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## Analyses of commercial fertilizers on sale in the state

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## MISSISSIPPI AGRIGULTURAL EXPERIMENT STATION

BULLETIN No. 68.

Analyses of Commercial Fertilizers on Sale In the State.



CHEMICAL LABORATORY.

AGRICULTURAL COLLEGE, MISS SEPTEMBER 1ST, 1901.

Clarion-Ledger Print, Jackson, Miss.

# Mississippi Fertilizer control.

## INSPECTION AND ANALYSES OF FERTILIZERS,

BY THE CHEMICAL DEPARTMENT OF THE

## Mississippi Agricultural & Mechanical College

W. F. HAND STATE CHEMIST.

J. S. CARROLL, Assistant Chemist.

E. B. FERRIS, ASSISTANT CHEMIST.

I. D. SESSUMS, A STARL CHEMIST.

This Bulletin contains the analyses of the principa brands of commercial fertilizer that have been bund on the Mississippi markets during the season of 1900 1901. The samples were drawn by the regular fertilizer inspector, and, in view of the care with which this work has been done, it is believed that the analyses represent fairly the chemical composition and comparative value of the goods as bought by the dealers and farmers of the State.

NOTE—The inspection of commercial fertilizers is by lar under the supervision of the Professor of Chemistry at the College, who is State Chemist. The results being considered of agricultural value are sent out by the Experiment Station. All communications in regard to the Bulletins or analyses should be addressed to State Chemist.

The limited number of brands offered for sale at the present time has made a thorough inspection possible, quite a large number of samples sold under the same brand name being analyzed. In every case where three or more samples are given the average analysis and relative commercial value have been calculated. The averages are set in bold type, and, for convenience, the guarantees of the manufacturer are printed in italics immediately below. A comparison can be made, therefore, at a glance. Some of the more important brands have received especial attention, and the average of fifteen or twenty analyses should, without doubt, establish a record for the season for that brand. By this procedure the effect of accidental variations and errors is reduced to a minimum. Those who intend to purchase fertilizers during the fall and spring should examine the results carefully. In so far as fertilizers are concerned, there is certainly more in an analysis than in a name. Good analyses, have built up, and will always build up reputations of worth for the name of the brand and manufacturer.

#### GENERAL CHARACTER OF BUSINESS.

An inspection of the tables of analyses and guarantees will show that, as a general rule, the fertilizers sold last season have fully sustained the claims made by the manufacturers. A few samples, however, have only approximated the guaranteed analysis and some have fallen somewhat below it. All manufacturers doing business in our State have cheerfully complied with every requirement of the fertilizer law, and they have generally offered only honest goods.

### SAMPLES ANALYZED FREE OF CHARGE.

The State Chemist is required by law to analyze free of charge all fair samples of fertilizers properly certified and prepared that may be submitted to him by farmers and other purchasers.

In order that the certificate of analysis of the State

Chemist may be of value as evidence of the percentage of the valuable elements contained in a fertilizer, it is necessary that the sample be a fair one, properly certified and prepared. The purpose of the law is to secure fair dealing on the part of all concerned in the purchase and sale of an article, the value of which can only be ascertained by chemical analysis. Blank forms of certificate that must accompany samples sent for analysis will be promptly forwarded on application. These blanks contain specific directions for preperly sampling any lot of goods, and they must always be filled out and signed by the person sending the sample, and signed also by two witnesses, who must be disinterested parties, before a certificate of analysis can be given. Dealers and farmers are encouraged to forward samples of their goods for examination; the work will be done as promptly as possible.

#### FERTILIZER VALUATIONS.

The elements of commercial value contained in any fertilizer, viz: Phosphoric acid, in its several forms, nitrogens, and potash, have a definite value in the markets; they are worth so much per pound. The raw materials used by manufacturers in preparing their various mixtures are bought by them on the basis of the percentage of these elements carried by the various substances accessible. The value of the mixed fertilizer can, therefore, be found by simple calculation. It is evident that the value of mixed fertilizers and acid phosphates is measured by the cost of the raw materials plus the cost of manipulation, freight, commissions, etc.

A chemical analysis shows the number of pounds and fractions of a pound of the various forms of phosphoric acid, nitrogen, and potash contained in one hundred pounds of the mixture. If the price per pound is known, the value of one hundred pounds, and, consequently, of a ton, can be found at once.

The relative commercial values given in the tables are used for comparison only; they are not intended to establish a

selling price or to represent the crop producing power. This method of comparing one brand with another is justified only by the fact that many purchasers do not fully understand the terms used in stating the analyses.

All values contained in this bulletin are calculated on the basis of the following prices per pound of the essential elements:

P	er Pound.
For Nitrogen	161 cents
For Potash	5 cents
For Water-Soluble Phosphoric Acid	
For Citrate-Soluble Phosphoric Acid	5 cents
For Phosphoric Acid in fine bone	3 cents
For Phosphoric Acid in medium and coarse bone	$2\frac{1}{2}$ cents

Laboratory Num'r.	Name of Brand and Man- ufacturer.	Where and From Whom Collected.
1766 1883 1993 2008 2085 2086 2087	ARMOUR PACKING Co., Kansas City, Mo. Helmet Br'nd Fer. No. 271	Canton Cotton W'house Co., Canton.  Fowler & Fowler, McCool.  Barney, Johns & Co., Gloster.  E. M. Carter & Co, Centreville.  R. W. Fagan & Co., Waynesboro.  W. L. Bourland, Amory.  Average  Guarantee
2064	Helmet Br'nd Fer. No. 285	Guarantee C. W. Young, Ripley Guarantee J. A. Mehaffey, Steens Guarantee W. L. Bourland, Amory
	A. D. ADAIR & MC- CARTY BROS. Atlanta, Ga. Furman's H.G. Dis. Bone. Farish Furman Formula	Guarantee
1987	BIRMINGHAM FERT. Co. Birmingham, Ala. Birmingham H. G. Fert	Thomas Blakney, Burnsville
	Bi'm'gham H.G.AcidPhos  SOLD BY BLUMENFELD & FRIED, Ackerman. Miss. Blumenfeld & Fried's Im-	Gilmore & May, Amory
	proved Mixture  Blumenfeld & Fried's Improved Mixture  CANTON COTTON WARE-HOUSE CO.,	Blumenfeld & Fried, Ackerman  '' 'Average Guarantee
1848	Canton, Miss.	Canton Cotton W'house Co., Canton.

'r.	nt.	Phosp	horic A	Acid—Pe	er Cent.	nt.	ند	on.
Laboratory Num'r.	Moisture—Per cent	Water-soluble	Citrate-soluble.	Available.	Insoluble.	Nitrogen—Per c'nt	Potash—Per cent.	   Relative Value     per ton
1766 1883 1993 2008 2085 2086 2087	5.48 5.00 6 82 11.90 4.59 6.34 6 08 <b>6 60</b>	2.12 1.68 1.30 1.51 1.55 1.24 1.87 <b>1.54</b> 5.00	5.76 6.77 6.90 7.13 6.97 6.30 7.15 <b>6.71</b> 2.00	7.88 8.45 8.20 8.64 8.52 7.54 8.52 <b>8.25</b>	2.28 1.88 2.24 2.25 1.62 2.26 2.11 <b>2.09</b>	1.65 1.60 1.97 2.00 1.72 1.84 2.10 1.84	1.58 1.48 1.40 1.47 1.33 1.61 1.43 1.47	15.04 15.30 16.13 16.76 15.60 15.25 16.91 15.85
1985 2064 1984	6.51 3.49 6.03	2.55 5.00 2.75 5.00 3.40 5.00	7.04 3.00 6.77 3.00 6.15 4.00	9.59 8.00 9.52 8.00 9.55 9.00	2.74 1.50 1.91 1.50 3.94	1.94 1.65 1.70 1.65 2.64 2.50	1 26 1.00 5.96 5.00 3.41 3.00	17.41 14.86 21.28 18.86 21.88 20.63
1887 1888 1987	12.35 9.52 10.85	11.26 9.00 9.04 7.57 7.00	2.36 3.00 3.18 2.96 3.00	13.62 12.00 12.22 10.53 10.00	.72 2.00 .70 1.36 2.00	•••••	1.74 1.98 2.00	14 75 12.90 14.86 13.27 12.70
1891 1892 1974	15.35 13.98 13.84	11.81 8.84 8.00 12.11 12.00	1.03 360 2.00 2.55 2.00	1284 12.44 10.00 14.66 14.00	.77 2.10 2.00 .65 2.00	1.88 1.62 1.64	2.91 2.61 2.00	23.04 21.20 18.13 15.87 15.20
1907	12.66	7 09	2.48	9 57	1.28	1.77	2.09	18.12
2019	12.13 <b>12.39</b>	7.89 <b>7.49</b> 7.50	2.51 <b>2.49</b> 2.00	10 40 <b>9.98</b> 9.50	1.73 1.51 1.00	1.66 1.72 1.75	1.81 1.95 1.75	18.40 <b>18.26</b> 17.69
1848	13.15	13.62	2.60	16.22	2.70		• • • • • • • • • • • • • • • • • • • •	17.58

Laboratory Num'r.	Name of Brand and Man- ufacturer.	Where and From Whom Collected.
1915	Acid Phosphate	Canton Cotton W'house Co., Canton. Average
1767 1768 1815	6.4	Guarantee  Capital Fert. and M'f'g Co., Jackson Collins Bros., Magnolia Capital Fert. and M'f'g Co., Jackson
1864 1933 2133	66	W. C. Ellis, Steen's Creek Blumenfeld & Fried, Ackerman W. H. Barron & Co., Crystal Spr'gs Average
1771 1772 1860 1861 1931 1932	66 66	Guarantee  Becker, Lyell & McGrath, Wesson. Capital Fert. and M'f'g Co., Jackson E. H. Walker, Mount Olive W. C. Ellis, Steen's Creek J. R. Bush, Braxton Blumenfeld & Fried, Ackerman
1934 1951 1973 2015 2020 2137 2138	66 66 66	Lampton Mercantile Co., Magnolia. Stingley, Taylor & Co., Pelahatchie Lampton Mercantile Co., Magnolia. Moore Bros., Morton. Gaddis & McLaurin, Bolton. Ford Bros., Centreville. Daniel & Zwirn, Brookhaven
2139 2140 2141 2142 2143 2144 2145	66 66 66 66	W. J. Davis, Terry. A. L. Hoye, Lake W. H. Barron & Co., Crystal Spr'gs. J. L. Moyse & Bro., Summit. A. E. Kelly, Kosciusko M. J. L. Hoye's Son, Newton Thompson & Son, Brandon.
2146	66	G. H. Banks, Forest
1950 1994 2050 2135	66 66 66	S. Alcus, Summit W. C. Ellis, Magee. G. W. Winters, McCool J. D. Gambrell, Taylorsville McMullen & Bolton, Newton. M. L. Brumfold, D'Lo
	Red Star Brand2 Mississippi Guano	M. L. Brumfield, D'Lo

i.	ent.	Phosp	horie A	Acid—Pe	er Cent.	'nt.	٠.	on.
Laboratory Num'r.	Moisture—Per cent.	ole.	ole.			Nitrogen—Per c'nt	Potash—Per cent.	lue per ton
Z	-Pe	Water-soluble	Citratesoluble			-P	er	Relative Value per
tor	re-	S	S	Available	ole.	en-	T	ve v
ora	stu	ter	ate	aila	lulo	rog	ash	ativ
ap	Moi	Wa	Cita	Ava	Insoluble.	Nit	Pot	Rel
1915	13.17	14.25	2.69	16 94	2.14			18.37
	13.16	14.25 13.93 13.00	2.65 2.00	16 58 15.00	2.14 <b>2 42</b> 1.00			17 97 16.30
1767	13.65	10.80 8 01	$\begin{bmatrix} 5.22 \\ 4.01 \end{bmatrix}$	16.02 $12.02$	1.66 $1.13$			17.10
1768 1815	$9.62 \\ 10.66$	7.02	4 98	12.00	1.34			$\frac{12.82}{12.70}$
1864 1933	9 90 9.82	7.56 7.78	$\begin{bmatrix} 4 & 28 \\ 5.08 \end{bmatrix}$	11.84	1 · 30 · 87	• • • • • •		12.70 12.60 13.64
$\frac{1933}{2133}$	9 27	6 75	4.96	12.86 $11.71$	1.41			12 39 13 54
	10.49	7.99	4.75 2.00	12 74 12.00	1 · 28	• • • • •		13.54 13.00
1771	11.25	6.10	2.21	8 31	$\{-1.23$	1.57	2.05	16.07
1772 1860	17.52 11.85	5 43 6.51	$\frac{3.25}{2.41}$	$8.68 \\ 8.92$	.51 1.37	1.56 1.17	2.28 1.72	16.57 15.09
1861	13.50	5 96	3 39	9.35	.45	1.35	2 19	16.52
$1931 \\ 1932$	$10.72 \\ 12.10$	$\begin{bmatrix} 6 & 10 \\ 5.88 \end{bmatrix}$	$\begin{bmatrix} 3 & 67 \\ 3 & 32 \end{bmatrix}$	9.77 $9.20$	.91	$1.64 \\ 1.56$	$ \begin{array}{c c} 1.92 \\ 2.16 \end{array} $	$\frac{17.63}{17.02}$
1934	9 58	6.14	3 57	9.20 9.71	.91	1.68	2.23	18 01
$1951 \\ 1973$	$997 \\ 12.42$	6 74 5 83	4.12 3 15	$\frac{10.86}{8.98}$	1.04	1.42 1.46	$ \begin{array}{c} 2.02 \\ 2.14 \end{array} $	1817 16.45
2015	13 08	6 81	2.10	8.98 8.91	.86	1 53	[2.12]	16.68
$2020 \\ 2137$	$ \begin{array}{c c} 11.93 \\ 10.12 \end{array} $	6.42	$\begin{array}{c c} 2.79 \\ 3.62 \end{array}$	$9.21 \\ 9.82$	.72		$2.22 \\ 2.07$	18.05 17.00
2138	11.21	6.69	2.70	9 39	.88	1 69	2.22	17.77
2139 2140	$\begin{vmatrix} 13.77 \\ 11.46 \end{vmatrix}$	$\begin{bmatrix} 5.44 \\ 7.20 \end{bmatrix}$	$\begin{array}{c} 3.10 \\ 2.42 \end{array}$	$ \begin{array}{c c} 8.54 \\ 9.62 \end{array} $		$1.46 \\ 1.53$	2.15 2.09 2.08	15.98 $17.40$
2141	i2.30	6.05	3.14	9 19	1.00	1.25	2 08	15.89
2142 $2143$				$9.55 \\ 8.80$	$1.09 \\ .97$	1.36 1.56	$\begin{bmatrix} 1.90 \\ 2.09 \end{bmatrix}$	$16.47 \\ 16.51$
2144	12.22	6.04	3 01	9.05	.90	1.51	2.10	16 66
2145 $2146$	10 54 11 57	$\begin{bmatrix} 6.49 \\ 6.08 \end{bmatrix}$		$9.55 \\ 9.67$		1 54 1.41	$\begin{bmatrix} 2.01 \\ 2.01 \end{bmatrix}$	$17.21 \\ 16.87$
	11.90	6.18	3 11	9.29	.91	1.50	2.08 2.00	16 86
1862	12 06	7.00 5.91	3.34	$9.00 \\ 9.25$	.92	1.46	$\begin{bmatrix} z.00 \\ 2.17 \end{bmatrix}$	$16.58 \\ 16.76$
1950	9.62	6.20	$\frac{1}{1}$ 3 54	9 74	.77	1.59	2.32	17.85
1994 $2050$		$\begin{bmatrix} 5.13 \\ 6.75 \end{bmatrix}$	$\begin{array}{c} 3 & 51 \\ 3 & 43 \end{array}$	$ \begin{array}{c c} 8.64 \\ 10.18 \end{array} $	1.05	1 67	$\begin{bmatrix} 2 & 31 \\ 2 & 34 \end{bmatrix}$	$17.70 \\ 18.62$
2135	14.03	7.16	3 52	$\frac{10.68}{9.75}$	.99	2.17	2 14	20.59
2136	10.67 11 52		3 48	9.71	- 86	1.70	2.17 2.32 2 31 2 34 2 14 2.05 2.22	17.00 <b>18 08</b>
1972			2.00 3 68	9.00	1.00	1.50		16 58 16.98
1012		0.10	, , ,				,	20.00

Laboratory Num'r.	Name of Brand and Man- ufacturer.	Where and From Whom Collected.
2134	Mississippi Guano	Max Priebatsch, Brookhaven  Average
1863	Our Vegetable Grower	Guarantee
1998	Producer Brand	E. F. Webb & Co., Summit
2034	Kainit	Lilly & Dunn, Summit
	CONTINENTAL FERT CO. Nashville, Tenn.	Guarantee
1886 1908	Eddystone Sol. Guano	J. F. Walker, Iuka J. D. Carr, Ackerman
2071 2072	"	T. W. Pylant & Bro., Purvis
2012		J. A. Mehaffey, Steens
1942	Sunny South Acid Phos	GuaranteeT. W. Pylant & Bro., Purvis
1978 2018	"	J. A. Mehaffey, Steens
2070	"	J. F. Walker, Iuka
		Average
	EAGLE COTTON OIL Co., Meridian, Miss.	
$2083 \\ 2084$	Eagle H G. Acid Phos	Eagle Cotton Oil Co., Meridian S. H. Floyd, Shubuta
		Average
	HAZLEHURST OIL MILL	Guarantee
	AND FERTILIZER CO. Hazlehurst, Miss.	
1814	Acid Phosphate	H'hurst Oil Mill & Fer. Co., H'hurst Guarantee
1996 2005	Imperial Fertilizer	Wilburn Bros., Pickens
2021	66	H'hurst Oil Mill & Fer. Co., H'hurst Smith & Decell, Wesson
2082	"	Lotterhos & Huber, Crystal Springs Average
2037	Kainit	Guarantee
	Jackson Fertilizer Co.	Guarantee
1882	Jackson, Miss. H. G. Acid Phosphate	W. H. Chambliss & Son, Newton
1975		R. D. J. Smith, Centreville

		Dhoon	honio	A oid De	- C- 1			
Laboratory Num'r.	Moisture—Per cent	Water—soluble	Citrate—soluble	Available.	Insolution Insolution	Nitrogen—Per c'nt	Potash—Per cent.	Relative Value per ton.
2134 1863 1998 2034	11.03 10 87 10.48 11.55 3.49	5.33 5.76 7.00 5.54 6.00 5.65 7.00	3.60 <b>3.64</b> 2.00 3.35 2.00 3.31 2.00	8.93 <b>9.40</b> 9.00 8.89 8.00 8.96 9.00	.69 .85 1.00 .87 1.00 .37	1.62 1.50 1.50 2.57 2.25 1.83 1.50	2.42 2.21 2.60 2.61 3.50 2.29 2.00 12.55 12.00	17.15 17 06 16.58 20.41 19.41 17.76 16.58 12.55 12.00
1886 1908 2071 2072 1942 1978 2018 2070	10 58 9.96 9.17 8.07 <b>9 44</b> 10.70 9.05 11.21 10.30	7.94 6.86 6.84 6 17 <b>6.95</b> 7.00 9 52 10.72 9 45 11.28 <b>10 24</b>	3.99 3.18 3.78 4.45 <b>3.85</b> 2.00 4.19 3.44 3.78 3.14 <b>3.64</b> 2.00	11.93 10.04 10.62 10.62 10.80 9.00 13.71 14.16 13.23 14.42 13.88 13.00	4.04 3.70 3.35 3.21 <b>3.57</b> 1.00 3.02 4.09 1.96 4.73 <b>3.45</b>	1.10 1.66 1.66 1.58 1.50 1.65	.81 1.28 1.15 1.05 1.07 1.00	17.11 17.40 17.85 17.42 17.44 16.06 14.66 15.23 14.18 15.55 14.90
2083 2084	9.95 13.45 <b>11.70</b>	11.82 12.03 11.92 11.00	2.84 2.72 <b>2.78</b> 2.25	14.66 14.75 <b>14.70</b> 13.25	1.39 1.80 <b>1.59</b> .75			15.84 15.95 <b>15.89</b> 14.35
1814 1996 2005 2021 2082 2037	14.12 11.00 11.04 11.15 10.60 <b>10.95</b> 4 27	12.46 12.00 7.61 7.32 7.45 7.78 <b>7.54</b> 7.00	2.84 2.00 2.88 2.94 3.06 2.64 <b>2.88</b> 2.00	15.30 14.00 10.49 10.26 10.51 10.42 10.42	3.24 1.00 2 43 2.38 2.10 2.02 2.23 1.00	1.84 1.92 1.71 1.96 <b>1.86</b> 1.65	1.93 1.78 2.11 1.83 1 91 1.75 11.65 12.00	16 55 15 20 19 16 19 01 18.92 19 40 19 12 16.81 11.65 12.00
1882 1975	11 27 11.18	9.58 8.66	3.54 4.95	13.12 13 61	1.92 2.12			14.08 14.48

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o j		
Laboratory Numb'r.		
F		l la
~	Name of Brand and	Where and From Whom
>		
õ	Manufacturer.	Collected.
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22		
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ŭ		
1070	U C Asid Phoenhate	N B Cilliland & Co Massingly
1976		N. B. Gilliland & Co., Kosciusko
2017		"
2023	66 9 66	Irving & Torbert, Wiers
2124	66	T. M. Heidelberg, Heidelberg
	6, 66	M M C4-1- B
2125		T. M. Steele, Forest
		Average
		Guarantee
1779	Royal C Brand	Canton Cotton Wareh'e Co., Canton
1774		H. E. Strahan, Hazlehurst
1809	66	C. Atkinson Sons Co., Summit
1835	- "	J. P. Myer, Ellisville
1846	66	Canton Cotton Wareh'e Co., Canton
	66	
1879		J. M. Stephenson, Morton
1880	66	Johnson-Woodward Co., Mt. Olive
1922	66	Turner & Taylor, Hattiesburg
1923	"	F. M. Brooks, Weathersby
	11	
1926		I. W. Lampton & Bro, Columbia
1927	66	Barney, Johns & Co., Gloster
2052	"	A. C. Seavy, Brookhaven
2053		H A. Busick, Brandon
2126		Sherman & Davis, Brookhayen
2127		M. D. Graham & Co., Forest
2128	66	Simpson Mer. Co., Terry
2129	66	Blackston Mer. Co,, Winona
	,,	Lattaches & Huban Countal Comings
2130	"	Lotterhos & Huber, Crystal Springs
2131		R. D. J. Smith, Centreville
2132		Stingley, Taylor & Co, Pelahatchie
		Äverage
1001	37	Guarantee
1881	vegetable and Fruit	Lottheros & Huber, Crystal Springs
		Guarantee
2033	Kainit	Wm. Atkinson & McDonald, Wesson
		Guarantee
	Lower Park	Guaranose
	LOUISVILLE FERT. Co.,	
	Louisville, Ky.	
1847	Eagle Bone and Potash	N. B. Langford, Canton
		Guarantee
	Magazinara Ort Mar-	Guarantee
	Kosciusko Oil Mill	
	AND FERT. Co.,	
	Kosciusko, Miss.	
1019	H. G. Acid Phosphate	Potts-Jackson Co., Kosciusko
	" Hospitale	1 Ous-Jackson Co., Rosciusko
2013	*****	
2014	*****	
2043		66
,		Average
		Cuanantas
		Guarantee

						-		
Laboratory Numb'r.	Moisture—Per cent	Water—soluble soluble	Citrate-soluble	Available.	Insoluble.	Nitrogen—Per cent.	Potash—Per cent.	Relative Value per ton.
1976 2017 2023 2124 2125 1773 1774 1809 1835 1846 1879 1880 1922 1923 21923 2126 2127 2128 2129 2130 2131 2132	11.46 10.93 10.58 11.08 11.10 11 08 15.54 12.70 9.23 10.85 13.33 10.00 10.22 10.53 10.48 9.55 9.51 10.11 9.82 9.70 10.87 11.06 9.72 10.48 9.10 10.57 11.06 9.72	9 89 9 68 9 200 8 39 8 61 9 14 10 00 5 96 5 53 6 59 5 94 6 51 6 87 7 07 6 45 6 40 6 6 14 7 06 6 6 14 7 06 6 49 6 49 8 00 8 9 20 8 6 19 8 6 19 8 7 7 00 8 7 7 00 8 7 9 19 8 7 00 8 00	3.25 3.45 3.73 5.66 5.39 4 28 2.00 3.37 2.92 2.50 2.28 3.85 2.79 2.33 2.73 2.73 2.72 2.80 3.64 2.10 2.25 2.25 2.27 2.93 2.57 3.94 2.75 2.75 2.75 2.75 2.75 2.75 2.75 2.75	13 14 13.13 12 93 14.05 14.00 13 42 12.00 9.33 8.45 9.05 8.87 9.79 9.30 9.46 8.78 9.13 8.91 9.49 9.80 9.65 8.84 9.22 8.94 9.07 9.63 10.34 9.60 6.97 6.00	2.38 2.29 2.19 1.43 1.28 1.94 1.00 .32 1.27 1.75 1.64 1.75 1.32 1.34 1.15 1.20 43 1.66 1.42 .90 1.92 1.92 1.92 1.00	1.52 1.44 1.71 1.60 1.55 1.52 1.61 1.67 1.74 1.71 1.56 1.79 1.72 1.71 1.72 1.78 1.65 3.18 3.00	2.04 1.85 1.88 1.86 2.10 1.90 1.97 2.07 1.93 2.05 2.03 1.91 1.82 2.01 1.97 2.19 1.98 4.43 4.00 12.16 12.00	14.13 14.10 13.85 14.89 14.86 14.34 13.00 16.91 15.53 17.14 16.59 17.52 17.02 16.40 17.47 16.79 17.15 17.21 17.68 18.22 18.84 16.49 16.55 17.12 17.90 18.96 17.24 15.04 22.23 20.05 12.16 12.00
1847	10.05	4.99 8.00	6 00 2.00	10.99 10.00	7.61 1.00		1.80 2.00	13.29 12.80
1912 2013 2014 2043	11.22 10 07 11 08 9 48 <b>10 46</b>	9.08 11.87 11.32 11.55 <b>10.95</b>	3.14 2.83 2.87 2.94 <b>2.95</b> 2.00	12.22 14.70 14.19 14.49 <b>13.90</b>	4.78 4.60 5.86 5.27 <b>5.13</b> 1.00			13.13 15.89 15.32 15.65 <b>15.00</b>

11	inary ses or con	inicional i citimzens comedica
Laboratory Num'r.	Name of Brand and Manufacturer.	Where and From Whom Collected.
2004 2030	SOLD BY MARBACH & EAGAN, Crystal Springs, Miss Bat Guano	Lotterhos & Huber, Crystal Springs I. M. Eagan, Crystal Springs Guarantee
1919 1956 2031 2202 2203 2204	MERIDIAN FERT. FACT'RY Meridian, Miss. Meridian Eng. Acid Pho.  "" "" "" ""	J. W. McKay, Waynesboro F. W. Bransby, Macon N. P. Welborn & Co., Laurel Fernwood Lumber Co., Fernwood. T. B. Gaddis, Morton. McGehee & Causey, Gloster Average.
1808 1876 1877 1960 2205 2206		Guarantee T. C. Edwards, Shuqualak. J. L. Miller, Gallman. Rew & McClinton, Newton. W. W. Harris, Iuka. R. E. Dear, Enterprise Mohler Bros., Mount Olive. Average
1764 1788 1843 1844 1845 1916 1920 1921 1948 1958 2010 2051 2207 2208 2210 2211 2212		Guarantee  J. McGrath & Sons, Brookhaven  R. Watts & Co, Seminary Patrick & Franklin, Magee McClain & Ratcliff, Gloster McLeod-Kennedy Co., Hattiesburg. G. H. Rankin, Columbia Sandersville Mer'tile Co., Sandersv. W. L. Weems, Shubuta J. M. Gann, Poplarville G. R. Edwards, McCool Holloway & McRaney, Collins Hitt, Hart & Blackston, Winona. W. A. Abrams, Baldwyn J. H. Williams, Bolton McClain & Ratcliff, Gloster Ross Bros., Pelahatchie Mathis & Cates, Corinth. W. H. Gillaspy, Hickory W. B. Richardson, Newton B. F. Harris, State Line
$\frac{2213}{2214}$	3	J. S. Eaton & Bro., Taylorsville Johnson-Hand Co., Ellisville I. N. Varnado, Osyka

:	ıt.	Phosp	horie A	.cidPe	r Cent.	nt.		ä
Laboratory Num'r.	Moisture—Per cent.	· 1	· i	1		Nitrogen—Per c'nt	Potash—Per cent.	lue per ton
Z	er	Water-soluble	Citratesoluble.			er	ŏ	Relative Value per
P.	7	olu	log	2		Ħ	- el	Va.
of,	-e-	02	T	Available.	Insoluble	-ue	T	စ်
)ra	-ta	er-	ate	Ila	lub	980	sh-	tiv
\$pc	ois	at	tra	vaj	sol	itre	ta	ela
ű	N		:5	4	In	Z	P	ŭ
		-						
		-						
2000	20 40				0.10	4 00	0.5	40 80
2004 2030	28.40 $21.34$		• • • • • • •		$8.19 \\ 8.00$	$\begin{vmatrix} 4.60 \\ 4.58 \end{vmatrix}$	.67 .53	$   \begin{array}{c}     19.72 \\     19.42   \end{array} $
2000	21.01				5.00	4.25	.65	16.96
1919	15.85	9.93	4.73	14.66	1.14			15.65
1956	14.38	11.19	3.12	14.31	3.04			15.43
2031	14.11	10.34	3 61	13.95	2.21			14.98
2202	13.45	10 94	455	15.49	1.06			16.58
$\frac{2203}{2204}$	$13.73 \\ 12.40$	$10.04 \\ 10.11$	$\frac{3.97}{5.60}$	14.01 $15.71$	1.22			$15.01 \\ 16.72$
2204	13 99	10 43	4.26	14.69	1.22 1.22 <b>1.65</b>			15.73
		10 00	2.00	12.00	.50 1.10			13.00
1808 1876	13.95 17.90	10.77	$\frac{4.22}{3.56}$	14.99	1.10			16 07
1877	15.63	$\begin{vmatrix} 10.69 \\ 11.39 \end{vmatrix}$	$\frac{3.30}{3.24}$	$14.25 \\ 14.63$	$\begin{array}{c} .77 \\ 1 \ 02 \end{array}$			15 32 15.77
1960	14.92	9.25	5 02	14.27	1.62			15.20
$\frac{2205}{2206}$	13.97	10.30	5.14	15.44	1.28			16.47
2200	12.67 14 84	12.56 10 83	3.54 <b>4.12</b>	16.10 <b>14.95</b>	. 69 <b>1.08</b>			17.36 <b>16 03</b>
		12 00	2.00	14 00	.75			15.20
1764	12.21	6.72	2.57	9.29	.82	1 80	2.40	18.21
1787 1788	13 06 $12.49$	7.13 6.84	$3.53 \\ 3.54$	$\frac{10.66}{10.38}$	·67 ·83		$2.14 \\ 2.26$	$18 06 \\ 18.33$
1843	16.36	6.20	2.35	8.55	.35		$\frac{2.26}{2.36}$	18.07
1844	13 57	7.46	2.51	9 97	.69	1.68	$\frac{2.36}{2.13}$	18.31
1845	17.09	6.64	2.15	8.79	.37	1 90	2.24	17.87
1916 $1918$		7.07	2.25	9.32 9.70	$\frac{2.82}{2.65}$	$ \begin{array}{ccc} 1.75 \\ 1.92 \end{array} $	2.24 1.68	17.96 18.32
1920	13.25	7.61	$\frac{2.68}{3.05}$	10.66	$\frac{2.65}{1.02}$	1.77	1 99	19.16
1921	12 90	7 29	2.83	10.12	.87	1.73	2 24	18.71
1948			2.47	9.42	2.64	$\frac{1.82}{1.82}$	$\frac{2.04}{1.95}$	18.07 18.73
$\frac{1958}{1959}$	$\begin{vmatrix} 11.92 \\ 13.58 \end{vmatrix}$	7 78 7.43	$\begin{bmatrix} 2 & 31 \\ 2 & 79 \end{bmatrix}$	$\frac{10.09}{10.22}$	1.89		1.95 $1.59$	18.47
2010	11 26	6.81	1.20!	8.01	2.64	1.92	1.78	16.71
2051	11.57	6 32	[-3.07]	9.39	2.46	1.51	1.84	16.77
$\frac{2207}{2208}$	$\begin{array}{c c} 12.30 \\ 12.58 \end{array}$	$6.77 \\ 7.68$	$ \begin{array}{c c} 2.76 \\ 2.43 \end{array} $	9.53 $10.11$	2.37 1.96	$\begin{bmatrix} 1.90 \\ 1.76 \end{bmatrix}$		18.19 18.49
2209	13.75	7.82	2.37	10.11	1.59			18 03
2210	12.60	7.05	2.37 2.43 3.11	9.48	2 48	1.92	1.61	18.04
2211		7.79	3.11	10.90			1.67	19.04
$\frac{2212}{2213}$			$\frac{2.94}{2.95}$	$\frac{10.46}{9.08}$				19.03
2214				9.82			$\overline{2.32}$	18.76

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Laboratory Num'r.		
E		
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Z		7771
⊳	Name of Brand and Man-	Where and From Whom Collected
ř	ufacturer.	
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ਕੂ		
ت		
2215	Meridian Home Mixture	Lann & Carter, Aberdeen
2216	66	Kennedy & Co., Wiggins
2210		
		Average
		Guarantee
1842	Meridian Blood and Bone.	McClain & Ratcliff, Gloster
1917	66	S H. Floyd, Shubuta
1954	66	A. Roberts & Co., Lauderdale
	6.6	A Mangald & Co. Haglahungt
2016	66	A. Mangold & Co., Hazlehurst
2200	66	J. H. South, Steen's Creek
2201	6.6	Matthews & Cotten, Iuka
		Average
		Guarantee
1075	Maridian Farmer's Friend	T. A. Lee, Wesson
	" Contain Farmer 5 Friend	W I Prown & Pro Wassingto
1961		W. J. Brown & Bro., Kosciusko
		Average
		Guarantee
1995	Meridian Veg'ble Grower.	Seward & Gaston, Ackerman
2199	មើ	J. L. Miller, Gallman
-100		Average
		Guarantee
0100	Manidian Salubla Cuana	T W Fllictt Magnelia
2190	Meridian Soldole Guano	J. W. Elliott, Magnolia
4.000	G T7 :-:4	Guarantee
1878	German Kalnit	Waddell, May & Barnes, Brandon
	_	Guarantee
	MOBILE PHOSPHATE Co.,	
	Mobile, Ala.	
1781	I. X. L. Acid Phosphate	Winner & Meyer, Meridian
1854	66	T. C. Edwards, Shuqualak
1855	66	Winner & Meyer, Meridian
2109	66	T R Gaddie Morton
	66	T. B. Gaddis, Morton
2110	"	J. L. Wells, Hickory
2111		Seward & Gaston, Ackerman
2112	66	J. P. Myer, Ellisville
2113	6.6	S. H. Floyd, Shubuta
		Average
		Guarantee
1700	Mahila Standard Cyana	Guarantee
	Mobile Standard Guano	Winner & Meyer, Meridian
1816	"	G T W 11 0 G
1820		Geo. L. Welsh & Son, Shuqualak
1849	6.6	Burkett & Burrow, Columbia
1928	66	Wetherbee & Huggins, Waynesboro
1929	66	W. L. Weems, Shubuta
1930	6.6	J. P. Myer, Ellisville
1949	66	B. Shia & Co., Collins
1969	66	
2000	66	Barnett-Davis Supply Co., Boonev'le
2118		The J. P. Myer Mer. Co., Taylorsv'le

	1 .							1
Laboratory Num'r.	Moisture—Per cent.	l		Acid—P€	er Cent.	c'nt.	int.	lue per ton.
Nu /	Per	Water—soluble	Citratesoluble			Nitrogen—Per	Potash—Per cent	Relative Value
tory	re—	os-	0s	ble.	ole.	en—	l P	re V.
bora	istu	ater-	rate	Available.	Insoluble.	trog	tash	lativ
	Mo	M	Cit	Av	Ins	N. I.	Po	Re
2215 2216	12.23 1310 13 08	6.09 6 75 <b>7 04</b> 7.50	3.86 2.97 <b>2.71</b> 2.00 3.31	9.95 9.72 <b>9.75</b> 9.50	2.07 1.19 <b>1.50</b>	1.85 1.89 1.78 1.75	1.79 1.84 • <b>2 01</b> 1.75	18 36 18.38 18 25
1842	13 80	7.30	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	9 50 10.45	1.88	1.79	1 86	17.69 18.84
1917 1954	11.45 14.28	6 92	2.76 2 02 2 80 2.89 3 40	$9.68 \\ 9.81$	$ \begin{array}{r} 2.81 \\ 2.16 \end{array} $	1.87 1.91	$\frac{2.16}{1.87}$	18 61 18 67
$\frac{2016}{2200}$	13.36 17 47	7.11	$\frac{280}{2.89}$	$9.91 \\ 11.05$	1.78 .97	$1.75 \\ 1.65$	$1.97 \\ 1.71$	18.28 18.94
2201	15 07 14 24	6 84 7 33 7.50	2 86	10.24 <b>10 19</b> 9.50	1.70 <b>1.88</b> 1.25	1.67 1 77 . 1.75	1.74 1 90 1.45	18.09 18.57 17.69
1875 1961	12.94 12.84	6.26 6.96	$     \begin{array}{r}         \overline{2.00} \\         2.75 \\         4.75     \end{array} $	9.01 11 71	1.55 1.82	1.77 1.05	1 28 1 34	16.69 17.16
1001	12.89	6 61	3.75	10 36	1.68	1 41 1.65	1.31	16 92 13.96
$\frac{1995}{2199}$	10 36 13.00	6 77 7 01	1 00 2 47 2.76	9.24 9.77	$ \begin{array}{c}     6 & 75 \\     3 \cdot 35 \end{array} $	1.46 2 00	4.71 4.44	19.37 21.41
	11.68	6 89	2 62 1 00	9.51	5 05 .50	1 73 2.50	4 57 6.00	20.39 20.63
2198	15 00	8 00	2 33	10 33 9.50	.73	1.68 1.75	2.09 1.75	18.68 17.69
1878	4.18			9.50			1276 12.00	12 76
			••••		****		12.00	12.00
1781 1854	14.91 14.40	11.39 12.64	3 52 3.27	14.91 15 91	3.66 1.61			16 05 17.17
1855 2109	15.13 13.68	10 93 9.59	3 23 3.71	14.16 13.30	4 55 5 21			15 25 14.26
2110 2111	15.32 13.53	10 32 9 11	4.02 3 91	14 34 13 02	3.02 6.04			15.37 13.93
2112 2113	14 35 14 26	11.14	5 19 5 32	16 33 14 61	2 09 3 16			17.44 $15.54$
	14 45	9.29 <b>10.55</b> <i>10.00</i>	4.02	14 57	3 67 1.00			15.63 13.00
1782 1816	10 79 11 15	7.88	3 52 3.04	12,00 11.40 10.95	3.67 3.54	1 97 1 91	$\begin{array}{c} 2.19 \\ 2.04 \end{array}$	20.78 19.99
1820 1849	10.93 11.11	7.98 8.66	3 33 2 81	11 31 11 47	4 39 4 22	1.80 1.82	2 02	19.98 19.83
1928 1929	10.61 10.85	4 35 4.73	4.27 4.47	8.62	7 29 6 47	1 99	2 58 1.99	17.51
1930 1949	10.64	5.27	4 55	9 82	6.52	1.89	2.12	17.93 18.20
1969 2118	9.50	4.40 5.44	4 21 3.92	8 61 9.36	7 70 6 56	$\begin{bmatrix} 2 & 03 \\ 1.70 \\ 1.62 \end{bmatrix}$	1.96 2.14	17.61 17.57
2110	11.10	4.86	4 60	9.46	6 47	1.62	1.77	16 98

Name of Brand and Manufacturer.  Name of Brand and Manufacturer.  Where and From W where an	. Co , State Line
2119 Mobile Standard Guano Miss. and Ala. Co-op D. L. O'Neal, McHe J. R. Dabbs & Bro , Gilmore, & May, Am	ry
2119 Mobile Standard Guano Miss. and Ala. Co-op D. L. O'Neal, McHe J. R. Dabbs & Bro , Gilmore, & May, Am	ry
2119 Mobile Standard Guano Miss. and Ala. Co-op D. L. O'Neal, McHe J. R. Dabbs & Bro , Gilmore, & May, Am	ry
2119 Mobile Standard Guano Miss. and Ala. Co-op D. L. O'Neal, McHe J. R. Dabbs & Bro , Gilmore, & May, Am	ry
2119 Mobile Standard Guano Miss. and Ala. Co-op D. L. O'Neal, McHe J. R. Dabbs & Bro , Gilmore, & May, Am	ry
2120 " D. L. O'Neal, McHe 2121 " J. R. Dabbs & Bro , 2122 " Gilmore & May, Am	ry
2120 " D. L. O'Neal, McHe 2121 " J. R. Dabbs & Bro , 2122 " Gilmore & May, Am	ry
2121 " J. R. Dabbs & Bro , Gilmore & May, Am	rry
2121 " J. R. Dabbs & Bro , Gilmore & May, Am	
2122 "Gilmore & May, Am	Guntown
Gumore, & May, An	
91931 IA Roberts & Co. I	
A. HUDELIS & CU., L	auderdale
duarant	ee
1943 Mobile Double Eagle J. P. & W. C. Weth	erbee, Waynesb.
1971 " Dr. C. C. Ewing, Al	erdeen
2061 "J. P. & W. C. Weth	whee Waynesh
2000	
L. H. Tubb, Amory	
2116 " J. L. McLain & Co.,	State Line
Average	
8	ee
1970 Mobile Dis. Bone and Pot. T. L. Shots, Amory	00.00
2010 Miles Dis. Bone and 1 of. 1. 12. Shots, Amory	
	ee
2114 Eclipse Soluble Guano A. B. Williamson &	Co., Buckatunna
2115 " R. W. Fagan & Co.,	Waynesboro
2117 Convince Common Kainid Winner & Manager	ee
2117 Genuine German Kainit. Winner & Meyer, M	eridian
Guarant   Guarant	ee
NEW ORLEANS ACID AND	
FERTILIZER CO.	
New Orleans, La	•
1810 Blook Diamond Acid Phon C. Cohn & Com. M.	
1810 Black Diamond Acid Phos S. Cohn & Sons, Ma	gnona
1807 " D. Rosenbaum's Son	s, Meridian
1874 "Hawkins & Co., Hat	tiesburg
2152 "R. W. Carter, Iuka	
o. com a sons, ma	
O. S. Treeme, Shuse	
Seward & Gaston, A	ckerman
2156 "Robinson Merc'tile	Co Centreville.
1765 Coldonishla I Mintered I C. 1 & D	ee
1765 Goldsmith's Imp. Mixture Louis Cohn & Bros.	
1812 "S. Cohn & Sons, Ma	gnolia
1817 " D. Rosenbaum's Son	s, Meridian
1841 " Wilkinson & Rawls.	Poplarville
1840 "Hawkins & Co., Hat	
1936 "Seward & Gaston, A	
1000	
10 Am	
- Labour at Control Liam.	o., Lastabutenie
Sones & Dansby, Fo	rest
The J. P. Myer Mei	. Co., Taylorsv.
2011 "Sessions Bros., Woo	dville

Laboratory Num'r.	Moisture—Per cent.	Water—soluble.	Citrate-soluble.	Available.	r Cent.	Nitrogen—Per c'nt	Potash—Per cent.	Relative Value per ton
2119 2120 2121 2122 2123	12.92 13 07 10.93 10.85 10.71 <b>11.12</b>	6.79 7.48 4.30 4.29 4.85 <b>5.95</b> 6.00 12.46	3.12 2.44 4.12 4.93 4.74 <b>3.87</b> \$.00	9.91 9.92 8.42 9.22 9.59 <b>9.82</b>	3.21 1.22 5.60 6.52 6 52 <b>5.33</b> 1.50	1.79 1.84 1.95 1.85 1.76 <b>1.84</b> 1.65 1.86	2.24 2.24 1.69 1.92 2.08	18 37 18.89 17.43 17.35 17.72 18.48
1943 1971 2061 2062 2116	15 .03 13 .12 13 44 10 75 <b>13 17</b>	9.52 7.59 7.64 8.29 <b>9.10</b> 7.50 6.73	1.55 3.34 2.98 3.44 <b>2.27</b> \$.50 4.14	8.00 12.52 11.07 10.93 10.62 11.73 11.37 10.00 10.87	1.01 1.56 5.12 1.80 .82 <b>2.06</b> 1.50 2.35 2.00	1.34 1.41 1.88	2.33 2.29 1.88 1.96 2.49 2.19 2.00 2.92	22.14 18.67 18.15 19.45 20 31 <b>19.74</b> 18.11 14.46
2114 2115 2117	12 06 15.99 14 02	8.00 7.05 7.98 <b>7.51</b> 7.00	2.00 3.98 2.95 <b>3.47</b> 2.00	10.00 11 03 10.93 10.93 9.00	$\frac{2.62}{1.07}$	1.72 1.71 <b>1.72</b> 1.65	2.00 .94 1.38 1.16 1.00 13 11 12.00	12.80 18 27 18.67 18 47 16.06 13.11 12.00
1810 1807 1874 2152 2153 2154 2155 2156 1765 1812 1817 1841	16 62 18 38 17 51 12 99 <b>16 75</b> 10 71 11 79 12 59 14 13	8.01 7.91 10.32 9.27 9.07 8.21 10.62 <b>8.73</b> 10.00 6.75 6.88 8.59	4 84 2 00 2.73 2.53 3.08	9.48 9.28 9.96 10.45	2.61 2.19 1 91 2.39 2 03 <b>2 20</b> 2.00 1.97 2.62 2.33 2 34		1.27 1.89 1.75	11.95 13 50 12.35 16.02 15 68 15.22 13.82 17 02 14.44 13.00 16.63 18.64 18.54
1840 1936 1937 1947 1962 1963 2011	$egin{array}{c} -9.45 \\ 12.21 \\ 11.21 \\ 11.50 \\ 11.58 \\ 12.24 \\ \end{array}$	$\begin{bmatrix} 5.74 \\ 7.37 \\ 7.27 \\ 8.38 \\ 7.71 \\ 7.11 \end{bmatrix}$	$\begin{array}{ c c c }\hline 2.84 \\ 2.28 \\ 2.06 \\ 2.58 \\ 2.65 \\ 2.01 \\ \end{array}$	8.58 9.65 9.33 10.96 10.36 9.12	1.93 3.07 2.32 2.64 2.65	1.97 1.97 1.80 1.95 2.06	$\begin{array}{c c} 2.08 \\ 2.25 \\ 1.62 \\ 1.77 \\ 1.70 \\ 1.87 \end{array}$	17.96 19.04 18 08 19.42 19.17 18.40

y Num'r.	Name of Brand and Man-	Where and From Whom Collected.
Laboratory Num'r.	ufacturer.	
2757	Coldonith's Inn Minter	IXI M McCough & Con Monto
$2157 \\ 2158$	Goldsmith's imp. Mixture	W. M. McGough & Son, Morton Pickering & Co., Mount Olive
2159	66	J. P. Wise & Co., Hazlehurst
2160	66	Hyman Mercantile Co., Summit
2161	4.6	J. & B. McClenahan, Pelahatchie
2162	66	Atkinson & Bacot Co., Osyka
2163	66	W H. Chambliss, Newton
2164	66	W. M. Hyde, Vossburg
2165	"	Bonner Bros., Sandersville
1		Average Guarantee
1811	Dissolved Bone	S. Cohn & Sons, Magnolia
		Guarantee
1966	Crescent City Acid Phos.	W. H. Chambliss & Son, Newton Guarantee
1870	Good Luck	Rawls & Binns, Seminary
1872	Dissolved Bone and Potash	Guarantee
2009	66	Louis Cohn & Bro., Brookhaven
2148	66	Lann & Carter, Aberdeen
2149	66	Louis Bendat, McComb Citv
		Average
1979	Blood Bono and Potech	Guarantee
1965	of the state of th	R. W. Carter, Iuka
2028	66	J. J. Dickson, McHenry
2147	66	J. P. Myer, Ellisville
		Average
1000		Guarantee
$\frac{1938}{2022}$	Blood, Bone and Beef	Atkinson & Bacot Co., Osyka
2038	6.6	J. L. Moyse & Bro., Summit
2000		Average
	1	Guarantee
	Gold Dust	Rawls & Binns, Seminary
1964	1	J. S. Eaton & Bro., Taylorsville
2006	66	T. L. Cotten & Co., Summit
2027 $2150$		T. C. Ruble, McHenry
2151		Rew & McClinton, Newton
-101	1	Average
		Guarantee
	STANDARD GUANO AND	
	CHEM. M'F'G. CO.	
1784	New Orleans, La.	Kelly & McKinnon Sominany
1104	Stories Actu i nospitate	Kelly & McKinnon, Seminary

r.	nt.	Phosp	horic .	AcidPe	er Cent.	c'nt.		n.
Laboratory Num'r.	Moisture—Per cent	e .	le.	,		် ်	Potash—Per cent	lue per ton
ź	Jer.	ldu	qn			-Per	l c	pe pe
ry	"	ilos	sol	ů			Pe	8
atc	ıre	i j	6	abl	ble	sen		Ve
30r	istı	ten	rat	aila	nlo	rog	asl	ati
[a]	Mo	Water-soluble	Citrate-soluble	Available	Insoluble.	Nitrogen-	Pot	Relative Value
$\frac{2157}{2158}$	$12.24 \\ 12.67$	$7.56 \\ 7.25$	$\frac{2.41}{3.40}$	$\frac{9.97}{10.65}$	$\frac{2.82}{1.77}$	$ \begin{array}{c c}  & 1 & 98 \\  & 2.02 \end{array} $	.94 1.60	18.11 $19.54$
2159	12.64	8 44	3 28	11.72	3.16	1.92	1 60	20.40
2160	12.66	6.41	3.22	9.63	$\frac{2.29}{3.10}$	1.92	1.76	18.27
$\frac{2161}{2162}$	$10.10 \\ 13.15$	$7.15 \\ 6.79$	$\frac{3.25}{2.76}$	10 40 9 55	$\begin{array}{c} 3 & 10 \\ 2 & 49 \end{array}$	$1.67 \\ 1.84$	$     \begin{array}{r}       1.78 \\       1.60     \end{array} $	18.33 $17.81$
2163	11.84	7 71	2.31	10.02	2.88	1 87	1.57	18.44
$2164 \\ 2165$	$1297 \\ 12.62$	$\frac{6.93}{7.27}$	2 73	$9.66 \\ 9.41$	2 74	$1.67 \\ 1.76$	1.80	17.58
2100	12.04	7.27 <b>7.29</b>	2.31 2.73 2.14 <b>2.66</b> 2.00	9.95	2 51	1 90	1.66 <b>1.70</b>	17.52 18.54
		7.00	2.00	9.00	2 55 2 51 2 00 2 48	1.65	1.00	16.06
1811	13 22	11.03 12.00	4 87 3 00	15 90 15.00	2.48	• • • • • • • •	• • • • • • • •	17.00 16.20
1966	14 08	12.06	3 23	15 29	3 15			16.50
1870	9.87	10.00 5 67	$\frac{2.00}{3.56}$	12 00 9 23	2 00 5.30	1 80	1.18	13.00
1010		7 00	2.00	0.00	2.00	1.65	1 00	16.83 16.06
1873	11 67	7 88 11.58	4.30	$\begin{array}{c} 12.18 \\ 15 65 \end{array}$	2.41		2.25 2.14 2.23	15.22
$\frac{2009}{2148}$	13 02 15 24	11.58 11.01	$\frac{4}{3.76}$	14.77	$\frac{2.28}{2.90}$		$\frac{2.14}{2.23}$	$18.95 \\ 18.10$
2149	14.55	10.43	4 35	14.78	2 41		3.43	19.25
	13 62	10 23 8.00	4 12 2 00	14 35 10.00	2.28 2.90 2 41 <b>2 50</b> 2 00		2 51 2.00	17.88
1873	8 67	6.05	3 30	9.35	5.46	1.65	1.17	12.80 16.49
1965	9 96	6 10	3 98	10.08	4 40	1 69	1.23	17.41
$2028 \\ 2147$	3 92 15 57	$\begin{bmatrix} 5.18 \\ 8.79 \end{bmatrix}$	$   \begin{array}{c c}     2.83 \\     1.49   \end{array} $	8 01 10 28	$7.01 \\ 3.53$	$\begin{array}{c} 2.45 \\ 1.92 \end{array}$	$\frac{1.06}{1.04}$	17.55 18.44
2111	9.53	6 53	2.00	9.43	5.10	1 93	1.13	17 47
1020	11 50	7.00	$2.00^{\circ}$ $2.93$	9.00 7.84	2.00 5.94	1.65	1.00	16.06
$\frac{1938}{2022}$	16.09	4 67	2.93	7.60	1.93	1 80 1 86	$\frac{1.26}{1.43}$	$15  ext{ } 44 \\ 15.54$
2038	14 09	4 44	3 56	8 00	1.87	1.98	1.45	16 33
	13.89	4 67	3 14	<b>7 81</b> 9.00	3 25 2.00	1.88 1.65	1 38	15 77 16.06
1871	15 09	8 49	2.14	10.63	2.62 $2.62$	1.60	1.86	18.54
1964	13.24	7.14	$\begin{bmatrix} 2 & 75 \\ 3.31 \end{bmatrix}$	9 89 12 50	2.62	1.99	1.70	18.77
$2006 \\ 2027$	$12.50 \\ 12.90$	9 19 7.65	$\begin{vmatrix} 3.31 \\ 3.01 \end{vmatrix}$	10 66	$\frac{3.06}{2.11}$	$\frac{1.81}{1.89}$	$\frac{1.99}{1.64}$	21.29 19.20
2150	11.89	5.82	3 27	9.09	.74	1.54	2.07	16 75
2151	13.55 13.20	6.98 <b>7 54</b>	2 24 2 79 2 00	9.22 <b>10.33</b>	2.30	1.96 1.80	1.74 1.83	18 03 <b>18.76</b>
	10.20	7.00	2.00	9.00	2 24 2.00	1.65	1.00	16.06
1784	13.72	12 20	5 11	17.31	1.11			18.53

Laboratory Num'r.	Name of Brand and Man- ufacturer.	Where and From Whom Collected.
	" " " " " " " " " " Stern's Amm'd R.B Sup'r's	W. J. Hubbard, Shuqualak W. M. Hyde & Co., Poplarville Taylor Bros. & Nelson, Magee Griffith Parkman Co., Mount Olive. G. H. Beeman, Harperville. J. K. Kirkland, Quitman W. I. Heidelberg, Heidelberg. W. L. Bourland, Amory I. H. Brown, Hickory Average Guarantee I. N. Varnado, Osyka
1776 17783 1856 1836 1952 2024 2026 2181 2182 2183 2184 2185 2186 2187 2199 2199 2199 2199 2199 2199 2197		I. M. Eagan, Crystal Springs Kelly & McKinnon, Seminary. Griffith Parkman Co., Mount Olive. H. A. Barnes, Columbia. J. A. Spann, Pelahatchie H. H. Överstreet, Eastabutchie Kennedy & Co., Wiggins Hyman Mercantile Co., Summit. The R. W. Hinton Co., Lumberton. Ainsworth & Mayfield Co., Taylorsv. N. R. Hosey & Co., Soso. I. W. Lampton & Bros., Columbia. James O'Connell. Purvis. R. F. Everett, Braxton Hattiesburg Compress Co., Ha'burg McLain Bros. & Jacobs, Gloster. W. C. Ellis, Steen's Creek W. M. Hyde & Co., Poplarville. Lampton Mercantile Co., Magnolia. B. Shia & Co., Collins. Perkins & Co., Brooklyn R. T. Scherck, Brookhaven Johnson Hand Co., Ellisville. Simpson Mercantile Co., Terry Average. Guarantee.
1769 1786 1837 1839 1853 2171	66 66 66	I. N. Varnado. Osyka.  B. Shia & Co., Collins. I. W. Lampton & Bro., Columbia. Barney Johns & Co., Gloster. L. C. Smith, Lauderdale. W. L. Bourland, Amory.  Average  Guarantee.

e:	1	Phosp	horic .	Acid—Pe	er Cent.	± ±		n.
Laboratory Num'r.	Moisture—Per cent					—Per c'nt	Per cent	lue per ton
2	r C	Water-soluble	Citrate-soluble.			l.	Ge.	le er
2	Ре	ηn	n l			Pe	Ę.	F G
ry	Ī	olo	gol	ů		T	Pe	28
5	ė	S	i i	ole	Je	iue		o o
ra	n:	4	te	[8]	пр	80	ų,	vic
- 2a	ist	ate	ra	Available	Insoluble.	Nitrogen-	Potash	Relative Value per
, g	¶0	Ν̈́ε	);t	<u>^</u>	ns	ij	o	se se
<u> </u>								——————————————————————————————————————
1821	13 52	12 92	4.82	17.74	1.43			19.03
1858	12 05	10.49	6 09	16 58	2 69 1.15			17.63
1968	13.94	11.55	5.48	17.03	1.15			18.19
2175	12.46	11.10	5 81	16.91	1,07			18.02
2176	15.00	11.18	5.45	16.63	.52			17.75
2177	13.30	11.44	5.45	16.89	. 99			18.03
2178	13.55	11 80	6.28	18 08	1.46			19 26
2179	14.31	11 26	6.12	17.38	$1.46 \\ 1.73$			18.51
2180	11 39	11.09	5 35	16 44	1.39 1 <b>35</b>			17.55
	13 32	11.50	5 35 <b>5 60</b> 2 00	17.10	1 35			18 25
3 55 5	10.00	10.00	2 00 3.02	12.00	0.20	1.00	1 50	13 00
1775	$12.30 \\ 12.58$	7 10 7.20	2.84	$10.12 \\ 10.04$	$\frac{2.39}{2.46}$	$     \begin{array}{r}       1.93 \\       1.74   \end{array} $	1.53	$18.63 \\ 17.95$
$1776 \\ 1783$		7.20 $7.04$	3 04	10.04	2.75	1.64	1.53	17.93
1856	$11 94 \\ 11.28$	4 53	5.75	1008	$\frac{2.73}{4.70}$	1.61	$\begin{array}{c} 1.62 \\ 1.44 \end{array}$	17.41
1836	12 01	7.18	3.07	10.25	4.26	1.73	1.57	18.18
1952	10.77	5.76	3.69	9 45	5 55	1.57	1.46	16.59
2024	12 00	6.13	3.84	9.97	4.81	1.86	1.49	18.12
2026	12 72	5 74	4.13	9.87	3.68	1.72	1.54	17 57
2181	11.34	5.60	4.47	10.07	3.35	1.79	1.33	17.78
2182	11.75	4,90		9.80	5.81	2.00	1 41	18.20
2183	11 29	6 13		9.87	3,47	1 76	1.57	17.77
2184	10 99	6 00	3.76	9.76	3.34	1.78	1.31	17.46
2185	10.65	5 85	4 54	10 39	4.49	1.89	1.31	18.43
2186	11.57	6.70	3.93	10 63	4.53	1.65	1.75	18.41
2187	10.21	6.50	3.94	10.44	4.43	1.62	1.48	17.84
2188	11.43	7.30	3.03	10 33	4.54	1.87	1.47	18.61
2189	10 25	6.15		10 04	4.85	1.56	2.04	17.77
$\frac{2190}{2191}$	10 84	7.47	$\begin{array}{r} 3.08 \\ 3.21 \end{array}$	10 55 10.34	4.04	1.72	1.39	18.28
$\frac{2191}{2192}$	$\begin{vmatrix} 11.70 \\ 12.70 \end{vmatrix}$	7 13 7.19	$\frac{3.21}{2.61}$	9.80	4.84 1.14	1.82 1.76	$1.44 \\ 1.62$	18 41 17.86
$\frac{2192}{2193}$	$12.70 \\ 10.68$	5.48	$\frac{2.61}{4.81}$	10 29	4.84	2.01	1.02	17.80 18.51
$\frac{2193}{2194}$	10.00	6.86	3.35	10.23	2.84	191	2.08	1918
2195	10.51	5.39	4 78	10.17	4 32	1.81	1.54	18.13
2196	11.08	5.87	4.84	10.71	4.43	1.67	1.40	18.13
2197	11.13	6.98	3.19	10.17	4.35	1.90	1.35	18.39
	11.36	6.33	3.82	10.15	4.01	1.77	1.51	18.06
		4.00	3.82 5.00	9.00		1.65	150	16.26
1769	12.10	7.34	2.01	9.35	3.77	1.84	2.08	18.14
1786	10.85	6.22	2.59	8 81	1.79	2 31	2.20	19.14
1837	11.35	696	2.42	9,38	4.54	1,83	1.71	17.73
-1839	11.45	751	2.47	9.98	4.51	1.84	1.78	18.49
1953	13.63	6 28	3.38	9 66	3.24	1.63	2.16	17.75
2171	11.92	6.01	3.97	9.98	4.04	1.52	1.77	17.29
	11.88	6.72	2.81	9.53	3.65	183	1.95	18 09
		4.00	4.25	8.25		1.70	2.00	16.18

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Laboratory Num'r.	Name of Brand and Man- ufacturer.	Where and From Whom Collected.
1785	Mississippi Home Guano	Kelly & McKinnon, Seminary
1857	((	I. W. Lampton & Bro., Columbia
1967	66	L H. Tubb, Amory
2172	"	Gayden & Co., Brandon
2173	66	Johnson Woodward Co., Mt Olive
2174		B F. Fridge, Ellisville
		Average
		Guarantee
	Champ Farmer's Choice	
1910	66	G. Lowenberg & Co., Kosciusko
1935 2168	66	J. P. & W. C. Weatherbee, W'boro. H. C. Rogers, Centreville
2169	"	E. Pfeifer, Brookhaven
2170	6.6	J H. DuBose & Co., Buckatunna
		Average
	C 1 D	Guarantee
	Ground Bone	I. M. Eagan, Crystal Springs
$\frac{1859}{2167}$	66	H. A. Barnes, Columbia Collins Bros., Tylertown
2107		Average
		Guarantee
1946	Pelican R B. Guana	Wm. Atkinson Foxworth Co., Co-
0100	66	lumbia
2166		Atkinson & Bacot Co., Osyka
		Average Guarantee
2032	Kainit	C. Atkinson Son's Co., Summit
		Guarantee
	SWIFT FERT'ZER WORKS.	
1995	Atlanta, Ga. Golden Harvest Standard	
1000	Grade Guano	M. D. Graham & Co., Forest
1957	Golden Harvest Standard	2. G. a.
	Grade Guano	Wilson & Waldrop, Pelahatchie
		Average
2070	C . I II C C	Guarantee
2079	special H. G. Guano	Sandersville Mer. Co., Sandersville.
1909	Capital H. G. Acid Phos.	Guarantee Seward & Gaston, Ackerman
1000	Capital II. G. Hola I 1105.	Guarantee
1980	Swifts Plow Boy Ammoni-	
2001	ated Bone and Potash.	J. J. Rogers, Tupelo
2081	Swifts Plow Boy Ammoni-	Cilmono & More Amour
	ateu Done and Fotash.	Gilmore & May, Amory
		Average Guarantee
		C G G G G G G G G G G G G G G G G G G G

	1 .:	Dhoen	horia	Acid—Pe	r Cent.	1 .:	]	
Laboratory Num'r.	MoisturePer cent	Water-soluble.	Citrate-soluble,	Available.	Insoluble.	Nitrogen—Per c'nt	Potash—Per cent.	Relative Value per ton
1785 1857 1967 2172 2173 2174 1838 1910 1935 2168 2169 2170 1777 1859 2167	9.93 10.06 11.20 10.40 10.83 10.74 <b>10.53</b> 	6.24 7 14 6 67 6.52 7.61 7.10 <b>6.88</b> 4.00 7.16 7.14 6.59 6.29 6.42 6.09 <b>6.61</b> 4.00	2.92 2.65 2.68 2.68 2.66 2.26 2.26 2.26 2.26 2.25 3.79 2.66 2.87 2.53 <b>2.6</b> 9	9.16 9.79 9.23 9.20 10.21 10.25 <b>9.64</b> 9.00 9.42 9.16 10.38 8.95 9.29 8.62 <b>9.30</b>	.87 1.61 4.14 1.00 2.48 2.47 <b>2.09</b> 	2 07 1.75 1 71 1.90 1.81 1.88 <b>1 85</b> 2.13 1.89 1.72 2 07 1.62 1.65 3.51 2.56 3.16	2 14 1 95 2 35 2 85 2 61 2 09 2 33 2 00 1 83 1 1.66 1 63 1 77 1 85 1 76 1 50	18.65 18.14 17.81 18.88 19.46 19.16 18.68 26.76 18.89 17.82 18.29 17.94 16.97 16.44 17.73 25.26 22.70 19.94 21.68 21.44
1946 2166 2032	14. 61 11. 61 13 11 2.78	4. 72 6°.08 <b>5. 40</b> 4. 00	3. 52 3. 58 <b>3. 55</b> 4. 00	8. 24 9. 66 <b>8. 95</b> 8. 00	22. 87 18. 50 4. 95 3. 25 4. 10 1. 00	3. 08 2. 50 1. 55 1. 53 1. 54 1 65	1. 62 1. 39 1. 50 1. 50 12. 41 12. 00	15. 37 16. 63 16. 00 15. 26 12. 41 12. 00
1865	10. 27	5.05	3, 95	9.00	2. 35	1.80	2. 10	17.46
1957	9. 15 <b>9. 71</b>	5. 97 <b>5</b> . <b>51</b>	2. 32 <b>3. 13</b>	8 29 <b>8. 64</b>	3. 21 <b>2. 78</b>	1.73 1.77 1.65	2.38 2.24 2.00	16. 89 17. 18
2079	8.01	6.00 6.87 7.00	2.00 .87 2.00	8.00 7.74 9.00	1.00 1.83 1.00	4.72 4.10	3. 16 3. 00	15.96 26.93 26.02
1909	12. 35	10.62 10.00	3.99 2.00	14. 61 12. 00	2. 62 1. 00		• • • • • • • •	15.67 13.00
1980	9.78	6.84	2.76	9.60	3.99	1.22	1.48	15.73
2081	9. 50 <b>9. 64</b>	6. 50 <b>6. 67</b> 6. 00	3. 52 3. 14 2. 00	10.02 <b>9.81</b> 8.00	4. 07 4. 03 1. 00	1. 14 1. 18 . 82	1. 18 1. 33 1. 00	15. 56 15. 64 12. 27

Laboratory Numb'r.	Name of Brand and Manufacturer.	Where and From Whom Collected.
1979	Swift's Wheat Growers'	
	Acid Phos. and Potash., Swift's Wheat Growers'	Gilmore & May, Amory  J. J. Rogers, Tupelo
2000	G 'C' Gattan Dlant Ctid	Average
2080	Swift's Cotton Plant St'd Guano	Wetherbee & Huggins, Waynesboro Guarantee
1890	TENNESSEE CHEMI'L CO Nashville, Tennessee. Ox Slaughter House Bone	
1813	GII GIAGGIO	W. L. Williams, Wesson
1911	66	Potts-Jackson Co., Kosciusko
1941	6.6	F. M. Howard, Canton
2044	6.6	Potts-Jackson Co., Kosciusko
2063	6.6	L. H. Tubb, Amory
2096	6.6	L. C. Prather, Baldwyn
2097	6.6	Abney & Travis, Heidelberg
2098	6.6	Pierce, Singletary & Co., Steens Cr'k
2099	66	D. H. Ravesies, Purvis
2000		Average
		Guarantee
1818	Ox H. G. Dis. Bone	L. L. Anderson, Shuqualak
1869		L. L. Anderson, Shuqualak W. L. Wellman, Wesson
2088		Dr. C. C. Ewing, Aberdeen
2089		W. W. Harris, Iuka
2000		Average
		Guarantee
1819	Ox Acid Phosphate	L. L. Anderson, Shuqualak
1913		Fowler & Fowler, McCool
2090		D. H. Ravesies, Purvis
2091		F. M Howard, Canton
_001	,	Average
		Guarantee
1868	Ox Potash Mixture	Canton Cotton Ware'he Co., Canton
1914	4.6	Blumenfeld & Fried, Ackerman
2094		S. L. Sanders, Corinth
2095		W. H. Barron & Co., Crystal Spr'gs
		Average
		Guarantee
1977	Ox Cotton Guano	Myer & Egger, Caledonia.
2092		Myer & Egger, Caledonia W. W. Harris, Iuka
2093		C. M. Elder, New Albany
2000		Average
		Guarantee
		Cuarantee

)'r.	nt.	Phosp	horic A	Acid—Pe	er Cent.	nt.		
Laboratory Numb'r.	Moisture—Per cent.	0 1	e 1			Nitrogen—Per cent	Potash—Per cent.	/alue per ton.
n Z	er	Water—soluble	Citrate—soluble			er	ိ	Relative Value per t
2	러	= !	olo			<u> </u>	er	zal pe
or		-80	Ĭ.	le.	ė	n-u	P	> -
at	n n	1	ė l	ap	[dr	93	-q	ΙΛΕ
00	ist	rte	ra	ail	olı	ro	S BS	a t
ख्	To	8	it.	Available.	Insoluble.	Ait	ot	[e]
								———
1979	9.69	6.88	3.07	9.95	4.75		2.27	12 91
2078	9.60	6.78	3.69	10.47	4 50			
2010	9.65	6.83 7.00	3 38	10.21	<b>4.62</b> 1.00		2.27 <b>2.27</b> 2.00	13.42 13.16
		7.00	2 00	9.00	1.00	• • • • • • • •	2.00	11.70
2080	9.30	6 26	2.99	9 25	3.22	1.80	1.56	16.06
		7.00	200	9.00	1.00	1.65	1.00	17.29
1890	10.05	= 01	2.95	8 86	4.66	1 00	1.09	177 10
1813	$ \begin{array}{r} 10 & 05 \\ 9 & 68 \end{array} $	$\frac{5.91}{6.08}$	$\frac{2.93}{3.19}$	9.27	4.48	$1.88 \\ 1.27$	1.93 1.80	17.49 15.81
1911	9 01	6 08	3.49	9.57	5.26	1.86	$\frac{1.00}{2.15}$	18.38
1941	9.00	6.36	3.70	10.06	3.38	1.62	2.19	18.15
2044	6.66	7.22	$\begin{bmatrix} 2 & 20 \\ 2 & 49 \end{bmatrix}$	9.42	$\begin{array}{c c} 6.14 \\ 5.72 \end{array}$	1.64	[2.07]	17.54
2063	8.25	7.33	2 49	9.82	5.72	1.55	1.95	17.54
2096 $2097$	7 57	$6.32 \\ 5.64$	$\frac{2.97}{3.69}$	$9.29 \\ 9.33$	$2.46 \\ 4.43$	1.75	$\begin{array}{c c} 2 & 00 \\ 2 & 07 \end{array}$	17.61
2098	$9:46 \\ 9.41$	5.04 $5.91$	3.38	9.33	5.32	1.87 1.81	1.94	18.04 17.70
2099	9 05	6 51	2 96	9.47	3 08	1.58	2.08	17.34
	8 81	6 34	3.10	9.44	4 49	1.68	2.02	17.56
4040		2 00	6.00	8.00	1 00	1 65	2.00	15 96
1818	11 52	10 14	4 34	14.48	1.32			15.49
1869 2088	11.79	11.62	3 30	14.92 14.08	3.17 3.13			16.08
2089	$ \begin{array}{c c} 11.05 \\ 9.80 \end{array} $	10 46 9.10	3.62 5.23	14 33	1 66			15.13 15.24
_000	11.04	10 33	5.23 4.12	14.33 14.45	1.66 2 32 1.00 1.78 6.78			15.48
	11 01	12.00	2.00	14.00	1.00			15.20
1819	11 01	8 92	4.10	13 02	1.78			13.91
1913	9 52	7.61	4.51	12 12	6.78			12.88
$2090 \\ 2091$	6.14	7.36	5.35	$12.71 \\ 13.08$	6.19			13.45
2031	8 22 <b>8 72</b>	7.83	5.25 <b>4.80</b>	12.73	4.59 <b>4.83</b>			13.86 13.52
	0 12	7.93 10.00	2.00	12.00	1.00			13.00
1868	11.51	5 58	4 11	9.69	2.99		2.06	12.31
1914	10.68	5.95	5.10	11.05	3 61		$\frac{2.44}{2.11}$	14.09
2094	9.62	5.68	5.41	11.09	6.13		2.11	13.77
2095	8.53	4 90	6 41	11.31	7.88		1 55	13 35
	10 08	<b>5 53</b> 8 00	5.26 2.00	10 79 10 00		••••	2.00	13 38 12.80
1977	8.00	8 00 7 66 7 57	3.75	11.41	2.64	1 85	1.26	19.45
2092	8 80	7 57	4.11	11.68	1.01	1.59	1.37	18.98
2093	10 77	5 82	4.45	10.27	.67	1.82	1.07	17.84
	9.19	7 02	4.10	11.12	1.44	1.75	1.23	18.75
		8.00	2.00	10.00	1.00	1.65	1.00	17.16

<i>:</i>		
Laboratory Num'r.		
'n		
× ×	Name of Brand and Man-	Where and From Whom Collected
or.	ufacturer.	
iat		
001		
न्त्र		
1889	Ox Bone with Am. & Pot.	Dr. C. C. Ewing, Aberdeen
	TENN VALLEY PER CO.	Guarantee
	TENN. VALLEY FER. Co., Florence, Ala.	
1986	King Cotton Grower	Phillips, Hinds & Co., Booneville
		Guarantee
	SOLD BY	
	THREEFOOT BROS. &. Co.	
1770	Meridian, Miss. Threefoot's H. G. Eng.	
1110		Threefoot Bros. & Co., Meridian
1852	Threefoot's H. G. Eng	
	Acid Phosphate	"
2075	Threefoot's H. G. Eng.	
	Acid Fhosphate	J. L. Wells, Hickory
		Guarantee
1780	Prolific Acid Phosphate	Threefoot Bros. & Co., Meridian
1851	66	66 66
1939 2073	"	M. J. L Hoye's Son, Newton
2073	"	W. L. Weems, Shubuta
-011		Average
		Guarantee
	Threefoot's Imp. Mixture.	Threefoot Bros. & Co., Meridian
1853 1940	66	J. M. Carter, Quitman
1955	"	E. P. & B. R. Brown, Lockhart
2076	66	Dunigan & Whitaker, Laurel
2077	66	M D. Graham & Co., Forest
		Average
	VIRGINIA-CAROLINA	Guarantee
	CHEMICAL CO.	
	Memphis, Tenn.	
1867	Scott's H. G. Acid Phos	Donald Bros., Magee
2103	"	A. Roberts & Co., Lauderdale
		Average Guarantee
1982	Royal Acid Phosphate	S. M Dean, Iuka
2055		Biloxi Milling Co., Biloxi
		Average
1866	Scott's Gossynium Phos	Guarantee Donald Bros., Magee
1944	Cost s Cossypium 1 nos	M. J. L. Hoye's Son, Newton
1983	"	R. J. Shannon, Ripley

n'r.	Moisture—Per cent.	Phosphoric AcidPer Cent.			3'nt.	it.	ton.	
Laboratory Num'r.	erc	Water-soluble	Citratesoluble			Nitrogen—Per c'nt	Potash—Per cent.	llue per ton
ory	d' l	solu	los-	ė	*	Ī	Per	Relative Value per
rato	ure	-16	te-	Available.	Insoluble.	gen	- q	ive
abo	oist	/ate	itra	vai	losu	itro	otas	elat
	<u>=</u>							
1889	11. 33	8.41	2.03 2.00	10.44		. 98 . <i>85</i>	1. 11 1. 00	15.58 14.56
							2.00	14.00
1986	11.76	5.95		8. 82	3.70		1.35	15.87
	*******	• • • • •	• • • • •	7.00		1.65	1.00	13.36
1								
1779	14. 37	11.72	4. 24	15. 96	. 43			17. 13
1852	13.55	13.85	2. 45	16.30	. 77			17. 69
2075	12.37	13.01	2.54	15.55	.65			16.85
	13.43	12.86 13.00	3. 08 2. 00	15 94 15.00	. <b>62</b>			17.22
1780	13.02	12.09	3. 61	15 70	. 43			16.30 16.91
1851 1939	11. 85 10. 95	7. 36 12. 31	5. 62 2. 80	12. 98 15. 11	1. 70 1. 18			13.72 $16.34$
$2073 \\ 2074$	12. 28 11. 23	11. 74 11. 77	2.15 $2.20$	13. 89 13. 97	. 82 1. 82			15.06 15.15
	11. 23 11. 87	11 05 11.00	3. 28 2. 00	14. 33	1. 19 2. 00			15. 44
1778	13. 82	6. 50	3.51	18.00 10.01	. 84	1.75	2. 03	14. 10 18. 38
1853 1940	14. 62 11. 57	7.50 6.93	2. 07 3. 21	9. 57 10. 14	$   \begin{array}{c}     1.00 \\     2.35   \end{array} $	1. 80 1. 76	2. 22 1. 95	18. 39 18. 50
1955 2076	13. 29 11. 84	7. 51 7. 09	2. 83 2. 48	10, 34	1. 11 1. 54	1. 82 1. 96	1. 76 2. 16	18. 77 18. 81
2077	11.63	7. 10	2.48	9. 57 9. 58 <b>9. 87</b>	2.48	1.73	1, 92	17.83
	12. 80	7. 11 7. 25	2.76 2.25	9. 87 9. 50	1. <b>55</b>	1. 80 1. 75	2. 01 1. 75	18. <b>45</b> 17. 66
	[							
1867	10. 49	11. 63	3. 42	15. 05	5. 21			16. 21
2103	12. 52 11. <b>50</b>	10.35	2.36	13. 71 14. 38	1.82			14.75
1000		10. 99 12. 00	<b>3</b> : <b>39 2</b> : <i>00</i>	14.00	3. 51 2. 00			15. 48 15. 20
1982 2055	11. 62 8. 59	11. 58 12. 64	1.88 2.36	13. 46 15. 00	3. 07 1. 84			14. 62 16. 26
	10. 10	<b>12</b> . <b>11</b> <i>10</i> . <i>00</i>	2. 12 2. 00	14. 23 12.00	2.00			15. 44 13. 00
1866 1944	11. 45 11. 45	7.93 $9.02$	2.50 2.09 2.98	10.43 11.11	5.23 1.55	1.81 1.76	$\frac{2.14}{2.22}$	19.25 $19.95$
	12.24	9 21	[2.98]	12.19	1.84	1 62	2.15	20.53

Laboratory Num'r.	Name of Brand and Man- ufacturer.	Where and From Whom Collected.
1992 2056 2104 2105 2106 2107 2108	66	Lann & Carter, Aberdeen O. Hopkins, Hickory M. D. Graham & Co., Forest Wm. Atkinson & McDonald, Wesson Average
2100 2101	"," Royal Cotton Boll Guano	Guarantee W. J. Hubbard, Shuqualak C. A. Cranford, Seminary J. E. Byrd, Mt. Olive.  Average Guarantee Viverett & Dear, Newton
2025	Royal Animal Bone Guano Scott's State Stand, Guano	Parsons, Moreton, Wentworth Co., Brookhaven  Average  Guarantee  Batson Barnes Co., Columbia  Guarantee  E. M. Carter, Centreville  J. E. Cobb & Son, Wiers
	Scott's Potasso Phospho	Average. Guarantee Hyman Mercantile Co., Summit Guarantee D. D. Richardson, Columbus J. J. Rogers, Tupelo Average
		N. P. Welborn & Co., Laurel.  Guarantee  Guarantee  Hyman Mercantile Co., Summit  Guarantee.

r l	Phosphoric Acid—Per Cent.					c'nt.		n.
Laboratory Num'r	Moisture—Per cent	0)	i 1				Potash—Per cent.	alue per ton.
n Z	er	Water-soluble	Citrate-soluble			Nitrogen—Per	ပိ	Relative Value per
	ų-	lu	ne l			4	er	ු නු
or.	0)	so	-8(	le.	e e	l d	4	
at	nr		e e	ap		60 60	- u	IV6
o.	sti	tei	rat	ril	olo	l ç	as	äti
ap	[O]	Va	];;	Available.	Insoluble.	lit	ot	E E
브	4	>				-4	<u> </u>	<u> </u>
1992	12.66	8.78	1.89	10.67	1.65	1.88	2.28	19.94
2056	9.56	8.01	2.01	10.02	2.11	1.96	2.53	19.72
2104	10.59	7.96	$\frac{261}{2.16}$	10.57	1.73	2.06	2.21	20.27
2105	12.70	8.94	2.16	11.10	1.56	1.80	2.07	19.91
2106	10.55 $13.82$	6.83	$\frac{4.51}{1.57}$	11.34 11.54	3.94 .99	$1.54 \\ 1.72$	2.08	19.11
$\frac{2107}{2108}$	11.44	$9.97 \\ 6.27$	4.78	11.05	$\frac{.99}{3.45}$	1.72	$\frac{2.66}{2.25}$	20.79 $19.49$
2100	11 64	8 29	2.71	11.00	2.40	1.79	2·26	19.90
		8.29 7.00	3.00	10.00	2.00	1.65	2.00	18.06
1895	10.03	8.56 5.50	1.93	10 49	1.36		1.53	18.81
2100	10.50	5.50	4.65	10.15	2 30	1 48	1.32	16.83
2101	13.24	7.50 <b>7.19</b>	2.64	10.14	.83	1.94	1.30	18.50
	11 26	6.00	3.07 3.00	10.26 9.00	1.50 2 00	1.75 1.65	1.38 1.00	18.05 15.96
1981	9.33	4.39	3.57	7.96	3.01	1.03 $1.94$	2.07	16.77
2000	9.18	5.85	3 14	8.99		1.71	2.23	17.37
_000								
	9.26	5.12	3 35	8.47	2.95	1.83	2 15	17.07
2025	18.48	7.00	$\frac{1.00}{2.50}$	8.00 9 50	2.00 2.39	1.65	2 00	16 06
2025	10.40	6 00	3 00	9.00	2.39 2.00	1.42 1.65	1.03 1.00	15.85 15.96
1997	10.42	5.86	2.92	8.78	1.24	1.96	2.43	18.17
2007	7 68	3.53	5.16	8 69	2.09	1.82	2.23	17.18
	9.05	4.70	4 04	8.74	1.66	1.89	2.23 <b>2</b> .33	17.68
1000		7.00	1.00		2.00	1.65	2.00	16.06
1999	10.74	6.08	4.88	10 96	3.28		1.29	15.75
2065	15.22	8 00 9.98	2.00 2.02	10.00 12.00	2.00 1.85	.82	1.00	14.47 15.42
2102	13.56	10 50	1.54	12.00	$\frac{1.85}{2.46}$		$2.42 \\ 2.51$	15.42 $15.60$
2102	14 39	10.24	1.78	12.02	2.15		2.47	15.51
		10.00	2.00	12.00	2.15 2.00		2.00	15.00
2029	10.06	5.58	5.24	10.82	2.60	.97	1.07	15.60
		8.00	2.00	10.00	2.00	.82	1.00	14.47
2036	4.41			• • • • • • • •			11.86	11 86
				• • • • • • •			10.00	10.00
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## ANALYSES'

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