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BIENNIAL REPORT  
OF THE  
STATE PLANT BOARD  
OF THE  
STATE OF MISSISSIPPI



FOR THE YEARS  
1918-1919

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OF THE  
STATE PLANT BOARD  
OF THE  
STATE OF MISSISSIPPI



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FOR THE YEARS  
1918-1919



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 J. R. RICKS, Director Agr. Experiment Stations.....Agricultural College, Miss.  
 R. W. HARNED, Entomologist, Secretary.....Agricultural College, Miss.

STAFF, JANUARY 1, 1920.

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 J. M. LANGSTON.....Assistant Entomologist  
 LUTHER BROWN.....Inspector  
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 \*K. L. COCKERHAM.....In Charge Sweet Potato Weevil Eradication  
 \*L. M. PRICHARD.....Sweet Potato Weevil Inspector  
 \*F. A. WRIGHT.....Sweet Potato Weevil Inspector  
 \*W. M. MINGEE.....Sweet Potato Weevil Inspector  
 \*W. H. CARPENTER.....Sweet Potato Weevil Inspector  
 \*R. P. BARNHART.....Citrus Canker Inspector  
 \*R. L. HOWELL.....Citrus Canker Inspector  
 \*KIMBLE HARMON.....Citrus Canker Inspector  
 MISS NELL SULZBY.....Stenographer

\*Detailed by U. S. Department of Agriculture.

Sagyc B. BITTING

January 5, 1920.

TO THE MISSISSIPPI LEGISLATURE:

As required by Chapter 63 of the Laws of 1918 I have the honor to submit herewith a report of work done by the State Plant Board of Mississippi for the years 1918 and 1919. An itemized statement of all money expended by the Board is also appended herewith.

Respectfully submitted,

R. W. HARNED, Secretary.

State Plant Board of Miss.

# Biennial Report Mississippi State Plant Board

"The Mississippi Plant Act of 1918" as enacted by the last legislature was approved by the Governor on March 27, 1918. This act is Chapter 219 of the Laws of 1918 (House Bill No. 517, by Stone and Holton.) The purpose of this act as contained in its title is as follows:

"An Act to prevent the introduction into and dissemination within this State of insect pests and diseases injurious to plants and plant products of this State, to create a State Plant Board, and to prescribe its powers and duties."

A copy of this law was published as Circular No. 1 of the State Plant Board.

The bill appropriating funds for carrying out the provisions of this law and enforcing the rules and regulations of the State Plant Board called for an appropriation of \$25,000 per annum. The title of this law as enacted is as follows:

Chapter 63, Laws of 1918, House Bill No. 658—"An Act to appropriate the sum of twenty-five thousand dollars (\$25,000) *per annum*, to be used by the State Plant Board, to prevent the introduction, dissemination, and to eradicate citrus canker, pink bollworm, potato root weevil, alfalfa weevil, and other injurious insects and diseases for the years 1918 and 1919."

Through a very unfortunate error the words *per annum* were omitted from the body of the bill although present in the title. This left the Board with only \$25,000 available for the biennial period instead of \$25,000 per annum as was undoubtedly intended by the last legislature as the title of the bill clearly indicates.

The Board has confined its efforts largely to six chief lines of work as follows:

1. Scouting for the Pink Bollworm of cotton, European Corn Borer, Alfalfa Weevil, Potato Wart, and other serious pests.
2. Scouting for the Sweet Potato Weevil in all parts of Mississippi and eradicating it in the counties where it has been discovered.
3. Eradication of Citrus Canker, the most serious disease of citrus plants.
4. Inspection of nurseries within this state and supervision of nursery stock coming in from other states.
5. Identification of insects and diseases sent in by correspondents from all parts of the state. This often includes the rearing of insects in the insectary or laboratory from the material sent in by correspondents.
6. Enforcing quarantine regulations against serious crop pests.

Other lines of endeavor that might also be mentioned are as follows:

1. Scouting for serious forest pests.
2. Control of Argentine Ant in certain areas.
3. Scouting for Cottony Cushion Scale and use of Vedalia ladybird beetles in infested areas to control this pest.

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## CITRUS CANKER ERADICATION.

Citrus canker is the most destructive disease of citrus plants. It is a bacterial disease, the causative organism being known as *Pseudomonas citri*. It was accidentally introduced in this country several years ago, probably from Japan. During 1915 and 1916 it was spreading rapidly through the citrus growing sections of south Mississippi and other Gulf States. A total of 121 different properties including many of the largest and most important citrus orchards and nurseries in Mississippi were at one time infected. No control measure has ever been discovered for this disease. The only practical way to handle it is to destroy completely by burning each and every plant that becomes infected. This system of eradication has given excellent results. In this work we have followed the system used by the State Plant Board of Florida. In Florida the results have been even more striking than in Mississippi.

The following tables and tabulations show very clearly the successful results that have been obtained in the citrus canker eradication campaign.

Year	Number of Counties Infected	No. of Properties Infected	No. New Properties Infected
1916	4	121	
1917	3	47	12
1918	2	14	1
1919	1	4	0



NUMBER OF GROVE TREES FOUND INFECTED WITH CANKER, PER MONTH, SINCE ACCURATE RECORDS OF THE WORK HAVE BEEN KEPT.

1916	1917	1918	1919
	January ..... 77	January ..... 0	January ..... 0
	February ..... 54	February ..... 1	February ..... 0
	March ..... 44	March ..... 0	March ..... 0
	April ..... 44	April ..... 0	April ..... 0
	May ..... 10	May ..... 0	May ..... 0
June ..... 45	June ..... 5	June ..... 4	June ..... 0
July ..... 43	July ..... 0	July ..... 1	July ..... 0
August ..... 945	August ..... 107	August ..... 0	August ..... 0
September ..... 1111	September ..... 2	September ..... 1	September ..... 0
October ..... 91	October ..... 2	October ..... 3	October ..... 0
November ..... 460	November ..... 2	November ..... 0	November ..... 0
December ..... 29	December ..... 0	December ..... 0	December ..... 0
Totals.....2724	347	10	0

Total number of grove trees found infected June 1, 1916 to December 31, 1919..... 3,081

Total number of nursery trees found infected June 1, 1916 to December 31, 1919..... 51,167

Number of properties infected during 1917..... 47  
 Number of properties infected during 1918..... 14  
 Number of properties infected during 1919..... 4  
 Number of new properties found infected during 1917..... 12  
 Number of new properties found infected during 1918..... 1  
 Number of new properties found infected during 1919..... 0  
 Total number of properties found infected June 1, 1916 to December 31, 1919..... 121  
 Properties declared no longer danger centers..... 105  
 Properties still classed as infected or dangerous..... 16

Non-infected trees burned as precautionary measures, with consent of owners from January 1, 1918 to December 31, 1918 ..... 20,604

Non-infected trees burned as precautionary measures, with consent of owners from January 1, 1919 to December 31, 1919 ..... 54,392

Total non-infected trees burned as precautionary measures with consent of owners from January 1, 1918 to December 31, 1919..... 74,996

Number of nursery trees inspected Jan. 1, 1918 to Dec. 31, 1918..... 4,137,463

Number of nursery trees inspected Jan. 1, 1919 to Dec. 31, 1919..... 4,898,789

Total number nursery trees inspected during 1918-1919..... 9,036,252

Number grove trees inspected Jan. 1, 1918 to Dec. 31, 1918.....	253,487
Number grove trees inspected Jan. 1, 1919 to Dec. 31, 1919.....	271,051
Total number grove trees inspected during 1918-1919.....	524,538

All of the citrus canker eradication work has been done on a cooperative basis with the Bureau of Plant Industry. The work is supposed to be done on a half and half basis but the Federal authorities have spent several times as much money on this work in Mississippi as has the state. In fact little would have been accomplished had it not been for the Federal aid.

#### SWEET POTATO WEEVIL CONTROL AND ERADICATION.

The Sweet Potato Weevil is the most serious pest of one of our important crops. In cooperation with the Bureau of Entomology of the United States Department of Agriculture, scouting for this pest has been done in almost every county of the state. It has been found in Mississippi on certain farms in only four counties, Hancock, Harrison, Jackson, and Pearl River. These counties are the southernmost counties of the state. Regulations have been adopted to prevent the further spread of this pest within the state and to prevent its further introduction from other states and countries. Up to the date that the last tabulation was made over 6,500 properties growing sweet potatoes had been inspected and 193 of these had been found to be infested with the Sweet Potato Weevil. The infested farms are located by counties as follows:

Hancock .....	66
Harrison .....	52
Jackson .....	67
Pearl River.....	8
Total .....	193

The success obtained in controlling and eradicating the Sweet Potato Weevil has surpassed even our most optimistic hopes. Many farms that were infested a year ago are now apparently free of weevils. If the work continues to be as successful in the future, Mississippi should be absolutely free of this pest within two years and possibly within one year. It will, however, be necessary to continue precautions to prevent the re-introduction of this pest from other states and countries after it has been eradicated from Mississippi.

Regulations have been enacted to prevent the further introduction of the Sweet Potato Weevil into Mississippi and to prevent its further dissemination within the state. These regulations are Rules 23 and 24 of the Plant Board.

The tables presented here summarize most of the Sweet Potato Weevil work that has been accomplished.

Table I shows the number of properties inspected for the Sweet Potato Weevil and the number of properties found infested, by counties, for the year beginning November 1, 1917 and ending October 31, 1918. A total of

4,021 properties in nineteen counties were inspected and only 147 found to be infested with Sweet Potato Weevils.

Table II gives the same information as Table I for the following twelve months, that is from November 1918 to October 1919, inclusive, for the four counties that are infested with Sweet Potato Weevils. During this twelve month period 2,423 inspections were made in these four counties and forty six additional infested properties were located.

Table III summarizes the information contained in Tables I and II so far as the four infested counties are concerned; 4,376 inspections have been made in these four counties and 193 infested properties had been located up to October 31, 1919.

Table IV gives the list of the 193 properties that have been found infested with the Sweet Potato Weevil in Mississippi in the order in which they were discovered by Mr. K. L. Cockerham and his assistants. This list gives the name of the owner or person in charge of each property, his post office address or nearby town, the approximate acreage in sweet potatoes at time weevils were discovered and the approximate percentage of potatoes infested at that time.



Marion .....			15					7	223				245
			0					0	0				0
Pearl River ...	15		35			12		413	66				541
	0		3			0		2	0				5
Pike .....	15								151	119			285
	0								0	0			0
Stone .....								273					273
								0					0
Walthall .....	15								332				347
	0								0				0
Wilkinson .....										37			37
										0			0
Total.....	235	110	174	222	65	150	396	1174	888	291	254	62	4021
	18	3	7	12	0	0	62	42	0	0	0	3	147

The upper figures in each section represent the number of properties inspected, while the lower figures represent the number of properties infested with the Sweet Potato Weevil.

TABLE No. 2

TABLE SHOWING INSPECTIONS MADE IN THE FOUR COUNTIES INFESTED WITH SWEET POTATO WEEVILS DURING THE YEAR FROM NOVEMBER 1, 1918 TO OCTOBER 31, 1919.

The upper figures in each section represent the number of inspections, while the lower figures represent the number of new properties found infested with the Sweet Potato Weevil.

COUNTY	Nov	Dec.	Jan.	Feb.	Mar.	Apr.	May	Jun.	July	Aug	Sep.	Oct.	Totl
	1918	1918	1919	1919	1919	1919	1919	1919	1919	1919	1919	1919	
Hancock .....	45	75	54	26	65	96	63		24	38	127	14	627
	0	0	0	0	0	0	0		0	0	0	0	0
Harrison .....	118	22	114	114	160	109	90	39	27	87	16	52	948
	24	1	1	1	0	0	0	0	0	0	0	0	27
Jackson .....	10	53	30	77	136	75	28	21	20	60	35	67	612
	0	4	11	0	1	0	0	0	0	0	0	0	16
Pearl River ...	28		24	34		11	7		7	7	109	9	236
	3		0	0		0	0		0	0	0	0	3
Totl. Inspe'ns	201	150	222	251	361	291	188	60	78	192	287	142	2423
Infestat'ns fnd	27	5	12	1	1	0	0	0	0	0	0	0	46

Many properties were inspected in other counties but these are the figures for the only counties known to be infested.

TABLE No. 3

INSPECTIONS MADE AND NUMBER OF INFESTED PROPERTIES  
 FOUND BY YEARS IN THE FOUR COUNTIES SHOWING INFESTA-  
 TION WITH SWEET POTATO WEEVIL.

COUNTY	Nov., 1917 to Oct., 1918	Nov., 1918 to Oct., 1919	Totals
Hancock Co.—Number of properties inspected.....	385	627	1012
Hancock Co.—Number of properties infested.....	66	0	66
Harrison Co.—Number of properties inspected.....	611	948	1559
Harrison Co.—Number of properties infested.....	25	27	52
Jackson Co.—Number of properties inspected.....	416	612	1028
Jackson Co.—Number of properties infested.....	51	16	67
Pearl River Co.—Number of properties inspected..	541	236	777
Pearl River Co.—Number of properties infested.....	5	3	8
	1953	2423	4376
Totals.....	147	46	193

TABLE No. 4

## SWEET POTATO WEEVIL INFESTATIONS IN MISSISSIPPI FROM NOVEMBER 1, 1917 TO OCTOBER 31, 1919, BY PROPERTIES.

(New Infestations.)

No.	Property	Town	Acres	Percent Infested
1.	T. J. Bourgeois.....	Waveland.....	1	1
2.	Dan Ladnier.....	Lake Shore.....	8	50
3.	John Yarbrough.....	Lake Shore.....	2	75
4.	Dan Garcia.....	Lake Shore.....	1½	90
5.	Raymond LaFontaine.....	Lake Shore.....	2	1
6.	Jake Williams.....	Lake Shore.....	3	85
7.	Chyrs Dorn.....	Ansley.....	5	80
8.	R. G. Campbell.....	Ansley.....	3	50
9.	Jens Nelson.....	Logtown.....	2	5
10.	William Carter.....	Logtown.....	2	5
11.	Jesse Lott.....	Logtown.....	4	10
12.	Mrs. Ollie Whitfield.....	Logtown.....	2	10
13.	Theodore Tatenhorst.....	Logtown.....	1	99
14.	Courtney Young.....	Logtown.....	2	90
15.	A. B. Nellums.....	Logtown.....	2	75
16.	H. P. Wood.....	Logtown.....	4	90
17.	Will Bennett.....	Logtown.....	3	10
18.	W. P. Blackwell.....	Logtown.....	4	5
19.	W. H. Hults.....	Ocean Springs.....	2	1
20.	H. D. Money.....	Ocean Springs.....	1	5
21.	W. W. Woodman.....	Pascagoula.....	2	5
22.	E. F. Seals.....	Nicholson.....	2	2
23.	W. J. Stewart.....	Nicholson.....	2	50
24.	J. B. Mitchell.....	Nicholson.....	1	1
25.	G. Necaise.....	DeLisle.....	1	2
26.	S. H. Dedeaux.....	DeLisle.....	1	2
27.	F. H. Bryan.....	Ocean Springs.....	5	15
28.	A. L. Orrell.....	Ocean Springs.....	4	.5
29.	Ernest Q. Lyons.....	Van Cleave.....	3	20
30.	J. L. Fairley.....	Dead Lake.....	2	1
31.	James Carter.....	Van Cleave.....	1½	2
32.	Mrs. George Woodman.....	Van Cleave.....	5	10
33.	N. Guillotte.....	Gautier.....	2	3
34.	S. G. Ramsey.....	Van Cleave.....	4	5
35.	Earle S. Davis.....	Van Cleave.....	3	2
36.	R. N. Murphy.....	Van Cleave.....	4	5
37.	R. M. Havens.....	Van Cleave.....	5	2
38.	R. P. Barnhart.....	Ocean Springs.....	3	1
39.	J. F. Fritze.....	Gulfport.....	2½	.5
40.	C. E. Byrd.....	Ocean Springs.....	2	5

No.	Property	Town	Acres	Percent Infested
41.	L. B. Watson.....	F't'nbleau.....	5	75
42.	J. E. Dearman.....	Gautier.....	2	5
43.	Horace Sheppard.....	F't'nbleau.....	2	5
44.	S. R. Byrd.....	Van Cleave.....	2	30
45.	E. C. McLeod.....	Van Cleave.....	$\frac{3}{4}$	10
46.	Francis Reddix.....	Van Cleave.....	1	12
47.	Andreas Tootles.....	Van Cleave.....	1	30
48.	H. C. Collington.....	Van Cleave.....	1.08	10
49.	M. M. Mart.....	Van Cleave.....	2	20
50.	Irvin Barge.....	Van Cleave.....	1	10
51.	W. M. Mallett.....	Ocean Springs.....	$\frac{3}{4}$	1
52.	Henry Fletcher.....	La Rue.....	$2\frac{1}{2}$	80
53.	J. M. Martin.....	Ocean Springs.....	$2\frac{1}{2}$	80
54.	Geo. L. Mallett.....	Ocean Springs.....	3	1
55.	Georgia Nobles.....	Ocean Springs.....	2	75
56.	H. Holden.....	Logtown.....	3	10
57.	W. A. Whitfield.....	Logtown.....	2	2
58.	Albert Garcia.....	Clermont Har.....	4	10
59.	Chas. Caddy.....	Ansley.....	6	2
60.	Jekss Lee.....	Ansley.....	1	5
61.	Vincent Moran.....	Lake Shore.....	2	5
62.	Chas. LaFontaine.....	Ansley.....	2	2
63.	H. F. Schwartz.....	Ansley.....	2	2
64.	Jas. Terrell.....	Ansley.....	1	Slight
65.	E. L. Malachi.....	Waveland.....	4	20
66.	Leon Favere.....	Bay St Louis.....	2	10
67.	S. D. Lott.....	Logtown.....	4	20
68.	Ed. Christmas.....	Logtown.....	3	5
69.	J. A. Carter.....	Pearlington.....	4	5
70.	Edwin Garcia.....	Lake Shore.....	5	15
71.	Alonzo Antonio.....	Clermont Har.....	2	5
72.	Louis Antonio.....	Clermont Har.....	3	10
73.	Jno. Schultheis.....	Logtown.....	10	2
74.	J. W. Hover.....	Logtown.....	4	15
75.	J. C. Hover.....	Logtown.....	3	5
76.	Calvin Williams.....	Lake Shore.....	1	90
77.	W. Green.....	Lake Shore.....	7	20
78.	E. D. Bosarge.....	Lake Shore.....	2	20
79.	R. L. LaFontaine.....	Ansley.....	4	10
80.	W. H. Cranky.....	Ansley.....	4	10
81.	Asa Russ.....	Pearlington.....	10	30
82.	Myles Fayard.....	Waveland.....	10	5
83.	W. J. Ladnier.....	Clermont Har.....	5	10
84.	Alex Finnel.....	Waveland.....	6	10
85.	T. B. Ladnier.....	Clermont Har.....	6	75



No.	Property	Town	Acres	Percent Infested
86.	Jno. Morse.....	Logtown.....	2	1
87.	Spencer Lee.....	Westonia.....	1½	5
88.	Theodore Nicase.....	Kiln.....	5	75
89.	J. J. Williams.....	Ansley.....	1	5
90.	J. A. Kellar.....	Nicholson.....	3	5
91.	Oscar Caddy.....	Bay St. Louis.....	1	30
92.	C. O'Vey.....	Fenton.....	2	10
93.	Chas Peters.....	Logtown.....	3	2
94.	Oscar Green.....	Ansley.....	4	50
95.	Petro Whitton.....	Logtown.....	4	25
96.	Ed. Green.....	Lake Shore.....	2	10
97.	Jeff Yarbrough.....	Lake Shore.....	1	5
98.	A. C. McKeen.....	Lake Shore.....	2	10
99.	W. H. Dean.....	Logtown.....	4	5
100.	Joe Nixon.....	Waveland.....	3	5
101.	Mrs. A. Ruhr.....	Waveland.....	¼	5
102.	Prosper Dubison.....	DeLisle.....	6	5
103.	Earnest Malley.....	Ocean Springs.....	¾	1
104.	J. C. Yocom.....	Ocean Springs.....	1	1
105.	C. Carter.....	Van Cleave.....	4	5
106.	J. Frank O'Neal.....	Van Cleave.....	3	50
107.	R. A. McMillon.....	Van Cleave.....	2	2
108.	H. T. Woodman.....	Van Cleave.....	4	10
109.	Mrs. H. E. Woodman.....	Van Cleave.....	2	10
110.	J. E. Roberts.....	Van Cleave.....	2	10
111.	Print Ware.....	Van Cleave.....	¾	50
112.	A. E. Roberts.....	Van Cleave.....	2	2
113.	W. W. Groves.....	Van Cleave.....	2	25
114.	H. S. Taylor.....	Van Cleave.....	2½	10
115.	Clifton Taylor.....	Van Cleave.....	2	50
116.	M. P. Davis.....	Van Cleave.....	1	5
117.	L. C. Roberts.....	Van Cleave.....	1½	5
118.	E. Q. Roberts.....	Van Cleave.....	1½	5
119.	R. M. Roberts.....	Van Cleave.....	3	5
120.	J. R. Roberts.....	Van Cleave.....	3	5
121.	J. W. Reid.....	Van Cleave.....	1	2
122.	Oveal Moran.....	DeLisle.....	2	50
123.	Sylvan Dubizon.....	DeLisle.....	1	2
124.	Johnie Cuevas.....	DeLisle.....	5	25
125.	W. A. Cox.....	Biloxi.....	2½	5
126.	J. N. Walker.....	Gulfport.....	3	50
127.	John C. Ross.....	Gulfport.....	1	75
128.	Peter Ross.....	Gulfport.....	1	75
129.	J. W. Read.....	Biloxi.....	3	5
130.	W. W. Fayard.....	Biloxi.....	1	50

No.	Property	Town	Acres	Percent Infested
131.	Oban Cuevas.....	DeLisle.....	6	5
132.	Nicholas Cuevas.....	DeLisle.....	2	10
133.	Joe Cuevas.....	DeLisle.....	5	25
134.	Virice Saucier.....	DeLisle.....	8	5
135.	Dick Martin.....	DeLisle.....	1	Small
136.	R. Martin.....	DeLisle.....	1	8
137.	Leonard Murphy.....	Fenton.....	$\frac{1}{4}$	Small
138.	Chas. Smith.....	Fenton.....	2	Small
139.	Henry Ladnier.....	Sorin.....	$1\frac{1}{4}$	10
140.	Ursain Garriga.....	Sorin.....	$4\frac{1}{2}$	40
141.	C. A. Moran.....	DeLisle.....	1	10
142.	Victor Dubizon.....	DeLisle.....	3	5
143.	W. M. Smith.....	Picayune.....	2	15
144.	H. E. Smith.....	Picayune.....	5	50
145.	J. V. Carter.....	Van Cleave.....	$2\frac{1}{2}$	10
146.	D. R. Weston.....	Logtown.....	3	10
147.	Neal Kosh.....	Logtown.....	2	10
148.	A. J. Stewart.....	Picayune.....	2	25
149.	Wylie Stockstill.....	Picayune.....	2.5	10
150.	L. T. Seal.....	Picayune.....	5	50
151.	A. J. Moran.....	DeLisle.....	3	2
152.	Ed. Parker.....	DeLisle.....	$\frac{3}{4}$	5
153.	S. S. Ladnier.....	DeLisle.....	2.5	75
154.	T. J. Dubizon.....	DeLisle.....	$2\frac{3}{4}$	75
155.	Placede Cuevas.....	DeLisle.....	1.5	2
156.	Andrew Neilot.....	DeLisle.....	2	20
157.	Closie Neilot.....	DeLisle.....	2	15
158.	Calvin Bradley.....	DeLisle.....	1	2
159.	S. T. Moran.....	DeLisle.....	1.5	3
160.	Edmond Bradley.....	DeLisle.....	.5	1
161.	J. P. Rouse.....	Pass Christian.....	$1\frac{1}{4}$	2
162.	M. M. Allen.....	Gulfport.....	5	2
163.	J. B. Moulie.....	Gulfport.....	1.5	50
164.	E. Koenenn.....	Sorin.....	1.5	2
165.	C. Carriga.....	Fenton.....	2.5	25
166.	A. Malley.....	Sorin.....	$\frac{3}{4}$	.5
167.	S. A. Prest.....	Pass Christian.....	2	2
168.	W. A. Fiegel.....	Pass Christian.....	1.5	1
169.	C. A. Wuerfel.....	Cuevas.....	5	8
170.	Tom Saucier.....	DeLisle.....	.5	3
171.	Frank Swanier.....	DeLisle.....	$\frac{1}{4}$	2
172.	Joe Swanier.....	DeLisle.....	$\frac{1}{4}$	2
173.	John Saucier.....	DeLisle.....	$\frac{1}{2}$	2
174.	R. S. McCants.....	DeLisle.....	$\frac{3}{4}$	2
175.	C. T. Long.....	Van Cleave.....	1.5	1

No.	Property	Town	Acres	Percent Infested
176.	E. R. Pearson.....	Van Cleave.....	$\frac{3}{4}$	5
177.	Q. C. Roberts.....	Van Cleave.....	$\frac{1}{2}$	25
178.	L. C. Roberts.....	Van Cleave.....	$\frac{1}{2}$	Slight
179.	Jerry Ausmer.....	DeLisle.....	$\frac{1}{4}$	2
180.	Louis Anderson.....	Van Cleave.....	$\frac{3}{4}$	4
181.	Walter Mungey.....	Van Cleave.....	2	5
182.	Mrs. Ida L. Goff.....	Van Cleave.....	1	1
183.	Mrs. A. C. Carlander.....	Van Cleave.....	6	5
184.	W. E. Wiggins.....	Van Cleave.....	2	Slight
185.	Amealle Bago.....	Van Cleave.....	2	5
186.	J. M. Graham.....	Van Cleave.....	2	5
187.	Mrs. T. Clark.....	Van Cleave.....	$1\frac{3}{4}$	Slight
188.	Harmon Wilson.....	Larue.....	$\frac{2}{3}$	25
189.	Peter Devrow.....	Ocean Springs.....	$\frac{3}{4}$	25
190.	Earnest Wilson.....	Larue.....	$1\frac{1}{2}$	5
191.	J. A. Calhoun.....	Biloxi.....	$1\frac{1}{2}$	.5
192.	T. E. Campbell.....	Biloxi.....	1.5	1
193.	J. A. Flurry.....	Ocean Springs.....	1.5	1

SCOUTING FOR THE PINK BOLLWORM, EUROPEAN CORN BORER, POTATO WART, ORIENTAL PEACH MOTH, GIPSY MOTH, BROWN TAIL MOTH, ALFALFA WEEVIL, ETC.

Our inspectors have scouted in practically every county in this state for these serious pests. We are glad to report that they have not been discovered in Mississippi. These pests are of such a very serious nature that the introduction of any one of them into Mississippi would be almost as serious a calamity as was the advent of the boll weevil. These pests have been brought from foreign countries to the United States, but as yet we have no reason to believe that any of them have reached Mississippi. Our funds did not enable us to do as much or as thorough scouting for these and other serious pests as their importance warrants. The agricultural interests of our state are so enormous that thorough scouting for these pests is simply a matter of insurance. If any one of them should become thoroughly established it would probably be impossible to eradicate it and the pest would always be with us, taking an annual tax of thousands or perhaps millions of dollars worth of crops. By careful scouting serious pests may be discovered before they become established and eradication may be possible and practical as in the cases of the Sweet Potato Weevil and Citrus Canker.

ARGENTINE ANT CONTROL.

The Argentine Ant has been spreading rapidly and becoming increasingly more serious each year in Mississippi for the past fifteen years. Experiments and demonstrations by the U. S. Bureau of Entomology indicate that this pest can be very effectually controlled in any given locality. We believe that a systematic and thorough fight should be made against it in those cities, towns and communities where the people will cooperate. We have received many urgent calls for help against this insect but our funds have not been sufficient to enable us to undertake the work on a systematic basis. The Argentine Ant causes an annual loss of hundreds of thousands of dollars in Mississippi that might be largely prevented by the expenditure of a comparatively small amount.

During December 1919 the city of Woodville in Wilkinson County appropriated \$250 and the city of Hazlehurst in Copiah County appropriated \$500 to cooperate with the plant Board in controlling or eradicating the Argentine Ant from those towns. The agreement made was that the towns should furnish all supplies and the Plant Board furnish the men to do the work. Because these towns were unable to obtain the necessary supplies in time, this work has been temporarily postponed. There are undoubtedly many other towns, villages, hamlets and farms in Mississippi that would be glad to cooperate with our Board in a campaign of eradication. In fact many people have already appealed to us for assistance along this line.

If the Argentine Ant is not checked it will, within a few years, reach every town, village, and farm in Mississippi. The loss caused will then amount to millions of dollars. It is absolutely essential that we protect ourselves against this pest. It is our duty to the next generation to do so.

## COTTONY CUSHION SCALE.

Another very serious pest that has recently been introduced into Mississippi is the Cottony Cushion Scale which attacks a great variety of plants. Ten years ago this pest did not occur in Mississippi. Now we know at least five counties that are infested and probably there are others. By introducing and rearing a certain species of ladybird beetle, the Vedalia Ladybird Beetle, originally introduced from Australia, much can be done to reduce its ravages. We should keep continually fighting this pest in order to prevent its further spread.

## FOREST PESTS.

Our forest interests are so enormous in Mississippi and there are so many serious pests that might be introduced and cause great loss that the Board has felt justified in employing a specialist on forest insects. We were fortunate in obtaining the Head of the Department of Forest Entomology at the New York State College of Forestry, Dr. M. W. Blackman, who is now at work scouting in the forests of the state. This important line of work should be continued permanently.

## NURSERY INSPECTION.

During 1918, 2,317,178 nursery plants were inspected in seventy one Mississippi nurseries located in seventeen counties as follows:

Grafted and budded pecans.....	291,000	
Seedling pecans.....	537,800	
Total pecans.....		828,800
Citrus trifoliata.....	521,526	
Orange .....	58,870	
Grapefruit .....	1,657	
Miscellaneous citrus stock.....	377	
Total citrus stock.....		582,430
Apples .....	19,775	
Peaches .....	17,040	
Pears .....	15,000	
Japanese persimmons.....	8,750	
Strawberries .....	2,500	
Grapes .....	1,240	
Mulberry .....	1,180	
Miscellaneous fruit stock.....	103	
Total fruit stock (exclusive of citrus).....		65,588
Roses .....	446,572	
Miscellaneous ornamentals .....	393,788	
Total Ornamental stock.....		840,360
Grand Total of plants in nurseries.....		2,317,178

San Jose scale was found to be present in eleven of the seventy-one nurseries inspected. These nurseries were not allowed to sell stock until the scale infested plants were dug out of the nurseries and burned. One nursery was not granted a certificate at all as over 99% of the stock was severely infested with San Jose' scale. Re-inspections were made in most of the nurseries having shown scale. The following list of plants was found infested with this pest and condemned:

Pear .....	12,374
Apples .....	3,572
Rose .....	20
Pecan .....	9
Peach .....	4

It might be stated that some of the above plants condemned were not really infested, but were in blocks of nursery stock, the majority of the trees in which were badly infested. The scale susceptible stock certified in the above nurseries was all fumigated before being sold. The Rules and Regulations of the Plant Board require that all host plants of San Jose' scale be fumigated with hydrocyanic acid gas before delivery. This precautionary measure insures the freedom of the stock from scale and many other insect pests.

The Nursery Inspection Department has been handled very efficiently by Geo. F. Arnold who resigned Oct. 15, 1919 and Mr. D. W. Grimes who was appointed to succeed him. Mr. Arnold has prepared a report for the year 1918 and Mr. Grimes has written the nursery inspection report for 1919.

#### PUBLICATIONS.

During the biennial period the publications of the Board have been as follows:

Circular No. 1, entitled Mississippi Plant Act of 1918.

Circular No. 2, entitled, Rules and Regulations of the State Plant Board of Mississippi.

Quarantine Circular No. 1, entitled, Laws of Mississippi and Rules and Regulations of the State Plant Board.

Nursery Inspection Circular No. 1, entitled Instructions to Nurserymen.

Nursery Inspection Circular No. 2, entitled, Instructions to Nurserymen.

Nursery Inspection Circular No. 3, entitled, Instructions to Out-of-state Nurserymen.

Monthly Citrus Canker Report.—At the beginning of each month during the past two years a report giving a summary of the citrus canker eradication work for the preceding month has been sent out to all who have requested it.

#### PERSONNEL OF BOARD.

From the beginning Professor P. P. Garner, Commissioner of Agriculture, has been Chairman and R. W. Harned, Entomologist of the A. & M. College has been Secretary. The third member of the Board is the Director of the Agricultural Experiment Stations. Professor E. R. Lloyd held this position until January 1, 1919 when he was succeeded by Professor J. R. Ricks.

## PERSONNEL OF STAFF.

The enacting law requires that the Chief Entomologist of the A. & M. College shall be the executive officer of the Plant Board. R. W. Harned has held this position during the past two years.

C. B. Haddon held the position of General Inspector for the Board until December 1, 1919 when he resigned to accept a position in another state at an increased salary. Mr. Haddon had supervision of the citrus canker eradication work in the Gulf coast region. He also assisted in the nursery inspection, sweet potato weevil eradication, cottony cushion scale control, and other lines of work. Mr. Haddon rendered excellent service to the state. Under his immediate direction the number of properties infected with citrus canker was reduced from 121 to 4.

George F. Arnold held the position of Nursery Inspector until he resigned on October 15, 1919 to accept a position with the Federal Horticultural Board at a considerable increase in salary. Mr. Arnold was diligent and thorough in his work. He did much to improve nursery inspection in Mississippi. He is another man that the state could ill afford to lose. With him went the experience and training that he had obtained by several years of service.

J. M. Langston began as Assistant Entomologist in August 1918, and has rendered excellent service in this position. Mr. Langston is a native of Covington County, Mississippi, and a graduate of the Mississippi A. & M. College, but for several years before we obtained his services he had been employed by the United States Bureau of Entomology. He came from Oregon to take this position with the Plant Board.

Hunter H. Kimball was added to our staff early in the Fall of 1919. When Mr. Haddon resigned on December 1, 1919, he was promoted to the position of Chief Inspector. Mr. Kimball is a native of Jackson, Mississippi. He had taken special work in entomology as a student in the Mississippi A. & M. College and had made a fine record during the fifteen months he was employed by the United States Bureau of Entomology. He entered the army when war was declared as a private but soon earned a Captain's Commission. We were fortunate to obtain his services soon after he returned to civil life.

D. W. Grimes was first employed as an Inspector during June 1919. When Mr. Arnold resigned in October he was promoted to the position of Nursery Inspector. Mr. Grimes is a native of Itawamba County, Mississippi, and a graduate of the Mississippi A. & M. College. He had over two years' experience as a citrus canker inspector, nursery inspector, and port and railway inspector for the State Plant Board of Florida. During the war he saw overseas duty but was among the first to be discharged and immediately entered the Graduate School of Ohio State University where he completed five months' special work in entomology before we obtained his services in this state.

Luther Brown also received two years' training and experience as an inspector for the State Plant Board of Florida before he entered military service. In Florida he had served in the citrus canker, nursery inspection, and port and railway inspection departments of the Plant Board. Mr. Brown

is a native of Itawamba County, Mississippi, and a graduate of the Mississippi A. & M. College. His experience, training, and personality are such as to make him a valuable addition to our staff.

Dr. M. W. Blackman is at present employed as a Specialist on Forest Insects. Dr. Blackman is a graduate of the University of Kansas, and did his post-graduate work at Harvard University. At present he is Head of the Department of Forest Entomology in the New York State College of Forestry, Syracuse University, Syracuse, New York. We learned that Dr. Blackman was on leave of absence until September 1920 and immediately took steps to obtain his services. We feel that we are fortunate in having his services in the state, even though temporarily.

J. O. Maloney, Collaborating Clerk and Inspector, was a valuable employee who had rendered faithful and efficient service but resigned in September 1919 for financial reasons.

R. P. Barnhart, R. L. Howell and Kimble Harmon deserve special mention for their valuable services in the citrus canker fight. They are still at work.

About three dozen other inspectors have been employed temporarily. Most of them resigned to accept positions elsewhere at higher salaries.

#### EMPLOYEES AND SALARIES.

For most of the work carried on by the State Plant Board, men of a high type, well trained in entomology and plant pathology are needed. Mississippi needs and should have as strong men for this work as any other state. In order to obtain and keep these men we must pay salaries that will attract and hold them. Most of our employees have resigned during the past year in order to accept better paying positions in other states. The Board has paid salaries that it felt justified in paying considering limited funds available and the salaries paid by other State Departments and Institutions. Only one of the employees of the Board, Mr. Langston, has remained with us during the past year. Our general Inspector, Mr. Haddon, has resigned to go to Louisiana. Our Nursery Inspector, Mr. Arnold, has gone to Texas and so it is with all other employees. At the present time our salary roll is as follows:

Chief Inspector.....	\$ 2,400
Assistant Entomologist.....	1,800
Nursery Inspector.....	1,620
Three Assistant Inspectors @ \$1,200 each.....	3,600
Specialist on Forest Pests.....	2,400
Stenographer .....	900
	\$ 12,720

In order to retain any of these employees another year it is practically certain that their salaries will have to be increased. It will not be good business to employ less efficient men and the work is seriously crippled every time a good man leaves as his experience goes with him.



## ACKNOWLEDGEMENTS.

The members of the staff of the State Plant Board are grateful for assistance along many lines from various specialists and colleagues. Space will permit acknowledgment of only a few of those whose assistance has been of great value to the Plant Board.

Dr. K. F. Kellerman, Associate Chief of the Bureau of Plant Industry of the United States Department of Agriculture is in charge of all citrus canker eradication work in the United States. Without his assistance and cooperation little would have been accomplished in eradicating citrus canker.

Dr. F. H. Chittenden, Chief of Division of Truck Crop Insects of the Bureau of Entomology of the United States Department of Agriculture has general supervision of the Sweet Potato Weevil eradication and control work. Mr. J. E. Graf is in direct charge of the field work in all the Southern States and Mr. K. L. Cockerham has charge of the work in Mississippi for the Federal Government. Practically all that has been accomplished towards eradication of the Sweet Potato Weevil has been due to these men and the inspectors working in this state, Messrs L. M. Prichard, F. A. Wright T. G. Hubbard, W. M. Mingee, Wm. H. Carpenter, E. E. O'Neal and F. Griffith.

Dr. L. O. Howard, Chief of the Bureau of Entomology of the United States Department of Agriculture has directly and indirectly assisted us in many ways, especially by having specimens determined by specialists on his staff, by allowing experts employed by the U. S. Bureau to assist us in this state, and by furnishing us with needed publications.

Professor Wilmon Newell, executive officer of the State Plant Board of Florida and various members of his staff, especially Dr. E. W. Berger, Entomologist, Mr. F. M. O'Byrne, Nursery Inspector, Dr. J. H. Montgomery, Quarantine Inspector, and Mr. Frank Sterling, General Inspector, have given our staff valuable assistance and advice along many lines and have also furnished us with *Vedalia* ladybird beetles for use against the Cottony Cushion Scale.

Mr. E. R. Barber of the U. S. Bureau of Entomology, Audobon Park, New Orleans, Louisiana, has been of great assistance to us in both the Argentine Ant and Cottony Cushion Scale control work.

Mr. S. M. Thomas, Chief Inspector, and other employees of the State Department of Agriculture have assisted us in various matters.

Valuable assistance, cooperation and technical advice have been obtained from many employees of the Mississippi A. & M. College. We are especially indebted to Prof. J. M. Beal of the Department of Botany and Plant Pathology, Associate Professor R. N. Lobdell, Assistant Professor E. W. Stafford, and Miss Gladys Hoke of the Department of Zoology and Entomology, Mr. O. I. Snapp, Field Assistant for the U. S. Bureau of Entomology in cooperation with the Extension Department of the A. & M. College, Dr. W. F. Hand, Professor of Chemistry, Director R. S. Wilson of the Extension Department, Prof. A. B. McKay and Extension Specialist F. B. Richardson of the Horticultural Department and Dr. W. H. Smith, President of the College.

## CONCLUSION.

The Secretary and Executive Officer of the Board does not feel that he should complete this report without expressing his sincere appreciation of the manner in which the other members of the Board (the Commissioner of Agriculture and the Director of the Experiment Stations) have cooperated with him and endeavored in every way to make the work of the State Plant Board of the greatest possible service to the State of Mississippi.

We feel that we have accomplished lasting results during the past biennial period. We will appreciate suggestions for the improvement of any phase of our work and will appreciate criticism of anything that we have done or left undone. We hope to improve and extend the value of the Plant Board to the state.

Very respectfully submitted,  
R. W. HARNED, Secretary.

## NURSERY INSPECTION FROM JULY 1, TO DECEMBER 31, 1918

(By Geo. F. Arnold.)

The Mississippi Legislature in 1908 passed the first nursery and orchard inspection law. Previous to this time the State had much diseased stock sent to it from other states. The horticultural industry in most of the states was protected by strong plant inspection systems which resulted in much diseased nursery stock being sent into Mississippi that could not have been sold elsewhere.

The nursery inspection law passed was inadequate as no money was appropriated for its enforcement. The law required that each nurseryman every year apply to the Entomologist of the Experiment Station for an inspection of his nursery. This inspection was made on or before November first by the Entomologist or an assistant. The nurserymen paid the traveling expenses of the inspector. There was no money available for the inspection of plants from other states and foreign countries and most of the nurseries could be inspected only once a year, owing to the fact that the Entomologist and his assistants usually were kept busy with college work during the session of the A. & M. College. This meant that for the most part the nurseries had to be inspected during the summer. This way of inspecting the nurseries, while unsatisfactory was, of course, some better than not at all.

The law of 1908 continued in force until the passage of the Plant Act of 1918. At the first meeting of the Plant Board on May 18, 1918, Geo. F. Arnold was appointed Nursery Inspector to begin work on July 1, 1918.

## NUMBERS OF NURSERIES INSPECTED.

During the six months period a total of 76 inspections of nurseries were made comprising 71 nurseries, certificates were furnished to 32 nurseries and 1 individual. There was only one of the 71 nurseries but what could have had a certificate of inspection after complying with all requirements. Many of the pecan nurseries in the southern portion of the state sell no stock until after January 1. Some of the nurseries inspected were growing stock mostly for home use, and did not wish a certificate. Several nurseries on the coast

were out of business for a season or two, owing to the fact that labor was high and very hard to get.

The policy of inspecting all nursery stock whether grown for home use or for sale has not been done much in the past, due to the fact that neither time of the inspector or expense money was available for this purpose. The wisdom of such a course has been shown many times during this short period of six months. Some people in the past who grew only a few plants have not bothered about having these inspected. Probably such stock was used mostly by the grower and if there was a surplus it was given or sold to a neighbor. In one nursery of this kind 998 out of 1,000 fruit trees were found infested with San Jose scale. All were inspected and condemned to be burned. The present law requires that nurserymen must have all plants they sell or give away certified by the Plant Board. This applies to plants sold or given to a nurseryman's neighbor as well as those moved for some distance by a common carrier.

The 71 nurseries inspected contain 348 acres. The following figures give the totals for the different kinds of nursery stock in all the nurseries.

Grafted and budded pecans.....	291,000	
Seedling pecans.....	537,800	
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Total pecans.....		828,800
Citrus trifoliata.....	521,526	
Orange .....	58,870	
Grapefruit .....	1,657	
Miscellaneous citrus stock.....	377	
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Total citrus stock.....		582,430
Apples .....	19,775	
Peaches .....	17,040	
Pears .....	15,000	
Japanese persimmons.....	8,750	
Strawberries .....	2,500	
Grapes .....	1,240	
Mulberry .....	1,180	
Miscellaneous fruit stock.....	103	
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Total fruit stock (exclusive of citrus stock).....		65,588
Roses .....	446,572	
Miscellaneous Ornamentals.....	393,788	
	<hr/>	
Total Ornamental stock.....		840,360
	<hr/>	
Grand total of plants in nurseries.....		2,317,178

#### STOCK SHIPPED OUT OF MISSISSIPPI

The Nursery Inspection Department files, upon request from nurseries, duplicate certificates of nursery inspection with other state inspection officials. The majority of the states require the filing of the nursery inspection

certificate of a nursery before allowing shipments to be made. To date there have been certificates filed with other state officials for 19 Mississippi nursery-men. These certificates were filed in 28 states.

LIST OF NURSERIES THAT PURCHASED CERTIFICATE TAGS DURING  
THE PERIOD FROM JULY 1 TO DECEMBER 31, 1918.

Name of Nursery	County	Town	Kind of Stock
J. B. Adams & Son	Harrison	Pass Christian	Ornamental
Back Bay Nursery Co. (Mrs. C. J. Lucurs, Prop.)	Harrison	Biloxi	Citrus, pecan and ornamental
I. E. Bass & Son Pecan Co. (I. H. Bass, Mgr.)	Lamar	Lumberton	Citrus and pecan
R. P. Barnhart	Jackson	Ocean Springs	Citrus and pecan
Bay View Nursery (C. Forkert, Prop.)	Jackson	Ocean Springs	General
Bechtel Pecan Nurseries (Theo. Bechtel, Prop.)	Jackson	Ocean Springs	Citrus, pecan and persimmon
V. J. Bell	Webster	Eupora, R. 3	General
Biloxi Nursery (James Brodie, Prop.)	Harrison	Biloxi	Citrus, pecan and ornamental
Bruce Nursery Co.	Claiborne	Hermanville	General
H. R. Burkett & Sons (H. R. Burkett, Mgr.)	Marion	Columbia	Pecan
The California Ranch (A. B. Cox, Prop.)	Jackson	Helena	Citrus and pecan
S. P. Carter (S. P. Carter, Prop.)	Forrest	Hattiesburg	General
L. E. Chase	Jackson	Ocean Springs	Citrus and pecan
Corinth Nurseries (G. W. Strickland, Prop.)	Alcorn	Corinth	General
W. A. Cox	Harrison	Biloxi	Citrus and pecan
R. R. Cruthirds	Jackson	Ocean Springs Star Route No. 2	Citrus
Eastview Nurseries (D. Cunningham, Prop.)	Jackson	Big Point	Citrus and pecan
Eupora Nursery (J. E. Lewis, Prop.)	Webster	Eupora	General
L. E. Hall	Forrest	Hattiesburg	Pecan
Rudolph Hans	Jackson	Helena	Citrus
F. H. Lewis	Jackson	Pascagoula	Pecan and persimmon
Newton Nurseries (J. R. Woodham, Prop.)	Newton	Newton	General
Ocean Springs Pecan Nursery (C. E. Pabst & Son, Props.)	Jackson	Ocean Springs	Pecan
T. G. Owen, Florist	Lowndes	Columbus	Ornamental
Peachwood Nurseries (A. C. Coles, Prop.)	Wayne	State Line	General
The Pines Pecan Nursery (C. S. Bell, Prop.)	Jackson	Ocean Springs	Pecan
W. P. Ramsay Nurseries (W. P. Ramsay, Prop.)	Jackson	Ocean Springs	Pecan
Delmas Ryan	Jackson	Ocean Springs Route 2	Citrus and pecan
T. M. Scanlan	Newton	Newton	Strawberry
Scott Nursery (A. C. Scott, Prop.)	Copiah	Hazlehurst	General

Name of Nursery	County	Town	Kind of Stock
Toomsba Nurseries (W. C. Rogers & Son, Prop.)	Lauderdale	Toomsba	General
U. S. Nursery Co. (S. W. Crowell, Mgr.)	Coahoma	Roseacres	Ornamental
Wilson Farm Nurseries (Joe P. Wilson, Prop.)	Harrison	Landon	General

## LIST OF NURSERIES INSPECTED, AND NOT APPLYING FOR CERTIFICATE TAGS.

A. C. Ball	Webster	Mantee	General
Beyer & Campbell	Stone	Wiggins	Camphor & citrus
W. H. Bouslog	Harrison	Gulfport	Pecan
I. P. Carver	Jackson	Ocean Springs	Pecan
Mrs. D. C. Benton	DeSoto	Lake View	Privet
C. P. Collier	Jackson	Ocean Springs	Pecan
I. P. Delmas & Sons	Jackson	Orange Grove	Pecan
Edwards Nrsy & Orch. Co.	Jackson	Ocean Springs	Citrus & pecan
E. F. Ferson	Harrison	Biloxi, R. 2	Citrus and pecan
Finkbine Lumber Co., C. E. Pratt, Mgr.	Stone	Wiggins	Citrus & pecan
Mrs. Maude Farnsworth	Jackson	Pascagoula	Pecan
G. W. Harrison	Alcorn	Corinth	Apple & ornamental
E. C. Harris	Train Dispatchers' office of L. & N. R. R.	Mobile, Ala.	Pecan
E. W. Halstead	Jackson	Ocean Springs	Citrus, pecan and ornamental
E. W. Illing	Jackson	Ocean Springs	Pecan
Ingleside Nurseries (Earl S. Davis, Mgr.)	Jackson	Van Cleave	Pecan
K. C. Lumber Co.	George	Lucedale	Citrus
Geo. W. Ladnier	Jackson	Pascagoula	Pecan
G. M. Martin	Jackson	Big Point	Citrus
Geo. E. McEwen	Jackson	Ocean Springs	Citrus
North Carolina Pecan Ranch, P. F. Barber, Prop.	Jackson	Helena	Pecan
Mrs. M. W. Richardson	Jackson	Ocean Springs	Pecan
Perry & Gates	Jackson	Ocean Springs	Citrus and pecan
R. T. Ramsay	Jackson	Ocean Springs	Pecan
B. Reinke	Harrison	Long Beach	Pear
S. P. Ryan	Jackson	Ocean Springs	Citrus
Snell Bros.	Jackson	Big Point	Citrus & pecan
Mrs. W. R. Stuart	Jackson	Ocean Springs	Citrus & pecan
Jno. A. Sutter	Harrison	Pass Christian	Pecan
Geo. W. Stephens	Harrison	Biloxi	Citrus and pecan
Mrs. J. T. Thompson	Jackson	Ocean Springs	Pecan
C. L. Turner	Jackson	Moss Point	Pecan
W. R. Van Cleave	Jackson	Pascagoula	Citrus

## INDIVIDUAL RECEIVING CERTIFICATE TAGS.

J. W. Billups (col.)	Oktibbeha	Starkville
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## CONDITIONS OF THE NURSERIES INSPECTED.

San Jose' Scale was found to be present in 11 of the 71 nurseries inspected. These nurseries were not allowed to sell stock until the scale infested plants were dug out of the nurseries and burned. One nursery was not granted a certificate at all as over 99 per cent of the stock was severely infested with San Jose Scale. Reinspections were made in most of the

nurseries having shown scale. Several of the smaller nurseries in this group did not wish a certificate, and these were left for early next year when they will be reinspected. The following is a list of plants found infested with this pest and condemned:

Pear .....	12,374
Apples .....	3,572
Rose .....	20
Pecan .....	9
Peach .....	4

It might be stated that some of the above plants condemned were not really infested, but were in blocks of nursery stock, the majority of the trees in which were badly infested. The scale susceptible stock certified in the above nurseries was all fumigated before being sold. The Rules and Regulations of the Plant Board require that all host plants of San Jose' scale be fumigated with hydrocyanic acid gas before delivery. This precautionary measure insures the freedom of the stock from scale and many other insect pests.

#### CERTIFICATE TAGS

After a nursery has passed a satisfactory inspection, it is supplied upon request, with serially numbered tags. One of these tags must be attached to each package of nursery stock moved off the premises of the nursery. The Rules and Regulations of the Plant Board require that each tag must be accounted for either by return of the tag to the office of the Nursery Inspector or by a duplicate "invoice" to cover each tag used. The invoice should list the stock moved under that tag together with the name and address of both the consignor and consignee and also date of movement of the stock. In this way the Nursery Inspector gets a complete record of all nursery stock moved in the state. If a serious insect pest or plant disease be discovered in a nursery, all past shipments from that nursery could be located and inspected. The keeping of records of this kind for several years past would have helped wonderfully in eradicating citrus canker. Some of the worst insect pests we now have on our fruit and ornamental trees could have been prevented from scattering over so wide a territory in this state, if such a system of keeping records had been in use. There is no doubt but that much loss can be prevented in the future by the employment of such a system, for it will keep many insects and plant diseases now present in our state from being widely disseminated and will also serve to assist in stamping out new pests before they can gain a foothold.

There are three tags for use of Mississippi nurserymen: (1) Regular nursery certificate tag. This form is most commonly used. (2) Nursery dealer certificate. This tag is used by persons or firms who do not raise nursery stock themselves, but who buy their stock from nurserymen. (3) Package certificate tag. This form of tag is very useful in cases of emergency. They are signed by the Nursery Inspector (as are the other forms) but in addition are signed by the inspector making the inspection of that package of plants. The Regular and Nursery Dealer Certificates have no date of expiration. The tags may be recalled at any time the nursery fails

to comply with the requirements of the Plant Board, or if it becomes infested with a serious insect pest or infected with a dangerous plant disease. It is the aim of this department to inspect all nurseries at least twice a year and inspect even oftener the larger ones and any that might be suspicious of harboring injurious insect pests or plant diseases. In this way the condition of the nursery at all times is fairly well known. It may be at times of much convenience to some nurserymen, such as those who sell budwood, and greenhouse proprietors, to have certificates on hand. Otherwise sales might be delayed until an inspection could be made and certificate tags obtained.

Permit certificate tags are sold at actual cost to out-of-the state nurserymen after they have furnished the Nursery Inspection Department with satisfactory evidence that they will endeavor to meet in every way the Plant Board requirements for shipping nursery stock into Mississippi. All permit certificate tags expire on September 1 after date of issue. The permit tag is to be a different color each year.

The quantity of certificate tags issued to date is as follows:

Regular .....	11,849
Nursery Dealer .....	0
Package .....	0
Permit .....	25,053
Total.....	36,902

LIST OF OUT-OF-STATE NURSERIES RECEIVING MISSISSIPPI PERMIT TAGS.

Alabama Gulf Coast Nurseries.....	Grand Bay, Alabama
Ella V. Baines.....	Springfield, Ohio
L. A. Berkman.....	Concord, Georgia
G. M. Beacon Pecan Groves.....	Dewitt, Georgia
Chase Nursery Company.....	Chase, Alabama
John Lewis Childs, Inc.....	Floral Park, N. Y.
Commercial Nursery Company.....	Decherd, Tennessee
The Cureton Nurseries.....	Austell, Georgia
Draime Brothers, Nurserymen.....	Citronelle, Alabama
Fairview Nurseries.....	Rochester, N. Y.
First National Nurseries.....	Rochester, N. Y.
Forest Nursery Company.....	McMinnville, Tennessee
Fraser Nursery Company.....	Huntsville, Alabama
Georgia Nursery Company.....	Augusta Georgia
Glen Brothers, Incorporated.....	Rochester, N. Y.
Glen St. Mary Nursery Co.....	Glen St. Mary Florida
Globe Nurseries.....	Bristol, Tennessee
Good & Reese Company.....	Springfield, Ohio
Griffing Nurseries .....	Port Arthur, Texas
C. M. Griffing & Company.....	Macclenny, Florida
Great Western Plant Company.....	Springfield, Ohio

Harrison's Nurseries.....	Berlin, Maryland
Harlan's Farms Nurseries.....	Lockhart, Alabama
Hartwell Nurseries.....	Hartwell, Georgia
H. G. Hastings Company.....	Atlanta, Georgia
Hogansville Nurseries.....	Hogansville, Georgia
Huntsville Wholesale Nurseries.....	Huntsville, Alabama
Jackson & Perkins Company.....	Newark, N. Y.
Henry Kohankie & Son.....	Painesville, Ohio
J. Van Lindley Nursery Company.....	Pomona, North Carolina
J. Van Lindley Nursery Company.....	Monticello, Florida
Magnolia Nursery.....	Cairo, Georgia
Marble City Nursery Company.....	Knoxville, Tennessee
Thomas B. Meehan.....	Dresher, Pennsylvania
Monticello Nurseries.....	Monticello, Florida
Mt. Olive Nursery Company.....	Smithville, Tennessee
Oak Lawn Nursery.....	Huntsville, Alabama
Oakland Nurseries.....	Columbia, Tennessee
Pecan Grove Farm Nurseries.....	Cairo, Georgia
Chris Reuter.....	New Orleans, Louisiana
W. M. Scarff & Sons.....	New Carlisle, Ohio
Sonderegger Nurseries & Seed House.....	Beatrice, Nebraska
Southern Nursery Company.....	Winchester, Tennessee
Summit Nurseries.....	Lockhart, Alabama
Shenandoah Nurseries.....	Shenandoah, Iowa
Smith Brothers, Nursery Company.....	Concord, Georgia
Stark Brothers, Nurseries & Orchards Company.....	Louisiana, Mo.
J. Steckler Seed Company.....	New Orleans, Louisiana
B. W. Stone, Nurseryman.....	Thomasville, Georgia
The Storrs & Harrison Company.....	Painesville, Ohio
H. S. Taylor & Company.....	Rochester, N. Y.
Tennessee Nursery Company.....	Cleveland, Tennessee
Texas Nursery Company.....	Sherman, Texas
T. H. Trimmer & Son.....	Denver, Colorado
Turkey Creek Nurseries.....	Macclenny, Florida
United Nurseries Company.....	Monticello, Florida
The Willadean Nurseries, J. F. Donaldson, Prop.....	Sparta, Kentucky
Winchester Nursery Company.....	Winchester, Tenn.
Wharton Springs Nursery Company.....	McMinnville, Tenn.
Woodlawn Nurseries.....	Rochester, N. Y.

In conclusion it should be stated that it would have been impossible for the Nursery Inspector to have done all this work without assistance. Several inspectors of the Citrus Canker Eradication force assisted with inspection of citrus nurseries and adjacent citrus groves on numerous occasions. Other Plant Board Employees helped considerably with the inspection of nurseries and the office work.



## NURSERY INSPECTION REPORT FROM JANUARY 1, 1919 TO DECEMBER 31, 1919.

By D. W. Grimes.

## NUMBER OF NURSERIES INSPECTED.

During 1919 a total of 110 inspections of nurseries were made, comprising 92 nurseries. Certificates were furnished to 42 nurseries, and three nursery dealers were issued dealers' certificates. There was only one of the 92 nurseries inspected but what could have had a certificate of inspection after complying with all requirements. Many of the nurseries that were out of the business last season, due to the scarcity of labor, have been making heavy shipments. Owing to the urgent demand for nursery stock, the nurseries that grew stock only for home use have had sales for all their surplus stock this season. Several new nurseries have been added to our list during the year, due perhaps to better labor conditions, the urgent demand for nursery stock, and to the prosperous conditions over the state in general. In addition to the 42 certified nurseries, three dealers were issued certificates. Package certificate tags were issued to nine individuals and sweet potato certificate tags were issued to three potato plant growers.

It is our policy to inspect all nursery stock grown in Mississippi whether for home use or for sale. Previous to the organization of the State Plant Board, only nursery stock for sale was inspected. Now that nursery stock for home use as well as the stock for sale is inspected, the transmission of injurious insect pests and diseases is lessened. These inspections educate the people and prevent carelessness, especially among those who have made the practice of giving away all their surplus stock or selling to their neighbors. By this plan, all backyard nurseries which are frequently infested or in bad condition can be freed of all injurious insect pests and diseases. The inspections of these small nurseries protect the owner's orchard as well as the orchards of all nearby neighbors. The large nurseries are also protected. All nursery stock must be certified by the Plant Board before nurserymen can give away or sell their plants. This applies to nursery stock sold or given to a neighbor as well as that moved for some distance by a common carrier.

The 92 nurseries inspected contain 317 acres. The following figures give totals for different kinds of nursery stock in all the nurseries:

Grafted and budded pecans.....	203,555
Seedling pecans.....	622,870
Total pecans.....	826,425
Citrus trifoliata.....	570,540
Orange .....	73,758
Grapefruit .....	1,345
Miscellaneous citrus stock.....	358
Total citrus stock.....	646,001

Apple .....	16,025
Pear .....	8,125
Peach .....	10,065
Japanese persimmon.....	1,925
Strawberries .....	3,125
Grapes .....	1,500
Mulberry .....	880
Miscellaneous fruit stock not citrus.....	1,453
Total fruit stock non-citrus.....	43,098
Roses .....	382,000
Miscellaneous ornamentals.....	281,795
Total ornamentals.....	663,795
Grand Total.....	2,179,319

Stock Shipped Out of Mississippi.—The Nursery Inspection Department files upon request from nurserymen, duplicate certificates of nursery inspection with other state inspection officials. The majority of states require the filing of nursery inspection certificate of a nursery before allowing shipments to be made. To date there has been filed certificates with other states for 25 Mississippi nurserymen. These certificates were filed in 31 states.

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List of nurseries that purchased certificate tags during the period from January 1, 1919 to December 31, 1919, showing number of tags ordered by each nursery and amount paid by each for seasons 1918-1919 and 1919-1920

Name	County	Address	Kind of stock	No. of tags	Price of tags 1918- 1919- 1920
Back Bay Nursery (Mrs. C. J. Lucurs, Prop.)	Jackson	Ocean Springs	Pecan, citrus and ornamental	25	\$ .75
Ball, A. C.	Webster	Mantee	General	15	.53
Barber, P. F.	Jackson	Helena	Pecan	300	4.18
Bass, I. E. & Son (I. H. Bass, Prop.)	Lamar	Lumberton	Pecan	1,500	10.75
Barnhart, R. P.	Jackson	Ocean Springs	Pecan	25	.75
Bay View Nursery (C. Forkert, Prop.)	Jackson	Ocean Springs	General	50	1.50
Beyer & Campbell	Stone	Wiggins	General	100	2.81
Biloxi Nursery (James Brodie, Prop.)	Harrison	Biloxi	Citrus, pecan and ornamental	100	2.81
Biloxi Nursery (James Brodie, Prop.)	Harrison	Biloxi	Citrus, pecan and ornamental	200	3.25
Bouslog, W. H.	Harrison	Gulfport	Pecan	100	2.81
Chevalier, Geo.	Harrison	Gulfport	General	100	2.65
Clover Hill Pecan Co.	Holmes	Lexington	Pecan	33	1.00
Collier, C. P.	Jackson	Ocean Springs	Pecan	13	.45
Colwood Farm	Forrest	Hattiesburg	Pecan	1,000	7.50
Dantzer Lumber Co.	Harrison	Biloxi	Pecan	200	3.46
Deloney, Murphy	Jackson	Ocean Springs	Citrus and pecan	25	.88
Deloney, Murphy	Jackson	Ocean Springs	Citrus and pecan	10	.30
Eastman Gardiner & Co. Edwards Orchard & Nursery Co.	Jones	Laurel	Ornamental	33	1.00
Edwards Orchard & Nursery Co.	Jackson	Ocean Springs	General	20	.70
Edwards Orchard & Nursery Co.	Jackson	Ocean Springs	General	50	1.50
Eupora Nursery (J. C. Lewis, Prop.)	Webster	Eupora	General	1,000	7.50
Finkbine Lumber Co.	Stone	Wiggins	Citrus and pecan	15	.53
Glasson, W. A.	Webster	Mantee	General	25	.88
Halstead, E. W.	Jackson	Ocean Springs	Citrus and pecan	50	1.50



## LIST OF NURSERIES NOT APPLYING FOR TAGS BUT INSPECTED.

Name of Nursery	County	Town	Kind of Stock
J. B. Adams & Sons	Harrison	Pass Christian	Ornamental
Bechtel Pecan Nurseries (Theo. Bechtel, Prop.)	Jackson	Ocean Springs	Pecan
Bell, V. J.	Webster	Eupora	General
Benton, D. C. (Mrs.)	DeSoto	Lakeview	General
Bolen, E. E.	George	Lucedale	General
Bruce Nursery Co.	Claiborne	Hermanville	General
Burkett, H. R. & Son (H. R. Burkett, Mgr.)	Marion	Columbia	Pecan
California Ranch (A. B. Cox, Prop.)	Jackson	Helena	General
Carter, S. P.	Forrest	Hattiesburg	General
Chase, L. E.	Jackson	Ocean Springs	Citrus & pecan
Clark, W. R.	Jackson	Pecan	Pecan
Coles, A. C.	Wayne	State Line	General
Corinth Nurseries (G. W. Strickland, Prop.)	Alcorn	Corinth	General
Cox, W. A.	Harrison	Biloxi	Citrus & pecan
Cox, B. E.	Harrison	Pass Christian	Pecan
Cruthirds, R. R.	Jackson	Ocean Springs	Citrus & pecan
Eubanks, D. W.	George	Lucedale	Pecan
East View Nurseries (D. Cunningham, Prop.)	Jackson	Big Point	Citrus
Farnsworth, Maude (Mrs.)	Jackson	Pascagoula	Pecan
Hall, L. E.	Forrest	Hattiesburg	Pecan
Harris, E. C.	Harrison	Long Beach	Pecan
Hill Crest Farm	Harrison	Biloxi	Citrus
Horticultural Dept.	Oktibbeha	Agr. College	General
Illing, E. W.	Jackson	Ocean Springs	Pecan
Kramar, L. F.	Jackson	Pascagoula	Pecan
Ladnier, G. W.	Jackson	Pascagoula	Pecan
Leatherberry, J. G.	George	Bexley	Pecan
Martin, G. M.	Jackson	Big Point	Citrus
Merrill Orchard Co.	George	Bexley	Pecan
Money, H. D.	Jackson	Ocean Springs	Citrus & pecan
Money, Martimer	Jackson	Ocean Springs	Citrus
Ocean Springs Pecan Co. (C. E. Pabst, Prop.)	Jackson	Ocean Springs	Pecan
Parker, J. Reau	George	Lucedale	Pecan
Perry & Gates	Jackson	Ocean Springs	Pecan
Ramsay, W. P.	Jackson	Ocean Springs	Pecan
Ramsay, R. T.	Jackson	Ocean Springs	Pecan
Reinke, B.	Harrison	Long Beach	Pear
Switzer, R. A.	Stone	McHenry	Pecan
Turner, C. L.	Jackson	Moss Point	General
U. S. Nursery Co. (S. W. Crowell, Mgr.)	Coahoma	Roseacres	Ornamental
Vandygraft, F. M.	Jackson	Ocean Springs	Pecan
Whitney, Gladys (Mrs.)	Jackson	Ocean Springs	General
Wilson Farm Nursery (Joe P. Wilson, Prop.)	Harrison	Landon	General
Young, M.	Jackson	Pascagoula	Pecan

## CONDITION OF NURSERIES INSPECTED.

San Jose Scale was found to be present in 12 of the 92 nurseries inspected, and two nurseries showed Cottony Cushion Scale. One nursery was not granted a certificate at all, as most all of the stock was severely infested with San Jose Scale.

Nurseries having San Jose Scale were not allowed to sell stock until the scale infested plants were dug out of the nurseries and burned. Reinspections were made of most of the nurseries showing scale, especially the nurseries preparing to sell their stock. Some of the smaller nurseries were not reinspected, as they did not wish certificates. The following is a list of plants found infested with San Jose Scale and condemned:

Pear .....	1,000
Pecan .....	32
Apple .....	21
Peach .....	12
Rose .....	6

In addition to the above list, a few grove trees, and some Citrus trifoliata were found infested.

Comparing this infested list of trees with list infested in 1918, it will be noticed that there has been a great decrease in the number of trees infested with the San Jose Scale. The following table shows the reduction in San Jose Scale infested trees:

1918	1919
Pear .....12,378	Pear .....1,000
Pecan ..... 2	Pecan ..... 32
Apple ..... 3,572	Apple ..... 21
Peach ..... 4	Peach ..... 12
Rose ..... 20	Rose ..... 6

It might be stated that some of the above plants condemned in 1918 were not really infested but were in blocks of nursery stock, the majority of trees of which were badly infested. The list for 1919 shows 1,000 pear trees in one nursery which was not allowed to sell trees, the other few infested trees were found in various nurseries having San Jose Scale.

## TREATMENT OF NURSERY STOCK SHOWING SAN JOSE OR COTTONY CUSHION SCALE.

All host plants of San Jose Scale are fumigated with hydrocyanic acid gas before allowed to be moved from a nursery.

All host plants of Cottony Cushion Scale in a nursery showing this scale are scrubbed in a solution of whale oil soap, one pound to three gallons of water before these plants can be moved from the nursery. During the twelve months period from January 1, 1919 to December 31, 1919, only two nurseries have been found infested with Cottony Cushion Scale.

## CERTIFICATE TAGS.

There are three tags for use of Mississippi nurserymen: (1) Regular, (2) Nursery Dealer, (3) Package Certificate.

The regular certificate tags are most commonly used. After a nursery has passed a satisfactory inspection, it is supplied upon request, with serially numbered tags. One of these tags is to be attached to each package of nursery stock moved off the premises of the nursery. Each tag must be accounted for either by return of the tag to the office of the Nursery Inspector, or by a duplicate "invoice" to cover each tag used. The invoice should list the plants moved under that tag, together with name and address of both consignor and consignee and also date of movement of stock. By having these duplicate invoices on file, the Nursery Inspector can keep a complete record of all nursery stock moved in Mississippi. If serious insect pests or diseases should be discovered in a nursery, all past shipments from that nursery could be traced to destination and inspected. The citrus canker eradication work could have been carried on with greater speed had this system been in use previously to the outbreak. Many of our serious pests of fruit and ornamental trees could have been prevented from spreading over so large an area in this state, if this method of keeping records had been in use. By the use of this system in the future, much loss can be prevented from the dissemination of insects and diseases in our state, and new pests can be prevented from gaining a foothold.

The Nursery Dealer Certificate is used by persons or firms who do not raise nursery stock themselves, but who buy their stock from nurserymen.

The Package Certificate tag is used in case of emergency. They are signed by the Nursery Inspector (as are other forms) but in addition are signed by the individual making the inspection of that package of plants. The Regular and Nursery Dealer Certificate tags have no date of expiration. The tags may be recalled at any time the nursery or dealer fails to comply with the requirements of the Plant Board, or if it becomes infested with a serious insect pest or infected with a plant disease.

Permit certificate tags are sold at actual cost to out-of-state nurserymen after they have furnished the Nursery Inspection Department with duplicate copy of nursery inspection from their state official, together with fumigation affidavit to the effect that all host plants of San Jose Scale will be fumigated before being shipped into Mississippi, at the same time agreeing to meet all Plant Board requirements. All permit certificates expire on September 1st after date of issue. The permit tag is to be of a different color each year.

The quantity of certificate tags issued to date is as follows:

Regular .....	8,485
Nursery Dealer.....	700
Package .....	71
Permit .....	40,640
	<hr/>
Total.....	49,896

## INSPECTION OF FOREIGN SHIPMENTS.

The Federal Horticultural Board requested the State Plant Board of Mississippi to make as many inspections of flower bulbs this year as possible coming in from foreign countries. These flower bulbs include mostly tulip, narcissus and hyacinths.

These inspections are made because there have been found some very injurious pests on bulbs. Among some of these pests are: The Lesser Bulb Fly (*Eumerus strigatus*) and the Narcissus Fly (*Meroden equestris*). The Lesser Bulb Fly has been known to destroy onion crops. From the hyacinths, an eel worm has been taken which attacks clover, lucerne, rye, oats, onions, potatoes, lime and other trees, often destroying them. Upon the arrival of the bulbs from foreign countries consigned to parties in this state, the importers are required to notify the Entomologist, giving name and address of person receiving the plants. We in turn notify the consignee, stating that the foreign shipment will reach them some time within the next few days and to notify this office upon the arrival of same. As soon as these plants reach the party in this state an inspector, when possible, is sent out to make the inspection. Up to date during the past year about 60,000 bulbs consigned to different places in Mississippi have been inspected. These inspections showed only a few minor pests and diseases.

## INTERCEPTION AND DISPOSAL OF ILLEGAL SHIPMENTS—OF NURSERY STOCK—COMING INTO MISSISSIPPI FROM OTHER STATES.

Shipment of pecan and peach trees from Tuscaloosa, Alabama, to Starkville, Mississippi; peach trees had root knot, pecan trees infested with San Jose Scale. Shipment returned to shipper.

Shipment of peach, apple and grape from Mason City, West Virginia, to Starkville, Mississippi; apple had crown gall, grape vines had root knot. Shipment was destroyed.

Shipment of apple, grape, pecan and rose bushes from Paxton, Florida; grape vines showed root knot and were destroyed, and other plants were allowed to be delivered as they were apparently clean.

Shipment of pecan trees from Saulsbury, Tennessee, to Benton County, Mississippi; shipment returned to shipper.

## LIST OF OUT-OF-STATE NURSERIES RECEIVING MISSISSIPPI PERMIT TAGS.

Name	Address	No. Tags	Amount	
			1918	1919
American Nursery Co.....	McMinnville, Tenn.....	1,500		\$10.75
Ala. Gulf Coast Nry.....	Grand Bay, Ala.....	500		5.00
Ashford Park Nrys.....	Atlanta, Ga.....	25		.75
American Rose & Plant Co.....	Springfield, Ohio.....	500		5.00
American Rose & Plant Co.....	Springfield, Ohio.....	100	\$2.81	
American Rose & Plant Co.....	Springfield, Ohio.....	200	3.46	
Bildad Nry. Co.....	Smithville, Tenn.....	1,000		7.50
Brown Bros. Co.....	Rochester, N. Y.....	100		2.65
Carol Plantation.....	Theodore, Ala.....	100		2.65
Baines, Ella V.....	Springfield, Ohio.....	1,000		7.50
Concord Nrys.....	Concord, Ga.....	3,000		20.50



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Name	Address	No. Tags	Amount	
			1918	1919
Brow, F. W. Nrsy. Co.	Rose Hill, N. Y.	25	.88	
Commercial Nrsy. Co.	Deshard, Tenn.	1,000		7.50
Clingman Nrsy.	Keithville, La.	100		2.65
Continental Plant Co.	Kittrell, N. C.	500		5.00
Continental Plant Co.	Kittrell, N. C.	700	6.65	
Chase Nrsy. Co.	Chase, Ala.	500		5.00
Chase Nrsy. Co.	Chase, Ala.	50	1.75	
Chase Nrsy. Co.	Chase, Ala.	50	1.75	
Cedar Hill Nrsy. Co.	Winchester, Tenn.	500		5.00
Commercial Nrsy. Co.	Monticello, Fla.	300		4.00
Cureton Nrsys.	Austell, Ga.	20		.60
Citronelle Orchard Co.	Citronelle, Ala.	50		1.50
Citronelle Orchard Co.	Citronelle, Ala.	100	2.81	
California Nrsy. Co.	Niles, Cal.	10		.30
Childs, John Lewis	Floral Park, N. Y.	100		2.65
Draime Bros.	Citronelle, Ala.	100		2.65
The Elberta Fruit Farm & Nrsy.	Citronelle, Ala.	50		1.50
The Elberta Fruit Farm & Nrsy.	Citronelle, Ala.	100	2.81	
Fruitland Nrsy.	Augusta, Ga.	50		1.50
First Nat. Nrsy.	Rochester, N. Y.	100		2.65
Farquhar, R. J. & Co.	Dedham, Mass.	100		2.65
Fraser Nrsy. Co.	Huntsville, Ala.	200		3.25
The Garden Spot Nrsy.	LaGrange, N. C.	100		2.65
Georgia Nrsy. Co.	Concord, Ga.	400		4.50
Good & Reese Co.	Springfield, Ohio.	1,000		7.50
Good & Reese Co.	Springfield, Ohio.	1,000	8.74	
Good & Reese Co.	Springfield, Ohio.	100	2.81	
Good & Reese Co.	Springfield, Ohio.	300	4.18	
Good & Reese Co.	Springfield, Ohio.	300	4.18	
Good & Reese Co.	Springfield, Ohio.	1,000	8.74	
Giffing, C. M. & Co.	McClenny, Fla.	200		3.25
Glen St. Mary Co.	Glen St. Mary, Fla.	200		3.25
Glen St. Mary Co.	Glen St. Mary, Fla.	100	2.81	
The Great Western Plant Co.	Springfield, Ohio.	1,000		7.50
Griffing Nrsys.	Pt. Arthur, Tex.	100		2.65
Hastings, H. G.	Atlanta, Ga.	4,000		27.00
Hastings, H. G.	Atlanta, Ga.	1,000	8.74	
Hardy Field Nrsy. & Seed Co.	Kansas City, Mo.	35		1.05
Hardy Field Nrsy. & Seed Co.	Kansas City, Mo.	25	.88	
Hillsboro Nrsy.	Hillsboro, Tex.	100		2.65
Harrisons Nrsy.	Berlin, Md.	100		2.65
Harlan Farms Nrsy.	Lockhart, Ala.	200		3.25
Hogansville Nrsy.	Hogansville, Ga.	100		2.65
Huntsville Wholesale Nrsy. Co.	Huntsville, Ala.	100		2.65
D. Hill Nrsy. Co.	Dundee, Ill.	100		2.65
Jackson & Perkins Co.	Newark, N. J.	100		2.65
Kellogg, R. M. & Co.	Three Rivers, Mich.	100	2.81	
Henry Kohanki & Son	Painesville, Ohio	10	.35	
Lott, D. J.	Waycross, Ga.	100		2.65
Lightford Bros.	Huntsville, Ala.	100		2.65
McMinnville Nrsy. & Orchd. Co.	McMinnville, Tenn.	700		6.00
Mt. Olive Nrsy. Co.	Smithville, Tenn.	400		4.50
Mounting City Nrsy. Co.	McMinnville, Tenn.	800		6.50
Mt. Arbor Nrsys.	Shenandoah, Iowa	75		2.25
Mayo, H. G. & Co.	Rochester, N. Y.	20		.60
Magnolia Nrsy. Co.	Caro, Ga.	33		1.00
W. M. Moore Co.	Morrisville, Pa.	10	.35	
Marble City Nrsy. Co.	Knoxville, Tenn.	50		1.50
Monticello Nrsy. Co.	Monticello, Fla.	50		1.50

Name	Address	No. Tags	Amount	
			1918	1919
Naperville Nrsys.....	Naperville, Ill.....	12		.35
National Nrsys.....	McMinnville, Tenn.....	900		7.00
New Orleans Pecan Nrsy.....	New Orleans, La.....	100		2.65
Onarga Nrsy. Co.....	Onarga, Ill.....	100		2.65
Onarga Nrsy. Co.....	Onarga, Ill.....	100	2.81	
Oakland Nrsys.....	Columbia, Tenn.....	600		5.50
Overlook Nrsys.....	Crichton, Ala.....	20	.70	
Perry Nrsy. Co.....	Rochester, N. Y.....	4		.12
Pecan Grove Farm Nrsy.....	Caro, Ga.....	100		2.65
Pioneer Orchard & Nrsy. Co.....	Irvington, Ala.....	15	.53	
Reuter, Cris.....	New Orleans, La.....	2,000		14.00
Reuter, Cris.....	New Orleans, La.....	1,000	8.74	
Reasoner Bros.....	Oneco, Fla.....	200		3.25
Reasoner Bros.....	Oneco, Fla.....	100	2.81	
Progressive Nrsy. Co.....	Fort Payne, Ala.....	200	3.46	
Rood Pecan Groves.....	Albany, Ga.....	100		2.65
J. Steckler Seed Co.....	New Orleans, La.....	500		5.00
J. Steckler Seed Co.....	New Orleans, La.....	200	3.46	
J. Steckler Seed Co.....	New Orleans, La.....	200	3.46	
Shenandoah Nrsys.....	Shenandoah, Iowa.....	10		.30
Sondregger Nur. & Seed House.....	Beatrice, Neb.....	33		1.00
Sou. Nrsy. Co.....	Monticello, Fla.....	500		5.00
Sou. Nrsy. Co.....	Winchester, Tenn.....	2,000		14.00
Summitt Nrsys.....	Monticello, Fla.....	100		2.65
Storrs & Harrison.....	Painesville, Ohio.....	400		4.50
Storrs & Harrison.....	Painesville, Ohio.....	100	2.81	
Stark Bros. Nry. & Ored. Co.....	Louisiana, Mo.....	300		4.00
Stark Bros. Nry. & Ored. Co.....	Louisiana, Mo.....	100	2.81	
Tennessee Nur. Co.....	Cleveland, Tenn.....	400		4.50
Tennessee Nur. Co.....	Cleveland, Tenn.....	200	3.46	
Tennessee Nur. Co.....	Cleveland, Tenn.....	100	2.81	
H. S. Taylor & Co.....	Rochester, N. Y.....	50		1.50
L. Templin Seed Co.....	Calla, Ohio.....	100	2.81	
Texas Nrsys. Co.....	Sherman, Texas.....	33		1.00
Thomas, W. W.....	Anna, Ill.....	75		2.25
J. Van Lindley Nrsy. Co.....	Monticello, Fla.....	100		2.65
J. Van Lindley Nrsy. Co.....	Pomona, N. C.....	2,000		14.00
J. Van Lindley Nrsy. Co.....	Pomona, N. C.....	300	4.18	
Vaughn's Seed Store.....	Western Springs, Ill.....	25		.75
Willedean Nurs.....	Sparta, Ky.....	25		.75
Young Bros. Nrsys.....	Smithville, Tenn.....	400		4.50
Grand Total.....		40,640		\$439.88

In conclusion it should be stated that it was impossible for the Nursery Inspector to do all the work without assistance. Inspectors on the citrus canker eradication force helped considerably in the inspection of citrus nurseries. Other Plant Board inspectors on scouting work made several inspections of nurseries and assisted with the office work.





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