

REPORT ON INSPECTION AND ANALYSIS OF
COMMERCIAL FERTILIZERS

1964

Part I: Compliance With Guaranties

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For many years the annual fertilizer report has been published in essentially unchanging form. During the past year this form has been under review by the Station biometrician, Dr. C. I. Bliss, whose statistical study of the analyses of recent samples will appear in a separate bulletin. One of the purposes of this review was to see if some different presentation of the data acquired by chemical analysis of official samples might not be more useful to farmers for comparing the different brands.

It was on the assumption that the farmers' major interest (other than price) in purchasing fertilizer would be in the relative reliabilities of the various manufacturers that the present circular (which is Part I of the 1964 Fertilizer Report) has been prepared. It consists of a table giving no brand names or grades, but listing only the number of official samples of the products of each manufacturer that were taken during the period July 1, 1963 - June 30, 1964, the number of guaranties of major ingredients that were made for these samples, the number of these guaranties that failed to be met, and the average ratio (expressed as percentage) of ingredients present to ingredients claimed. Because of the greater value of the nitrogenous ingredients, guaranties for nitrogen have been listed separately, while those for phosphoric acid and potash have been combined.

Of the 127 manufacturers listed in this table, 99 were represented by fewer than five samples. It must be borne in mind that the "average per cent of claim" figures based on such few samples are considerably less reliable than those calculated from more numerous samples, because such an average can be affected more by an analysis of an occasional abnormal lot.

Inspection of the table shows that nearly all of the manufacturers are putting more of the three major components into their mixed fertilizers than they are guaranteeing. This holds true on the average even when there are deficiencies in individual guaranties for occasional samples.

Part II of the 1964 Report, which will appear shortly as a separate bulletin, will list all registered brands and give actual analyses and tonnage figures. Material on mixed fertilizers will be presented under an arrangement that will place together under each ratio all samples of each grade.

COMPLIANCE OF 1964 FERTILIZER SAMPLES WITH GUARANTIES

Manufacturer	No. of samples		No. of guaranties		Samples deficient		Average % of claims	
	N	P ₂ O ₅ +K ₂ O total	N	P ₂ O ₅ +K ₂ O	N	P ₂ O ₅ +K ₂ O	N	P ₂ O ₅ +K ₂ O
Agricultural Products Co., Inc.	6	10	6	10	1	6	115.1	101.7
Agricultural Supply Co.	1	2	1	2	0	0	122.0	151.1
Agway, Inc.	17	31	14	31	0	4	102.3	100.4
Alaska Fertilizer Co.	1	2	1	2	0	0	120.8	143.5
Allied Chemical Corp.	3	0	3	0	0	0	100.6	-----
American Agr. Chemical Co.	36	67	29	67	9	15	101.4	104.5
American Cyanamid Co.	3	0	3	0	1	0	99.9	-----
American Fertilizer Co.	5	10	5	10	1	0	112.6	120.2
A-Penn Oil Co.	2	4	2	4	0	0	115.2	127.7
Armour Agr. Chemical Co.	15	28	15	28	5	3	108.3	115.9
Asgrow Seed Co.	4	8	4	8	1	2	104.7	118.5
Atlantic Seed Co.	1	2	1	2	0	1	100.0	95.4
Atlas Fish Fertilizer Co.	1	2	1	2	0	0	107.2	124.0
Baker Castor Oil Co.	3	0	0	0	---	---	-----	-----
F. A. Bartlett Tree Expert Co.	1	2	1	2	0	1	102.7	105.7
Baugh Chemical Co.	3	3	2	3	0	1	180.0	88.5
Bishop Processing Co.	1	1	1	1	2	0	92.3	116.3
Black Magic, Inc.	2	4	2	4	0	1	125.0	118.6
Blackstone Guano Co., Inc.	8	14	8	14	2	1	101.7	109.4
Bonide Chemical Co., Inc.	2	4	2	4	1	0	108.3	118.3
Borden Chemical Co. Div.	1	0	1	0	1	0	103.2	-----
Boyle-Midway, Inc.	1	0	1	0	0	0	102.5	-----
Breck's Div., Asgrow Seed Co.	6	11	6	11	0	4	101.8	108.4
Brookside Nurseries, Inc.	6	7	5	7	0	2	106.2	109.5

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		N	P ₂ O ₅ +K ₂ O	total	N	P ₂ O ₅ +K ₂ O	N	P ₂ O ₅ +K ₂ O
W. Atlee Burpee Co.	1	1	2	3	0	0	104.7	112.8
Cadwell & Jones, Inc.	11	11	22	33	6	7	102.8	101.9
California Chemical Co., Ortho Div.	4	4	8	12	0	0	102.5	112.5
California Liquid Fertilizer Co.	1	1	2	3	0	0	107.2	104.8
Canada Linseed Mills, Ltd.	1	1	0	1	0	0	113.2	-----
Peter Cascio Nursery, Inc.	3	3	4	7	1	0	99.7	121.0
Chilean Nitrate Sales Corp.	2	2	1	3	0	0	100.5	100.6
Clinton Nursery Products, Inc.	3	3	6	9	1	0	106.4	119.6
Cocke & Co.	1	1	0	1	1	0	97.6	-----
Consolidated Rendering Co.	38	34	69	103	7	13	108.6	112.7
Danbury Garden Center	1	1	2	3	0	0	105.6	108.5
Davey Tree Expert Co.	3	3	6	9	0	0	109.8	110.9
Dayton Fertilizer Corp.	2	2	4	6	0	2	100.4	104.6
Delphos Grain & Soya Prod. Co.	1	1	0	1	0	0	100.6	-----
Eastern Dehydrating Co.	4	4	8	12	2	1	91.8	134.8
Eastman Gelatine Corp.	2	0	0	0	0	0	-----	-----
E. I. du Pont de Nemours & Co.	5	5	6	11	0	0	100.9	106.7
Elanco Products Co.	7	7	14	21	1	4	103.7	107.8
Espoma Co.	7	7	14	21	0	2	115.5	124.3
Excel Seed Co.	1	1	2	3	0	0	120.8	170.2
Leon Ezzell, Inc.	1	1	2	3	1	0	86.6	119.9

Connecticut Experiment Station

Circular 226

Faesy & Besthoff, Inc.	8	8	16	24	3	0	105.4	137.0
Farmer's Organic Corp., N. Y.	1	1	2	3	0	0	114.0	132.0
Farmer's Organic Corp., N. C.	1	1	1	2	0	1	188.0	87.0
Farmingdale Labs., Inc.	2	2	4	6	2	2	90.6	105.4
Federal Chemical Co.	6	6	12	18	4	3	97.2	107.9
First National Stores, Inc.	4	4	8	12	3	0	97.4	115.2
Food Fair Stores, Inc.	1	1	2	3	0	1	104.8	97.4
Garden Center, Inc.	1	1	2	3	0	1	115.8	100.3
Garden Exchange, Inc.	1	1	2	3	0	0	109.6	109.6
Glen Terrace Nurseries, Inc.	1	1	2	3	0	0	105.6	106.7
Godfrey's Garden Shop	2	2	4	6	1	0	104.6	111.1
Goulard & Olena, Inc.	7	7	11	18	2	2	110.5	107.6
W. R. Grace & Co.	18	11	27	38	2	8	100.6	112.9
Grand Union Co.	2	2	4	6	1	0	97.8	105.0
Gray Chemical, Inc.	1	1	2	3	0	0	100.8	128.0
Greenlife Products Co.	1	1	2	3	1	1	94.8	106.1
Green Ribbon Products Co.	2	2	4	6	0	1	109.2	106.5
Gro Fast Fertilizer Associates	2	2	4	6	0	1	112.6	107.3
Halstead Distributing Corp.	2	2	4	6	0	2	110.8	103.4
Harrison Specialty Co., Inc.	1	1	2	3	0	0	104.0	101.3
Charles C. Hart Seed Co.	5	5	11	16	1	1	108.4	111.7
Hercules Powder Co.	1	1	0	1	0	0	100.2	-----
Heritage House Products, Inc.	3	3	6	9	0	0	127.7	159.8
A. H. Hoffman, Inc.	6	6	10	16	0	0	134.0	151.3
Holdridge Farm Nursery	1	1	2	3	1	0	95.6	113.9
Hubbard-Hall Chemical Co.	77	65	125	190	16	22	100.0	111.8
Hy-Trous Corp.	1	1	2	3	0	0	113.0	104.2
Independent Oil Mill, Inc.	2	2	0	2	1	0	98.8	-----
International Min. & Chem. Corp.	7	5	12	17	0	1	107.0	113.4

Commercial Fertilizers Part I

COMPLIANCE OF 1964 FERTILIZER SAMPLES WITH GUARANTIES

Manufacturer	No. of samples	No. of guaranties			Samples deficient		Average % of claims	
		N	P ₂ O ₅ +K ₂ O	total	N	P ₂ O ₅ +K ₂ O	N	P ₂ O ₅ +K ₂ O
N. S. Koos & Son Co.	3	3	6	9	0	3	151.2	97.9
Lawn-Tex, Inc.	1	1	1	2	0	0	112.0	152.6
Lebanon Chemical Corp.	6	6	10	16	1	1	112.3	117.3
Lee-Patten Seed Co.	2	2	4	6	0	1	102.3	103.2
Lewis Brothers, Inc.	1	1	2	3	0	0	100.0	107.1
Loft's Pedigreed Seed, Inc.	2	2	4	6	1	0	98.4	104.7
Luzerne Fertilizer Co.	1	1	2	3	0	0	104.0	103.4
Magovern Co.	1	1	2	3	0	1	100.5	100.1
Mamlon Co.	4	4	8	12	1	1	105.4	105.0
McArdle's Seed Co.	2	2	4	6	0	2	127.8	112.4
Miller Chem. & Fert. Corp.	2	2	4	6	1	0	97.5	110.2
Mississippi Cottonseed Products Co.	2	2	0	2	2	0	98.8	-----
Natural Development Co.	2	2	5	7	1	1	100.9	106.0
Old Deerfield Fert. Co.	2	2	4	6	0	0	108.0	105.7
Old Fox Agricultural Sales, Inc.	23	20	44	64	5	13	104.5	106.6
Olin-Mathieson Chem. Corp.	1	1	2	3	0	0	102.2	103.2
Organic Compost Corp. of Pennsylvania	4	4	8	12	0	0	197.0	251.1
Organic Growth Products Co.	3	3	6	9	2	0	91.7	150.1
Perk-Up Products Co.	5	5	10	15	0	1	109.8	107.1

Connecticut Experiment Station

Circular 226

Robert B. Peters Co., Inc.	5	5	10	15	0	1	107.4	112.8
Plantabbs Corp.	1	1	2	3	0	0	114.9	140.9
Frank S. Platt Co.	1	1	2	3	1	0	85.6	113.3
Frank Policastro & Sons, Inc.	1	1	2	3	0	0	102.4	115.1
Professional Turf Products	1	1	2	3	1	1	97.1	96.9

Ra-Pid-Gro Corp.	1	1	2	3	0	0	103.7	102.8
Renzulli Bros. Garden Center	1	1	2	3	0	0	102.4	104.7
Rose Mfg. Co.	1	1	2	3	0	0	122.7	118.3
Ross-Daniels, Inc.	1	1	2	3	0	0	105.3	116.4

O. M. Scott & Sons Co.	4	4	7	11	0	4	105.1	102.6
Sears, Roebuck & Co.	15	15	30	45	1	4	132.6	150.6
Sewerage Comm., City of Milwaukee	1	1	2	3	0	0	116.4	147.3
Sherwin-Williams Co.	2	2	0	2	0	0	105.7	-----
M. L. Shoemaker Div., Wilson & Co.	1	1	1	2	0	0	123.0	106.2
Southern Cotton Oil Co.	7	7	0	7	3	0	99.6	-----
Specialty Mfg. Co.	1	1	2	3	0	0	102.9	109.6
Spencer Specialties Co.	1	1	2	3	0	0	100.0	105.2
Stern's Nurseries, Inc.	2	2	4	6	0	1	103.2	106.5
Stokel, Inc.	1	1	2	3	0	0	208.0	188.0
Stop & Shop Super Markets	1	1	2	3	1	1	95.0	102.3
Swift & Co., AgriChem Div.	20	20	39	59	3	12	102.0	106.2
Swiss Farms, Inc.	3	3	6	9	3	2	96.3	108.2

Trebor Plant & Soil Co.	1	1	2	3	1	1	95.5	80.3
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Universal Chemical Co., Inc.	2	2	4	6	0	0	104.8	103.5
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Valley Feed & Supply Co., Inc.	1	1	2	3	0	0	145.3	251.5
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Valu-Gro Corp.	2	2	4	6	0	1	102.8	100.8
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Walgren Tree Experts, Inc.	1	1	2	3	0	0	100.0	194.9
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Commercial Fertilizers Part I

COMPLIANCE OF 1964 FERTILIZER SAMPLES WITH GUARANTIES

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Manufacturer	No. of	No. of guaranties			Samples deficient		Average % of claims	
	<u>samples</u>	<u>N</u>	<u>P₂O₅+K₂O</u>	<u>total</u>	<u>N</u>	<u>P₂O₅+K₂O</u>	<u>N</u>	<u>P₂O₅+K₂O</u>
Walker-Gordon Lab., Inc.	1	1	2	3	0	0	120.0	122.5
Warren's Turf Nursery	1	1	2	3	0	0	103.2	107.5
Western Auto Supply Co.	2	2	4	6	0	1	108.0	108.4
Wilbur-Ellis Co.	1	1	2	3	0	0	107.2	108.5
Garfield Williamson, Inc.	1	1	2	3	0	1	104.0	102.2
Andrew Wilson, Inc.	2	2	4	6	0	1	118.8	94.5
S. D. Woodruff & Sons of Wethersfield, Inc.	3	3	7	10	0	1	110.5	115.1

Analyses were made by Messrs. Richard A. Botsford, Sherman Squires, Werner Mueller, Charles Hahn and Miss Helen Kocaba; inspection and sampling by Mr. R. Richard Nichols. Credit for making the necessary calculations to compile this table should be given to Mrs. Paula Salerno. Typing was by Mrs. Marilyn Fishbone.