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Agricultural Experiment Station

—OF THE—

AGRICULTURAL AND MECHANICAL COLLEGE,

AUBURN, : : ALABAMA.

COTTON EXPERIMENTS.

A. J. BONDURANT, Agriculturist.
JAMES CLAYTON, Assistant.

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EXPERIMENTS WITH COTTON,—1892.

COMPARISON OF VARIETIES.

This experiment consists of a comparison between thirty (30) varieties of cotton.

In the preparation of the soil 250 lbs. cotton seed meal and 250 lbs. acid phosphate per acre, were used broad cast, and thoroughly plowed in. The rows were measured exactly $3\frac{1}{2}$ ft. apart, and 200 lbs. of the above mixture applied in the drill, per acre, at a total cost of $6.67. The cotton was carefully picked and stored, each variety to itself, until time of ginning, when all were weighed under like conditions and ginned separately. A sample of each variety was numbered and sent to Mr. H. C. Parker, of Montgomery, Ala., for classification and valuation.

No. 30, Catacaos, or Peruvian Cotton, failed to mature.

The short staple cotton was sold in Opelika, on Dec. 9, 1892, for 9 7-16, and the long staple, for $10\frac{3}{4}$. The fact that the long staple varieties do not yield as much seed cotton per acre as the short staple, is more than counter-balanced by the higher price which it commands. The following tabulated statement gives results of this experiment.

		Yield per Acre		Per cent of Lint	Length of Staple	Price
		Seed Cotton	Lint Cotton			
1	Allen Long Staple....	751 5	193 5	25 7	1 3-16c.1¼	10½
2	Bailey	697 5	207.0	29.6	1⅛	10¼c 10½
3	Cherry's Cluster	715 5	211 5	29 5	⅞	9 9–16
4	Coltharp's Prickle ...	769 5	238 5	30 9	1⅛c.1 3-16	10⅜
5	Coltharp's Eureka.....	733.5	220 5	30 0	1¼	12
6	Cook W. A.	643 5	180 0	27.9	1⅜c.7-16	13½
7	Crossland	657 0	252 0	38.3	⅞	9 11–16
8	Dalkeith's Eureka	706 5	216 0	30 5	1 3-16	10¼
9	Dixon	652 5	198 0	30 3	13-16	9 9–16
10	Gold Dust.	630 0	189.0	30.0	13-16	9 9–16
11	Hawkin's Improved...	625 5	211 5	33 8	⅞	9 11–16
12	Hunnicut	706 5	220 5	31 2	⅞	9 11–16
13	Herlong	607 5	184 5	30 3	13-16c.⅞	9 11–16
14	Jones Long Staple. ...	702.0	202 5	28.8	1⅛	10
15	Jones No. 1	639 0	202 5	31.7	13-16	9 9–16
16	Keith	792 0	238 5	31 7	1	9¾
17	King, T. J.	801 C	256 5	32 0	⅞	9 9–16
18	Okra	724 5	234 5	32 3	1⅛c.13-16	10
19	Peeler	859 5	256 5	30 1	1⅛	10
20	Peerless	882.0	274 5	31 1	1	9⅞
21	Peterkin..:	994 5	337 5	33 9	1	9¾
22	Petit Gulf	976 5	315 0	32 2	⅞c.15-16	9 9–16
23	Southern Hope.....	954 0	292.5	30 6	1 3-16c.1¼	10
24	Storm Proof.....	985 5	324 0	32.8	1 1-16c.1⅛	10
25	Truitt.....	958 5	301 5	31.4	1	9¾
26	Welborn	933 5	225.0	30 6	1	9¾
27	Wonderful.....	956 0	211 5	27 9	1⅜c.17-16	11½
28	Zellner	814 5	243 0	29 8	⅞	9 9–16
29	Matthews Long Staple	913 5	265 5	29 0	1⅛c.13-16	10
30	Catacaos or Peruvian	Fine stalk. Season too short to				mature

The following Tabulated Statement is Classification and Valuation as furnished by Mr. H. C. Parker, Montgomery, Alabama, basis Middling, Montgomery, 7-1-93.

No.	Length.	Color.	Ginning.	Grade.	Value.		
15	13-16.....	Good.....	Good.....	Middling ...	9 9-16....		9 9-16
13	13-16c 7/8....	"	Fair.....	S. Middling.	9 11-16...		9 9-16
7	7/8.....	"	Good.....	"	9 11-16...		9 9-16
11	7/8.....	"	"	"	9 11-16...		9 9-16
3	7/8.....	"	"	Middling...	9 9-16....		9 9-16
28	7/8.....	"	"	"	9 9-16....	Fair Staple.	9 9-16
12	7/8.....	Fair.....	"	St. Middling	9 11-16...		
17	7/8.....	S. Color...	Fairly.....	Middling ...	9 9-16....		
13	7/8c 15-16....	Good.....	Fair.....	"	9 9-16....		
22	7/8c 15-16....	"	Good.....	"	9 9-16....		
16	1 in.....	Good.....	Fair.....	Middling!...	9 3/4.....		
21	1 in.....	"	Good.....	"	9 3/4.....		
20	1 in.....	"	"	S. Middling.	9 7/8.....	Good Staple, 3-16c 1/4 on for Staple.	
26	1 in.....	"	"	"	9 3/4.....		
25	1 in	Fair.....	Fair.....	"	9 3/4.....		
24	1 1-16c 1/8....	Fair.....	Fair.....	S. Middling.	10		
2	1 1/8	Good.....	Good.....	G. Middling	10 1/4c 1/2..		
19	1 1/8.....	"	Fair.....	Middling ..	10		
14	1 1/8.....	Fair.....	Good.....	"	10	Extra Middling, 1/2c 3/4 on.	
4	1 1/8c 3-16...	Good.....	"	S. Middling.	10 3/8.....		
18	1 1/8c 3-16....	"	"	S. L. Mid...	10		
29	1 1/8c 3-16....	"	Fair.....	Middling...	10		
8	1 3-16	Good.....	Good.....	Middling ..	10 1/4.....	c	
1	1 3-16c 1/4....	"	"	S. Middling.	10 1/2.....	1c 1/2 on.	
23	1 3-16c 1/4...	"	"	G. Middling	10		
5	1 1/4	"	"	S. G. Mid..	12	Long Staple, 2c, 3c on.	
6	1 3/8c 7-16.....	"	"	"	13 1/2.....		
27	1 3/8c 7-16.....	"	Poorly gin'd	.....	11 1/2.....		
9	13-16.....	Same as	No. 15	.....	...	Short Staple.	

EXPERIMENTS WITH PHOSPHATES.

QUESTION:—Will the vegetable matter in freshly cleared land, supply all the nitrogen needed by the cotton plant?

The experiment in reply to this question was begun in 1890, and published in Bulletin 22; Continued in 1891, and published in Bulletin 33; and carried on the present year, (1892) without changing the rows, or the addition of any fertilizers.

It is proved by comparing plots 1 and 2, and 3 with 5, that the *applied* nitrogen has been exhausted. By comparing plots 1 and 5, it will be seen that *plot* 5, where 1,000 lbs. of acid phosphate were used per acre, gives only 48 lbs. seed cotton per acre increase over plot 1 where 500 lbs. acid phosphate were used per acre.

It is evident from this comparison that the vegetable matter in new ground does not supply sufficient nitrogen to utilize so large an application of phosphoric acid.

The decreased yield in plot 4, (no manure) is explained by the shortage of the general crop throughout this section.

The following tabulated statement shows the results for three years:

PHOSPHATE ALONE, AND PHOSPHATE AND NITROGEN APPLIED ON NEW GROUND IN 1890.

Plot No.	Names of Fertilizers and Quantity Used Per Acre, Applied in 1890.	Total yield lbs. Seed Cotton, 1890.	Increase in lbs. Seed Cotton over no manure, 1890.	Total yield in lbs. Seed Cotton, 1891.	Increase in lbs. Seed Cotton over no manure, 189	Total yield in lbs. Seed Cotton, 1892.	Increase in lbs. Seed Cotton over no manure, 1892
1	500 lbs. of Acid Phosphate	815	360	851	513	407	185
2	{500 lbs. Acid Phosphate, {500 lbs. CottonSeed Meal	1017	558	816	478	428	206
3	1,000 lbs. Acid Phosphate	883	424	790	452	453	231
4	No Manure	459	——	383	——	222	——
5	{1,000 lbs. Acid Phosphate. {1,000 lbs. C. S. Meal	1213	754	936	598	455	233

EXPERIMENT WITH FERTILIZERS.

In these experiments, *461 lbs. seed cotton*, being the average yield of the unmanured plots 4, 8 and 12, will be taken as a basis for comparison.

In plots 1, 2 and 3, where the chemicals are used separately, it is seen that nitrogen in plot 1, gives an increase of 265.4 lbs.;—that phosphoric acid in plot 2, gives 51 lbs.; and that potash in plot 3, gives an increase of only 5 lbs.; while in combination, as in plots 5, 6 and 7—plot 5 gives the best yield, though only making 54 lbs. per acre more than plot 1; and while plot 6 gives 118 lbs. less than plot 5, it (plot 6) makes 22 lbs. more than plot 7, and 150 lbs. more than plot 2; clearly showing that nitrogen is the element needed here.

The best results, however, are obtained in plot 9, where the complete Fertilizer is used. Plot 10, (floats,) gives 29 lbs. less than average of unmanured plots 4, 8, and 12; but when combined with nitrogen, as in plots 11 and 14, we have 131 lbs. increase in plot 11, and only 37 lbs. in plot 14.

Plot 15, (4,240 lbs. stable manure) gives 6 lbs. less than plot 9, where complete Fertilizer is used. Plot 16, (C. S. meal and acid phosphate) yields less than either plots 9 or 15, yet the increase over average of no manure is 467 lbs. Thus, when the cost of the cotton seed meal and acid phosphate, is compared with that of stable manure, and the greater ease with which they are handled, and the utter impossibility of getting stable manure in sufficient quantity, considered, it is evident that C. S. meal and acid phosphate have great economic advantages over stable manure.

COTTON EXPERIMENTS WITH FERTILIZERS—EXPERIMENT STATION, AUBURN, ALABAMA.

Plot No.	Lbs. Fertilizer Per Plot.	Lbs. Fertilizer Per Acre.	Total yield per Plot.	Total yield per Acre.
1	6 lbs. Nitrate Soda.....	96 lbs. Nitrate Soda.....	45.4	726.4
2	15 lbs. Acid Phosphate ..	240 lbs. Acid Phosphate ..	32 0	512 0
3	4 lbs. Murate Potash....	64 lbs. Murate Potash ...	31 0	466.0
4	No Manure	No Manure	32 8	524 8
5	6 lbs. Nitrate Soda, 4 lbs. Murate Potash ...	96 lbs. Nitrate Soda, 64 lbs. Murate Potash,...	48 8	780.8
6	6 lbs. Nitrate Soda, 15 lbs. Acid Phosphate....	96 lbs. Nitrate Soda, 240 lbs. Acid Phosphate .	41 4	662 4
7	4 lbs. Murate Potash, 15 lbs. Acid Phosphate ..	64 lbs. Murate Potash, 240 lbs. Acid Phosphate ..,	40 0	640 0
8	No Manure	No Manure.	32.2	515.0
9	6 lbs. Nitrate Soda, 15 lbs. Acid Phosphate, 4 lbs. Murate Potash	96 lbs. Nitrate Soda, 64 lbs. Murate Potaah, 240 lbs. Acid Phosphate...	60 8	972 8
10	15 lbs. Floats.	240 lbs. Floats	27 0	432.0
11	6 lbs. Nitrate Soda, 15 lbs. Floats.....	96 lbs. Nitrate Soda, 240 lbs. Floats.	37 0	592 0
12	No Manure	No Manure.....	21 6	345 6
13	23 lbs. Green Cotton Seed	848 lbs. Green Cotton Seed	31 0	466.0
14	15 lbs. Floats, 53 lbs. Green Cotton Seed	240 lbs. Floats, 848 lbs. Green Cotton Seed.	30 6	498.6
15	265 lbs. Stable Manure.....	4.240 lbs. Stable Manure..	60 4	966 4
16	15 lbs. Acid Phosphate, 15 lbs. Cotton Seed Meal	240 lbs. Acid Phosphate, 240 lbs. Cotton Seed Meal.	58 0	928.0

This experiment consists of a comparison between compost, when the materials are put in the rows, and mixed with the plow, and bedded on in February—and compost freshly made in the usual way, and applied at time of planting.

It is to be regretted that no comparison as to the cost of the two applications can be given, as the record has been misplaced.

This work was ordered by Dr. Wm. L. Broun, President of the Board of Directors, results of which are shown below:

COTTON EXPERIMENTS WITH FERTILIZERS.

Experiment No. 1.	Lbs. Cott'n 1st Pick'g Sept. 7	Lbs. Cot. 2nd Pick. Sept. 17	Lbs. 3rd Picking Sept. 26	Lbs. 4th Picking Oct 6.	Lbs. 5th Picking Oct. 18.	Lbs. 6th Picking Nov. 14.	Total yield Per Acre.
700 lbs. Acid Phosphate, 650 lbs. Stable Manure, 650 lbs. Green Cotton Seed.	80 3	247.3	333 6	148.2	70.	261.	905.5
Applied in drill, and mixed with plow, Feb. 24th. Cotton planted May 10th, 1892.							
Experiment No. 2.							
700 lbs. Acid Phosphate, 650 lbs. Stable Manure, 650 lbs. Boiled Cotton Seed.	60 5	222.7	331 5	145 6	84.	33.4	877.7
Applied in drill, and mixed with plow, May 9th. Cotton planted May 10th, 1892.							

The following experiments were made for Dr. N. T. Lupton, Chemist, to compare raw or ground phosphate rock with acid phosphate, the results of which are given in the tabulated statement below:

COTTON EXPERIMENTS WITH FERTILIZERS. BY DR. N. T. LUPTON, CHEMIST.

Plot No.	Pounds of Fertilizer per Plot.	Pounds of Fertilizer per Acre.	Lbs. cotton 1st picking Sept. 9.	Lbs. cotton 2nd picking Sept. 16	Lbs. cotton 3rd picking Sept. 29.	Lbs. cotton 4th picking Oct. 7.	Lbs cotton 5th picking Oct. 20.	Lbs. cotton 6th picking Nov 3.	Lbs. cotton 7th picking Nov 16.	Lbs. cotton 8th picking Nov. 25	Total yield per plot.	Total yield per acre.
1	25 lbs. raw phosphate, 25 lbs. cotton seed meal.	200 lbs. raw phosphate, 200 lbs. cotton seed meal..	9.	26 3	33.5	25.2	18.7	9.	4.1	1.4	119.1	952.8
2	50 lbs. raw phosphate, 50 lbs. cotton seed meal	400 lbs raw phosphate, 400 lbs. cotton seed meal..	11.2	31.	43.	26.4	13.9	8.2	3 7	0 8	138 2	1105 6
3	25 lbs. acid phosphate, 25 lbs. cotton seed meal.	200 lbs. acid phosphate, 200 lbs. cotton seed meal..	1.3	23.	43.3	20.7	11.5	4.2	1.3	0.3	105 6	844 8
4	50 lbs. acid phosphate, 50 lbs. cotton seed meal.	400 lbs. acid phosphate, 400 lbs. cotton seed meal..	12 3	37.1	55.	15.1	12.	5.	1.5	0 6	138 6	1108 8
5	No manure.....	No manure	4.3	16.8	31.9	21 5	19.2	10 5	2.8	0 9	107 9	863 2
6	25 lbs. raw phosphate, 50 lbs. green cotton seed	200 lbs. raw phosphate, 400 lbs. green cotton seed.	11.5	25.3	42.	13 6	15	5 5	1 5	0.5	114 9	919 2
7	50 lbs. raw phosphate, 100 lbs. green cotton seed	400 lbs. raw phosphate, 800 lbs. green cotton seed.	11.4	43 5	41.5	27 5	16.1	6 3	1.1	0 4	147.8	1182.4
8	25 lbs. acid phosphate, 50 lbs. green cotton seed	200 lbs. acid phosphate, 400 lbs. green cotton seed.	20.1	39.1	47.8	22.	12.8	4.2	1.	0 3	147 3	1178 4
9	50 lbs. acid phosphate, 100 lbs. green cotton seed	400 lbs. acid phosphate, 800 lbs green cotton seed	27 4	45 1	50.4	25 8	16 5	6	1.5	0.7	173.4	1387 2
10	No manure...	No manure	13 4	30 8	38 1	16 7	11 7	4 1	1 1	0 5	136 4	931 2
11	50 lbs. raw phosphate...	400 lbs. raw phosphate....	11 6	30 2	38 2	16 4	10 6	3.	1.	0 6	111 6	892 8
12	50 lbs. acid phosphate..	400 lbs. acid phosphate...	16.	37 6	47 2	13.	5 6	1 6	0 6	0 3	121 9	975 2
13	50 lbs. cotton seed meal.	400 lbs. cotton seed meal..	17 5	42.	42 2	28 3	16 3	6 7	2 8	3 1	158 9	1271 2
14	100 lbs. green cotton seed	800 lbs green cotton seed.	17 2	39 2	45 1	28 6	18 2	7 2	3.	3 3	161 8	1294 4
15	No manure.....	No manure.....	12.2	32.4	45.5	29.6	19.8	9.1	4.5	4.6	157.7	1261.2

COTTON EXPERIMENTS WITH FERTILIZERS, BY DR. N. T. LUPTON, CHEMIST.

Plot No.	Pounds Fertilizer per Plot.	Pounds Fertilizer per Acre.	Lbs. cotton 1st picking, Sept. 7.	Lbs. cotton 2nd picking, Sept. 20.	Lbs. cotton 3rd picking Sept. 30.	Lbs. cotton 4th picking, Oct 20.	Lbs. cotton 5th picking, Nov. 16.	Total yield per plot.	Total yield per acre.
1	57 1-7 lbs. raw phosphate.....	400 lbs. raw phosphate.....	5	14.1	10.1	8.5	3.8	41.5	290.5
2	114 2-7 lbs. raw phosphate.....	800 lbs. raw phosphate.....	3 2	8 2	8 1	8 7	3 2	31.4	219.8
3	57 1-7 lbs. acid phosphate	400 lbs. acid phosphate.....	2 3	10 3	6 8	6 6	2.1	28.1	196 7
4	114 2-7 lbs. acid phosphate	800 lbs. acid phosphate.	1.4	6	5 1	6.5	1.6	20 6	144 2
5	No manure.....	No manure	1.	4 4	3 2	3 5	3 1	15 2	106 4
6	57¼ lbs. raw phosphate, 114 2-7 lbs. raw phosphate.....	400 lbs. raw phosphate, 400 lbs. cotton seed meal.....	6 5	13 5	7.6	6.2	1.8	35 6	249 2
7	114 2-7 lbs. raw phosphate, 114 2-7 lbs. cotton seed meal.....	800 lbs. raw phosphate, 800 lbs. cotton seed meal.....	9.6	19 2	8.3	6 9	2.1	46.1	322.7
8	57 1-7 lbs. raw phosphate, 57 1-7 lbs. cotton seed meal.....	400 lbs. acid phosphate, 400 lbs. cotton seed meal.....	7.9	14 2	8.	4.9	1.	36.0	252 0
9	114 2-7 lbs. acid phosphate, 114 2-7 lbs. cotton seed meal.....	800 lbs acid phosphate, 800 lbs. cotton seed meal.....	15	18	8 1	3 7	1.	45 8	320 6
10	No manure	No manure	6 2	7.2	11 4	7 5	1.1	33 4	233 8

The following Experiments were made by Prof. Geo. F. Atkinson, Biologist, for the Station, but as he resigned his position before the results were obtained, no comments are made, and only the tabulated statement of the work given, as follows:

COTTON EXPERIMENTS WITH FERTILIZERS, BY PROF. GEO. F. ATKINSON.

Plot No.		lbs. cotton 1st picking Sept. 6th	lbs. cotton 2nd picking Sept 15th	lbs. cotton 3rd picking Sept. 30th	lbs. Cotton 4th picking Oct. 4th	lbs cotton 5th picking Nov 16th	Total yield per Plot.	Total yield per Acre.
	1088 lbs. of Kainit and 500 lbs. Acid Phosphate applied broadcast and turned in with Dixie plow, Feb. 16th, 1852.							
1.	Peas: plow under first crop, let second crop rot on ground. No cotton for two years. Plant cotton third year	Plowed under,			August 27th.			
2.	Plant cotton first year, plant peas last plowing, and peas and cotton plowed under in the fall	40.6	73 0	96 0	29 5	13 3	252.4	556.5
3.	Plant cotton first year, plant peas last plowing, and let rot on the ground	31 6	73 1	12.9	47 7	22	187 3	480.6
4.	Plant cotton first year, plant peas last plowing, and remove from the ground in the fall	20 2	55.	94.	37.5	21.2	227 9	502.5

COTTON EXPERIMENTS WITH FERTILIZERS.—BY PROF. GEORGE F. ATKINSON.

Plot No.	Lbs. Fertilizer per Acre.	Lbs. Cotton 1st picking, Sept. 8th.	Lbs. Cotton 2nd picking, Sept. 26th.	Lbs. Cotton 3rd picking, Oct. 6th.	Lbs Cotton 4th picking, Oct 17th.	Lbs. Cotton 5th picking, Nov 3rd.	Lbs. Cotton 6th picking, Nov 18th.	Lbs. Cotton 7th picking, Nov 29th.	Total yield per Plot.	Total yield per Acre.
1	Check	1.7	14.6	11 9	14.	6 4	3.9	1.	53 5	1872 5
2	400 lbs. Salt	3.	12.8	12 5	13.8	8	6 1	1 2	57 4	2009 0
3	200 lbs. Salt	3 8	12 5	13.	12 8	7 5	5.3	2 1	57 0	1995 0
4	Check	1 2	9 8	12	14.4	8	6 1	2 6	54 1	1893 5
5	200 lbs. Murate Potash	1 6	11.	12 1	13 3	7 1	5 9	1 6	52 6	1841 0
6	300 " " "	2.	11 2	11 9	13.7	7.1	6.4	2 1	54 4	904 0
7	100 " " "	2 5	11 3	12	22 6	8	5 4	1.7	63 5	2222 5
8	Check	2.	12 4	11 1	13 3	8 1	5	1 5	53 4	1869.0
9	400 lbs. Kainit	1 9	8 3	9 1	10.6	4.1	5 6	1 4	41.0	1435.0
10	600 " "	1.6	10 6	10.1	11.3	7.1	5.4	2.1	48 2	1687 0
11	In Feb. {300 lbs. of Kainit, 1st plowing, 300 lbs. {300 lbs. of Acid Phosphate, 1st plowing	1.2	12 4	10.5	6 5	5	2 2	1.	38 8	1358.0
12	200 lbs. kainit	3	13.	10 5	7 7	6 4	3 9	1 7	46 2	1617 0
13	Check	2.7	13.2	11.5	13.9	7 8	5.1	2	56 2	1967.0
14	800 lbs. of Thos. Slag, applied April 4th	3 3	12 5	13.	11.	5 6	4 7	0.9	51 0	1785.0
15	1,200 lbs. Thos. Slag, applied April 4th	3 2	16.	13.	13 5	4 4	2 3	1 3	53 7	1879 5
16	Check	3 4	12 6	13 3	12 7	7.5	6	2 :	58.3	2040 5
17	1,600 lbs. Thos. Slag	3 2	12 7	10 6	10 8	4 3	2 9	1 0	45 5	1592.5
18	2,000 lbs. Thos. Slag	1 7	14.	9 6	11.	4 3	3 9	7	45 2	1582 0
19	Check	1 8	11 8	10 4	8 6	4 4	2 ·	.9	40 3	1410 5

COTTON EXPERIMENTS WITH FERTILIZERS, BY PROF. GEO. F. ATKINSON.

Plot No.	Fertilizers used during Culture.	Pounds Fertilizer per Acre.	lbs. cotton 1st pickidg Sept. 8th.	lbs. cotton 2nd picking Sept. 26th.	lbs cotton 3rd picking Oct. 6th.	lbs cotton 4th picking Oct. 18th.	lbs. cotton 5th picking Nov. 3rd.	lbs. cotton 6th picking Nov. 18th.	lbs. cotton 7th picking Nov. 29th.	Total yield per plot.	Total yield per acre.
1	.....	Check	6 3	7.4	4 0	0 3	0.5	1.1	0 2	19 8	1485.0
2	200 lbs. kainit, 1st plowing, 200 lbs. acid phos "	400 lbs kainit, Feb. 18	5 6	8.1	3 9	0 9	1 0	1 0	0 2	20 7	1552 5
3	200 lbs. kainit, 1st plowing.	400 lbs. kainit, Feb. 18	4 8	7 7	3 4	3 3	2 0	1 0	0.2	22 4	1680 0
4	200 lbs. kainit, 1st plowing	600 lbs. kainit, Feb. 18	6 6	7 5	3.0	2 8	1.2	1.0	0 2	22.3	1672 5
5	200 lbs. kainit, 1st plowing. 200 lbs acid phos	600 lbs. kainit, Feb. 18	8 0	8 3	3 6	4.7	1 5	0 5	0 2	26 8	2010 0
6	Welborn's Pet.	Check	8.2	7.1	2.5	2 5	2 0	0 9	0 1	23.3	1747.5
7	Was the variety of cotton, used in the 1st 9 plots	300 lbs. muriate potash	8 3	10.0	3 5	2 8	2 1	1 8	0 3	28 8	2160 0
8	Herlong, in the last four...	100 lbs. muriate potash	6.1	10 1	3 4	3 0	2.1	1 9	0 4	27 0	2025 0
9	.....	400 lbs. muriate potash	0 9	7 7	8 3	6 3	3 4	4 2	0 8	31 6	2370 0
10	.....	Check	1 8	8 7	5 2	4 7	2 7	2.3	0 7	26 1	1957.5
11	.....	400 lbs. kainit	2 8	9 0	5 0	5 0	2 5	1 9	0 8	27 0	2025 0
12	.....	600 lbs. kainit	2 0	8 6	5 5	5 3	2 2	2 0	0.4	26 0	1950.0
13	.....	Check	2.5	10 9	5 3	5 8	2 5	1 5	0 4	28 9	2167 5