summers Fertilizer Co., Inc., Baltimore, Md.														
2438	Summers "Best-on-Earth" 3-10-6	Wallingford	NA	0.43	2.16	0.32	0.19	3.10	0.56	9.88	9.32	4.54	5.49	5.49	2438
3173 ¹	Summers "Best-on-Earth" 3-10-6	Niantic	A	0.00	1.68	1.04	0.40	3.12	0.11	9.77	9.66	7.11	7.11	7.11	3173
2439	Summers "Best-on-Earth" 4-8-4	Wallingford	NA	0.35	2.32	0.80	0.19	3.66	0.53	8.70	8.17	3.28	3.82	3.82	2439
2451 ¹	Summers "Best-on-Earth" 4-8-7	Cheshire	N	0.89	2.20	0.56	0.32	3.97	0.19	7.96	7.77	7.50	7.50	7.50	2451
2976 ¹	Summers "Best-on-Earth" 4-8-7	Norwich	A	0.97	2.24	0.36	0.37	3.94	0.25	8.71	8.46	6.96	6.96	6.96	2976
2440	Summers "Best-on-Earth" 4-8-10	Wallingford	NA	0.58	2.48	0.60	0.16	3.82	0.61	9.01	8.40	9.99	9.99	9.99	2440
2441	Summers "Best-on-Earth" 5-8-7	Wallingford	NA	0.63	3.48	0.66	0.19	4.96	0.55	9.41	8.86	7.09	7.09	7.09	2441
2452 ¹	Summers "Best-on-Earth" 5-8-7	Cheshire	A	1.31	3.24	0.10	0.38	5.03	0.15	7.90	7.75	7.29	7.29	7.29	2452
2486 ¹	Summers "Best-on-Earth" 5-8-7	Portland	A	1.41	3.02	0.22	0.34	4.99	0.11	8.36	8.25	7.29	7.29	7.29	2486
2450 ¹	Summers "Best-on-Earth" 5-8-10	Cheshire	A	0.81	2.82	0.82	0.38	4.83	0.18	8.11	7.93	11.07	11.07	11.07	2450
2672 ¹	Summers "Best-on-Earth" 5-10-5	Newtown	A	0.48	3.18	1.00	0.35	5.01	0.11	9.70	9.59	5.86	5.86	5.86	2672
3174 ¹	Summers "Best-on-Earth" 5-10-5	Niantic	A	0.32	3.08	1.00	0.44	4.84	0.24	10.14	9.90	5.66	5.66	5.66	3174
3419 ¹	Summers "Best-on-Earth" 5-10-5	Waterford	A	0.48	4.28	0.04	0.14	4.94	0.65	12.34	11.69	4.95	4.95	4.95	3419
2449 ¹	Summers "Best-on-Earth" 7-6-6	Cheshire	A	0.59	5.66	0.66	0.31	7.22	0.06	6.09	6.03	6.67	6.67	6.67	2449
2487 ¹	Summers "Best-on-Earth" 7-6-6	Portland	A	0.70	5.80	0.56	0.34	7.40	0.03	6.11	6.08	6.65	6.65	6.65	2487
2674 ¹	Summers "Best-on-Earth" 7-6-6	Newtown	A	0.48	5.80	0.57	0.47	7.32	0.11	6.15	6.04	1.99	6.71	6.71	2674
2974 ¹	Summers "Best-on-Earth" 10-6-4	New Haven	A	0.15	8.72	1.24	0.13	10.24	0.27	7.49	7.22	4.17	4.17	4.17	2974
	Swift & Co. Fertilizer Works, Baltimore, Md.														
2637	Roselawn 5-8-7	Danbury	N	0.38	3.22	0.66	0.37	4.63	0.39	8.87	8.48	7.07	7.07	7.07	2637
3269	Swift's Special Golf Fertilizer 6-12-4	Fairfield	A	0.24	5.24	0.00	0.18	5.66	0.21	11.95	11.74	4.33	4.33	4.33	3269
2384	Vigoro 4-12-4	Hartford	N	0.42	3.42	0.00	0.20	4.04	0.67	12.81	12.14	2.07	4.72	4.72	2384

¹State Purchase.

TABLE 9. ANALYSES OF MIXED FERTILIZERS—Concluded

Station No.	Manufacturer and Brand	Place of sampling	Acid-forming (A), Non-acid-forming (NA) or near neutral (N)
3048	Tennessee Corp., Lockland, Ohio Loma (5-10-4).....	Stamford.....	A
	I. P. Thomas & Son Co., Camden, N. J.		
2251	I. P. Thomas 3-10-6.....	North Haven.....	..
2246	I. P. Thomas 5-8-7.....	North Haven.....	A
2510	I. P. Thomas 5-8-7.....	North Haven.....	A
2850	I. P. Thomas 5-8-7.....	North Haven.....	A
	F. H. Woodruff & Sons Co., Inc., Milford, Conn.		
2939	Gro-Sod Lawn Food 10-6-4.....	Milford.....	A
	The Woodruff Fertilizer Works, Inc., Orange, Conn.		
2248	Woodruff's 3-10-6 Fertilizer.....	North Haven.....	..
2937	Woodruff's 8-16-16 Fertilizer.....	Orange.....	A
2250	Woodruff's Big Crop Fertilizer 5-8-7.....	North Haven.....	..
2505	Woodruff's Corn Fertilizer 4-16-4.....	Orange.....	A
3015	Woodruff's Corn Fertilizer 4-16-4.....	Wallingford.....	A
2506	Woodruff's Market Garden 4-8-4.....	Orange.....	NA
2247	Woodruff's Top Dresser 7-6-6.....	North Haven.....	..
2249	Woodruff's Yankee Special Fertilizer 5-10-5.....	North Haven.....	..

¹Manufacturer's result on portion of our sample 10.13 percent; a third laboratory reported 9.80 percent.

In nitrate	Nitrogen				Phosphoric acid			Potash		Station No.
	In ammonia	Organic water-soluble	Organic water-insoluble	Total	Citrate-insoluble	Total	So-called "Available"	As muriate	Total	
%	%	%	%	%	%	%	%	%	%	
0.37	4.06	0.14	0.53	5.10	0.19	10.40	10.21	3.95	4.51	3048
0.19	1.72	1.01	0.30	3.22	1.02	12.39	11.37	0.64	6.48	2251
0.00	3.44	0.93	0.33	4.70	0.40	8.26	7.86	8.97	9.60	2246
0.31	3.76	0.78	0.37	5.22	0.75	8.59	7.84	6.98	7.72	2510
0.19	3.64	0.80	0.37	5.00	0.66	9.09	8.43	7.38	7.38	2850
0.00	4.90	3.25	1.66	9.81 ¹	0.65	6.53	5.88	3.50	4.02	2939
0.16	1.70	0.58	0.81	3.25	0.45	10.52	10.07	6.79	6.79	2248
1.36	4.94	0.52	0.54	7.36	0.32	14.14	13.82	18.77	20.26	2937
0.65	2.52	0.72	1.03	4.92	0.23	8.31	8.08	8.23	8.23	2250
1.45	1.14	0.46	0.89	3.94	0.85	16.64	15.79	2.10	3.95	2505
0.86	2.30	0.16	0.76	4.08	0.55	16.52	15.97	4.39	4.39	3015
0.66	1.72	0.60	0.93	3.91	0.54	8.72	8.18	4.45	4.45	2506
1.75	4.74	0.00	0.77	7.26	0.14	5.94	5.80	6.78	6.78	2247
1.00	2.64	0.56	1.07	5.27	0.41	10.59	10.18	5.98	5.98	2249

TABLE 9a. CHEMICAL DEFICIENCIES

Manufacturer or Dealer	Number of samples	Number of guaranties	Deficiencies in		
			Nitrogen	Available P ₂ O ₅	Potash
Acme Guano Co.	16	48	8	4	2
American Agricultural Chemical Co.	21	63	9	1	3
American Cyanamid Co.	1	2	1	0	0
Apothecaries Hall Co.	17	50	0	1	2
Armour Fertilizer Works	14	42	8	0	2
Associated Seed Growers, Inc.	3	9	0	1	0
Bartlett, F. A. Tree Expert Co.	1	3	0	0	0
Baugh & Sons Co., The	5	15	2	0	0
Berkshire Chemical Co.	12	36	1	0	1
Consolidated Rendering Co.	14	42	2	1	0
C & R Sales Co.	1	3	1	0	0
Davey Tree Expert Co.	1	3	0	0	0
Eastern States Farmers' Exchange	17	49	1	5	0
General Chemical Co.	1	3	0	0	0
Goulard & Olena, Inc.	3	9	0	0	0
International Agricultural Corp.	7	21	4	1	3
Killen & Hall, Inc.	1	3	1	0	0
McArdle's Seed Store	1	3	0	0	0
Old Deerfield Fertilizer Co., Inc.	7	21	0	0	0
Olds & Whipple, Inc.	16	48	1	1	0
Outpost Nurseries, Inc.	1	3	1	0	0
Plantspur Products Co.	1	3	0	0	0
Platt, Frank S., Co.	2	6	0	0	0
Rogers & Hubbard Co., The	20	60	4	1	3
Scott, O. M., & Sons Co.	1	3	0	1	0
Shoemaker, M. L. & Co., Inc.	1	2	0	0	0
Standard Wholesale Phosphate & Acid Works	2	6	0	0	0
Stumpp & Walter Co.	3	9	2	1	1
Summers Fertilizer Co.	17	51	4	5	1
Swift & Co., Fertilizer Works	3	9	2	1	0
Tennessee Corp.	1	3	1	0	0
Thomas, I. P. & Son Co.	4	12	1	0	0
Woodruff, F. H. & Son	1	3	1	0	0
Woodruff Fertilizer Works, Inc., The	8	24	1	2	0
	224	667	55	26	18

TABLE 10. ANALYSES OF SPECIAL AND HOME MIXTURES

Station No.	Name of Mixture	Place of sampling	Phosphoric acid			Potash			Station No.
			Total	So-called "Available"	Citrate-insoluble	As murate	Total	Chlorine	
2577	Sampled by Station Special Mixture	Ralph Beach, Woodmont.	%	%	%	%	%	%	2577
2898	Special Mixture	Ralph Beach, Woodmont.	8.27	13.52	0.51	14.67	15.38	16.01	2898
2821	Sampled by Purchaser Barkal Special Formula (Custom Mixed)	Joseph Barkal, Poquonock	5.74	4.13	0.32	4.45	0.62	7.14	2821
2107	Fertilizer—Formula P—1939	Consolidated Cigar Corp., Hartford	5.76	4.60	0.43	4.60	0.43	7.38	2107
2374	Fertilizer Formula A—Dec.	Consolidated Cigar Corp., Hartford	5.92	4.79	0.54	4.79	0.54	7.29	2374
2375	Fertilizer Formula B—Dec.	Consolidated Cigar Corp., Hartford	5.64	5.17	0.50	5.17	0.54	8.13	2375
2376	Fertilizer Formula—Du.	Consolidated Cigar Corp., Hartford	5.68	4.70	0.56	4.67	0.43	7.77	2376
2494	Fertilizer—Lot M	Consolidated Cigar Corp., Hartford	5.16	4.29	1.18	5.47	0.64	9.55	2494
2594	Mixed Formula—1939—Wa	Consolidated Cigar Corp., Hartford	5.17	4.38	0.67	5.05	0.80	8.02	2594
2595	Fertilizer Formula—Wb	Consolidated Cigar Corp., Hartford	5.57	4.74	0.59	4.74	0.80	8.88	2595
2803	Mixed Formula MA	Consolidated Cigar Corp., Hartford	5.85	4.70	0.36	5.06	0.51	7.44	2803
2428	Special Home Mixture No. 1 Corn Fertilizer	Cullman Bros., Simsbury	4.26	4.90	1.70	6.60	0.92	6.74	2428
2429	Special Home Mixture, Formula No. 2 Pasture Fertilizer	Cullman Bros., Simsbury	6.53	4.19	3.07	7.26	1.06	6.53	2429
2430	Special Home Mixture Formula No. 1 Corn Fertilizer	Cullman Bros., Granby	4.18	4.82	1.70	6.52	0.94	7.34	2430
2929	Potato Fertilizer—Special Formula with Sulphate of Potash	Cullman Bros., Simsbury	5.34	7.68	0.74	8.42	0.70	12.49	2929

TABLE 10. ANALYSES OF SPECIAL AND HOME MIXTURES—Continued

Station No.	Name of Mixture	Place of sampling	Total nitrogen	Phosphoric acid			Potash			Station No.
				Citrate-insoluble	Total	So-called "Available"	As muriate	Total	Chlorine	
			%	%	%	%	%	%	%	
2680	Home Mixture Fertilizer No. 1.	S. A. Fassler & Co., Hartford	7.10	0.45	4.56	4.11	0.80	7.14	0.60	2680
2683	Home Mixture Fertilizer No. 2.	S. A. Fassler & Co., Hartford	6.60	0.36	5.00	4.64	0.53	6.99	0.40	2683
2682	Home Mixture Fertilizer No. 3.	S. A. Fassler & Co., Hartford	6.83	0.49	4.44	3.95	0.70	7.44	0.53	2682
2681	Home Mixture Fertilizer No. 4.	S. A. Fassler & Co., Hartford	6.47	0.90	4.65	3.75	0.70	6.98	0.53	2681
2518	Open Formula	General Cigar Co., West Hartford	5.06	0.45	4.74	4.29	0.62	6.98	0.47	2518
2822	Starter No. 2 Js	General Cigar Co., West Hartford	9.14	0.47	4.17	3.70	1.36	1.36	.....	2822
2823	Starter No. 2 E.S.	General Cigar Co., West Hartford	9.88	0.49	3.81	3.32	0.35	1.46	0.27	2823
2824	Open Formula Reg. No. 1 W	General Cigar Co., West Hartford	4.82	0.30	4.51	4.21	1.01	6.29	0.76	2824
2825	Open Formula Reg. No. 1 Cl	General Cigar Co., West Hartford	4.82	0.23	4.79	4.56	0.76	7.02	0.57	2825
2405	Home Mixed Fertilizer—Formula No. 39 B—No. 14	L. B. Haas & Co., Inc., Hartford	6.84	0.35	4.75	4.40	0.56	6.80	0.42	2405
2406	Home Mixed Fertilizer—Formula No. 39 C—No. 15	L. B. Haas & Co., Inc., Hartford	6.81	0.40	4.84	4.44	0.58	7.59	0.44	2406
2657	Home Mixture Fertilizer—39F	L. B. Haas & Co., Inc., Hartford	6.65	0.42	5.85	5.43	0.47	6.74	0.35	2657
2658	Home Mixture Fertilizer—39G	L. B. Haas & Co., Inc., Hartford	6.90	0.35	5.03	4.68	0.40	6.89	0.30	2658
2659	Home Mixture Fertilizer—39X	L. B. Haas & Co., Inc., Hartford	6.86	0.38	4.74	4.36	0.44	7.65	0.33	2659
2684	Home Mixture Fertilizer—39E	L. B. Haas & Co., Inc., Hartford	6.68	0.45	4.51	4.06	0.78	7.04	0.59	2684
2703	Home Mixture	L. B. Haas & Co., Inc., Hartford	6.73	0.45	5.17	4.72	0.53	6.62	0.40	2703
3000	Fertilizer No. 1	Paul Lavitt, Ellington	8.54	0.61	14.53	13.92	18.09	18.09	.....	3000
3001	Fertilizer No. 2	Paul Lavitt, Ellington	7.93	0.70	13.94	13.24	19.11	19.11	.....	3001
3164	Fertilizer	Antonio Lusa, Stafford Springs	5.82	0.54	7.76	7.22	9.30	9.30	3164

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3087	Fertilizer 5-10-10—No. 1	Pudin Bros., Rockville	3.50	0.20	7.00	6.80	26.24	26.24	3087
3088	Fertilizer 5-10-10—No. 2	Pudin Bros., Rockville	4.08	0.48	8.43	7.95	19.73	19.73	.....	3088
3089	Fertilizer 5-10-10—No. 3	Pudin Bros., Rockville	5.10	0.59	10.32	9.73	9.23	9.23	.....	3089
2802	Tobacco Mixture Containing N.P. Soybean Meal and Urea	Leslie W. Newberry, South Windsor	7.29	0.25	4.79	4.54	0.60	10.11	0.45	2802
2907	Woodruff's Special Mixture 5-8-10	Nathaniel S. Quick, Jr., East Haven	4.86	0.46	8.22	7.76	11.90	11.90	.....	2907
2902	Home Mixture Fertilizer—No. 17	Weststone—Kamins Tobacco Co., Hartford	3.72	2.36	9.44	7.08	2.05	15.44	1.54	2902
2366	Fertilizer Formula BB	Silberman—Kahn Corp., Hartford	5.78	0.49	4.87	4.38	0.64	8.35	0.48	2366
2367	Fertilizer Formula W	Silberman—Kahn Corp., Hartford	4.99	0.78	5.29	4.51	0.68	7.76	0.51	2367
2368	Fertilizer Formula C. CH	Silberman—Kahn Corp., Hartford	7.72	0.45	4.46	4.01	0.20	1.73	0.15	2368
2369	Fertilizer Formula CH	Silberman—Kahn Corp., Hartford	5.53	0.50	4.94	4.44	0.68	8.86	0.51	2369
2969	Home Mixed Fertilizer—Schlude Farm	T. R. Swanback, Tob. Sta., Windsor	5.08	0.30	3.95	3.65	0.58	7.87	0.44	2969
2970	Home Mixed Fertilizer—Skromo Farm	T. R. Swanback, Tob. Sta., Windsor	4.85	0.26	3.94	3.68	0.65	7.09	0.49	2970
2971	Home Mixed Fertilizer—Raffia Farm	T. R. Swanback, Tob. Sta., Windsor	6.05	0.29	4.25	3.96	0.66	7.48	0.50	2971

Analyses

TABLE II. ANALYSES OF SHEEP MANURE, ETC.

Station No.	Manufacturer and Brand	Place of sampling	Nitrogen		Total phosphoric acid		Potash		Station No.
			Found	Guaranteed	Found	Guaranteed	Found	Guaranteed	
3161	Sheep Manure. The Acme Guano Co., Baltimore, Md.	Spencer Bros., Suffield	2.26	1.85	2.99	1.50	2.02	1.50	3161
2568	Pulverized Sheep and Goat Manure. The American Agricultural Chemical Co., North Weymouth, Mass.	Clapboard Hill Feed Co., New Canaan	1.61	1.25	1.00	1.00	3.24	2.00	2568
2545	Sheep Manure, Apothecaries Hall Co., Waterbury, Conn.	W. J. Rice, Stamford	1.48	1.00	0.95	0.50	1.26	1.00	2545
2386	Improved Driconure. Atkins & Durbrow, Inc., New York, N. Y.	Cadwell & Jones, Hartford	2.66	2.00	3.15	1.00	1.55	1.00	2386
2523	Berkshire Sheep and Goat Manure, Berkshire Chemical Co., Bridgeport Conn.	Berkshire Chemical Co., Bridgeport	1.70	1.25	1.16	1.00	3.59	2.00	2523
2500	Corenco Sheep Manure. Consolidated Rendering Co., Boston, Mass.	L. T. Frisbie Co., New Haven	1.76	1.25	1.23	1.00	3.48	2.00	2500
2948	Davey Shredded Cattle Manure. Davey Tree Expert Co., Kent, Ohio	R. E. Landis, Old Greenwich	2.25	1.00	3.69	1.00	2.41	2.00	2948
3049	Hoffman's Cow Manure. A. H. Hoffmann, Inc., Landisville, Pa.	Wm. J. Rice, Stamford	2.30	2.00	2.20	... ¹	2.19	2.00	3049
2385	Sheepshead Sheep Manure. Natural Guano Co., Aurora, Ill.	Cadwell & Jones, Hartford	2.00	2.00	1.52	1.25	3.18	2.00	2385
2547	Wizard Brand Cow Manure. The Pulverized Manure Co., Chicago, Ill.	J. B. McArdle, Greenwich	2.11	2.00	1.55	... ²	1.94	1.00	2547

2564	Wizard Brand Pulverized Sheep Manure. The Pulverized Manure Co., Chicago, Ill.	J. B. McArdle, Greenwich	2.08	2.00	2.27	... ³	4.15	2.00	2564
2733	Hubbard's Sheep and Goat Manure. The Rogers & Hubbard Co., Portland, Conn.	Norwich Grain Co., Norwich	1.72	1.25	1.68	... ⁴	3.64	2.00	2733
2542	Sawconure 3-1-1. Stumpp & Walter Co., New York, N. Y.	Stumpp & Walter Co., Stamford	3.47	3.00	3.64	... ⁵	1.62	1.00	2542
2543	Sawco Pulverized Sheep Manure 2-1-2. Stumpp & Walter Co., New York, N. Y.	Stumpp & Walter Co., Stamford	2.22	2.00	2.54	1.00	3.69	2.00	2543
2951 ⁶	Summers "Best on Earth" Sheep Manure. Summers Fertilizer Co., Inc., Baltimore, Md.	Laurel Heights Sanitarium, Shelton	1.85	1.00	2.00	... ⁷	3.43	3.00	2951
2528	Swift's Sheep Manure. Swift & Co., Fertilizer Works, Baltimore, Md.	Libner Grain Co., Norwalk	2.14	1.85	1.60	1.00	3.59	1.75	2528
2442	Bovung. Walker-Gordon Laboratory Co., Inc., Plainsboro, N. J.	Lightborn & Pond Co., New Haven	1.97	2.00	1.98	2.00	2.11	2.00	2442
2575	Woodgro Dehydrated Pure Cow Manure. Thos. Wood & Sons, Inc., Montclair, N. J.	Silliman Hardware Co., New Canaan	2.15	2.00	2.30	... ⁸	4.36	3.00	2575

¹Guaranteed "available" phosphoric acid 2.00%; found 2.09%.
²Guaranteed "available" phosphoric acid 1.00%; found 1.30%.
³Guaranteed "available" phosphoric acid 1.00%; found 2.08%.
⁴Guaranteed "available" phosphoric acid 1.00%; found 1.26%.
⁵Guaranteed "available" phosphoric acid 1.00%; found 3.48%.
⁶State Purchase.
⁷Guaranteed "available" phosphoric acid 1.00%; found 1.68%.
⁸Guaranteed "available" phosphoric acid 2.00%; found 2.10%.

TABLE 12. ANALYSES OF LIMESTONE AND SIMILAR MATERIALS

Station No.	Manufacturer and Brand	Sampled from stock of or sent by
	Connecticut Adamant Plaster Co., New Haven, Conn.	
3539	Land Plaster.....	Chas. Bates, Northford.....
	American Limestone Quarry Corp., Wingdale, N. Y.	
899	Lime.....	LeRoy M. Chapman, Danbury.....
2655	Ground Limestone.....	Agric. Conservation Program, Hartford
2316	Ground Limestone.....	Agric. Conservation Program, Hartford
2317	Ground Limestone.....	Agric. Conservation Program, Hartford
	Conklin Limestone Co., Inc., Canaan, Conn.	
2667	High Magnesium Agricultural Lime- stone.....	W. B. Weldon, Simsbury.....
163	Limestone.....	Agric. Conservation Program, Hartford
164	Limestone.....	Agric. Conservation Program, Hartford
2816	Ground Limestone.....	Agric. Conservation Program, Hartford
2813	Ground Limestone.....	Agric. Conservation Program, Hartford
999	Agricultural Limestone.....	Agric. Conservation Program, Litch- field.....
	Connecticut Agstone Co., Danbury, Conn.	
782	Ground Limestone.....	LeRoy M. Chapman, Danbury.....
2318	Ground Limestone.....	Agric. Conservation Program, Hartford
2624	Ground Limestone.....	Agric. Conservation Program, Hartford
	Granger's Manufacturing Co., Boston, Mass.	
2814	Ground Limestone.....	Agric. Conservation Program, Hartford
2815	Ground Limestone.....	Agric. Conservation Program, Hartford
	Harris Lime Co., Saylesville, R. I.	
3585	Ground Limestone.....	Agric. Conservation Program, Hartford
	Lee Lime Co., Lee & West Stockbridge, Mass.	
590	Lime No. 1.....	Agric. Conservation Program, Rock- ville.....
591	Lime No. 2.....	Agric. Conservation Program, Rock- ville.....

Chemical analysis				Total oxides	Mechanical analysis		Station No.
Lime (CaO)		Magnesia (MgO)			20 mesh	100 mesh	
Found	Guaranteed	Found	Guaranteed				
%	%	%	%	%	%	%	
35.76	.....	.....	.....	.....	.....	.....	3539
30.28	.....	21.91	.....	52.19	100.0	98.8	899
29.94	30.00	21.75	21.00	51.69	100.0	....	2655
30.32	30.28	21.96	21.91	52.28	100.0	88.5	2316
30.27	30.28	21.86	21.91	52.13	100.0	89.2	2317
30.41	30.00	21.76	20.00	52.17	99.4	51.9	2667
30.52	.....	21.31	.....	51.83	100.0	60.2	163
30.00	.....	20.32	.....	50.32	100.0	41.7	164
29.60	30.00	20.48	21.00	50.08	99.8	51.2	2816
29.95	30.00	20.89	21.00	50.84	98.7	46.7	2813
30.42	30.00	21.37	20.00	51.79	100.0	50.9	999
44.30	.....	4.24	.....	48.54	96.0	60.0	782
44.30	44.00	4.17	6.00	48.47	94.7	59.8	2318
41.73	44.00	4.97	6.00	46.70	95.0	....	2624
44.07	42.60	5.79	6.00	49.86	99.6	73.9	2814
47.74	42.66	3.91	6.00	51.65	100.0	55.3	2815
31.61	35.00	20.67	15.00	52.28	99.9	.....	3585
36.02	.....	13.29	.....	49.31	100.0	97.8	590
36.77	.....	13.13	.....	49.90	100.0	97.8	591

TABLE 12. ANALYSES OF LIMESTONE AND SIMILAR MATERIALS

Station No.	Manufacturer and Brand	Sampled from stock of or sent by
Lee Lime Co.,—Concl'd		
974	Lime.....	Agric. Conservation Program, Rockville.....
2467	Ground Limestone.....	Agric. Conservation Program, Hartford
2468	Ground Limestone.....	Agric. Conservation Program, Hartford
2350	Lee Lime.....	Cullman Bros. Inc., Simsbury.....
2360	Lee Lime.....	Cullman Bros. Inc., Simsbury.....
589	Limestone.....	Soil Conservation Service, Rockville....
Clifford L. Miller Lime Co., West Stockbridge, Mass.		
3229	Ground Limestone.....	Agric. Conservation Program, Hartford
3337	Ground Agricultural Limestone.....	Agric. Conservation Program, Hartford
3431	Lime.....	Agric. Conservation Program, Litchfield.....
New England Lime Co., Adams, Mass.		
1964	Dehydrated Lime No. 6.....	Consolidated Cigar Corp., Hartford....
1965	Lime No. 7.....	Consolidated Cigar Corp., Hartford....
2432	Agricultural Hydrated Lime (Nelco)...	Cullman Bros. Inc., Simsbury.....
2806	Ground Limestone No. 10.....	Weststone Tobacco Co., Hartford.....
3586	Ground Limestone.....	Agric. Conservation Program, Hartford
D. U. Smith Ashley Falls, Mass.		
2315	Ground Limestone.....	Agric. Conservation Program, Hartford
2348	Ground Limestone.....	Agric. Conservation Program, Hartford
2685	Ground Limestone.....	Agric. Conservation Program, Hartford
U. S. Gypsum Co., Falls Village, Conn.		
2516	Limestone.....	General Cigar Corp., West Hartford....
2656	Ground Limestone.....	Agric. Conservation Program, Hartford
Manufacturer Unknown		
2867	Gypsum (Land Plaster).....	A. N. Shepard & Son, Hartford.....
2866	Magnesia Lime—Hydrated.....	A. N. Shepard & Son, Hartford.....
2775	Land Plaster.....	Hatheway-Steane Corp., Hartford.....
2431	Agricultural Hydrated Lime.....	Cullman Bros. Inc., Granby.....
2391	Limestone.....	James R. Place, Canaan.....
2354	Land Plaster-NH 82008.....	Cullman Bros. Inc., Simsbury.....
2349	Land Plaster-NYC 113377.....	Cullman Bros. Inc., Simsbury.....
331	Ground Limestone No. 2.....	Agric. Conservation Program, Norwich
330	Ground Limestone No. 3.....	Agric. Conservation Program, Norwich
329	Ground Limestone No. 1.....	Agric. Conservation Program, Norwich

Station No.	Chemical analysis				Total oxides	Mechanical analysis		Station No.
	Lime (CaO)		Magnesia (MgO)			20 mesh	100 mesh	
	Found	Guaranteed	Found	Guaranteed				
	%	%	%	%	%	%	%	
974	37.02	.....	13.02	.....	50.04	100.0	97.6	974
2467	30.32	30.00	21.50	20.00	51.82	99.5	74.1	2467
2468	30.56	30.00	21.48	20.00	52.04	99.6	72.3	2468
2350	46.64	47.00	33.01	31.00	79.65	.....	.....	2350
2360	46.94	47.00	33.19	31.00	80.13	.....	.....	2360
589	35.88	.....	13.60	.....	49.48	100.0	97.4	589
Clifford L. Miller Lime Co., West Stockbridge, Mass.								
3229	30.65	28.00	16.00	16.00	46.65	99.6	.....	3229
3337	30.22	28.00	18.03	16.00	48.25	99.6	71.3	3337
3431	28.79	.....	17.69	.....	46.48	99.6	70.6	3431
New England Lime Co., Adams, Mass.								
1964	46.75	.....	32.12	32.00	78.87	.....	.....	1964
1965	46.94	.....	32.28	32.00	79.22	.....	.....	1965
2432	46.97	47.00	32.85	31.00	79.82	.....	.....	2432
2806	54.37	50.00	0.96	.....	55.33	100.0	90.0	2806
3586	31.51	30.00	20.79	20.00	52.30	99.8	.....	3586
D. U. Smith Ashley Falls, Mass.								
2315	30.27	30.00	21.03	21.00	51.30	100.0	61.5	2315
2348	30.46	30.00	21.13	21.00	51.59	99.8	34.9	2348
2685	30.63	30.00	22.21	21.00	52.84	100.0	.....	2685
U. S. Gypsum Co., Falls Village, Conn.								
2516	30.33	30.00	20.49	20.00	50.92	99.8	82.2	2516
2656	30.74	30.00	21.26	20.00	52.00	100.0	.....	2656
Manufacturer Unknown								
2867	33.45	.....	.....	.....	.....	.....	.....	2867
2866	46.50	.....	32.34	.....	78.84	.....	.....	2866
2775	33.76	.....	0.22	.....	33.98	.....	.....	2775
2431	46.79	47.00	33.21	31.00	80.00	.....	.....	2431
2391	29.99	.....	21.14	.....	51.13	98.5	53.8	2391
2354	33.76	.....	0.33	.....	34.09	.....	.....	2354
2349	33.78	.....	0.34	.....	34.12	.....	.....	2349
331	30.37	.....	21.22	.....	51.59	100.0	40.6	331
330	29.90	.....	20.79	.....	50.69	100.0	45.7	330
329	30.40	.....	21.22	.....	51.62	100.0	34.5	329

TABLE 13. ANALYSES OF MISCELLANEOUS MATERIALS

Station No.	Material	Moisture	Ash	Organic and volatile	Nitrogen	Phosphoric acid	Potash
		%	%	%	%	%	%
2562	Tobacco stems	.....	.....	.....	2.56	0.76	6.81
2561	Tobacco stalks	.....	.....	.....	2.44	0.81	4.88
2699	Tobacco stems, ground	.....	.....	.....	2.50	0.80	6.45
1797	Tobacco leaves (V's) ¹	Dry	.....	.....	4.60	0.74	6.64
1796	Tobacco leaves (Tender Brokes) ²	Dry	.....	.....	4.88	1.00	7.06
8857	Spent hops	82.3	.....	.....	0.84	0.30	0.05
1792	Garbage (bacterial process)	29.0	31.56 ³	39.44	1.58 ⁴	1.32	0.90
1793	Garbage (bacterial process)	30.0	28.79 ⁵	41.21	1.69 ⁶	1.64	0.95
2563	Sewage (Sewage Treatment Plant, Hartford)	2.49	61.85 ⁷	35.66	1.78 ⁸	1.74	0.16
2766	Highland Humus (J. Whitehead, Cromwell)	63.75	17.29	18.96	0.55	0.16	0.12
2407	Humus (J. Whitehead, Cromwell)	30.98	32.40	36.62	1.54	.....	.....
3386	Sludge, digested (Public Works, Danbury)	43.00	31.42	25.58	1.71	0.91	0.35
3387	Sludge, digested (Public Works, Danbury)	38.00	40.33	21.67	1.35	1.05	0.09

¹Chlorine 0.11%, CaO 3.88%, MgO 0.74%.²Chlorine 0.20%, CaO 4.71%, MgO 0.95%.

("V's and "Brokes" are leaves lacking in tensile strength).

³CaO 6.97%.⁴Insoluble organic nitrogen 1.25%, activity 43.8%.⁵CaO 6.97%.⁶Insoluble organic nitrogen 1.25%, activity 38.8%.⁷Chlorine 0.12%.⁸Insoluble organic nitrogen 1.59%, activity 48.2%

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