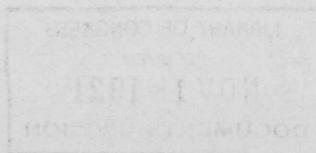


# STATEMENT OF EXPENDITURES OF THE DEPARTMENT OF AGRICULTURE

FOR THE FISCAL YEAR  
ENDED JUNE 30

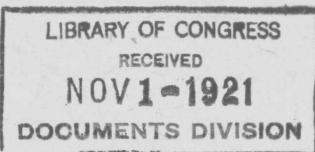
1919



12

DECEMBER 1, 1919.—Referred to the Committee on Expenditures in the  
Department of Agriculture and ordered to be printed

WASHINGTON  
GOVERNMENT PRINTING OFFICE  
1919



## LETTER OF TRANSMITTAL.

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DEPARTMENT OF AGRICULTURE,  
Washington, December 1, 1919.

SIR: As required by section 529, Revised Statutes, and the act of March 3, 1885 (23 Stat. L., 356), I have the honor to transmit herewith a detailed statement of expenditures of the Department of Agriculture for the fiscal year ended June 30, 1919.

A copy of this report has also been transmitted to the President of the Senate.

Very respectfully,

D. F. HOUSTON, *Secretary.*

The SPEAKER OF THE HOUSE OF REPRESENTATIVES.

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## CONTENTS.

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	Page.
Office of the Secretary.....	4-6
Weather Bureau.....	6-9
Bureau of Animal Industry.....	10-19
Bureau of Plant Industry.....	20-28
Forest Service.....	28-35
Bureau of Chemistry.....	36-39
Bureau of Soils.....	39-41
Bureau of Entomology.....	42-46
Bureau of Biological Survey.....	46-48
Division of Publications.....	48-49
Bureau of Crop Estimates.....	50-53
States Relations Service.....	50-53
Bureau of Public Roads.....	54-57
Bureau of Markets.....	58-62
Insecticide and Fungicide Board.....	62, 63
Federal Horticultural Board.....	64, 65
Acquisition of lands under the Weeks forestry law.....	66, 67
Summary of expenditures of the Department of Agriculture.....	67

# EXPENDITURES OF THE DEPARTMENT OF AGRICULTURE.

## OFFICE OF THE SECRETARY.

*Classification of expenditures for the fiscal year ended June 30, 1919.*

Project.	Statutory.	Salaries.			Travel, station, and field expenses.	Equipment.			
		Lump fund.		Total.		Apparatus, instruments, laboratory.	Furniture.		
		In Wash- ington.	Out of Washington.						
1 Secretary's office.....	\$93,229.33	\$542.00	.....	\$93,771.33	\$610.44	.....	\$480.74	\$1,074.44	
2 Assistant Secretary's office.....	6,076.30	.....	6,076.30	973.14	.....	37.75	.....	67.50	
3 Solicitor's office.....	101,171.84	.....	101,171.84	.....	.....	341.96	.....	11.50	
4 Disbursing office.....	45,811.54	.....	45,811.54	114.52	.....	381.95	1,494.15	.....	
5 Library.....	32,556.60	2,249.33	.....	34,805.93	145.82	.....	99.65	11,829.52	
6 Chief clerk's office.....	148,156.36	8,389.15	\$600.00	157,145.51	.....	.....	2,504.55	2,504.55	
7 Mechanical superintendent's office.....	92,883.70	2,942.26	.....	95,825.96	7.57	.....	.....	1,893.99	
8 Total.....	519,885.67	14,122.74	600.00	534,608.41	1,851.49	.....	1,342.05	18,875.65	
Office of Farm Management:									
9 Administration.....	30,250.99	4,910.15	.....	35,161.14	1,057.94	268.97	678.99	9.76	
10 Farm economics.....	23,742.56	39,230.13	3,143.30	66,115.99	9,019.55	183.93	523.23	.....	
11 Farm organization.....	14,158.38	66,240.60	34,513.61	114,912.59	28,549.73	193.60	877.63	.....	
12 Total.....	68,151.93	110,380.88	37,656.91	216,189.72	38,627.22	646.50	2,079.85	9.76	
Grand total.....	588,037.60	124,503.62	38,256.91	1,750,798.13	40,478.71	646.50	3,421.90	18,885.41	

<sup>1</sup> Includes increased compensation, amounting to \$52,614.90, provided by the legislative, executive, and judicial appropriation act for the fiscal year 1919.

## PROJECT STATEMENTS.

### SECRETARY'S OFFICE.

Total expenditures as above.....	\$97,179.41
Outstanding liabilities, Aug. 31 (estimated).....	3,586.75
Unexpended balance (estimated).....	11,291.80
Total allotment.....	112,057.96

The Secretary of Agriculture administers the work of promoting agriculture in its broadest sense. He exercises general supervision and control over the affairs of the department and formulates and establishes the general policies to be pursued by its various branches.....

The following offices report directly to the Secretary's office:

Information: Prepares for dissemination, by means of notices to the press and otherwise, valuable agricultural information secured from publications of the department, or through oral statements of its scientists and specialists, in a form to attract attention and lead to the adoption of the methods recommended.....

Inspection: Handles personnel matters; is charged with the accounting and administrative examination of claims and the preparation of financial reports involving appropriations under the office of the Secretary; and assists in the fiscal operations of the bureaus.....

Appointments: The appointment clerk's office prepares all papers relating to appointments, transfers, promotions, reductions, details, furloughs, and removals; keeps personal records of employees, etc....

Exhibits: Assists in the preparation of agricultural material for exhibition purposes at fairs and expositions of various kinds, and ships, installs, cares for, and demonstrates such exhibits.....

Forest appeals: Considers appeals from the decisions of the Forest Service affecting land claims and land-classification matters. \$1,619.20

Total..... 100,766.16

### ASSISTANT SECRETARY'S OFFICE.

Total expenditures as above.....	7,116.94
Outstanding liabilities, Aug. 31 (estimated).....	280.42
Unexpended balance (estimated).....	1,469.22

Total allotment..... 8,866.58

The Assistant Secretary of Agriculture acts for the Secretary in his absence and assists in the general supervision of the work of the department..... 7,397.36

### SOLICITOR'S OFFICE.

Total expenditures as above.....	101,826.36
Outstanding liabilities, Aug. 31 (estimated).....	398.52
Unexpended balance (estimated).....	1,191.87

Total allotment..... 103,416.75

The solicitor is charged by law (act of May 26, 1910) with the direction of the legal work of the department. Accordingly, he acts as legal advisor to the Secretary and the heads of the several branches of the department, conducts the law work, and represents the department in all legal matters. He approves, in advance of issue, all orders and regulations promulgated by the Secretary under statutory authority..... 102,224.88

### DISBURSING OFFICE.

Total expenditures as above.....	47,976.29
Outstanding liabilities, Aug. 31 (estimated).....	774.91
Unexpended balance (estimated).....	3,086.79

Total allotment..... 51,837.99

# EXPENDITURES OF THE DEPARTMENT OF AGRICULTURE.

## OFFICE OF THE SECRETARY.

*Classification of expenditures for the fiscal year ended June 30, 1919.*

Stationery.	Rent.	Telegraph, telephone, and postage.	Freight, express, and drayage.	Furnishing of heat, light, power, electricity.	Forage, purchased in bulk.	Fuel.	Specified items not otherwise classified.	Miscellane- ous supplies, services, etc.	Total.	
\$651.05								\$591.41	\$97,179.41	1
461.73								7,116.94	2	
79.71								101,826.36	3	
216.20								47,976.29	4	
4,172.25	\$150,449.87	\$5,415.90	\$29.33	\$15,629.48	\$2,506.74			443.00	47,851.75	5
15.20			113.57					19,196.98	359,525.03	6
								8,866.95	164,418.08	7
5,596.14	150,449.87	5,415.90	142.90	15,629.48	2,506.74	50,250.90	9,974.00	29,250.33	\$25,893.86	8
463.92		141.23	49.13					248.66	305.87	9
425.00		69.14	61.20						206.42	10
875.00	240.00	134.42	194.31						166.57	11
1,763.92	240.00	344.79	304.64					248.66	678.86	12
7,360.06	150,689.87	5,760.69	447.54	15,629.48	2,506.74	50,250.90	10,222.66	20,929.19	1,087,027.78	

<sup>2</sup> Cleaning and toilet supplies

<sup>3</sup> Electricians', engineers', and mechanics' supplies, \$7,433.97; cleaning and toilet supplies, \$123.54.

This office keeps appropriate ledgers relating to the advance and disbursement of all items of appropriation and makes payment of all vouchers and accounts properly certified by the various branches of the department..... \$48,751.20

### LIBRARY.

Total expenditures as above..... \$47,851.75  
Outstanding liabilities, Aug. 31 (estimated)..... 2,553.66  
Unexpended balance (estimated)..... 3,119.57

Total allotment..... 53,524.98

The library purchases all books and periodicals and supervises their arrangement, cataloguing, and use; prepares bibliographies and lists on subjects connected with the work of the department; supervises, in general, the distribution of department publications to libraries; and has charge of the foreign mailing lists for department publications..... 50,405.41

### CHIEF CLERK'S OFFICE.

Total expenditures as above..... \$359,525.03  
Outstanding liabilities, Aug. 31 (estimated)..... 5,098.84  
Unexpended balance (estimated)..... 19,914.66

Total allotment..... 384,538.53

Distributed among the several subactivities as follows:  
Chief clerk's office proper: The chief clerk has general supervision of the clerks and other employees, of the correspondence files and records of the Secretary's office, and of expenditures from appropriations for miscellaneous expenses, rent of buildings, etc. He is responsible for the enforcement

of the general regulations of the department and is custodian of the buildings. This project includes work of the time clerk, operation of the telephones and telegraph, and provision for miscellaneous supplies and services for the department as a whole..... \$53,109.21

Supply section: Purchases stationery and miscellaneous supplies for the office of the Secretary and the various bureaus; receives and disposes of, by sale or otherwise, all property turned in by the bureaus and offices when of no further use; and sells unused samples of products secured in connection with the enforcement of the food and drug act and the insecticide act..... 18,776.50

Mail and files: Receiving, recording, and distributing mail for the office of the Secretary; indexing, copying, filing, and dispatching correspondence of that office; includes department post office, which receives, distributes, and dispatches all mail handled between the city post office and the several bureaus..... 23,721.12

Watch force: Protects and watches 29 buildings occupied by the department in three shifts, covering the entire 24 hours..... 75,465.61

Char force: Provides for cleaning and keeping in sanitary condition the halls and toilets of the department buildings and the cleaning of rooms in the different units of the office of the Secretary..... 29,932.45

Stables: Feeding, care, and driving of the horses and care of vehicles used by the office of the Secretary and the Division of Publications..... 13,169.11

Rent in the District of Columbia for the various bureaus and offices of the department..... 150,449.87

Total..... 364,623.87

## MECHANICAL SUPERINTENDENT'S OFFICE.

Total expenditures as above.....	\$164,418.08						
Outstanding liabilities, Aug. 31 (estimated).....	7,207.66						
Unexpended balance (estimated).....	15,884.72						
Total allotment.....	<u>187,510.46</u>						

Distributed among the several subactivities as follows:

Mechanical shops: Maintenance of mechanical shops for the repair and upkeep of the buildings, laboratories, and equipment, including electrical, carpenter, and cabinet work, plumbing, painting, rubber-stamp making, and operation of elevators.....  
101,009.02

Power plant: Supervision of the engineers and firemen, except those of the Weather

Bureau, and provision of heat, light, power, and electricity for all buildings of the department in Washington except those occupied by the Weather Bureau and the Forest Service.....  
\$70,616.72

Total.....  
171,625.74

## OFFICE OF FARM MANAGEMENT.

## ADMINISTRATION.

Total expenditures as above.....	\$38,385.61						
Outstanding liabilities, Aug. 31 (estimated).....	397.97						
Unexpended balance (estimated).....	1,760.96						
Total allotment.....	<u>40,544.54</u>						

## WEATHER BUREAU.

*Classification of expenditures for the fiscal year ended June 30, 1919.*

Project.	Salaries.			Travel, station, and field expenses.	Equipment.			
	Statutory.	Lump fund.			Apparatus, instruments, laboratory.	Furniture.	Miscella- neous.	
		In Wash- ington.	Out of Washington.					
1 Administration.....	\$46,540.00			\$46,540.00	\$1,722.33			
2 Collection and dissemination of meteorological, climatological, and marine information.....	244,144.56	\$58,442.20	\$826,742.11	1,129,328.87	23,794.21	\$19,968.94		
3 Investigation and research.....	12,225.28	31,018.11	29,377.50	72,620.89	3,579.65	1,605.58		
Total.....	302,909.84	89,460.31	856,119.61	1,248,489.76	29,096.19	21,574.52	3,023.35	
							16,618.07	

<sup>1</sup> Includes increased compensation, amounting to \$87,511.92, provided by the legislative, executive, and judicial appropriation act for the fiscal year 1919.

## PROJECT STATEMENT.

## ADMINISTRATION.

Total expenditures as above.....	\$67,682.18					
Outstanding liabilities, Aug. 31 (estimated).....	9,176.42					
Unexpended balance (estimated).....	2,831.40					
Total allotment.....	<u>79,690.00</u>					

Direction of the policy and business of the bureau and supervision of its scientific activities.....  
76,858.60

COLLECTION AND DISSEMINATION OF METEOROLOGICAL, CLIMATOLOGICAL, AND MARINE INFORMATION.

Total expenditures as above.....	1,621,228.95					
Outstanding liabilities, Aug. 31 (estimated).....	37,950.60					
Unexpended balance (estimated).....	26,515.45					
Total allotment.....	<u>1,685,695.00</u>					

Distributed among the several subactivities as follows:

Forecasts and warnings: Taking, recording, enciphering, telegraphing, and compiling regular meteorological observations, and caring for and maintaining the instrumental equipment therefor; issuing weather forecasts twice daily, including frost, cold-wave, storm, and small-craft warnings at the district forecast centers for their respective districts as follows: Washington (D. C.) district: Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, New York,

Pennsylvania, New Jersey, Delaware, Maryland, District of Columbia, Virginia, North Carolina, South Carolina, Georgia, Florida, Alabama, Mississippi, West Virginia, Kentucky, Tennessee, Ohio, Indiana, Michigan, and upper and lower lakes; Chicago (Ill.) district: Illinois, Wisconsin, Minnesota, Iowa, Missouri, Kansas, Nebraska, South Dakota, North Dakota, Montana, and Wyoming; Denver (Colo.) district: Colorado, New Mexico, Arizona, and Utah; San Francisco (Calif.) district: California, Nevada, Washington, Oregon, and Idaho; New Orleans (La.) district: Louisiana, Arkansas, Texas, and Oklahoma; issuing special wind forecasts in connection with forest fire prevention, shippers' forecasts, and other special forecasts in the interests of manufacturing, commerce, and agriculture at selected stations; preparing daily weather forecasts at selected stations for their immediate vicinity; also printing the same or issuing by other means, and disseminating by maps and bulletins and by telegraph and telephone messages; preparing reports for the press of weather synopses and forecasts and full and complete information concerning the current local weather conditions in all their phases.....  
\$999,486.70

River and flood forecasting: Developing and improving methods of river and flood forecasting; establishing and maintaining river gauging stations and substations which observe and report rainfall, river

## STATEMENT OF EXPENDITURES OF THE DEPARTMENT OF AGRICULTURE.

7

Planning and directing farm management and farm practice investigations, and the clerical routine incident thereto.....	\$38,783.58	of geographic factors to farm enterprises, investigations of hay making and utilization, farm bookkeeping, etc.....	\$76,967.91
<b>FARM ECONOMICS.</b>			
Total expenditures as above.....	76,604.46	Total expenditures as above.....	146,143.85
Outstanding liabilities, Aug. 31 (estimated).....	363.45	Outstanding liabilities, Aug. 31 (estimated).....	396.60
Unexpended balance (estimated).....	24,792.14	Unexpended balance (estimated).....	25,375.61
Total allotment.....	101,760.05	Total allotment.....	171,916.06
Detailed studies of the relation of farm income to factors of production, including cost accounting investigations, farm management surveys, study of farm equipment, investigations of tenant farming, the relation of farm practice to yields, the relation		Regional investigations of the practice, organization, and administration of individual farms, and studies of types and systems of farming, with a view to enable farmers to improve their systems of farm management.....	146,540.45

## WEATHER BUREAU.

Classification of expenditures for the fiscal year ended June 30, 1919.

Stationery.	Rent.	Telegraph, telephone, and postage.	Freight, express, and drayage.	Furnishing of heat, light, power, electricity.	Forage, purchased in bulk.	Fuel.	Specified items not otherwise classified.	Miscellaneous supplies, services, etc.	Total.
\$2,132.16 11,318.88	\$88,751.44	\$2,354.67 239,678.24	\$10,471.75	\$3,879.12		\$488.71 11,112.24	\$2,176.43 8,386.41	\$9,504.23 58,484.72	\$67,682.18 1,621,228.95
1,121.44	3,736.23	2,816.74	2,426.69	838.23		1,002.37	1,998.29	5,744.37	98,314.12
14,572.48	92,487.67	244,849.65	12,898.44	4,717.35		12,603.32	2 12,561.13	73,733.32	1,787,225.25

<sup>2</sup> Printing, engraving, lithographing, and binding, \$5,176.44; engineers' and electricians' supplies, \$3,241.24; cleaning and toilet supplies, \$3,473.08; subsistence and care of animals, \$670.37.

stages, and like conditions disseminating flood information to the public, especially to the parties and interests most directly benefited thereby.....	\$186,178.56	INVESTIGATION AND RESEARCH.
Climatological work: Collecting, compiling, charting, and discussing climatological data of the United States; printing and promptly disseminating the information to the public, to commercial exchanges, and to all parties and organizations interested in or benefited by the service that can be promptly reached by the usual means of communication available; collecting, compiling, and furnishing to the Hydrographic Office of the Navy Department, for publication, marine meteorological and climatological data.....	380,958.67	Total expenditure as above.....
Agricultural meteorology: Collecting and disseminating information relative to the effect of weather and climate on crops; during the crop season, from April 16 to October 31, collecting daily telegraphic reports from selected substations, reporting in the interests of cotton, corn, wheat, sugar, rice, tobacco, fruit, and other standard crops, for publication and dissemination to the public; issuing weekly summaries of weather and crop conditions to commercial exchanges and to all parties and organizations interested in or benefited by the service that can be reached promptly by the usual means of communication available.....	87,279.12	Outstanding liabilities, Aug. 31 (estimated).....
Vessel reporting: Collecting and transmitting marine intelligence for the benefit of commerce and navigation.....	5,276.50	Unexpended balance (estimated).....
Total.....	1,659,179.55	Total allotment.....
Distributed among the several sub-activities as follows:		
Improvement of instrumental equipment: Selecting, testing, improving and designing instrumental apparatus for use in the scientific work of the bureau.....		1,476.50
Investigations of the problems of forecasting: Improving the accuracy of forecasts and formulating rules and enunciating principles in connection therewith.....		3,378.29
River and flood investigations: Improving methods of flood forecasting.....		3,721.64
Investigations in climatology: Determining more fully the climate of the entire United States, including its insular possessions.....		5,897.10
Aerological investigations: Studying upper-air conditions by means of kites and balloons for the purpose of obtaining general meteorological data pertaining to the whole atmospheric mass.....		87,213.12
Solar radiation investigations: Determining the insolation received in heat units on a horizontal surface from the sun and sky under all sky conditions; determining the radiation received on a normal surface in gram calories; establishing normals for insolation; investigating the relation between polarization and insolation on clear days; determining the		

effect of atmospheric conditions on nocturnal radiation; and measuring the insulation received through ray filters under different conditions.....	\$7,321.16	Ice-storm and sleet investigations: Improving and extending the issue of forecasts and warnings of the approach of ice storms and sleet, and collecting and publishing statistical data thereon showing distribution, frequency, and severity of ice storms, including details concerning the accompanying winds and other allied weather conditions, the thickness, weight, and damaging effects of ice coatings to vegetation, overhead-line construction, etc.....	\$175.64
Evaporation investigation: Determining under standard conditions of exposure the relative values of evaporation in various portions of the United States, and establishing the relation between the evaporation under these standard conditions and the climatological factors that combine to bring it about.....	4,271.30	Meteorological investigations: Determining the nature of meteorological phenomena, and the laws of their actions.....	
Seismological investigations: Mapping the United States according to seismological activity and locating geological faults; studying in detail earthquake vibrations and drawing inferences therefrom in regard, on the one hand, to the scientifically important problem of the structure of the earth and, on the other, to the practical question of types of building best adapted to withstand seismic shocks.	1,978.50	Investigations of frost protection methods: Investigating the most economical and efficient existing methods of frost protection, and correlating meteorological and climatological conditions in fruit and truck producing areas with conditions at key stations of the bureau so that accurate minimum temperature forecasts may be made for these districts.....	612.48
Investigations of the relation between climate and weather and plant development: Investigating the effect of current meteorological factors upon the growth of vegetation and the relation of climatological conditions to the growth of plants and the yield of crops and the distribution of crop areas.....	2,186.12	Investigations in volcanology: Studies of larva mechanism, tidal phenomena evidenced by rise and fall of larva, and relationship between adjacent volcanoes and of local earthquakes to volcanic activities; analyses of gases arising from volcanoes, determination of temperatures, and investigation of other volcanic phenomena.....	3,111.58
	7,421.30	Total.....	128,764.73

## Distribution of Weather Bureau work and expenditures by stations.

Station.	Character of work. <sup>1</sup>	Amount.	Station.	Character of work. <sup>1</sup>	Amount.
Abilene, Tex.....	a.....	\$2,516.72	Dodge City, Kans.....	a.....	\$1,782.45
Albany, N. Y.....	a, b.....	7,007.98	Drexel, Nebr.....	a, g.....	11,935.39
Alpena, Mich.....	a, b, e.....	3,563.32	Dubuque, Iowa.....	a, b.....	5,689.71
Amarillo, Tex.....	a, d.....	4,464.21	Duluth, Minn.....	a, d.....	7,940.22
Anniston, Ala.....	a.....	1,748.38	Eastport, Me.....	a.....	3,220.37
Asheville, N. C.....	a.....	3,557.22	Elkins, W. Va.....	a, g.....	3,002.74
Atlanta, Ga. (section center).....	a, b, c, d.....	11,641.80	Ellendale, N. Dak.....	a, g.....	8,424.38
Atlantic City, N. J.....	a.....	2,852.33	El Paso, Tex.....	a.....	3,382.66
Augusta, Ga.....	a, b, c, d.....	5,490.88	Erie, Pa.....	a.....	6,238.60
Baker, Oreg.....	a.....	1,645.78	Escanaba, Mich.....	a.....	2,898.25
Baltimore, Md. (section center).....	a, c, d, i.....	8,516.19	Eureka, Calif.....	a.....	3,394.50
Bentonville, Ark.....	a.....	1,629.71	Evansville, Ind.....	a, b.....	7,381.59
Binghamton, N. Y.....	a, b.....	5,245.73	Fort Smith, Ark.....	a, b.....	4,929.22
Birmingham, Ala.....	a, d.....	4,497.19	Fort Wayne, Ind.....	a.....	5,568.95
Bismarck, N. Dak. (section center).....	a, b, c, d.....	8,326.57	Fort Worth, Tex.....	a, d.....	3,743.29
Block Island, R. I.....	a, e.....	2,556.90	Fresno, Calif.....	a, b.....	6,710.09
Boise, Idaho (section center).....	a, b, c, d, i.....	6,632.32	Galveston, Tex.....	a, d.....	5,761.42
Boston, Mass. (section center).....	a, c, d, i.....	21,714.42	Grand Haven, Mich.....	a, s.....	3,034.29
Broken Arrow, Okla.....	a, g.....	7,432.65	Grand Junction, Colo.....	a, d.....	2,945.83
Buffalo, N. Y.....	a, i.....	14,057.74	Grand Rapids, Mich. (section center).....	a, b, c, d, i.....	9,113.87
Burlington, Vt.....	a, i.....	3,507.15	Dodge City, Kans.....	a.....	3,159.89
Cairo, Ill.....	a, b.....	5,633.06	Greenville, S. C.....	a.....	3,903.88
Canton, N. Y.....	a.....	2,851.48	Groesbeck, Tex.....	a, g.....	9,357.38
Cape Henry, Va.....	a, e, f.....	13,031.38	Hannibal, Mo.....	a, b.....	3,767.70
Cape May, N. J.....	a.....	730.32	Harrisburg, Pa.....	a, b.....	5,376.63
Charles City, Iowa.....	a.....	1,902.57	Hartford, Conn.....	a, b.....	6,259.00
Charleston, S. C.....	a, b, c, d.....	6,841.87	Hatteras, N. C.....	a, e.....	2,363.63
Charlotte, N. C.....	a, d.....	3,622.44	Havre, Mont.....	a.....	2,405.18
Chattanooga, Tenn.....	a, b.....	8,073.58	Hawaiian Volcano Observatory.....	v.....	3,111.58
Cheyenne, Wyo. (section center).....	a, c, d, i.....	7,373.18	Helena, Mont. (section center).....	a, c, d, i.....	8,009.19
Chicago, Ill. (district forecast center).....	a, c, d, e.....	49,032.60	Honolulu, Hawaii (section center).....	a, c, d, e.....	9,698.45
Cincinnati, Ohio.....	a, b.....	16,416.08	Houghton, Mich.....	a.....	3,411.27
Cleveland, Ohio.....	a, i.....	11,409.29	Houston, Tex. (section center).....	a, b, c, d.....	19,404.97
Columbia, Mo. (section center).....	a, c, d, i.....	5,336.06	Huron, S. Dak. (section center).....	a, c, d, i.....	7,724.67
Columbia, S. C. (section center).....	a, b, c, d, i.....	7,236.39	Independence, Calif.....	a.....	2,304.96
Columbus, Ohio (section center).....	a, b, c, d, i.....	15,250.52	Indianapolis, Ind. (section center).....	a, b, c, d.....	14,440.35
Concord, N. H.....	a, b.....	3,348.34	Io'a, Kans.....	a, b, c.....	2,726.32
Concordia, Kans.....	a.....	1,783.29	Ithaca, N. Y. (section center).....	a, c, d, i.....	7,128.41
Corpus Christi, Tex.....	a.....	4,045.33	Jacksonville, Ill'a. (section center).....	a, c, d, i.....	13,932.94
Dallas, Tex.....	a, b.....	5,978.32	Juneau, Alaska (section center).....	a, c.....	8,377.65
Davenport, Iowa.....	a, b.....	6,113.88	Kalispell, Mont.....	a.....	1,943.81
Dayton, Ohio.....	a, b.....	7,175.86	Kansas City, Mo.....	a, b, c, d.....	11,545.18
Del Rio, Tex.....	a.....	1,601.57	Keokuk, Iowa.....	a, b.....	2,923.07
Denver, Colo. (district forecast and section center).....	a, b, c, d, i.....	22,547.48	Key West, Fla.....	a, e, f.....	5,543.66
Des Moines, Iowa (section center).....	a, b, c, d, i.....	8,342.52	Knoxville, Tenn.....	a, b.....	4,743.80
Detroit, Mich.....	a.....	11,939.56	La Crosse, Wis.....	a, b.....	5,762.86
Devils Lake, N. Dak.....	a.....	3,044.53	Lander, Wyo.....	a.....	1,935.52
			Lansing, Mich.....	a, i.....	5,378.34

<sup>1</sup> The letters in this column have the following meaning: a, meteorological observations and reports and daily weather forecasts; b, river and flood work; c, climatological work; d, agricultural meteorological work; e, maintenance of seacoast telegraph line in connection with forecasts and warnings and vessel reporting; f, vessel reporting; g, aerological investigations; h, solar-radiation investigations; i, educational work; k, general administration and supervision of work of the bureau; v, volcanology.

## STATEMENT OF EXPENDITURES OF THE DEPARTMENT OF AGRICULTURE.

9

Distribution of Weather Bureau work and expenditures by stations—Continued.

Station.	Character of work. <sup>1</sup>	Amount.	Station.	Character of work. <sup>1</sup>	Amount.
Leesburg, Ga.....	a, g.....	\$8,380.58	Sacramento, Calif.....	a, b.....	\$6,049.00
Lewiston, Idaho.....	a.....	2,897.84	Saginaw, Mich.....	a, b, i.....	4,988.77
Lexington, Ky.....	a.....	3,441.57	St. Joseph, Mo.....	a.....	5,828.54
Lincoln, Nebr. (section center).....	a, c, d, h, i.....	10,765.71	St. Louis, Mo.....	a, b, c, d, i.....	22,650.94
Little Rock, Ark. (section center).....	a, b, c, d, i.....	10,855.64	St. Paul, Minn.....	a.....	4,351.63
Los Angeles, Calif.....	a, d, i.....	12,071.29	Salt Lake City, Utah (section center).....	a, b, c, d, i.....	11,081.65
Louisville, Ky. (section center).....	a, b, c, d, i.....	14,619.75			
Ludington, Mich.....	a.....	2,860.94	San Antonio, Tex.....	a, d.....	5,255.72
Lynchburg, Va.....	a.....	3,556.98	San Diego, Calif.....	a.....	5,293.44
Macon, Ga.....	a, b.....	3,975.59	Sandusky, Ohio.....	a.....	3,631.37
Madison, Wis.....	a, h, i.....	5,210.41	Sandy Hook, N. J.....	a.....	2,744.03
Marquette, Mich.....	a.....	3,150.83	San Francisco, Calif. (district forecast and section center).....	a, c, d, e, i.....	42,316.30
Memphis, Tenn.....	a, b, c, d.....	7,867.46			
Meridian, Miss.....	a, b, d.....	4,703.22	San Jose, Calif.....	a.....	1,756.34
Miami, Fla.....	a.....	3,122.73	San Juan, P. R. (section center).....	a, c, d.....	5,373.98
Milwaukee, Wis. (section center).....	a, c, d, l.....	10,708.32	San Luis Obispo, Calif.....	a.....	2,248.99
Minneapolis, Minn. (section center).....	a, b, c, d, i.....	11,927.79	Santa Fe, N. Mex. (section center).....	a, c, d, h.....	7,558.92
Mobile, Ala.....	a, b, c, d.....	6,493.34	Sault Ste. Marie, Mich.....	a.....	3,617.78
Modena, Utah.....	a.....	1,843.47	Savannah, Ga.....	a, c, d.....	8,913.95
Montgomery, Ala. (section center).....	a, b, c, d.....	7,383.43	Scranton, Pa.....	a.....	4,531.32
Mount Weather, Va.....	a.....	1,878.56	Seattle, Wash. (section center).....	a, c, d, i.....	16,104.87
Nantucket, Mass.....	a.....	2,857.39	Sheridan, Wyo.....	a.....	2,490.02
Narragansett Pier, R. I.....	a, e.....	316.18	Shreveport, La.....	a, b, d.....	5,284.24
Nashville, Tenn. (section center).....	a, b, c, d, i.....	11,281.72	Sioux City, Iowa.....	a.....	4,991.76
New Haven, Conn.....	a, i.....	8,573.76	Spokane, Wash.....	a.....	5,398.59
New Orleans, La. (district forecast and section center).....	a, b, c, d, i.....	30,531.20	Springfield, Ill. (section center).....	a, c, d, i.....	9,452.17
New York, N. Y.....	a.....	31,931.44	Springfield, Mo.....	a, i.....	4,228.23
Norfolk, Va.....	a.....	10,629.01	Syracuse, N. Y.....	a.....	4,650.95
Northfield, Vt.....	a.....	3,735.45	Tacoma, Wash.....	a.....	4,341.79
North Head, Wash.....	a, e.....	3,742.89	Tampa, Fla.....	a.....	4,871.74
North Platte, Nebr.....	a.....	3,353.88	Taylor, Tex.....	a, d.....	3,594.65
Oklahoma, Okla. (section center).....	a, b, c, d, i.....	13,451.21	Tatoosh Island, Wash.....	a, e, f.....	3,243.58
Omaha, Nebr.....	a, b, c, d.....	9,641.57	Terra Haute, Ind.....	a, b.....	6,281.63
Oswego, N. Y.....	a.....	2,104.28	Thomasville, Ga.....	a.....	1,769.55
Palestine, Tex.....	a.....	2,908.24	Toledo, Ohio.....	a.....	6,169.48
Parkersburg, W. Va. (section center).....	a, b, c, d.....	6,034.14	Tonopah, Nev.....	a.....	2,461.30
Pensacola, Fla.....	a.....	6,502.28	Topeka, Kans. (section center).....	a, c, d, i.....	9,036.07
Peoria, Ill.....	a, i.....	5,386.80	Trenton, N. J. (section center).....	a, c, d, i.....	8,617.00
Philadelphia, Pa.....	a, b, c, d, i.....	18,170.09	Valentine, Nebr.....	a.....	2,266.93
Phoenix, Ariz. (section center).....	a, b, c, d, i.....	9,759.93	Vicksburg, Miss. (section center).....	a, b, c, d, i.....	9,039.12
Pierre, S. Dak.....	a.....	1,575.44	Wagon Wheel Gap, Colo.....	a, c.....	3,116.80
Pittsburgh, Pa.....	a, b.....	14,326.47	Walla Walla, Wash.....	a, d.....	3,036.22
Port Angeles, Wash.....	a, e, f.....	12,821.05	Washington, D. C. (central office of the bureau and district forecast center).....	a, b, c, d, e, f, g, h, i, k.....	363,204.76
Pocatello, Idaho.....	a.....	1,689.03	Wausau, Wis.....	a, b.....	2,509.97
Port Arthur, Tex.....	a.....	1,816.36	Wichita, Kans.....	a, b, d.....	5,685.13
Port Huron, Mich.....	a.....	2,838.28	Williston, N. Dak.....	a.....	1,849.97
Portland, Me.....	a, b.....	6,418.27	Wilmington, N. C.....	a, c, d.....	4,537.78
Portland, Oreg. (district forecast and section center).....	a, b, c, d, i.....	24,764.36	Winnemucca, Nev.....	a.....	2,079.22
Providence, R. I.....	a.....	6,447.87	Wytheville, Va.....	a.....	1,847.94
Pueblo, Colo.....	a, b.....	2,893.07	Yankton, S. Dak.....	a.....	1,752.01
Raleigh, N. C. (section center).....	a, b, c, d.....	10,282.46	Yellowstone Park, Wyo.....	a.....	2,276.39
Rapid City, S. Dak.....	a.....	2,238.14	Yuma, Ariz.....	a.....	2,029.40
Reading, Pa.....	a.....	4,715.33	West Indian and Caribbean Sea stations.....	a, c.....	8,383.60
Red Bluff, Calif.....	a.....	2,429.72			
Reno, Nev. (section center).....	a, c, d.....	8,014.24	Printing office.....	a.....	12,776.12
Richmond, Va. (section center).....	a, b, c, d, i.....	8,162.91	Seacoast telegraph and cable lines.....	a.....	14,741.27
Rochester, N. Y.....	a.....	5,813.93			
Roseburg, Oreg.....	a.....	3,160.95	Outstanding liabilities (estimated).....	a.....	1,787,225.25
Roswell, N. Mex.....	a, d.....	2,477.94			77,577.63
Royal Center, Ind.....	a, g.....	10,337.58	Total for Weather Bureau.....	a.....	1,864,802.88

## BUREAU OF ANIMAL INDUSTRY.

Classification of expenditures for the fiscal year ended June 30, 1919.

Project.	Salaries.				Travel, station, and field expenses.	Equipment.			
	Statutory.	Lump fund.		Total.		Apparatus, instruments, laboratory.	Furniture.	Miscella- neous.	
		In Wash- ington.	Out of Washington.						
1 Administration.....	\$81,209.50	\$75,076.98	-----	\$156,286.48	\$632.41	\$74.88	\$639.76	\$1,140.60	
2 Eradication and control of animal diseases.....	20,658.70	8,769.05	\$279,632.91	309,060.66	63,652.30	382.41	108.90	9,090.05	
3 Inspection and quarantine of imported animals, and export live stock inspection.....	9,472.67	5,602.06	89,062.78	104,137.51	13,062.58	2.15	5.95	845.39	
4 Investigation, treatment, and eradication of animal tuberculosis.....	13,660.71	38,343.90	244,197.51	296,202.12	90,514.40	4,164.41	970.59	22,226.24	
5 Eradication of cattle ticks.....	19,554.34	4,533.33	520,365.49	544,453.16	125,519.86	238.32	98.58	5,321.36	
6 Live stock demonstration work in areas freed from cattle ticks.....	225.00	1,101.25	29,431.98	30,758.23	14,951.65	-----	-----	108.00	
7 Dairy investigations.....	30,661.00	139,309.39	126,512.69	296,483.08	45,511.21	3,315.69	292.23	9,766.54	
8 Animal husbandry investigations.....	35,076.65	43,782.28	111,632.57	190,491.50	23,216.23	815.22	291.83	20,239.00	
9 Investigations of animal diseases.....	13,306.72	30,697.69	38,800.53	82,804.94	4,373.14	1,317.09	90.10	3,536.32	
10 Investigation, treatment, and eradication of hog cholera.....	10,801.44	14,057.03	172,938.52	197,796.99	65,562.76	198.70	103.00	4,744.99	
11 Control of the manufacture, importation, and shipment of viruses, serums, etc.....	5,760.14	9,048.93	154,853.99	169,663.06	6,875.31	119.87	125.06	1,344.53	
12 Eradication of dourine.....	3,884.19	8,605.82	35,476.62	47,966.63	26,799.47	229.71	492.33	1,945.12	
13 Control of meat and meat-food products.....	131,010.41	58,078.81	3,559,060.33	3,748,149.55	36,439.96	1,375.97	332.65	29,558.39	
14 Eradication of foot-and-mouth disease.....	465.92	-----	44,886.80	45,352.72	383.30	-----	-----	102.00	
15 Live-stock production in cane sugar and cotton districts.....	-----	-----	27,489.47	27,489.47	3,810.37	266.81	-----	4,578.21	
16 Dairying and live-stock production in semiarid and irrigated districts.....	-----	919.09	11,485.36	12,404.45	686.43	875.14	62.50	6,318.67	
<b>Total.....</b>	<b>375,747.39</b>	<b>437,925.61</b>	<b>5,445,827.55</b>	<b>16,259,500.55</b>	<b>521,991.38</b>	<b>13,376.37</b>	<b>3,613.48</b>	<b>120,865.41</b>	

<sup>1</sup> Includes increased compensation, amounting to \$415,484.26, provided by the legislative, executive, and judicial appropriation act for the fiscal year 1919.

## PROJECT STATEMENTS.

## ADMINISTRATION.

Total expenditures as above.....	\$164,978.16
Outstanding liabilities, Aug. 31 (estimated)	1,850.00
Unexpended balance (estimated).....	25,373.60
<b>Total allotment.....</b>	<b>192,201.76</b>

Supervision of the bureau activities and the performance of such duties as are common to the bureau as a whole, the cost of which can not be readily prorated against the various projects involved, such as accounting and editorial work, the distribution of supplies, and matters relating to the personnel.....

166,828.16

Eradication of scabies in sheep: Cooperation with States in which scabies in sheep exists by providing quarantine measures to prevent the spread of this disease and by demonstrating proper treatment, including the cleaning and disinfection of cars, pens, and other premises.....

\$123,622.33

Eradication of mange (scabies) in cattle and horses: The object of this work and the methods employed are similar to those followed in the project on sheep scabies.....

62,097.70

Supervision of interstate transportation of live stock and inspection of southern cattle outside the quarantine area: Examination and inspection of all live stock unloaded at market centers and public stockyards where Federal inspection is maintained, to determine the presence in any of the animals of communicable diseases which might be transmitted to animals in other States; also issuance of certificates covering the interstate movement of animals free from disease or which have been treated under bureau supervision.....

155,989.75

Enforcement of the 28-hour law: Enforcement of the law requiring that animals being shipped interstate are unloaded for feeding, resting, and watering at least once in 28 hours, and that the animals are handled in a humane manner at stockyards where such unloading is done.....

28,472.41

Inspection and mallein testing of horses for interstate movement: Inspection and tests to prevent the spread of glanders in

Total expenditures as above.....	\$396,178.31
Outstanding liabilities, Aug. 31 (estimated)	6,550.00
Unexpended balance (estimated).....	23,467.86
<b>Total allotment.....</b>	<b>426,196.17</b>

Distributed among the several sub-activities as follows:  
Supervision: General direction of all work connected with the eradication and control of animal diseases and prevention of the interstate spread of these diseases; performance of duties connected with the general work of eradication, including correspondence with the public and conferences with other branches of the Government service .....

6,557.18

## BUREAU OF ANIMAL INDUSTRY.

Classification of expenditures for the fiscal year ended June 30, 1919.

Stationery.	Rent.	Telegraph, telephone, and postage.	Freight, express, and drayage,	Furnishing of heat, light, power, electricity.	Forage, purchased in bulk.	Fuel.	Specified items not otherwise classified.	Miscellaneous supplies, services, etc.	Total.	
\$1,385.35 1,444.31	\$123.00 4,078.95	\$3,231.04 1,215.13	\$34.85 1,136.22	.....	\$1,183.28 .....	.....	\$396.20 4,059.20	\$1,033.59 766.90	\$164,978.16 396,178.31	1 2
5.25	888.00	539.08	16.98	\$743.44	363.59	.....	47.50	237.71	120,895.13	3
1,388.12	2,142.04	621.12	1,820.00	.....	8,069.31	.....	77,462.86	886.09	506,467.30	4
1,793.69	6,625.30	1,103.53 121.08	5,862.53 44.22	150.82	144.61	\$46.06	2,663.82 10.33	449.23 .60	694,470.87 45,994.11	5 6
2,518.22 2,519.01	2,703.50 1,652.97	772.36 920.36	2,062.79 6,484.86	2,061.69 2,631.75	11,634.45 40,065.44	746.93 368.76	9,002.17 28,796.45	4,053.28 6,684.68	390,924.14 325,178.06	7 8
201.91	971.50	185.99	377.88	418.22	36,198.83	1,410.94	1,497.27	1,124.34	134,508.47	9
19.40	1,133.50	385.52	822.40	288.18	7,501.91	273.97	2,472.41	628.12	281,931.85	10
93.89	1,222.82	452.52	554.85	9.16	92.18	.....	355.40	141.35	181,050.00	11
27.55 2,709.93	25,451.52	18.43 4,721.48	606.66 6,050.16	467.21	2,854.78 378.96	.....	10,246.90 3,589.09	239.27 1,862.61	91,426.85 3,861,087.48	12 13
.....	220.00	.80	.....	.....	1,783.35	.....	.....	36.00	47,878.17	14
186.23	132.35	212.67	558.02	832.43	6,525.08	488.86	7,848.80	6,098.13	59,027.43	15
78.48	.....	34.72	538.71	432.15	3,202.96	333.83	2,271.25	1,011.28	28,250.57	16
14,371.34	47,345.45	14,535.83	26,971.13	8,035.05	119,998.73	3,669.35	2 150,719.65	25,253.18	7,330,246.90	

<sup>2</sup> Subsistence and care of animals and storage and care of vehicles, \$15,222.58; mechanics', engineers', and electricians' supplies, \$2,503.04; cleaning and toilet supplies, \$1,569.47; purchase of animals for experimental and control purposes, \$103,972.99; printing, \$27,451.57.

horses and mules through interstate movement.....	\$3,135.30	Distributed among the several subactivities as follows:
Preparation and distribution of mallein and blackleg vaccine: Manufacture in the bureau laboratories of supplies of mallein for the testing of horses for glanders, and of blackleg vaccine for the prevention of blackleg in cattle, and distribution of these vaccines.....	17,879.99	Supervision: General direction of the inspection and quarantine of imported animals, export live stock inspection, and the sanitary handling and control of hides and other animal by-products, hay, straw, forage, or similar material offered for entry into the United States, and the performance of duties common to the whole work.....
Preparation and distribution of field test outfits to insure that the dipping baths employed in the eradication of scabies in sheep and scabies in cattle are used at safe and effective strengths.....	991.05	Inspection of animals for importation: Inspection at ports of entry and the establishment of quarantines, when necessary, with a view to prohibit the importation of diseased animals.....
Investigation and chemical testing of dips and disinfectants: Chemical and bacteriological studies of dips and disinfectants and of methods of preparing them, so as to insure the employment of properly compounded preparations in official dipping and disinfecting operations.....	3,982.60	Quarantine of animals at ports of entry: Maintenance of quarantine stations for the detention, observation, and test of imported animals, with the object of preventing the introduction of animal diseases.....
Total.....	402,728.31	Supervision over the sanitary handling and control of hides, skins, other animal by-products, hay, etc., offered for entry into the United States, to prevent the introduction of animal diseases.....
INSPECTION AND QUARANTINE OF IMPORTED ANIMALS, AND EXPORT LIVE STOCK INSPECTION.		Inspection and testing of animals for export to foreign countries, to insure freedom of export animals from disease.....
Total expenditures as above.....	\$120,895.13	Inspection of vessels carrying export animals, to provide for the safe transportation and humane treatment of export live stock.....
Outstanding liabilities, Aug. 31 (estimated)	2,100.00	
Unexpended balance (estimated)	11,947.34	
Total allotment.....	134,942.47	
		2,519.79

\$4,465.30

71,567.62

12,753.81

23,148.47

6,480.94

Investigation of methods of disinfecting hides: Determination of the best methods for the disinfection of hides, in order to prevent the introduction of infectious material.....

\$2,059.20

Total..... 122,995.13

**INVESTIGATION, TREATMENT, AND ERADICATION OF ANIMAL TUBERCULOSIS.**

Total expenditures as above..... \$506,467.30  
Outstanding liabilities, Aug. 31 (estimated) 16,163.40  
Unexpended balance (estimated) 6,872.00

529,502.70

Distributed among the several subactivities as follows:

Supervision: Direction and coordination of all research and control work relating to the cause and prevention of animal tuberculosis.....

17,198.13

Animal tuberculosis control looking to eradication: Extermination of tuberculosis in cattle and swine, development of best methods of preventing the spread of tuberculosis in dairy herds and among pure-bred herds of breeding cattle, and establishment of public registry of pure-bred herds which have been shown to be free from tuberculosis.....

467,777.89

Preparation and distribution of tuberculin: Manufacture in the bureau laboratories and distribution of supplies of tuberculin for the testing of cattle for tuberculosis.....

15,695.39

Investigation of animal tuberculosis: Investigations of the causes for dissemination of tuberculosis among cattle, hogs, and other domestic animals, methods of treatment, and measures necessary to prevent transmission of the disease.....

21,959.29

Total..... 522,630.70

**ERADICATION OF CATTLE TICKS.**

Total expenditures as above..... \$694,470.87  
Outstanding liabilities, Aug. 31 (estimated) 8,500.00  
Unexpended balance (estimated) 32,875.35

735,846.22

Total allotment.....

Tick eradication: Extermination of the ticks which spread the infection of splenetic fever of cattle, in cooperation with the live stock sanitary organizations in the States concerned.....

695,181.70

Preparation and distribution of field test outfits to insure that arsenical dipping baths for eradicating cattle ticks are used at the proper strength.....

7,789.17

Total..... 702,970.87

**LIVE STOCK DEMONSTRATION WORK IN AREAS FREED FROM CATTLE TICKS.**

Total expenditures as above..... 45,994.11  
Outstanding liabilities, Aug. 31 (estimated) 2,025.00  
Unexpended balance (estimated) 2,103.90

50,123.01

Total allotment.....

Cooperation with county agents and with State officials in demonstrating to farmers the best means within their reach to improve and develop the live stock industry in areas freed from cattle ticks in the Southern States.....

48,019.11

**DAIRY INVESTIGATIONS.**

Total expenditures as above..... \$390,924.14  
Outstanding liabilities, Aug. 31 (estimated) 6,250.00  
Unexpended balance (estimated) 5,691.93

402,866.07

Distributed among the several subactivities as follows:

**ADMINISTRATION.**

General supervision of dairy investigations, including branch library, files, requisitions, and accounts; dairy engineering, compilation and indexing, editorial and stenographic work, and stores..... 60,557.98

**DAIRY FARMING AND EXTENSION.**

Supervision: General supervision and office correspondence and record work; compilation of material for use in field work and preparation of manuscripts..... 8,523.73

Southern dairying: The object of this work is to encourage the development of the dairy business in the Southern States through instruction and demonstration.....

Dairy demonstration farm: Operation of a dairy farm at Denison, Tex., for the purpose of demonstrating the practicability of reclaiming a worn-out cotton farm by dairying.....

Cow testing associations and cooperation with county agents in dairy work: Advice and assistance in the organization of cow testing associations, with the object of increasing economically the average milk and butter production of the dairy cows in the United States, and assistance to county agents in general dairy work, such as silo and dairy building construction, feeding, care, and management of dairy cattle, special assistance at fairs, etc..... 2,280.00

Extension of bull associations: Inauguration of a nation-wide campaign in the interest of the joint ownership of pure-bred bulls of merit.....

Community development in dairying: Determination of the practicability of the small community raising its economic status through the employment of a field instructor skilled in dairying.....

Investigation of cow testing associations: Determination of the best form of cooperation for the development and increase in production of the dairy herds of the United States.....

Investigation of bull associations: Determination of the best form of cooperation and organization for the development of bull associations.....

**DAIRY MANUFACTURING.**

Supervision: General direction of dairy manufacturing activities, including extension work carried on with creameries by correspondence; compilation of information collected.....

9,958.28

Creamery extension: Advice and assistance to creamery operators and patrons looking to the improvement of the quality of milk and cream delivered to creameries, the quality of the product, and the general efficiency of creameries.....

18,789.18

Cheese factory extension: Extension work in representative dairy sections to encourage the building of cheese factories in localities where the industry will

prove successful, to improve the quality of milk delivered to cheese factories, to improve the methods of making and hence the quality of cheese, and to increase the general efficiency of cheese factories and their management.....	\$12,294.76	anism of milk secretion and of the factors which control or influence this function, with a view to a more logical breeding and feeding of dairy cows.....	\$10,649.89
Creamery management investigations: Study of methods for improving the quality of the milk and cream delivered to creameries and the quality of creamery butter, and for increasing the general efficiency of creameries.....	5,861.14	Metabolism in dairy cows: Determination of the total energy of the feed consumed by milking animals, the losses of energy in the excreta, the expenditure of energy consequent upon the consumption of the feed and, by difference, the net energy of the feed; and investigation of the distribution of this net energy of the feed between the two possible forms of reproduction, viz, fattening or milk secretion, and the effect upon it of the quantity and quality of the feed, as well as of other factors.....	3,336.43
Cheese factory investigations: Determination of the districts in which it would be feasible to encourage the manufacture of cheese, what is being done in the manufacture of cheese in districts other than the cheese centers, and particularly what kinds of cheese can be successfully and profitably manufactured in certain sections of the South; collection of data relative to methods used in the best managed factories; determination of the machinery most efficient for cheese factories.....	7,699.18	Disposal of dairy, creamery, and cheese factory wastes: Investigation of methods for the proper disposal of the wastes of dairy farms, creameries, and cheese factories.....	440.00
Renovated butter inspection: Inspection of renovated butter, the materials used in its manufacture, and the factories producing this product, as required by the act of May 9, 1902.....	1,913.85	Manufacture and ripening of cheese: Investigation of the methods of manufacture and study of the factors producing the peculiar flavors and physical characters of various types of cheese in order to improve the quality of domestic cheese and make it possible to produce here the cheeses now imported from foreign countries.....	18,776.36
Butter inspection for Navy Department: Daily inspection at plants manufacturing butter for the Navy Department to see whether the product complies with the specifications and thus to assist the department in securing first-class tinned and tub creamery butter and incidentally study the manufacture of butter for storage.....	5,666.28	Silage investigations: Study of the changes which take place in the material put into the silo and investigation of the possibilities of ensiling crops other than corn....	3,422.06
<b>DAIRY RESEARCH LABORATORIES.</b>			
Supervision: General direction and office work of the dairy research laboratories. Investigations of the manufacture and handling of commercial ice cream, to determine methods and conditions necessary for the practical, economical, and sanitary manufacture of this product.	2,907.00	<b>MILK INVESTIGATIONS AND DEMONSTRATIONS.</b>	
Butter and dairy by-products investigations: Experiments to determine the factors which control the flavor, both desirable and undesirable, of butter, including a study of methods of handling cream, pasteurization, ripening of cream, changes of butter in storage, and methods of renovating; and investigation of methods for the utilization of by-products of creameries and cheese factories by converting them into products which will be useful in the arts or available as food for man or animals.....	11,088.22	Supervision: General direction of the work of the section, answering correspondence, etc.....	3,204.13
Milk condensing investigations: Investigations to secure a general knowledge of milk condensing, determine causes of spoilage, and develop logical methods of operation.....	804.42	Dairy sanitation investigations: Investigation of the sanitation of city milk supplies, factors influencing the commercial quality of milk, and means of producing and handling milk of a superior quality.....	3,741.68
Bacteriology of milk: Biological studies of the bacteria occurring in milk, their relation to one another and to similar groups occurring elsewhere, their physiology and action on the constituents of milk, their habitat and the means by which they get into milk, methods of preventing contamination, and means of destroying bacteria in milk.....	8,740.56	Cost of handling milk: Determination of the cost of handling milk in cities, including the cost of various operations in preparing milk for the market, with a view to avoid uneconomical methods and suggest ways of lessening the cost of handling.....	5,127.64
Physiology of milk secretion and nutrition of dairy cows: Investigation of the mech-		Milk production: The securing of data regarding milk production on the average dairy farm; ascertaining the additional expense attributable to modern sanitary methods and the variation in milk production in different sections.....	13,453.28
		Dairy sanitation extension: Educational work among dairymen and milk handlers with the object of unifying and making more efficient inspections carried on by State and municipal boards of health....	12,798.03
<b>DAIRY DIVISION EXPERIMENT FARM.</b>			
		Supervision and maintenance: Supervision of the dairy experiment farm at Beltsville, Md., and of the experimental work conducted there; maintenance of office, laboratories, dairy herd, and buildings; provision for the transportation of dairy products to Washington and for the making of necessary improvements at the farm.....	36,918.72

Feeding of dairy cattle: Study of the effects of the various feeds and constituents of feeds upon the animal body, upon growth, and upon the yield and composition of milk, and of the relative values of feeds for dairy production.....  
 Housing and care of dairy cattle: Determination of the best method of stabling cows, and investigation of problems in the milking and care of cows and in herd management.....  
 Feed production: The production of feed for the dairy herd at the Beltsville farm; detailed records being kept of the cost of all farm operations and observations made on the building up of the soil by fertilization, tillage, and drainage.....

## WESTERN DAIRY EXTENSION.

Supervision: General direction of western dairy extension work, including correspondence and other clerical routine.....  
 Dairy farming: Instructions to farmers in the Western States in the feeding of dairy cattle, the raising of calves, construction of silos and dairy buildings, herd record work, and the selection of pure-bred bulls with the object of improving and developing the business of dairying in that section.....  
 Milk work: Educational work among dairymen and milk handlers, with a view to improve the milk supply and to unify and make more efficient the inspections carried on by State and municipal boards of health.....  
 Dairy manufacturing: Advice and assistance to creamery and cheese factory operators and patrons for the purpose of introducing better methods and securing a uniformly good product.....

## IMPROVEMENT OF DAIRY PRODUCTS.

Assistance to State extension workers, through demonstrations by dairy specialists and in other ways, with a view to increase the quantity, improve the quality, and encourage a larger consumption on the farm of farm butter, cottage cheese, cream cheese, and other dairy products.....

## BREEDING OF DAIRY CATTLE.

Study of the breeding of dairy cattle and application of principles thus established

Total.....

## ANIMAL HUSBANDRY INVESTIGATIONS.

Total expenditures as above.....  
 Outstanding liabilities, Aug. 31 (estimated).....  
 Unexpended balance (estimated).....

Total allotment .....

## ADMINISTRATION.

General direction of animal husbandry investigations, such office expenses as are not directly chargeable to specific projects coming under this head.....

## ANIMAL GENETICS.

Investigations of the effects of animal inbreeding from a scientific standpoint; interpretation of these results with regard to advantages and disadvantages in practical breeding, with suggestions as to the

mode of procedure to secure the former and avoid the latter; study of the mode of inheritance of special traits; and, in general, investigations of the factors which determine the course of the life histories of animals.....

\$4,460.61

## ANIMAL HUSBANDRY EXPERIMENT FARM.

Maintenance of the farm at Beltsville, Md., for the purpose of affording the bureau proper facilities for conducting investigations in the feeding and breeding of farm animals, including poultry.....

22,309.40

## BEEF CATTLE INVESTIGATIONS.

Supervision: General direction of the beef cattle investigations, correspondence, and maintenance of record files.....

3,791.25

Beef production: Study of methods of maintaining breeding herds and of producing beef animals to various ages; study of methods of fattening cattle and of the relative importance of various feedstuffs for such purposes, including work with calves, baby beefs, and steers; investigation of methods of wintering stocker and feeder cattle; determination of the effect of beef cattle raising on soil fertility; and study of methods of establishing permanent pastures on lands better suited for grazing than for cropping purposes...

16,070.63

Beef cattle extension work: Organization of associations to improve beef cattle and encourage the cooperative purchase and sale of breeding animals; organization of baby beef clubs and bull clubs; instructions and assistance to farmers and live stock men by lectures, personal visits, correspondence, and otherwise in all matters pertaining to beef cattle work...

695.00

## CERTIFICATION OF PEDIGREES.

Determination of the purity of breeds and the identity of animals imported for breeding purposes under the provisions of paragraph 397 of the tariff act of October 3, 1913 .....

765.00

## SHEEP AND GOAT INVESTIGATIONS.

Supervision: General direction of sheep and goat investigations, correspondence, and maintenance of record files.....

8,406.04

Range sheep investigations: Investigations of the production of a range type of sheep from stock of Rambouillet blood, the adaptability of Corriedale sheep to western range conditions, flock management, and problems in range sheep breeding...

29,851.29

Farm sheep investigations: Study of the factors controlling yields of lambs and the rate of their growth; determination for the main types of agricultural conditions in the farm States and for irrigated and dry-land farming areas of the lines along which sheep raising can be made most profitable; and dissemination of data as to the profits from the practical management of farm flocks in New England.....

5,847.57

Farm sheep demonstrations: Assistance in extending the sheep industry in farm States and demonstrations on farms of profitable methods of sheep raising.....

25,577.14

Goat investigations: Determination of the most economical methods of breeding, feeding, and management of goats for the production of mohair and milk, and study of the value of milk from the milking breeds.....

1,406.30

Studies of wool and other animal fibers: Determination for the various grades of wool the lowest shrinkage, due to natural oil, that is consistent with the maximum quantity and quality of wool; study of the relation of skin folds and other body characters to density of fleece and fineness of fiber; investigation of the effect of climate, soil, and feed, also age and heredity, on the growth and quality of wool and other animal fibers used in commerce; and dissemination of information to wool growers concerning trade requirements and the various grades of wool and regarding the best methods of preparing their clips for market.....

\$1,941.92

## SWINE INVESTIGATIONS.

Production of pork: Study of the effect of different feeds on the growth and quality of hogs and the keeping quality of pork, the effect of feed on the physiological condition of hogs, and the different methods of farm curing and keeping of pork.....

Organization of pig clubs: The object of this work is to stimulate an interest in swine production; to teach farm children improved methods of raising, fattening, and marketing hogs; to instill in them, while young, a love of animals which will result in their taking more interest in life upon the farm; and to furnish them at the same time with some work which will, in a practical way, give an insight into the business side of farm life.....

16,129.25

## HORSE AND MULE INVESTIGATIONS.

Supervision: General direction of horse and mule investigations, correspondence, and maintenance of record files.....

32,544.97

Farm horse and mule investigations: Study of problems in feeding, breeding, and management of horses and mules, with particular reference to their use as farm work animals.....

4,017.46

Breeding American carriage horses: Investigations in the production of a breed of horses from American material suitable for carriage and general purposes.....

6,201.78

Breeding Morgan horses: The object of this project is to breed horses under New England conditions, establishing a stud and using horses of Morgan descent as the foundation, and, incidentally, to preserve the Morgan type and blood lines.....

6,168.11

Breeding horses on Indian reservations: Improvement of the quality of horses bred on Indian reservations by proper selection and the use of pure-bred stallions.....

17,358.52

Breeding horses for military purposes: The breeding of horses suitable for military purposes in localities where such horses are the most profitable type for farm use, and the encouragement, in general, of better horse breeding methods among farmers.....

1,346.25

## POULTRY INVESTIGATIONS.

Supervision: General direction of poultry investigations, correspondence, and maintenance of record files.....

39,720.42

Farm poultry investigations: Study of the effect of rations, the inheritance of egg production and other characteristics, the

4,270.97

incubation of eggs, brooding, and the effect on health of fowls and on fertility of eggs of free range, small and large yards, and various styles of houses.....

\$16,635.07

Pigeon and squab investigations: Study of methods of rearing, feeding, breeding, housing, killing, dressing, and managing pigeons; investigation of the production of squabs, feeding of pigeons, and possible profits to be expected in this industry; tests of different breeds of pigeons and the crosses of these breeds to determine their suitability and value for the production of squabs; study of the possibilities of improving prolificacy in different varieties of pigeons by breeding, selection, and feeding; and breeding and training homing pigeons with special reference to use in the Army and Navy....

1,502.95

Ostrich investigations: Investigations of the problems underlying the breeding, incubation, and feeding of ostriches in the United States; cooperation with the pathological division of the bureau in studying the diseases and climatic conditions affecting them; study of the marketing of feathers; and assistance to ostrich breeders in the preparation of their product for market.....

8,754.50

Organization of boys' and girls' poultry clubs: The object of this work is to stimulate an interest in poultry among farm boys and girls; to give a better knowledge of the value and importance of the poultry industry; to encourage better poultry management and the breeding of standard bred poultry; to standardize poultry and poultry products; and to show how increased revenue may be obtained by marketing a first-class uniform product.....

25,552.84

Total.....

333,179.56

## INVESTIGATIONS OF ANIMAL DISEASES.

Total expenditure as above.....

\$134,508.47

3,800.00

22,015.64

Unexpended balance (estimated).....

160,324.11

Total allotment.....

12,145.92

Supervision: General direction of investigations of animal diseases and performance of duties common to this work....

Rabies investigations: The diagnosis of rabies in animals; study of the disease to find the causative agent and to be able to grow this agent by laboratory methods; determination of the significance of Negri bodies in relation to the causation of rabies.....

1,544.50

Glanders investigations: Determination of the presence or absence of glanders infection among the horses and mules; the specificity for mules of a mallein prepared from strains of *Bacillus mallei* isolated from glanders lesions in mules; value of the agglutination test for the diagnosis of glanders, with special reference to its value in the testing of mule sera.....

1,088.50

Forage poisoning or cerebrospinal meningitis of horses: Studies having in view the determination of the causative agent of this disease and the devising of measures for its prevention; also detection and study of the lesions of this disease.....

668.58

Investigation of animal abortion: Study of the etiology, mode of transmission, and practicable means of eradicating the disease; devising the most satisfactory methods of disinfecting contaminated premises; and determination of the presence of the bacillus in suspected samples of market milk, as well as in hairless pigs and in goats and calves affected with goiter.....	\$51,746.99	General maintenance of Bethesda experiment station: This represents overhead charges incidental to the maintenance and upkeep of the buildings, fences, and equipment of the bureau experiment station at Bethesda, Md., together with the planting and harvesting crops and other activities in connection with the operation of the farm, which items can not be segregated and charged against specific investigational projects.....	\$4,808.55
Investigations of swamp fever: Determination of the nature, cause, and prevention of the so-called swamp fever of horses, and development of an accurate method of laboratory and clinical diagnosis; involves a general study of the so-called filterable or ultraviolet viruses and new methods of procedure in diagnostic technique.....	1,480.87	Breeding and feeding small experiment animals for disease research: The object of this work is to breed and have available an abundant supply of small experiment animals of definite known history for the various investigations conducted by the several laboratories of the Bureau of Animal Industry.....	7,412.66
Diagnosis of and immunization against anthrax: Experiments having in view the differentiation between anthrax and other diseases which bear more or less resemblance to it, so that owners of affected herds may take proper action in the eradication of the disease.....	1,460.94	Investigations of stock poisoning by plants: Collection of information in regard to stock poisoning plants; determination, by chemical examination and feeding experiments, of their poisonous principles and effects, with special reference to live stock; and development of methods of avoiding losses.....	12,878.98
Investigations of diseases of fowls: Studies of the diseases of domesticated birds for the purpose of establishing their causative agents, symptoms, effects on the animal system, and methods of control; also diagnosis of diseases of fowls and dissemination of information to owners of affected birds.....	984.42	Total.....	138,308.47
Miscellaneous biological experiments and investigations: Development of methods for the control of hemorrhagic septicemia; determination of the specific nature of diseases affecting animals at the National Zoological Park for the purpose of controlling these diseases; investigation of the cause of mastitis in dairy cows and development of remedies; and study of numerous other diseases as required from time to time.....	8,181.37	INVESTIGATION, TREATMENT, AND ERADICATION OF HOG CHOLERA.	
Index catalogue and collection of parasites: Maintenance of a comprehensive card index to the literature of animal parasites and a collection of specimens of parasites for study and reference.....	3,707.99	Total expenditures as above.....	\$281,931.85
Investigation of round worms of sheep: Development of methods for the control and eradication of these parasites.....	12,314.37	Outstanding liabilities, Aug. 31 (estimated).....	9,650.00
Investigations of anhelminites and the treatment of live stock for internal parasites: Determination of the relative values of remedies used against internal parasites and development of methods for the practical treatment of live stock to destroy or remove these organisms.....	5,245.12	Unexpended balance (estimated).....	13,236.35
Investigation of parasitic protozoa: Studies of the character and life history of these parasites, with particular reference to blackhead in turkeys and development of methods for their eradication or control.....	1,821.64	Total allotment.....	304,818.20
Investigation of cattle ticks, mange mites, and other external parasites: Investigations to develop the most effective methods for the eradication and control of external parasites of animals.....	6,558.93	Distributed among the several sub-activities as follows:	
Miscellaneous investigations of animal parasites, their control and eradication: Investigations to develop methods for the control and eradication of miscellaneous animal parasites.....	4,258.14	Supervision: Direction and coordination of the research, extension, and control work relating to the cause and prevention of hog cholera.....	17,811.36
		Hog cholera control looking to eradication: Detail of veterinary inspectors to work in cooperation with State authorities with a view to the control and eradication of hog cholera; production of serum used in the organization of the work.....	224,847.48
		Educational and demonstrational hog cholera work: Instructions to farmers, through county agricultural agents and others, in methods of controlling hog cholera by the application of the preventive serum treatment and proper quarantine and sanitary measures.....	24,896.39
		Investigation of methods of producing immunity against hog cholera: Investigations to improve and cheapen present methods of immunizing hogs against hog cholera.....	7,421.88
		Investigation of the cause of hog cholera: Studies having for their object the determination of the specific microorganism of hog cholera, and, if possible, its artificial cultivation.....	1,403.05
		Investigation of the mode of dissemination of hog cholera: Investigation of the life of hog cholera virus on infected premises and of ways in which virus is carried from farm to farm as well as from animal to animal.....	15,201.69
		Total.....	291,581.85

## CONTROL OF THE MANUFACTURE, IMPORTATION, AND SHIPMENT OF VIRUSES, SERUMS, ETC.

Total expenditures as above.....	\$181,050.00
Outstanding liabilities, Aug. 31 (estimated).....	1,500.00
Unexpended balance (estimated).....	3,262.92

Total allotment.....	185,812.92
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Distributed among the several subactivities as follows:

Supervision: General direction of the work of enforcing the law (virus-serum-toxin act of Mar. 4, 1913) governing the interstate shipment and the importation of viruses, serums, toxins, and analogous products intended for use in the treatment of diseases of domestic animals, including the direction of upward of 100 employees at the various localities in the United States where such products are prepared, and the performance of duties common to the whole work.....

8,788.96
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Inspection of establishments: Inspection and supervision of the operations of establishments engaged in the preparation and disposal of serums, viruses, vaccines, toxins, etc., to determine whether or not licenses should be issued, and whether the products of licensed establishments are pure and potent.....

173,761.04
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Total.....	182,550.00
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## ERADICATION OF DOURINE.

Total expenditures as above.....	\$91,426.85
Outstanding liabilities, Aug. 31 (estimated).....	797.62
Unexpended balance (estimated).....	11,874.50

104,098.97
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Total allotment.....	92,224.47
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Inspection of all horses in areas where dourine is known to exist and removal of stallions in such areas from the open range; the securing of blood serum from each animal and its subsequent laboratory examination; slaughter of all mares reacting to the test and slaughter or castration of all reacting stallions.....

3,902,282.10
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## CONTROL OF MEAT AND MEAT FOOD PRODUCTS.

Total expenditures as above.....	\$3,861,087.48
Outstanding liabilities, Aug. 31 (estimated).....	8,695.12
Unexpended balance (estimated).....	32,499.50

Total allotment.....	36,276.96
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Distributed among the several subactivities as follows:

Supervision: General direction of the work of meat inspection, including the supervision of some 2,600 employees at all the slaughtering centers of the United States, and the performance of duties common to the whole work.....

4,061.53
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Purchase, preparation, and distribution of brands and branding ink: Provision for suitable fluid and branding appliances for marking carcasses, parts of carcasses, and meat and meat food products inspected under the meat-inspection act..

Special supervisory inspection: Personal investigation of official establishments and of the conduct and inspection of operations to see that the law, regulations, and instructions governing meat inspection are properly observed.....

\$15,166.62
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Laboratory inspection: Chemical and bacteriological examinations to ascertain whether meat and meat food products prepared in official establishments or under exemption or those shipped interstate by farmers, as well as imported meats and meat food products, are properly labeled, sound, healthful, wholesome, and otherwise fit for human food, and to determine whether any prohibited substance has been used in their preparation or in or about the establishment; also examinations to determine whether the water and ice used in the preparation of meat and meat food products are potable.....

68,244.79
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Ante-mortem inspection of animals for slaughter: Examination of all cattle, sheep, swine, and goats to discover animals which show symptoms of or are suspected of being affected with any disease or condition which would probably cause their condemnation in whole or in part when slaughtered, such animals being held apart and slaughtered separately from other animals so as to insure careful post-mortem inspection, as provided in the regulations governing Federal meat inspection.....

246,284.62
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Post-mortem inspection of animals: Visual and digital examination and inspection of the carcasses and parts of all cattle, sheep, swine, and goats slaughtered at official establishments to determine the presence in any such carcasses or parts of any lesions of disease or other condition which might render the meat or any organ unfit for food purposes, and condemnation and destruction for food purposes of all carcasses or parts of animals found on final inspection to be unsound, unhealthful, unwholesome, or otherwise unfit for human food.....

1,632,473.73
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Supervision of the preparation and distribution of meats: Inspection of meat and meat food products prepared within or brought into official establishments and departments thereof to see that no unfit meat or product is used in the various processes of preparation, packing, salting, smoking, canning, etc., to insure proper labeling, and to see that establishments are maintained in a sanitary condition, that the workers are clean as to person and raiment, that deleterious preservatives or ingredients are not used; and otherwise to enforce compliance with the meat-inspection law and regulations.....

1,774,774.03
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Inspection of meats for the United States Navy: Supervision of the preparation of meat and meat food products for the Navy to insure that they are sound and fit for food purposes at the time of delivery and that such articles conform to the specifications of the Navy. (This expenditure, \$140,881.17 is reimbursable).

Inspection at public markets: Provision for the interstate transportation or export from public markets of portions of inspected and passed meats and products thereof which, when cut or otherwise removed from a marked carcass, part, or container, do not show the inspection legend.....	\$15,199.34	Bacteriological investigations of meat and meat food products: Investigations to aid inspectors to determine the proper disposition of questionable meat and to enable packers, by the use of proper methods, to prevent spoilage.....	\$279.09
Supervision of operations conducted under certificates of exemption: Examination of premises to ascertain whether or not shippers are retail butchers, retail dealers, or farmers and hence entitled to operate under certificates of exemption as provided under the meat inspection law; also to see that the premises in which animals are slaughtered or where meat and meat products are prepared by or for persons who make interstate shipments under exemption from inspection are maintained in a sanitary condition, and that the articles so shipped are sound, healthful, wholesome and fit for human food.....	5,778.80	Investigation of changes in meats during preservation: Study of the changes which take place in meats during preservation by various methods, with particular reference to the cause of such changes and their effect upon the wholesomeness and nutritive value of the product.....	1,894.99
Examination of imported meats and meat food products: Operations under this project are directed to prevent the importation of meat and meat food products of cattle, sheep, swine, and goats which are not properly certified, or which are falsely labeled, or which are unsound, unhealthful, unwholesome, or otherwise unfit for human food, or which contain any prohibited dye, chemical preservative, or other harmful ingredient.....	11,619.30	Investigations of pathological conditions noted during meat inspection: Investigation of any abnormal, unusual, or hitherto unnoted condition of interest, directly or indirectly, from the meat inspection viewpoint, which may be encountered during routine Federal meat inspection, special emphasis being laid upon infectious conditions and those characterized by malignancy.....	3,214.30
Field overhead, and miscellaneous meat inspection: This includes the overhead charges, such as details of inspectors in charge, supervisors, clerks, etc., at the meat inspection stations throughout the United States; also minor activities not included under other projects of this group	51,827.42	Zoological investigations relating to meat inspection: Investigation of trichinosis and measles, and other zoological studies relating to meat inspection, with a view to improve methods of meat inspection in so far as parasitic diseases of food animals are concerned.....	2,650.00
		Investigations upon the control of the house fly and other insects in establishments operating under Federal meat inspection.....	37.08
		Total.....	3,869,782.60

The meat inspection work described in the preceding paragraphs was conducted at Washington, D. C., and 241 stations and substations in the field. The approximate cost and the character of the work conducted at each of the 141 principal stations are given below, stations being included with main stations.

*Distribution of meat-inspection work and expenditures by stations.*

Station.	Nature of work. <sup>1</sup>	Amount.	Station.	Nature of work. <sup>1</sup>	Amount.
Albany, N. Y.....	a, b, c, d, g.....	\$8,778.23	Davenport, Iowa.....	a, b, c, d, f, g.....	\$10,950.26
Albert Lea, Minn.....	a, b, c, d.....	11,309.48	Dayton, Ohio.....	a, b, c, d, e.....	12,011.38
Allentown, Pa.....	a, b, c, d, g.....	8,633.92	Denver, Colo.....	a, b, c, d, f, g.....	45,055.75
Alton, Ill.....	a, b, c, d.....	4,388.00	Des Moines, Iowa.....	a, b, c, d.....	10,774.92
Amarillo, Tex.....	c, d.....	1,500.00	Detroit, Mich.....	a, b, c, d, e, f, g, h.....	49,218.24
Andalusia, Ala.....	a, b, c, d.....	6,191.33	Dubuque, Iowa.....	a, b, c, d, g.....	3,224.65
Arkansas City, Kans.....	a, b, c, d.....	3,207.41	Duluth, Minn.....	a, b, c, d, e, f, g, h.....	3,461.40
Atlanta, Ga.....	c, d.....	1,610.58	Eau Claire, Wis.....	a, b, c, d.....	4,712.29
Auburn, Me.....	a, b, c, d.....	3,289.80	El Paso, Tex.....	c, d, g.....	7,562.43
Augusta, Ga.....	a, b, c, d, f, g.....	11,092.86	Evansville, Ind.....	a, b, c, d.....	7,651.15
Austin, Minn.....	a, b, c, d, f.....	22,691.62	Fargo, N. Dak.....	c, d, g.....	604.28
Baltimore, Md.....	a, b, c, d, e, f, g.....	55,045.63	Fergus Falls, Minn.....	a, b, c, d, g.....	2,040.00
Billings, Mont.....	a, b, c.....	3,543.00	Fort Smith, Ark.....	c, d.....	1,446.00
Birmingham, Ala.....	a, b, c.....	4,443.00	Fort Wayne, Ind.....	a, b, c, d.....	5,355.57
Bisbee, Ariz.....	a, b, d.....	2,900.00	Fort Worth, Tex.....	a, b, c, d, e.....	81,643.25
Boise, Idaho.....	a, b, c, d, g.....	3,676.49	Frederick, Md.....	a, b, c, d, g.....	2,595.67
Boston, Mass.....	a, b, c, d, e, f, g, h.....	98,755.36	Green Bay, Wis.....	c, d.....	3,370.75
Bridgeport, Conn.....	c, d, e, g, h, i.....	1,501.66	Hallstead, Pa.....	a, b, d.....	2,078.07
Bristol, Va.....	a, b, c, d, g.....	2,102.50	Harrisburg, Pa.....	a, b, c, d.....	9,165.91
Brooklyn, N. Y.....	a, b, c, d, e, f, g, h.....	46,066.51	Hartford, Conn.....	c, d, f.....	1,440.00
Buffalo, N. Y.....	a, b, c, d, e, f, g, h.....	80,548.52	Haverhill, Mass.....	a, b, c, d, f, h.....	6,409.91
Burlington, Vt.....	a, b, c, d, g.....	2,651.42	Houston, Tex.....	a, b, c, d.....	13,014.80
Butte, Mont.....	a, b, c, d.....	4,640.25	Huntington, W. Va.....	a, b, c, d.....	3,330.12
Cairo, Ill.....	a, b, c.....	658.21	Indianapolis, Ind.....	a, b, c, d.....	90,994.63
Calais, Me.....	a, b, d.....	1,408.02	Jacksonville, Fla.....	a, b, c, d, e, h.....	10,666.36
Cedar Rapids, Iowa.....	a, b, c, d, e.....	26,693.27	Jacksonville, Ill.....	a, b, c, d.....	3,503.00
Chattanooga, Tenn.....	a, b, c, d, g.....	8,396.15	Jersey City, N. J.....	a, b, c, d, e, f, g.....	59,773.42
Cheyenne, Wyo.....	a, b, c, d.....	3,130.00	Kansas City, Kans.....	a, b, c, d, e, g, i.....	301,557.09
Chicago, Ill.....	a, b, c, d, e, f, g, h, i.....	611,011.47	Keene, N. H.....	b, c.....	2,020.00
Chipley, Fla.....	a, b, c, d.....	2,536.87	La Fayette, Ind.....	a, b, c, d.....	4,703.48
Cincinnati, Ohio.....	a, b, c, d, e, g.....	89,962.02	Leavenworth, Kans.....	a, b, c, d.....	2,259.00
Cleveland, Ohio.....	a, b, c, d, f, h.....	83,746.00	Lewiston, Idaho.....	a, b, c, d.....	5,481.25
Columbus, Ohio.....	a, b, c, d.....	6,240.94	Logansport, Ind.....	a, b, c, d, e, f, g, h.....	4,385.27
Cumberland, Md.....	c, d, g.....	1,440.00	Los Angeles, Calif.....	a, b, c, d, e, f, g, h.....	36,364.55

<sup>1</sup> The letters in this column have the following meaning: a, ante-mortem inspection of animals for slaughter; b, post-mortem inspection of animals; c, supervision of the preparation and distribution of meats; d, field overhead and miscellaneous inspection; e, inspection of meats for the Navy Department; f, inspection at public markets; g, supervision of operations conducted under certificates of exemption; h, examination of imported meats and meat food products; and i, laboratory inspection.

## Distribution of meat-inspection work and expenditures by stations—Continued.

Station.	Nature of work.	Amount.	Station.	Nature of work.	Amount.
Louisville, Ky.	a, b, c, d, f, g.	\$20,634.25	Quincy, Ill.	c, d, f.	\$228.70
Macon, Ga.	a, b, c.	2,452.49	Reading, Pa.	a, b, c, d, g.	4,404.00
Madison, Ind.	a, b, c, d.	2,055.08	Reno, Nev.	a, b, c, d, f.	4,834.55
Madison, Wis.	a, b, c, d.	2,458.84	Richmond, Ind.	a, b, c, d.	1,880.00
Manchester, N. H.	c, d, f.	1,504.32	Richmond, Va.	a, b, c, d, e, f, g.	13,517.30
Mason City, Iowa.	a, b, c, d.	15,067.05	St. Louis, Mo.	a, b, c, d, e, f, g, h.	75,676.56
Memphis, Tenn.	a, b, c, d, g.	7,109.78	Salt Lake City, Utah.	c, d, h.	7,416.07
Menominee, Mich.	a, b, c, d, g.	1,508.07	San Diego, Calif.	a, b, c, d, e.	3,994.47
Milwaukee, Wis.	a, b, c, d, e, f, g, h.	75,352.81	San Francisco, Calif.	a, b, c, d, e, f, g, h, i.	36,030.80
Morristown, Tenn.	a, b, c, d, g.	3,449.59	Seattle, Wash.	a, b, c, d, e, f, g, h.	37,339.96
Moscow, Idaho.	a, b, c, d, g.	1,828.55	Shreveport, La.	c d.	2,330.32
Moultrie, Ga.	a, b, c, d.	8,221.16	Sioux City, Iowa.	a, b, c, d, e, g.	83,727.84
Nashville, Tenn.	a, b, c, d, g.	2,515.61	Sioux Falls, S. Dak.	a, b, c, d.	25,875.36
Natchez, Miss.	a, b, c, d, g.	8,000.61	South St. Joseph, Mo.	a, b, c, d, e, f.	114,313.70
National Stock Yards, Ill.	a, b, c, d, e, h, i.	129,680.25	South St. Paul, Minn.	a, b, c, d, g.	59,788.79
Nebraska City, Nebr.	a, b, c, d.	9,327.66	Spokane, Wash.	a, b, c, d, g.	21,175.08
Newark, N. J.	a, b, c, d, f, g, h.	39,200.34	Springfield, Mass.	c, d, f, g, h.	13,217.99
New Haven, Conn.	a, b, c, d, e, f.	8,195.13	Stamford, Conn.	c, d.	1,440.00
New Orleans, La.	a, b, c, d, e, f, g.	21,141.74	Tacoma, Wash.	a, b, c, d, h.	10,342.30
New York, N. Y.	a, b, c, d, e, f, g, h, i.	190,872.49	Terre Haute, Ind.	a, b, c, d.	5,519.98
Norfolk, Va.	c, d, e, f, g.	1,817.45	Texarkana, Tex.	c, d.	1,440.00
North Fork, W. Va.	c, d.	570.01	Tifton, Ga.	a, b, c, d.	4,465.05
Ogden, Utah.	a, b, c, d, g.	7,575.86	Toledo, Ohio.	a, b, c, d, g.	7,836.34
Oklahoma, Okla.	a, b, c, d.	48,378.37	Topeka, Kans.	a, b, c, d.	8,613.53
Omaha, Nebr.	a, b, c, d, e, f, g, h, i.	194,161.38	Union City, Tenn.	a, b, c.	2,040.00
Ottawa, Ill.	c.	1,648.53	Walla Walla, Wash.	a, b, c, d.	3,536.57
Ottumwa, Iowa.	a, b, c, d, g.	27,973.81	Washington, D. C.	a, b, c, d, e, f, g.	137,985.45
Paterson, N. J.	a, b, c, d, e, g.	13,341.76	Waterloo, Iowa.	a, b, c, d, g.	11,426.56
Peoria, Ill.	a, b, c, d.	9,932.42	Watertown, S. Dak.	a, b, c, d.	2,873.51
Philadelphia, Pa.	a, b, c, d, e, f, g, h.	89,082.38	Wausau, Wis.	a, b, c, d.	2,040.00
Pittsburg, Kans.	a, b, c, d.	2,219.97	Wheeling, W. Va.	a, b, c, d, f.	19,449.16
Pittsburgh, Pa.	a, b, c, d, g, h.	31,039.76	Wichita, Kans.	a, b, c, d, e.	41,776.00
Portland, Me.	a, b, c, d, f, g, h.	6,808.66	Wilkes-Barre, Pa.	c, d.	1,445.16
Portland, Oreg.	a, b, c, d, f, g, h.	22,757.87	Wilmington, Del.	a, b, c, d, f, g.	4,412.37
Pottsville, Pa.	a, b, c, d.	6,324.97	Wilmington, N. C.	a, b, c, d.	4,218.55
Providence, R. I.	a, b, c, d, e, f, g, h.	25,130.32	Winona, Minn.	a, b, c, d, g.	4,760.00
Pueblo, Colo.	a, b, c, d.	5,682.44	Worcester, Mass.	a, b, c, d, e, f, g.	10,773.07

## ERADICATION OF FOOT-AND-MOUTH DISEASE.

Total expenditures as above.	\$47,878.17
Unexpended balance (estimated).	513,332.50

Total allotment.	561,210.67
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Investigations of suspected outbreaks of foot-and-mouth disease reported from various parts of the country, and maintenance of a careful inspection of all receipts of cattle, sheep, and swine for symptoms of this disease at the large markets.

## LIVE STOCK PRODUCTION IN CANE SUGAR AND COTTON DISTRICTS.

Total expenditures as above.	\$59,027.43
Outstanding liabilities Aug. 31 (estimated).	967.95
Unexpended balance (estimated).	555.74

Total allotment.	60,551.12
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Distributed among the several subactivities as follows:

Experimental work: Determination of the commercial possibilities of producing live stock in cane sugar and cotton districts of the South, including studies of the best and most economical methods of crop production and of feeding and handling live stock under the conditions obtaining in this region

Extension work: Dissemination of information relative to the best methods to be used in producing live stock in the cane sugar and cotton districts of the South; the work being confined at present principally to the State of Louisiana and including demonstrations in the production of beef cattle, hogs, horses, mules, and poultry, in dairying, and in forage crop production.

\$10,118.29
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Total.	59,995.38
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## DAIRYING AND LIVE STOCK PRODUCTION IN SEMIARID AND IRRIGATED DISTRICTS.

Total expenditures as above.	28,250.57
Outstanding liabilities Aug. 31 (estimated).	6,147.86
Unexpended balance (estimated).	5,825.90

Total allotment.	40,224.33
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Investigations of the problems encountered in establishing the industries of dairying and meat production in the semiarid and irrigated sections of the western United States, particularly with reference to the effective utilization of the forage and grain crops produced in those regions.

34,398.43
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## BUREAU OF PLANT INDUSTRY.

Classification of expenditures for the fiscal year ended June 30, 1919.

Project.	Salaries.			Travel, station, and field expenses.	Equipment.			
	Statutory.	Lump fund.			Apparatus, instruments, laboratory.	Furniture.	Miscella- neous.	
		In Wash- ington.	Out of Washington.					
1 Administration.....	\$84,493.59	\$21,837.16	\$171.75	\$106,502.50	\$4,017.13	\$204.44	\$1,099.23	
2 Laboratory of plant pathology.....	12,295.14	38,954.65	3,622.15	54,871.94	5,431.87	2,737.85	658.64	
3 Fruit disease investigations.....	3,728.18	44,457.33	5,853.59	54,039.10	7,350.90	1,520.92	33.65	
4 Citrus canker investigation and eradication.....	1,315.84	5,819.05	172,217.92	179,352.81	16,208.79	-----	3,565.51	
5 Investigations in forest pa- thology.....	6,148.40	20,963.98	38,125.91	65,238.29	14,658.75	702.26	120.60	
6 Control of white pine blister rust.....	2,708.32	17,250.46	93,378.86	113,337.64	44,016.43	-----	947.17	
7 Cotton, truck, and forage-crop disease investigations.....	8,953.28	35,063.51	23,502.95	67,519.74	11,246.17	707.50	271.96	
8 Crop physiology and breeding investigations.....	7,596.94	15,731.51	13,560.35	36,888.80	5,680.07	49.26	282.00	
9 Soil bacteriology and plant nu- trition investigations.....	6,080.99	20,806.12	2,750.00	29,637.11	973.62	878.75	440.65	
10 Soil fertility investigations.....	3,393.49	26,953.46	161.68	30,508.63	3,172.09	704.43	11.87	
11 Crop acclimation and fiber plant investigations.....	5,245.91	27,817.48	22,685.89	55,749.28	12,996.69	199.65	227.16	
12 Drug plant, poisonous plant, physiological, and fermenta- tion investigations.....	8,755.17	36,567.84	6,072.48	51,395.49	3,909.71	1,664.88	292.51	
13 Agricultural technology inves- tigations.....	5,297.34	19,156.82	-----	24,454.16	39.66	801.51	334.19	
14 Biophysical investigations.....	2,595.83	12,404.00	9,512.86	24,512.69	2,276.65	364.10	1,340.57	
15 Seed testing laboratories.....	11,377.33	18,932.67	7,282.76	38,138.76	5,201.89	1,742.85	325.08	
16 Cereal investigations.....	14,074.02	75,015.24	163,685.71	252,774.97	107,119.65	1,634.39	517.92	
17 Tobacco investigations.....	4,230.16	4',453.75	19,187.83	27,871.74	3,021.62	196.39	711.16	
18 Paper plant investigations.....	812.50	3,142.50	245.34	4,200.34	2,287.38	175.00	2,819.42	
19 Alkali and drought resistant plant investigations.....	1,480.17	13,766.94	5,272.48	20,519.59	1,734.41	-----	662.80	
20 Sugar plant investigations.....	3,952.51	10,367.50	27,532.23	41,852.24	11,380.66	1,058.35	330.57	
21 Investigations in economic and systematic botany.....	10,554.79	18,867.41	29,422.20	1,634.20	12.53	31.75	882.00	
22 Dry-land agriculture investiga- tions.....	4,558.16	9,686.67	89,648.90	103,893.73	9,508.64	110.77	551.32	
23 Western irrigation agriculture investigations.....	8,710.63	4,480.00	45,333.14	58,523.77	2,769.00	-----	185.35	
24 Pomological investigations.....	20,748.98	39,632.45	8,105.58	68,487.01	11,263.60	1,066.32	334.62	
25 Horticultural investigations.....	10,330.38	28,958.06	5,338.51	44,626.95	4,265.53	98.63	2,054.97	
26 Arlington farm.....	18,193.14	12,003.43	-----	30,196.57	8.36	-----	3,063.15	
27 Experimental gardens and grounds.....	50,053.00	3',474.70	-----	53,527.70	-----	-----	4,049.38	
28 Foreign seed and plant intro- duction.....	34,838.86	38,384.91	28,750.58	101,974.35	5,745.58	-----	122.61	
29 Forage crop investigations.....	7,997.73	30,991.34	28,379.59	67,368.66	11,109.90	-----	426.79	
30 Seed distribution.....	25,762.66	25,885.85	37.42	51,685.93	1,892.47	-----	104.52	
31 Demonstrations on reclamation projects.....	-----	4,024.62	24,921.81	28,946.43	3,875.36	-----	53.10	
Total.....	386,283.44	685,851.41	845,884.27	1,918,019.12	314,796.78	16,532.15	7,945.76	
							96,265.39	

<sup>1</sup> Includes increased compensation, amounting to \$67,839.65, provided by the legislative, executive, and judicial appropriation act for the fiscal year 1919.

## PROJECT STATEMENTS.

## ADMINISTRATION.

Total expenditures as above.....	\$117,179.50
Outstanding liabilities, Aug. 31 (estimated).....	821.11
Unexpended balance (estimated).....	1,200.57
Total allotment.....	119,201.18

Administration of the business affairs of the bureau and general direction of its investigational activities; includes the offices of chief and associate chief of bureau, the office of the assistant to the chief, editorial office, office of records, library, central files section, and supply section..... 118,000.61

## LABORATORY OF PLANT PATHOLOGY.

Total expenditures as above.....	\$69,533.43
Outstanding liabilities, Aug. 31 (estimated).....	6,087.81
Unexpended balance (estimated).....	4,010.56
Total allotment.....	79,631.80

Distributed among the several subactivities as follows:

Central laboratory of plant pathology: Study and identification of fungi and bacteria parasitic on plants, with a view to the discovery of remedies and methods of preventing diseases caused by them. Diseased material is received from all parts of the United States for examination and advice given as to methods of treatment..... \$45,507.54

Pathological collections: Maintenance of an herbarium of pathogenic specimens, also mycological and host indexes of new species and lists of plants which they attack, and a mycological exchange with American and foreign scientists; and the identification of pathological material received by correspondence or otherwise..... 12,722.35

Plant disease survey: Recording the geographical distribution and prevalence of plant diseases and the losses occasioned by them; collection of data on plant resistance and susceptibility to diseases, the effect of various control methods, and other similar

## BUREAU OF PLANT INDUSTRY.

Classification of expenditures for the fiscal year ended June 30, 1919.

Stationery.	Rent.	Telegraph, telephone, and postage.	Freight, express and drayage.	Furnishing of heat, light, power, electricity.	Forage purchased in bulk.	Fuel.	Specified items not otherwise classified.	Mis cellane ous supplies, services, etc.	Total.
\$1,841.96		\$706.54	\$16.82			\$210.29	\$301.90	\$677.39	\$117,179.50
1,633.31	\$172.00	24.50	21.48				70.61	1,611.69	69,533.43
694.22	1,505.85	145.53	338.27	\$169.64		192.36	34.25	3,816.47	73,406.67
424.07	200.00	101.70	69.93					301.95	197,454.41
660.03	279.50	386.80	1,301.54	60.51	\$162.56	21.33	113.98	1,694.29	87,313.35
2,402.30		96.48	119.58			35.00	43.11	212.13	164,358.87
1,087.99	1,733.06	113.96	295.80	95.92		89.06	72.01	6,278.36	91,805.35
1,330.91	1,465.50	145.28	668.19	329.17	50.00	369.25		2,291.55	53,012.17
596.44		28.96	42.19			15.00	35.42	4,303.73	38,926.56
134.41		30.35	335.53				4.87	3,635.04	39,086.07
1,179.35	495.94	130.88	978.01			332.44	6,078.09	3,350.74	88,505.03
492.02	311.00	172.82	152.30	12.82	127.30	11.05	22.57	2,458.09	62,580.75
379.41		12.76	29.06				15.25	350.68	28,938.82
96.21	1,005.00	14.39	171.88	236.58		112.27	49.47	444.96	30,768.64
417.68	495.00	283.31	433.89				26.58	1,599.48	48,869.18
15,157.44	126.85	869.05	1,391.98		758.28	529.85	54.38	16,092.38	402,519.91
237.87	50.00	19.63	60.73			38.00	3.20	2,402.31	34,612.65
46.83		.76	23.58				23.33	3,194.19	12,770.83
215.22		97.15	47.97	126.50		46.94	11.71	581.02	24,043.31
913.30	1,749.81	281.18	715.34			47.55	40.70	3,309.16	63,136.78
324.05	439.32	14.94	9.53					1,164.12	33,934.64
462.22	197.10	391.62	1,259.90	701.33	2,825.78	3,774.52	1,476.09	4,412.75	145,259.88
276.27		242.39	338.55	156.89	562.48	905.29	1,043.24	3,440.25	77,363.52
1,327.56	388.00	147.43	681.62		16.30	427.21	94.00	13,087.46	100,934.47
434.49	294.57	119.61	765.31	76.65		196.10	9.32	11,690.03	64,632.16
218.91		114.57	639.63	1,254.88	1,159.44	1,415.58	167.61	1,016.57	39,255.27
52.22		4.95	12.19	490.00		576.23	37.74	3,342.30	62,092.71
2,342.04	122.17	642.64	981.64	498.94	2,040.11	2,006.70	247.29	1,106.93	125,251.58
251.85	836.68	55.51	162.99			15.92	65.98	6,171.23	87,167.93
1,152.66		396.73	5,297.59	810.42		639.40	56.25	235,568.76	299,518.81
473.38	1,522.55	268.44	51.44			1,095.81	18.71	920.78	40,017.89
37,256.62	13,389.90	6,060.86	17,414.46	5,020.25	7,702.25	13,103.15	<sup>2</sup> 10,217.66	340,526.79	2,804,251.14

<sup>2</sup> Mechanics', engineers', and electricians' supplies, \$1,491.10; cleaning and toilet supplies, \$767.99; structures and parts and nonstructural improvements to land, \$7,958.57.

information helpful to pathologists and agriculturists; and maintenance of living cultures which may be of use to pathologists, quarantine and inspection officers, and others engaged in pathological work. \$17,391.35

Total allotment..... 79,958.84

## FRUIT DISEASE INVESTIGATIONS.

Total expenditures as above..... \$73,406.67  
Outstanding liabilities, Aug. 31 (estimated)..... 5,679.64  
Unexpended balance (estimated)..... 872.53

Total..... 75,621.24

Distributed among the several subactivities as follows:  
Supervision: General direction of field experiments and demonstrations, preparation of publications, miscellaneous laboratory experiments, and clerical routine..... 6,514.94

General orchard diseases: Laboratory studies and field tests and demonstrations to develop methods of eradication or control of pear blight, little peach, peach yellows, crown gall, apple canker and black heart, root rot, and other diseases of orchard fruits; and a special study of spraying materials and apparatus.....

Grape and small-fruit diseases: Research work on diseases of the grape and cranberry and other small fruits, including a study of the life history of the anthracnoses and other fungi, the various pathological factors which produce diseases, and the most effective means of combating them.....

Citrus and subtropical fruit diseases: Investigation of fungous and other diseases of the orange, lemon, mango, pineapple, avocado, pomegranate, etc., including attention to the fungous decays of these fruits in storage, in transit, and on the market.....

\$9,604.82

14,214.91

16,540.06

Orchard spraying experiments: Study of the effects of different spraying remedies, such as the russetting of apples by Bordeaux mixture, peach foliage injury by spraying with fungicides, etc.; and tests and demonstrations of spraying methods in various sections where, for any cause, failure has occurred.....	\$6, 273. 99	CONTROL OF WHITE PINE BLISTER RUST.
Fruit rots and spots: Study of the causes and methods of prevention of these diseases while the fruit is in the orchard, in transit, in storage, or on the market.....	12, 210. 37	Total expenditures as above..... \$164, 358. 87 Outstanding liabilities, Aug. 31 (estimated)..... 52, 966. 42 Unexpended balance (estimated)..... 9, 097. 36
Physiological fruit diseases: Study of diseases resulting from bad soil, malnutrition, frost, and other environmental and physiological conditions.....	6, 079. 95	Total allotment..... 226, 422. 65
Pecan diseases: Study of rosette and other diseases of the pecan, in the field and in the laboratory, with a view to the development of control measures.....	7, 647. 27	Special experiments and demonstrations in the application of methods necessary to control the white pine blister rust, in co-operation with State, county, and local authorities..... 217, 325. 29
Total.....	79, 086. 31	COTTON, TRUCK, AND FORAGE CROP DISEASE INVESTIGATIONS.
CITRUS CANKER INVESTIGATION AND ERADICATION.		Total expenditures as above..... \$91, 805. 35 Outstanding liabilities, Aug. 31 (estimated)..... 5, 246. 46 Unexpended balance (estimated)..... 676. 85
Total expenditures as above.....	\$197, 454. 41	Total allotment..... 97, 728. 66
Outstanding liabilities, Aug. 31 (estimated).....	23, 710. 85	Distributed among the several subactivities as follows:
Unexpended balance (estimated).....	38, 264. 11	Supervision: General direction of field investigations, miscellaneous laboratory experiments, and clerical routine..... 17, 191. 53
Total allotment.....	259, 309. 37	Cotton diseases: General study of cotton diseases and their control and the breeding of wilt resistant varieties of cotton adapted to boll weevil conditions in the eastern part of the cotton belt..... 2, 793. 05
Study of the cause, nature, means of communication, and methods of control of citrus canker; and the application of measures for its eradication and control, in co-operation with State authorities and growers.....	221, 165. 26	Truck crop diseases: Investigations of the causes and control of miscellaneous diseases of truck crops and the breeding of disease resistant varieties..... 71, 585. 13
INVESTIGATIONS IN FOREST PATHOLOGY.		Forage crop diseases: Study of diseases of forage crops, especially alfalfa, clover, and cowpeas; development of control measures, and breeding of resistant varieties..... 2, 977. 05
Total expenditures as above.....	\$87, 313. 35	Pathological extension work: Specific demonstrations of methods for the control of cotton truck, and forage crop diseases, in cooperation with the States Relations Service, extension divisions of the State agricultural colleges, and others, in order to secure the general adoption by farmers and growers of the most improved methods of disease control and eradication..... 2, 505. 05
Outstanding liabilities, Aug. 31 (estimated).....	8, 159. 35	Total..... 97, 051. 81
Unexpended balance (estimated).....	2, 359. 85	CROP PHYSIOLOGY AND BREEDING INVESTIGATIONS.
Total allotment.....	97, 832. 55	Total expenditures as above..... \$53, 012. 17 Outstanding liabilities, Aug. 31 (estimated)..... 2, 355. 10 Unexpended balance (estimated)..... 1, 361. 34
Distributed among the several subactivities as follows:		Total allotment..... 56, 728. 61
Supervision: Planning and supervising field investigations, miscellaneous laboratory experiments in connection with the pathological studies, and general office details.....	6, 044. 80	Distributed among the several subactivities as follows:
Diseases of shade and ornamental trees and shrubs: Experiments on the nature and control of these diseases, in cooperation with States, cities, societies, institutions, and private agencies.....	9, 966. 22	Supervision: General direction of field investigations, miscellaneous laboratory experiments, and clerical routine..... 4, 496. 16
Pathological problems in wood preservation: The devising of better methods of timber preservation by the study of all pathological and mycological aspects of the rotting and staining of structural timber.....	19, 223. 78	Indian cooperation: Breeding and testing of crops which may be grown profitably by the Indians themselves or for which Indian labor may be utilized..... 11, 110. 00
Forest tree diseases: Field and laboratory studies of the causes and progress of diseases affecting forest trees and shrubs, especially forest nursery stock, including the control of such diseases as interfere with the commercial production of forest tree seedlings and with successful reforestation by planting.....	35, 962. 63	Date culture: Investigation of the life history and physiological requirements of the date palm in order to establish date culture on a commercial basis in the United States..... 14, 450. 00
Imported and epidemic tree diseases: Study of the control of miscellaneous diseases, including white pine blister rust, the chestnut bark disease, etc., and the dissemination of information, by demonstrations, publications, and correspondence, relative to the work.....	24, 275. 27	Fig culture: Development of economical and practical methods for the caprification of Smyrna figs in order to establish their commercial culture in this country; and breeding new varieties of figs and caprifigs adapted to American conditions..... 4, 571. 67
Total.....	95, 472. 70	

Citrus fruit breeding: Development by hybridization and selection of new and hardy types of citrus fruits with a view to extend the area of their growth in the United States.....	\$16,009.44	Distributed among the several subactivities as follows:
Dry land arboriculture: Experimental testing of deep rooted and drought resistant trees and shrubs better suited for culture in the dry land regions of the United States than the shallow rooted annual crops now grown.....	2,040.00	Supervision: General direction of field investigations, miscellaneous laboratory experiments, and clerical routine.....
Miscellaneous laboratory and field work: Includes investigations of pistache and truffle culture, electroculture, and the application of stimulation treatments to seeds and plants.....	2,690.00	Acclimatization, adaptation, and breeding of cotton: Investigation of weevil resistant and drought resistant types of cotton, and study of the factors of local adjustment; breeding and maintenance of cotton varieties, and cottonseed interbreeding.....
Total.....	55,367.27	Acclimatization, adaptation, and extension of corn: This project especially concerns tropical and subtropical varieties of corn and the extension of the culture of corn into regions where it is either not being grown or is a precarious crop.....
<b>SOIL BACTERIOLOGY AND PLANT NUTRITION INVESTIGATIONS.</b>		Acclimatization and adaptation of tropical plants: Study of tropical fruits and vegetables in their native habitat, including coffee, cacao, rubber and rubber substitutes, economic palms, and bananas, and their adjustment to conditions in the United States and its insular possessions.....
Total expenditures as above.....	\$38,926.56	Fiber plant investigations: Investigations of the possibilities of commercial culture of sisal, henequen, phormium (New Zealand flax) and other hard-fiber plants in the United States and its insular possessions; extension of flax and hemp industries in this country, both for seed and fiber; dissemination of information relative to the use of plant fibers for textiles, brushes, stuffing, and coarse weaving; and identification of fibers and fiber plants.....
Outstanding liabilities, Aug. 31 (estimated).....	1,913.38	Total.....
Unexpended balance (estimated).....	4,864.04	23,936.52
Total allotment.....	45,703.98	99,234.43
Distributed among the several subactivities as follows:		
Supervision: General direction of the investigations, office routine, and miscellaneous laboratory experiments.....	5,910.84	<b>DRUG PLANT, POISONOUS PLANT, PHYSIOLOGICAL, AND FERMENTATION INVESTIGATIONS.</b>
Distribution and study of legume bacteria: Study of the life history of the nodule-forming bacteria, and their distribution in pure cultures for the inoculation of leguminous crops.....	12,101.16	Total expenditures as above.....
Soil bacteriology: Investigation of the organisms causing decomposition in organic material in soils; determination of the relationships of the organisms which fix atmospheric nitrogen and those which cause nitrification in soils; study of the relation of soil bacteria to the growth of crop plants.....	13,410.83	Outstanding liabilities, Aug. 31 (estimated).....
Plant nutrition investigations: Study of methods for determining the fertilizer requirements of crops and the functions of the different elements of plant food in their relation to the nutrition and composition of crop plants.....	9,417.11	Unexpended balance (estimated).....
Total.....	40,839.94	Total allotment.....
<b>SOIL FERTILITY INVESTIGATIONS.</b>		Distributed among the several subactivities as follows:
Total expenditures as above.....	\$39,086.07	Supervision: General direction of field investigations, miscellaneous laboratory experiments, and clerical routine.....
Outstanding liabilities, Aug. 31 (estimated).....	594.18	Drug and related plants and their products: Study of the culture, handling, and improvement of plants yielding drugs, spices, oils, and related products and by-products, with a view to add profitable new crops and products to American plant industries.....
Unexpended balance (estimated).....	593.21	Poisonous plant investigations: Study of the geographical distribution and localization of poisonous plants, with special reference to those areas in which, owing to their abundance or concentration, they are believed to be especially harmful; study of poisonous plants with reference to the nature and pharmacological action of their constituents, methods of eradication, etc.....
Total allotment.....	40,273.46	Physiological and fermentation investigations: Technical physiological studies of crop plants and their products, conducted, in various instances, in cooperation with pathological and crop investigations of other offices of the bureau.....
Study of the origin of organic constituents in soils; the cause of infertility and means of improvement and upbuilding of soils; and the various factors as influenced by fertilizers and soil amendments.....	39,680.25	Total.....
<b>CROP ACCLIMATIZATION AND FIBER PLANT INVESTIGATIONS.</b>		2,965.82
Total expenditures as above.....	\$88,505.03	26,309.15
Outstanding liabilities, Aug. 31 (estimated).....	10,729.40	66,742.61
Unexpended balance (estimated).....	14,688.30	
Total allotment.....	113,922.73	

## AGRICULTURAL TECHNOLOGY.

Total expenditures as above.....	\$28,938.82
Outstanding liabilities, Aug. 31 (estimated).....	1,574.13
Unexpended balance (estimated).....	268.54
<b>Total allotment.....</b>	<b>30,781.49</b>

Investigations of free-living and plant-infesting nematodes, improvement of agricultural apparatus, development of apparatus for solar and artificial projection in connection with illustrative work, and various other technological problems..... 30,512.95

## BIOPHYSICAL INVESTIGATIONS.

Total expenditures as above.....	\$30,768.64
Outstanding liabilities, Aug. 31 (estimated).....	3,756.17
Unexpended balance (estimated).....	1,220.02
<b>Total allotment.....</b>	<b>35,744.83</b>

Distributed among the several subactivities as follows:  
Supervision: General direction of biophysical investigations, office routine, and construction and repair of apparatus..... 8,333.26  
Cooperative biophysical investigations: Study and comparison of environmental conditions under which crops can be produced in the semiarid regions; investigation of the most efficient methods of conserving moisture and plant nutrients in the soil, and other related problems..... 14,155.22  
Special biophysical investigations: Investigation of methods of correcting unfavorable nutrient solutions in the soil which lead to malnutrition of plants; and conduct of miscellaneous biophysical experiments, in cooperation with other offices of the bureau..... 12,036.33  
Total..... 34,524.81

## SEED TESTING LABORATORIES.

Total expenditures as above.....	\$48,869.18
Outstanding liabilities, Aug. 31 (estimated).....	297.45
Unexpended balance (estimated).....	360.70
<b>Total allotment.....</b>	<b>49,527.33</b>

Distributed among the several subactivities as follows:  
Supervision: General supervisory and clerical work in connection with the various activities of the office..... 10,094.88  
Seed testing: Making tests at laboratories in and out of Washington for germination and mechanical purity of samples of seeds submitted by farmers and seedsmen..... 19,020.00  
Seed purity and vitality investigations: Tests to determine conditions required for rapid and complete germination and greater vitality and to distinguish the characters of closely allied economic seeds, in order to disseminate information as to the identity of various classes of commercial seeds..... 7,635.00  
Adulterated seed investigations: Testing commercial seeds for proof of adulteration, in accordance with law..... 7,229.30  
Enforcement of the seed importation act: Enforcement of the act of Aug. 24, 1912, prohibiting the importation of seeds adulterated or unfit for seeding purposes as defined in the act..... 5,187.45  
Total..... 49,166.63

## CEREAL INVESTIGATIONS.

Total expenditures as above.....	\$402,519.91
Outstanding liabilities, Aug. 31 (estimated).....	27,789.58
Unexpected balance (estimated).....	20,566.52
<b>Total allotment.....</b>	<b>450,876.01</b>

Distributed among the several subactivities as follows:  
Supervision: General direction of field investigations, miscellaneous laboratory experiments, and clerical routine..... 14,940.35  
Production and improvement of cereals, flax, and broom corn and their products: Determination of varietal adaptations and the factors influencing them; improvement of these crops through selection and hybridization of varieties and races; study and improvement of production methods; study of inheritance in the wheat plant; identification, description, and classification of varieties..... 89,941.00

Cereal and flax tillage and rotation investigations: Improvement in yield and quality of cereals and flax through better cultural methods and rotations and obviation of the necessity for frequent summer fallowing on certain dry lands of the West..... 2,700.00

Cereal and flax diseases: Laboratory and field experiments and studies of the life history of rusts, including black and stripe rust, and destruction of vegetation from which such rust spores originate; investigations of corn root and stalk diseases, smuts, scab, and other diseases of grain and flax, and of methods for their control; and breeding of disease resistant varieties..... 281,750.27

Corn improvement and production: Laboratory and field experiments in the production and improvement of corn; study of the effects on corn of heredity and environment; production of improved strains for the different geographical sections of the United States; and tests and demonstrations of the best practical methods of seed corn selection, fumigation, drying, and preservation..... 40,977.87

Total..... 430,309.49

## TOBACCO INVESTIGATIONS.

Total expenditures as above.....	\$34,612.65
Outstanding liabilities, Aug. 31 (estimated).....	1,583.29
Unexpended balance (estimated).....	520.22
<b>Total allotment.....</b>	<b>36,716.16</b>

Distributed among the several subactivities as follows:  
Supervision: General direction of tobacco investigations in and out of Washington, preparation of publications, laboratory experiments, and various details of clerical and scientific work..... 7,349.14  
New England cigar-wrapper tobacco investigations: Study of improved methods of breeding, growing, curing, and handling cigar-wrapper tobacco..... 3,153.56  
Maryland export tobacco investigations: Study of improved methods of growing, curing, and handling the crop, by means of breeding and selection, fertilization, and systems of rotation..... 1,749.00

Burley tobacco investigations: Development and tests of pure strains of standard Burley varieties, determination of the fertilizer requirements and best systems of crop rotation for Burley tobacco, and development of better cultural and curing methods.	\$2,342.17	cator in classifying land upon the basis of its crop-producing capabilities; and development, by introduction and breeding, of drought and alkali resistant varieties of pomegranates.....	\$15,358.90
Western fire-cured tobacco investigations: Study of the fertilizer requirements, systems of crop rotation, and best cultural methods for producing fire-cured tobacco.	1,854.00	Egyptian cotton breeding: Production of varieties of Egyptian cotton yielding fiber of superior quality and thoroughly adapted to growing under irrigation in the southwestern United States.....	5,365.22
New York binder and filler tobacco investigations: Development of improved types of tobacco by seed selection, the use of fertilizers, and the introduction of systems of crop rotation adapted to the culture of binder and filler leaf.....	1,932.44	Total.....	24,454.29
Sun-cured, fire-cured, and flue-cured tobacco investigations: Development of improved types of tobacco by the adoption of proper rotation systems, fertilization, and breeding and selection, including the breeding of disease-resistant varieties.....	8,112.26	SUGAR PLANT INVESTIGATIONS.	
Pennsylvania cigar-filler tobacco investigations: Experiments to improve the yield and quality of cigar-filler and binder leaf by breeding and selection, and the development of better methods of growing, curing, and handling the crop.....	2,939.90	Total expenditures as above.....	\$63,136.78
Wisconsin cigar-binder tobacco investigations: Field and laboratory studies of tobacco diseases, and experiments to ascertain the fertilizer and other requirements of the crop in this section.....	3,709.47	Outstanding liabilities, Aug. 31 (estimated) .....	3,658.90
Miscellaneous tobacco investigations: Study of the physiology, pathology, and chemistry of the tobacco plant in relation to improved methods of growing, curing, fermenting, and handling the crop. This work supplies the fundamentals for the practical work in improving methods of tobacco production.....	3,054.00	Unexpended balance (estimated) .....	1,971.75
Total.....	36,195.94	Total allotment.....	68,767.43
PAPER PLANT INVESTIGATIONS.		Distributed among the several subactivities as follows:	
Total expenditures as above.....	\$12,770.83	Supervision: General direction of field investigations, miscellaneous laboratory experiments, and clerical routine.....	7,407.50
Outstanding liabilities, Aug. 31 (estimated) .....	4,573.36	Sugar-beet investigations: Studies of diseases of sugar beets and the breeding of improved varieties; and investigation of the economic practices in crop production in sugar-beet areas.....	38,147.45
Unexpended balance (estimated) .....	348.31	Sugar-beet seed production: Development and improvement of American strains of sugar-beet seed, and establishment of a permanent sugar-beet seed industry in the United States.....	10,038.45
Total allotment.....	17,692.50	Sugar-cane and sorghum-sirup production: Investigations and demonstrations of methods for the production of cane and sorghum sirup, including the breeding, culture, and diseases of these crops, methods of manufacture, standardization, and marketing of sirup, and utilization of cane and sorghum by-products, with special reference to the farm production of sirup.....	11,202.28
Utilization of various wild and cultivated plants and crop wastes for paper making; study of the market conditions of these products; and breeding of plants that have paper-making value .....	17,344.19	Total.....	66,795.68
ALKALI AND DROUGHT RESISTANT PLANT INVESTIGATIONS.		INVESTIGATIONS IN ECONOMIC AND SYSTEMATIC BOTANY.	
Total expenditures as above.....	24,043.31	Total expenditures as above.....	\$33,934.64
Outstanding liabilities, Aug. 31 (estimated) .....	410.98	Outstanding liabilities, Aug. 31 (estimated) .....	28.01
Unexpended balance (estimated) .....	1,506.52	Unexpended balance (estimated) .....	130.91
Total allotment.....	25,960.81	Total allotment.....	34,093.56
Distributed among the severeral subactivities as follows:		Distributed among the several subactivities as follows:	
Supervision: General direction of field investigations, laboratory experiments, and office details.....	3,730.17	Supervision: General direction of investigational work and clerical routine.....	10,925.46
Breeding and physiology of alkali and drought resistant plants: Breeding of various crop plants suitable for cultivation under alkali and drought conditions; investigation of the native vegetation of arid regions with a view to its use as an indi-		Bibliographical work in the interest of botanical science: Maintenance of a card catalogue of botanical and horticultural works, including a list of scientific serials, for the purpose of improving bibliographical facilities for botanical workers.....	2,804.13
		Range investigations: Study of the life history of forage plants of the national ranges; experiments in pasturing and in both natural and artificial reseeding of destructively overgrazed and worn-out range lands.....	1,253.00
		Economic botany of native races: Utilization of valuable plant species in the western United States, Mexico, and South America, and collection of data regarding plants used by the American aborigines.....	5,034.94

Botany of the economic grasses: Collection and identification of economic grasses, both native plants and foreign introductions; preservation of authentic and correctly named specimens; and compilation of a manual of North American grasses.....	\$8, 261. 71	Fruit storage investigations: Study of the causes of deterioration and of means of improving the keeping and carrying quality of fruit by better methods of picking, handling, precooling, and proper refrigeration during transit, in storage, and at market terminals.....	\$11, 493. 18																																														
Systematic work in economic botany: Includes an economic monograph of the heather and blueberry families, with special reference to their utilization in the United States; identification and classification of forage plants, ornamental trees and shrubs in the American nursery trade, and miscellaneous plant material; and records of the origin and character of varieties of ornamental plants originating under cultivation.....	5, 683. 41	Viticultural investigations: Experiments in the propagation and culture of native and foreign varieties of grapes, development of better varieties, and methods of harvesting, handling, and utilizing the fruit.....	15, 588. 82																																														
Total.....	33, 962. 65	Fruit production investigations: Determination by field surveys and experiments of the most favorable cultural factors in the production of deciduous and subtropical fruits in the several recognized, as well as prospective, fruit regions of the United States; and investigations concerning the behavior of fruit varieties when grown under different climatic and other environmental conditions peculiar to these regions.....	22, 243. 26																																														
<b>DRY-LAND AGRICULTURE INVESTIGATIONS.</b>		Fruit improvement through breeding, selection, and domestication: A general study of the laws of inheritance and other principles of fruit breeding involved in the propagation and culture of hardy and disease-resistant varieties in the different fruit-producing regions of the country.....	11, 713. 37																																														
Total expenditures as above.....	\$145, 259. 88	Nut culture investigations: Determination of the range of adaptability of different nuts the relative value and merit of different varieties, and their cultural requirements, including methods of propagation; development of improved varieties; and discovery of uses for nut material now largely wasted.	8, 507. 00																																														
Outstanding liabilities, Aug. 31 (estimated).....	18, 155. 74	Investigations of systematic pomology: Assembling of general data regarding the origin and history of different fruit varieties in the United States, with special reference to old and little known varieties; identification and naming of varieties; preparation of illustrations, models, and descriptions, and keys for use in making identifications; and the verification of varieties, in order to secure a pure and stable nomenclature of the cultivated American fruits.....	13, 066. 41																																														
Unexpended balance (estimated).....	1, 323. 65	Fruit utilization: Investigation of the best and most practical methods of using the lower grades of fruit and surplus stock which can not be disposed of profitably in a fresh state.....	3, 932. 95																																														
Total allotment.....	<u>164, 739. 27</u>	Extension work in horticulture: Study of methods of pomological and horticultural extension work in the various States, and dissemination of information concerning the best methods and practices, in cooperation with the States Relations Service.....	1, 782. 76																																														
Distributed among the several subactivities as follows:		Total.....	102, 915. 35																																														
Supervision: Planning and direction of field investigations, and clerical routine incident to the work.....	18, 392. 95	<b>HORTICULTURAL INVESTIGATIONS.</b>																																															
Field investigations: Determination of the best methods of soil cultivation and crop rotation for the conservation of moisture and the maintenance of humus in the soil of the Great Plains area.....	145, 022. 67	Total.....	<u>163, 415. 62</u>	Total expenditures as above.....	\$64, 632. 16	Distributed among the several subactivities as follows:		Outstanding liabilities, Aug. 31 (estimated).....	5, 784. 20	Supervision: Planning and direction of field investigations and conducting routine clerical work.....	17, 306. 82	Unexpended balance (estimated).....	1, 155. 35	Field investigations: Study of agricultural problems connected with subduing new and reclaimed lands and the best methods of tillage, irrigation, etc., necessary for the utilization of these lands; and supervision of experimental work, in cooperation with other branches of the Bureau of Plant Industry and the Reclamation Service.....	63, 579. 47	Total allotment.....	<u>71, 571. 71</u>	Total.....	<u>80, 886. 29</u>	Distributed among the several subactivities as follows:		<b>POMOLOGICAL INVESTIGATIONS.</b>		Supervision: General direction of investigations and clerical routine.....	9, 488. 71	Total expenditures as above.....	\$100, 934. 47	Vegetable storage investigations: Determination of the factors which govern the successful handling, transportation, and storage of vegetables, with a view to reduce decay.....	1, 890. 00	Outstanding liabilities, Aug. 31 (estimated).....	1, 980. 78			Unexpended balance (estimated).....	4, 237. 91			Total allotment.....	<u>107, 153. 16</u>			Distributed among the several subactivities as follows:				Supervision: General direction of investigations and clerical routine.....	14, 587. 50		
Total.....	<u>163, 415. 62</u>	Total expenditures as above.....	\$64, 632. 16																																														
Distributed among the several subactivities as follows:		Outstanding liabilities, Aug. 31 (estimated).....	5, 784. 20																																														
Supervision: Planning and direction of field investigations and conducting routine clerical work.....	17, 306. 82	Unexpended balance (estimated).....	1, 155. 35																																														
Field investigations: Study of agricultural problems connected with subduing new and reclaimed lands and the best methods of tillage, irrigation, etc., necessary for the utilization of these lands; and supervision of experimental work, in cooperation with other branches of the Bureau of Plant Industry and the Reclamation Service.....	63, 579. 47	Total allotment.....	<u>71, 571. 71</u>																																														
Total.....	<u>80, 886. 29</u>	Distributed among the several subactivities as follows:																																															
<b>POMOLOGICAL INVESTIGATIONS.</b>		Supervision: General direction of investigations and clerical routine.....	9, 488. 71																																														
Total expenditures as above.....	\$100, 934. 47	Vegetable storage investigations: Determination of the factors which govern the successful handling, transportation, and storage of vegetables, with a view to reduce decay.....	1, 890. 00																																														
Outstanding liabilities, Aug. 31 (estimated).....	1, 980. 78																																																
Unexpended balance (estimated).....	4, 237. 91																																																
Total allotment.....	<u>107, 153. 16</u>																																																
Distributed among the several subactivities as follows:																																																	
Supervision: General direction of investigations and clerical routine.....	14, 587. 50																																																

Vegetable production: Surveys of truck-crop and market-gardening districts to determine the factors which limit crop production or cause crop deterioration; study of the best cultural methods, also of the value of organic soils with reference to their utility in the growing of vegetables; a comprehensive study of the peanut industry; and investigation of the commercial production of vegetable and flower seeds.....	\$11,512.00
Vegetable improvement through breeding, selection and domestication: Development of better strains and varieties; standardization of different varieties of vegetables with a view to secure uniformity in size, season, productiveness, etc.....	3,153.33
Irish potato investigations: A comprehensive study of the culture, handling, and utilization of the potato, including the development of disease resistant varieties.....	22,060.42
Investigations in systematic olericulture: Accumulation of data relating to the origin and history of varieties of vegetables, and establishment of a simple and stable nomenclature for the cultivated vegetables.....	100.00
Vegetable utilization: Investigations of the best, and most practical methods of using the lower grades of vegetables and surplus stock which can not be disposed of profitably in a fresh state.....	2,465.56
Landscape gardening and floriculture investigations: Study of the arrangement, effects, and uses of trees, shrubs, and plants on streets, parks, and lawns, and investigations of the efficiency of various systems of plant propagation.....	19,746.34
<b>Total.....</b>	<b>70,416.36</b>
ARLINGTON FARM.	
Total expenditures as above.....	\$39,255.27
Outstanding liabilities, Aug. 31 (estimated).....	1,122.10
Unexpended balance (estimated).....	707.10
<b>Total allotment.....</b>	<b>41,084.47</b>
EXPERIMENTAL GARDENS AND GROUNDS.	
Total expenditures as above.....	\$62,092.71
Outstanding liabilities, Aug. 31 (estimated).....	89.95
Unexpended balance (estimated).....	65.34
<b>Total allotment.....</b>	<b>62,248.00</b>
The care and upkeep of the department grounds and greenhouses, including the construction and repair of greenhouses; growing and care of tropical and miscellaneous plants under glass; improvement of grounds (including the planting of trees, shrubs, etc.); experimental work with greenhouse crops, forcing of vegetables, growing florists' crops, etc.; providing greenhouse facilities for pathological and physiological experiments of various offices of the bureau; and general hybridization work.....	62,182.66

FOREIGN SEED AND PLANT INTRODUCTION.	
Total expenditures as above.....	\$125,251.58
Outstanding liabilities, Aug. 31 (estimated).....	3,490.84
Unexpended balance (estimated).....	435.02
<b>Total allotment.....</b>	<b>129,177.44</b>
Distributed among the several subactivities as follows:	
General direction of plant introductions: Securing new and valuable seeds and plants from all parts of the world and distributing them for test among experimenters in this country; maintenance of a plant quarantine house; publishing inventories and bulletins of foreign introductions; recording all imported material, and other necessary clerical routine.....	55,904.63
Foreign explorations: This project covers the cost of sending out trained agricultural explorers to investigate agricultural methods and resources of foreign countries and search for seeds and plants that may be useful and profitable to American planters and to assist in the introduction and development of new plant industries.....	8,080.04
Plant introduction field investigations: Maintenance of plant introduction gardens at Chico, Calif., Miami and Brooksville, Fla., Rockville, Md., and Bellingham, Wash., for the purpose of testing and propagating new plant introductions and distributing them to suitable localities in this country.....	64,757.75
<b>Total.....</b>	<b>128,742.42</b>
FORAGE CROP INVESTIGATIONS.	
Total expenditures as above.....	\$87,167.93
Outstanding liabilities, Aug. 31 (estimated).....	4,238.95
Unexpended balance (estimated).....	518.66
<b>Total allotment.....</b>	<b>91,925.54</b>
Distributed among the several subactivities as follows:	
Supervision: General direction of field investigations and clerical routine.....	15,635.39
Forage crop production and improvement: Tests and experiments with alfalfas, clovers, grasses, and miscellaneous forage crops, in both arid and semiarid regions, with a view to the development of better varieties through breeding and selection, improvement of cultural methods, etc.; foreign introductions being tested in cooperation with the Office of Foreign Seed and Plant Introduction.....	68,467.14
Cactus investigations: Cooperative experiments in the propagation and culture of the various species of cacti, and study of their economic value both as forage crops and as human food.....	2,074.78
Weed investigations: Study of weeds to the end of securing their most satisfactory control by tillage or other methods.....	5,229.57
<b>Total.....</b>	<b>91,406.88</b>
SEED DISTRIBUTION.	
Total expenditures as above.....	\$299,518.81
Outstanding liabilities, Aug. 31 (estimated).....	19,108.48
Unexpended balance (estimated).....	8,759.33
<b>Total allotment.....</b>	<b>327,386.62</b>

Distributed among the several subactivities as follows:

Supervision: General direction of the purchase and distribution of seeds and plants, including routine office work.....

Congressional distribution: Purchase, transportation, handling, packing, assembling, and mailing of vegetable, flower, cotton, tobacco, and lawn grass seeds, Dutch bulbs, and miscellaneous seeds and plants for distribution; cleaning seed purchased for distribution and investigation of seed dis-

\$31,261.17

tribution methods; and commercial production of Dutch bulbs, with a view to establish the bulb industry on a commercial basis in the United States.....

Purchase and distribution of new and rare seeds: Dissemination of new and rare high-grade seeds of crops to sections where the data of the department indicate such crops to be of considerable promise.....

\$237,829.12

49,537.00

Total..... 318,627.29

## FOREST SERVICE.

Classification of expenditures for the fiscal year ended June 30, 1919.

Project.	Statutory.	Salaries.			Travel, station, and field expenses,	Equipment.			
		Lump fund.		Total.		Apparatus, instruments, laboratory.	Furniture.	Miscella- neous.	
		In Wash- ington.	Out of Washington.						
1 Washington office.....	\$258,370.61	\$168,440.32		\$426,810.93	\$36,986.45	\$2,638.48	\$4,591.18	\$25,724.26	
2 Headquarters, district 1.....	56,438.16		\$64,698.73	121,136.89	21,971.30			4,104.70	
3 Headquarters, district 2.....	52,126.91		62,061.38	114,188.29	18,392.21			7,263.72	
4 Headquarters, district 3.....	39,638.34		38,832.41	78,470.75	12,240.22			2,466.25	
5 Headquarters, district 4.....	43,845.86		56,417.82	100,263.68	15,801.22			6,894.73	
6 Headquarters, district 5.....	48,129.50		80,014.99	128,144.49	19,377.74			19,086.94	
7 Headquarters, district 6.....	49,517.72		94,007.70	143,525.42	11,827.33			10,775.00	
8 Headquarters, district 7.....	7,237.33	12,884.22		20,121.55	4,758.97				
9 Forest products laboratory.....	60,902.83		362,107.42	423,010.25	32,017.69			100,277.81	
10 Supply depot, Ogden, Utah.....	12,985.73		2,667.67	15,653.40	600.09	8,031.85	10,728.07	3,945.82	
11 Property auditor, Ogden, Utah.....	8,589.76		2,240.00	10,289.76	859.87				
12 Fremont experiment station.....	442.50		1,160.12	1,602.62	222.90			733.56	
13 Fort Valley experiment station.....	3,599.00		4,278.89	7,877.89	1,319.57			1,797.49	
14 Great Basin experiment station.....	660.42		6,000.96	6,661.38	746.13			955.78	
15 Wagon Wheel Gap experiment station.....			2,140.40	2,140.40	116.28			30.51	
16 Wind River experiment station.....	406.67		2,795.38	3,202.05	429.49			382.55	
17 Total (exclusive of national forests).....	642,891.34	181,324.54	779,423.87	1,603,639.75	177,668.09	10,670.33	15,319.25	184,439.12	
NATIONAL FORESTS.									
18 Absaroka.....	841,085	15,693.83		9,594.63	25,288.46	1,565.69		879.68	
19 Angeles.....	817,441	36,846.08		10,681.44	47,527.52	4,630.27		5,616.63	
20 Apache.....	1,182,179	13,482.05		5,623.73	19,105.78	2,185.75		2,229.75	
21 Arapaho.....	634,485	10,085.09		6,462.07	16,547.16	2,191.15		1,427.51	
22 Arkansas.....	627,149	14,870.22		15,220.19	30,090.41	4,763.65		2,754.55	
23 Ashley.....	981,045	10,834.67		1,171.69	12,006.36	1,090.27		984.88	
24 Battlement.....	646,915	10,856.34		1,527.87	12,384.21	1,414.15		937.45	
25 Beartoof.....	662,136	11,376.60		4,786.31	16,162.91	2,417.49		708.18	
26 Beaverhead.....	1,334,849	13,897.11		7,367.88	21,264.99	2,074.11		650.76	
27 Bighorn.....	1,122,277	15,076.36		8,348.52	23,424.88	2,013.29		1,306.38	
28 Bitterroot.....	1,047,289	15,936.50		16,201.91	32,138.41	1,594.82		1,759.01	
29 Blackfeet.....	902,695	8,399.30		18,915.55	27,224.85	2,079.05		1,795.52	
30 Black Hills.....	622,090	22,560.85		8,062.66	30,623.51	3,214.09		2,461.70	
31 Boise.....	1,058,941	14,817.05		13,972.10	28,789.15	1,956.11		4,019.11	
32 Bridger.....	712,709	10,831.33		3,257.74	14,089.07	803.05		1,171.44	
33 Cabinet.....	833,229	14,480.95		22,853.73	37,334.68	1,712.59		3,169.25	
34 Cache.....	761,931	17,410.05		3,378.55	20,788.60	1,492.13		976.40	
35 California.....	807,408	12,627.46		9,362.72	21,990.18	2,335.92		3,027.18	
36 Caribou.....	684,518	12,064.28		5,705.43	17,769.71	1,534.20		2,818.06	
37 Carson.....	860,974	16,408.30		4,542.65	20,950.95	1,631.95		3,723.32	
38 Cascade.....	1,020,695	7,988.32		19,182.23	27,170.55	1,862.14		2,191.10	
39 Challis.....	1,258,214	10,240.28		2,975.24	13,215.52	546.43		385.43	
40 Chelan.....	677,590	7,946.41		4,918.38	12,864.79	1,865.81		3,733.07	
41 Chugach.....	5,124,826	7,505.00		3,121.54	10,626.54	3,228.82		964.14	
42 Clearwater.....	785,062	8,411.42		153,137.53	161,548.95	2,767.00		19,104.81	
43 Cleveland.....	547,851	8,909.57		9,987.80	24,897.37	3,056.26		14,603.39	
44 Cochetopa.....	916,972	11,694.99		5,747.92	17,442.91	2,527.63		2,569.16	
45 Coconino.....	1,650,095	25,529.63		15,803.21	41,332.84	4,346.94		5,588.72	
46 Coeur d'Alene.....	662,592	13,525.49		82,084.64	95,610.13	5,406.71		10,380.18	
47 Colorado.....	850,240	15,402.79		5,990.18	21,392.97	3,159.06		2,570.86	
48 Columbia.....	785,389	7,579.09		64,241.92	71,821.01	2,313.10		8,340.96	
49 Colville.....	754,514	10,935.89		4,001.72	14,937.61	2,648.80		436.36	
50 Coronado.....	1,432,016	22,435.57		8,904.65	31,340.22	4,069.44		5,116.50	
51 Crater.....	846,199	17,096.94		31,345.25	48,442.19	3,659.36		5,267.08	
52 Crook.....	870,106	10,071.29		2,146.43	12,217.72	1,330.79		1,425.39	
53 Custer.....	429,936	6,876.61		1,812.84	8,689.45	1,144.74		389.95	
54 Datil.....	2,652,316	23,707.70		11,032.00	34,739.70	2,528.16		8,177.58	
55 Deerlodge.....	831,153	26,179.19		13,237.15	39,416.34	3,819.65		1,973.04	
56 Deschutes.....	1,282,552	13,796.62		18,409.03	32,205.65	5,559.71		4,388.89	
57 Dixie.....	508,443	7,243.11		6,135.29	13,378.40	723.20		1,532.13	
58 Durango.....	620,365	12,038.34		41,730.95	53,769.29	2,008.74		12,271.78	
59 Eldorado.....	549,460	12,884.75		4,219.19	17,103.94	1,824.80		3,440.83	
60 Fillmore.....	700,744	11,288.66		4,507.65	15,796.31	1,398.65		1,038.18	
61 Fishlake.....	657,452	10,749.84		4,061.88	14,811.72	1,131.87		1,317.56	
62 Flathead.....	1,717,118	20,511.50		43,741.73	64,253.23	2,880.19		4,760.68	
63 Florida.....	308,268	9,451.10		2,806.72	12,257.82	1,730.21		2,144.67	
64 Fremont.....	851,210	12,373.34		5,841.18	18,214.52	2,114.48		1,028.64	

DEMONSTRATIONS ON RECLAMATION  
PROJECTS.

Total expenditures as above.....	\$40,017.89
Outstanding liabilities, Aug. 31 (estimated).....	5,062.58
Unexpended balance (estimated).....	3,919.53
Total allotment.....	49,000.00

Assistance to settlers on the reclamation projects in the development of local agricultural industries by supplying information, making suggestions, and conducting demonstrations relating to agricultural industries and farm practices ..... \$45,080.47

## FOREST SERVICE.

*Classification of expenditures for the fiscal year ended June 30, 1919.*

Stationery.	Rent.	Telegraph, telephone, and postage.	Freight, express and drayage.	Furnishing of heat, light, power, electricity.	Forage, purchased in bulk.	Fuel.	Specified items not otherwise classified.	Miscellane- ous supplies, services, etc.	Total.
\$12,560.94		\$5,389.82	\$2,113.85				\$687.07	\$2,356.73	\$519,859.71
	\$2,800.60	420.88	445.25					1,559.18	152,438.80
	91.00	688.06	1,206.18				10.08	18.94	141,858.48
120.00	3,733.82	1,012.56	601.50		\$17.95		.55	98.30	98,761.90
	3,918.59	1,228.27	642.70				45.45	243.51	129,038.78
	7,614.82	872.19	1,687.56		736.28			35.46	177,555.48
	6,800.54	1,233.08	1,516.28		1.65		2.52	409.90	176,091.72
		.35	1.99					1.70	24,884.56
	23,114.66	1,067.65	4,727.41					4,954.67	589,170.14
32,560.75	3,522.08	76.00	6,036.66						81,154.72
		6.17	77.79		51.97			3.00	11,689.63
		18.70	68.43		158.52		1.50	2.12	2,698.01
	1.50	.20	80.83		71.21			9.75	11,244.22
		30.00	5.35		83.01				8,526.78
	93.10	12.74	10.54		31.74				2,405.55
								6.45	4,168.66
45,241.69	51,690.71	12,056.67	19,222.32		1,152.33		747.17	9,699.71	2,131,547.14
									17
	134.00	243.17	1,110.54		916.45		32.17	512.79	30,682.95
	420.92	686.14	2,470.96		2,670.22		31.25	202.16	64,256.07
	272.80	128.73	537.53		1,753.06		10.80	5.50	26,229.29
	352.20	214.83	793.62		888.03		29.09	20.50	22,464.09
		226.24	497.92		1,472.61		68.63	33.30	39,907.31
	312.06	60.75	96.40		688.95		24.81		15,264.48
	160.54	197.31	337.11		848.66			16,279.43	24
	455.00	158.84	759.71		682.36		30.01	421.36	21,795.86
	440.00	109.54	828.60		838.34		2.00	222.54	26,430.88
		160.18	642.34		893.97		15.94	15.75	28,472.73
	852.60	232.24	2,157.40		50.00		20.28	618.21	39,422.97
	8.00	203.37	1,698.85		440.00		62.80	1,425.18	34,937.62
	12.00	48.80	338.99		1,186.68		36.99	6.50	37,929.26
	610.80	69.44	1,052.95		694.41		17.40		37,210.11
	103.95	78.90	339.12		903.63		1.69	118.75	17,609.60
	355.00	184.85	3,723.45		219.41		63.55	1,384.75	48,147.53
	269.80	188.38	114.71		874.91		6.50	24,745.13	34
	108.45	122.24	1,701.35		2,221.04			.50	31,506.86
	447.80	81.74	129.66		719.95		58.50	15.63	23,575.25
	447.92	228.10	253.90		2,112.32		97.60	43.25	29,489.31
	164.00	90.16	1,156.98		655.33		1.80		33,292.06
	216.50	3.40	118.71		818.69		19.00	70.50	15,394.18
	537.65	30.85	512.88		283.40		2.16	21.86	19,852.47
	119.02	150.00	183.24		16.00		6.00	2.19	15,295.95
	346.60	624.54	27,743.43		74.50		1.80	8,606.68	220,818.31
	540.34	229.51	1,268.27		1,733.23			257.82	46,586.19
	478.35	69.71	331.34		890.20		10.01	139.30	24,458.61
	871.80	106.05	1,289.62		2,458.93		44.44	352.65	56,391.99
	716.00	363.89	6,959.73		125.00		98.57	2,945.79	122,606.00
	186.00	294.08	429.78		313.90		11.13	95.72	28,453.50
	588.44	268.16	2,826.58		1,552.07			208.14	87,918.46
	712.61	26.81	93.41		136.75		50.19		19,042.54
	715.64	130.26	1,194.85		742.09		85.20	407.25	43,801.45
	6.50	332.79	2,016.96		803.52		1.50	29.87	60,559.77
	343.10	64.80	286.39		1,199.25			16,867.44	51
	7.00	44.85	269.45		228.00		34.54	424.41	11,232.39
	737.80	301.00	1,346.19		4,491.85		9.25	31.57	52,413.10
	956.13	323.52	1,415.06		1,949.73		31.75	439.88	50,325.10
	895.97	85.05	963.80		276.12		2.80	72.11	44,450.10
	369.31	71.93	418.86		457.95		4.95	41.68	16,998.41
	613.83	302.89	893.52		952.90		14.17	9.35	70,836.47
	627.48	129.14	769.73		1,053.18			19.00	24,968.10
	326.75	102.88	384.54		964.92		29.00	22.15	20,063.38
	384.00	9.17	113.10		633.47		31.05		18,431.94
	15.00	306.07	4,864.51		352.25		10.35	4,131.59	81,573.87
		112.66	208.82		800.70		31.13	802.50	18,088.51
	535.80	47.29	277.91		732.88			90.60	23,042.12

## FOREST SERVICE—Continued.

Classification of expenditures for the fiscal year ended June 30, 1919—Continued.

Project.	Acres, net.	Salaries.			Equipment.		
		Lump fund.		Total.	Travel, station, and field expenses,	Apparatus, instruments, laboratory.	Miscella- neous.
		Statutory.	In Wash- ington.				
NATIONAL FORESTS—continued.							
65 Gallatin.....	567,614	\$11,907.42		\$2,588.51	\$14,495.93	\$1,116.66	\$327.07
66 Gila.....	1,466,564	19,932.14		5,621.79	25,553.93	2,672.37	3,570.89
67 Gunnison.....	905,798	12,713.47		3,095.93	15,809.40	1,555.59	1,069.35
68 Harney.....	544,273	13,835.71		5,998.69	19,834.40	1,543.81	2,852.79
69 Hayden.....	390,254	7,046.23		1,488.40	8,534.63	1,068.43	590.18
70 Helena.....	680,257	16,482.95		3,327.90	19,810.85	2,169.94	372.94
71 Holy Cross.....	575,511	12,616.35		4,038.38	16,654.73	1,684.64	980.41
72 Humboldt.....	1,313,730	15,272.34		6,298.63	21,570.97	2,196.91	2,596.75
73 Idaho.....	1,170,774	13,887.52		15,693.36	29,580.88	1,181.91	3,982.70
74 Inyo.....	1,247,600	7,852.39		1,977.94	9,830.33	1,606.41	1,118.18
75 Jefferson.....	1,043,004	21,239.54		5,327.99	26,567.53	3,110.48	1,118.52
76 Kaibab.....	752,339	6,641.77		1,978.26	8,620.03	1,169.66	2,361.70
77 Kaniksu.....	455,079	15,106.96		30,774.38	45,881.34	2,702.66	3,783.18
78 Klamath.....	1,503,225	16,780.33		31,942.66	48,722.99	3,454.67	7,362.02
79 Kootenai.....	1,333,264	17,105.66		55,997.67	73,103.33	4,587.89	2,891.15
80 La Sal.....	536,331	8,568.17		5,318.26	13,886.43	992.77	1,973.20
81 Lassen.....	936,957	15,579.18		21,761.16	37,340.34	3,141.67	6,025.46
82 Leadville.....	929,451	11,782.73		375.62	12,158.35	1,169.86	1,322.91
83 Lemhi.....	1,095,924	8,906.11		1,267.21	10,173.32	960.67	403.55
84 Lewis and Clark.....	810,990	11,147.60		7,765.61	18,913.21	1,853.20	1,079.90
85 Lincoln.....	1,123,693	20,891.27		9,958.39	30,849.66	3,370.79	4,023.83
86 Lolo.....	850,677	9,955.98		64,131.90	74,087.88	2,357.35	8,047.06
87 Luquillo.....	12,443	1,510.00		2,067.98	3,577.98	538.94	44.20
88 Madison.....	944,283	10,694.45		1,665.23	12,359.68	1,473.68	260.11
89 Malheur.....	1,057,682	9,924.00		2,465.67	12,389.67	1,187.55	382.53
90 Manti.....	783,107	12,915.39		11,759.22	24,674.61	1,170.29	761.97
91 Manzano.....	697,488	9,908.89		1,268.70	11,177.59	1,640.83	1,210.56
92 Medicine Bow.....	477,038	15,368.11		4,493.42	19,861.53	2,378.52	1,628.00
93 Michigan.....	89,466	6,661.16		3,409.63	10,070.79	960.89	594.15
94 Minam.....	433,192	5,155.46		4,255.33	9,410.79	841.55	504.12
95 Minidoka.....	581,349	11,518.89		1,711.85	13,230.74	1,097.36	743.16
96 Minnesota.....	190,602	7,639.49		7,781.39	15,420.88	669.84	1,452.87
97 Missoula.....	1,031,418	10,995.43		14,003.86	24,999.29	1,807.03	2,006.39
98 Modoc.....	1,186,273	12,124.18		8,776.21	20,900.39	2,365.89	3,159.07
99 Mono.....	1,250,017	8,674.01		899.31	9,573.32	1,213.66	1,007.66
100 Monterey.....	320,281						
101 Montezuma.....	701,084	12,597.60		6,303.86	18,901.46	2,686.10	1,339.62
102 Nebraska.....	205,944	4,821.06		14,455.83	19,276.89	1,125.75	10,112.52
103 Nevada.....	1,158,177	6,356.01		360.55	6,716.56	878.98	442.17
104 Nezperce.....	1,625,024	14,016.77		20,298.00	34,314.77	2,763.26	2,556.64
105 Ochoo.....	716,604	10,025.77		22,864.71	32,890.48	3,665.94	6,096.49
106 Okanogan.....	1,488,352	11,556.33		13,307.14	24,863.47	2,954.58	1,470.91
107 Olympic.....	1,534,583	12,283.43		25,902.76	38,186.19	4,946.51	4,601.62
108 Oregon.....	1,043,527	18,629.05		30,051.96	48,681.01	3,332.35	6,283.63
109 Ozark.....	274,672	8,916.48		4,612.28	13,528.76	4,198.91	925.79
110 Payette.....	831,926	17,622.58		18,756.65	36,379.23	1,521.58	5,770.84
111 Pend Oreille.....	675,293	15,225.37		37,094.33	52,319.70	1,797.87	4,430.16
112 Pike.....	1,077,645	18,017.40		59,520.67	77,538.07	3,378.66	11,189.95
113 Plumas.....	1,144,418	16,404.28		24,747.92	41,152.20	4,791.49	4,054.83
114 Powell.....	688,412	6,733.95		2,157.64	8,891.59	252.87	648.30
115 Pres'ott.....	1,432,600	18,261.07		2,709.25	20,970.32	3,062.70	2,372.43
116 Rainier.....	1,314,302	13,967.77		39,345.48	53,313.25	3,049.03	5,092.21
117 Rio Grande.....	1,136,219	14,940.95		4,886.07	19,827.02	2,096.58	1,020.54
118 Routt.....	743,481	12,133.77		10,963.44	23,097.21	2,005.39	2,804.03
119 St. Joe.....	556,438	9,844.03		23,467.59	33,311.62	2,308.67	2,486.54
120 Salmon.....	1,621,250	15,276.71		7,616.32	22,893.03	1,830.99	1,833.55
121 San Isabel.....	598,912	11,874.61		1,738.28	13,612.89	1,491.59	1,337.19
122 San Juan.....	618,983	10,534.21		1,862.98	12,397.19	1,318.03	904.76
123 Santa Barbara.....	1,689,251	24,739.98		9,898.96	34,638.94	2,518.90	2,939.39
124 Santa Fe.....	1,366,869	25,966.19		32,257.81	58,224.00	5,375.05	8,225.78
125 Santiamb.....	607,997	7,913.05		13,748.29	21,661.34	1,293.34	2,244.17
126 Sawtooth.....	1,159,987	13,811.68		3,975.95	17,787.63	926.87	2,016.66
127 Selway.....	1,688,287	12,306.95		95,229.43	107,536.38	1,398.23	10,889.70
128 Sequoia.....	1,875,900	23,369.14		9,587.97	32,957.11	2,550.07	4,068.73
129 Sevier.....	722,180	10,000.67		4,367.66	14,368.33	868.13	533.11
130 Shasta.....	809,014	20,174.03		33,673.04	53,847.07	4,600.35	6,610.20
131 Shoshone.....	1,576,502	12,019.89		4,907.30	16,927.19	1,789.70	1,388.42
132 Sierra.....	1,488,655	19,251.56		13,506.56	32,758.12	3,082.45	5,342.74
133 Sioux.....	171,408	8,990.66		5,644.50	14,635.16	1,002.15	1,513.48
134 Siskiyou.....	1,346,717	14,003.51		29,670.86	43,674.82	4,233.39	4,525.00
135 Sitgreaves.....	650,877	16,764.37		3,477.92	20,242.29	1,459.58	2,886.87
136 Siuslaw.....	543,237	8,362.76		16,527.42	24,590.18	2,091.73	1,139.58
137 Snoqualmie.....	697,535	10,389.83		18,244.67	28,634.50	2,016.14	4,887.42
138 Sopris.....	596,578	12,086.86		2,574.90	14,661.76	1,269.48	2,004.57
139 Stanislaus.....	810,802	14,887.85		6,524.18	21,412.03	2,406.77	3,151.83
140 Superior.....	853,631	12,273.67		12,542.74	24,816.41	2,162.47	2,419.53
141 Tahoe.....	545,063	20,778.90		12,291.37	33,070.27	2,943.33	3,066.89
142 Targhee.....	1,312,662	21,447.71		5,087.70	26,535.41	2,018.89	2,701.90
143 Teton.....	1,920,671	11,221.90		12,115.97	23,337.87	1,180.04	3,542.63
144 Toiyabe.....	1,907,985	7,161.39		1,883.21	9,044.60	2,034.12	489.24
145 Tongass.....	15,449,717	14,265.80		16,103.77	30,369.57	6,604.82	6,238.84
146 Tonto.....	1,993,395	17,050.72		7,506.01	24,556.73	2,292.32	4,875.95
147 Trinity.....	1,428,388	14,398.58		20,164.83	34,563.41	2,346.38	4,487.48
148 Tusayan.....	1,299,954	16,027.06		5,086.03	21,113.09	2,833.82	4,688.18
149 Uinta.....	1,001,168	14,807.76		9,962.17	24,569.93	2,017.92	1,719.12

## FOREST SERVICE—Continued.

Classification of expenditures for the fiscal year ended June 30, 1919—Continued.

Stationery.	Rent.	Telegraph, telephone, and postage.	Freight, express, and drayage.	Furnishing of heat, light, power and electricity.	Forage, purchased in bulk.	Fuel.	Specified items not otherwise classified.	Miscellane- ous supplies, etc.	Total.
	\$49.50	\$128.25	\$291.31		\$1,099.08		\$35.60	\$259.62	\$17,803.02
	786.75	40.68	343.66		3,626.90		27.44	35.85	36,658.47
	571.20	140.26	112.82		1,115.65		9.36	3.00	20,386.63
	688.32	7.73	722.65		591.16		35.25	.75	26,276.86
	421.66	62.28	43.13		671.35		3.15	4.00	11,398.81
	560.00	188.40	341.17		409.66		13.25	86.86	23,953.07
	433.87	145.91	148.04		1,559.09		4.50	12.00	21,623.19
	720.00	186.46	228.21		1,468.87		37.10	111.30	29,116.57
	417.82	3.89	371.26		1,553.95		25.00	43.20	37,160.61
	700.32	24.10	304.29		652.32		.64	3.00	14,239.59
		247.25	828.33		1,514.98		1.60	381.79	33,770.48
		3.34	419.15		1,243.92		7.25	6.00	14,045.80
	706.31	193.50	4,131.38				59.12	2,406.35	59,863.84
	553.49	152.70	3,519.85		1,853.50		33.20	2,198.66	67,851.08
	747.92	168.54	4,035.51		527.51		9.29	9,026.11	95,097.25
	253.00	90.45	224.74		343.19		43.75	143.02	17,950.55
	418.20	91.08	5,595.34		2,598.84		11.90		55,222.83
	10.50	127.06	105.43		1,597.72		13.50	29.33	16,534.66
	373.05	92.37	79.20		313.72		21.78	6.45	12,424.11
	561.60	127.02	1,196.37		215.98		50.79	582.80	24,580.87
	906.01	121.85	738.15		2,345.29		34.26	13.10	42,402.94
	781.00	205.03	3,475.77		21.50		9.45	2,222.40	91,207.44
		32.40					12.20	4,205.72	87
	424.50	113.23	279.79		143.75		6.70	166.87	15,228.31
	350.00	80.49	551.32		503.00		3.60	24.57	15,482.73
	549.50	69.55	214.98		1,129.81		69.91	10.43	28,651.05
		70.05	105.86		728.97		3.00		14,936.86
	12.50	155.42	216.85		904.56		10.12	7.50	25,175.00
	241.18	59.65	120.25		173.22		18.36		12,238.49
	248.00	231.08	92.52		462.12		3.54	1.50	11,795.22
	508.50	59.72	151.25		494.57		11.28	1.50	16,298.08
	454.25	60.90	193.03		182.00		11.14	65.95	18,510.86
1,118.06	247.96	2,225.61			431.31		7.50	1,040.86	33,884.01
727.10	72.93	645.96			1,487.44				29,358.78
441.18	44.71	215.36			98.00				12,594.04
								.15	99
	617.90	117.91	82.25		960.04		12.34	6.00	24,723.62
	330.58	3.18	124.97		17.00		10.36	225.50	31,256.75
	459.24	77.30	35.21		285.22		7.85		8,903.53
	642.05	217.65	2,648.91		437.02		7.30	2,054.60	45,642.20
	597.70	62.32	1,123.30		274.20		1.05	43.34	44,754.82
	444.00	155.67	454.53				8.72	65.95	30,427.83
	313.79	387.46	2,463.22		21.84		18.20	20.50	50,959.33
	579.16	424.73	1,253.12		1,319.14		1.75	417.78	62,292.67
	378.96	39.45	422.62		596.41		28.29	10.40	20,129.59
	496.05	35.22	342.82		589.53		26.70	35.68	45,197.65
	457.30	331.28	5,432.87		74.00		10.81	2,766.22	67,650.21
1,077.96	241.44	805.03			1,228.69		35.30	77.67	95,632.77
1,024.46	131.30	2,128.96			1,773.93		28.64	1.88	55,083.69
	156.50	34.20	168.52		386.55		8.04		10,546.57
	633.45	48.91	856.27		2,599.44		8.40	.25	30,552.17
		304.16	6,142.58		750.92		29.76	19.09	68,701.00
	592.50	167.23	191.75		764.82		32.22	101.10	24,793.76
	730.00	87.13	393.45		963.40		12.84	1.25	30,094.70
	603.00	218.82	3,006.42		630.50		47.20	2,584.68	45,197.45
	458.34	52.45	673.34		738.75		30.75		28,511.20
	410.06	213.35	90.35		700.52			207.02	18,062.97
	402.00	113.57	328.79		465.39		19.14	4.50	15,953.37
	189.79	332.21	2,733.09		2,530.40		3.50	119.99	46,036.21
1,860.99	101.85	1,212.25			3,776.95		18.20	97.00	78,892.07
	1.00	80.68	877.22		480.41		5.25	65.24	26,708.65
	377.83	31.19	267.67		535.54		49.92	15.69	22,009.00
	356.33	307.65	14,347.42		715.48		9.46	6,645.97	142,206.62
	538.55	54.12	1,307.42		2,190.57		14.33		43,680.90
	323.44	3.83	323.37		600.29		44.30		17,067.80
	892.75	178.79	4,860.43		1,420.52		69.18	17.46	72,496.75
	540.00	103.71	1,357.22		1,012.14		5.60	2.05	23,106.03
	108.85	48.43	1,143.93		2,047.35		22.26	154.78	44,708.91
	14.00	33.20	969.86		192.00		14.95	334.60	18,709.40
	475.90	282.95	1,901.58		1,321.06				56,414.25
	434.64	100.11	549.46		1,783.58		12.90	1.10	27,470.53
	60.92	93.29	338.50		128.94		9.56	19.50	28,772.20
1,358.23	260.10	525.96			837.80		2.40	50.65	38,573.20
	304.75	145.66	520.67		1,471.13		24.77	6.30	20,409.09
	635.25	122.47	362.84		2,337.45		7.78		30,436.42
	698.25	121.01	930.37		200.20		37.35		31,385.59
	726.27	252.45	1,275.05		2,378.95		116.98	150.00	43,980.19
	719.33	190.75	115.54		868.09		22.74	29.18	33,201.83
	376.13	93.65	521.89		1,198.45		8.25	152.60	30,414.51
	372.20	83.90	132.81		83.34		22.67		12,262.88
	725.85	151.09	103.87		16.00		65.12	15.16	44,290.32
	92.01	7.40	2,237.57		1,206.97		47.75	72.00	35,388.70
	557.55	92.27	2,300.95		2,197.12		22.25	1,539.46	48,106.87
	663.17	75.00	380.69		1,752.33		21.38	11.40	31,539.06
	675.11	82.80	647.01		1,283.64		45.05	4.23	31,044.81

## FOREST SERVICE—Continued.

Classification of expenditures for the fiscal year ended June 30, 1919—Continued.

Project.	Statutory.	Salaries.			Travel, station, and field expenses.	Equipment.			
		Lump fund.		Total.		Apparatus, instruments, laboratory.	Furniture.	Miscella- neous.	
		In Wash- ington.	Out of Washington.						
NATIONAL FORESTS—continued.									
150 Umatilla.....	Acres, net. 485,786	\$8,502.55	.....	\$4,030.00	\$12,532.55	\$1,459.69	.....	\$1,855.71	
151 Umpqua.....	1,010,824	11,268.33	.....	51,320.88	62,589.21	1,659.25	.....	1,546.82	
152 Uncompahgre.....	789,556	14,873.00	.....	4,952.35	19,825.35	1,950.57	.....	2,060.88	
153 Wallowa.....	957,379	13,793.73	.....	24,806.64	38,600.37	2,874.73	.....	3,755.25	
154 Wasatch.....	603,568	15,092.41	.....	3,892.22	18,984.63	1,587.58	.....	2,253.48	
155 Washakie.....	852,315	9,866.72	.....	2,263.76	12,130.48	1,411.33	.....	1,192.45	
156 Washington.....	1,439,876	8,307.23	.....	5,916.05	14,223.28	980.97	.....	593.27	
157 Weiser.....	561,560	13,590.02	.....	4,047.46	17,637.48	1,020.75	.....	1,958.27	
158 Wenaha.....	738,712	7,925.57	.....	4,453.40	12,378.97	2,250.97	.....	649.91	
159 Wenatchee.....	657,194	13,730.38	.....	8,708.99	22,439.37	2,216.00	.....	1,413.54	
160 White River.....	845,595	11,695.28	.....	5,097.28	16,792.56	2,158.29	.....	1,560.90	
161 Whitman.....	882,316	15,989.55	.....	13,001.43	28,990.98	2,694.14	.....	1,520.15	
162 Wichita.....	61,480	3,385.00	.....	2,842.41	6,227.41	448.06	.....	1,493.71	
163 Wyoming.....	905,730	10,102.18	.....	10,362.48	20,464.66	1,770.22	.....	1,796.15	
164 Grand Canyon Division.	888,208	2,785.17	.....	1,996.29	4,781.46	585.85	.....	208.28	
165 New forests.....	1,742,761	27,777.22	.....	64,417.91	92,195.13	10,918.35	.....	4,658.48	
Total, national forests.....	.....	1,948,175.15	.....	2,091,142.54	4,039,317.69	332,128.14	.....	444,035.75	
Grand total.....	.....	2,591,066.49	\$181,324.54	12,870,566.41	25,642,957.44	509,796.23	\$10,670.33	\$15,319.25	
								628,474.87	

<sup>1</sup> Includes wages and subsistence of temporary laborers.<sup>2</sup> Includes increased compensation, amounting to \$236,021.07, provided by the legislative, executive, and judicial appropriation act for the fiscal year 1919.

## PROJECT STATEMENT.

WASHINGTON OFFICE.<sup>1</sup>

Total expenditures as above.....	\$1,109,029.85
Outstanding liabilities Aug. 31 (estimated).....	78,103.11
Total allotment.....	1,187,132.96

Distributed among the several activities as follows:  
 Forester's office: General administrative supervision and control of all activities in the Washington office, forest products laboratory, district headquarters, and 146 national forests, and administration of land purchased under the Weeks forestry law.....  
 Operation: Administrative and supervisory work done or directed by this office.....  
 Lands: Administrative work done in or directed by this office.....  
 Silviculture: Administrative, supervisory, and State and Federal cooperative work done in or directed by this office.....  
 Research: Administrative, investigative, and Federal cooperative work done in or directed by this office—  
     Washington office..... \$93,057.94  
     Forest products laboratory..... 633,885.70

Grazing: Administrative and investigative work done in or directed by this office...  
 Engineering: Administrative and supervisory work done in or directed by this office (supplementing the part time and expenses of the national forest force)....

Total..... 1,187,132.96

## DISTRICT HEADQUARTERS.

## DISTRICT 1 (MISSOULA, MONT.).

Total expenditures as above.....	\$152,438.80
Outstanding liabilities Aug. 31 (estimated).....	1,995.92

Total allotment..... 154,434.72

Distributed among the several subactivities as follows:

District forester's office: General supervision of 25 national forests, aggregating 22,480,180 acres.....	16,501.93
Operation: Administrative and supervisory work done in or directed by this office (supplementing the part time and expenses of the national forest force).....	26,662.77
Silviculture: Administrative and investigative work done in or directed by this office (supplementing the part time and expenses of the national forest force)....	36,459.45
Grazing: Administrative and investigative work done in or directed by this office (supplementing the part time and expenses of the national forest force).....	11,694.71
Lands: Administrative and investigative work done in or directed by this office (supplementing the part time and expenses of the national forest force).....	39,267.64
Engineering: Administrative and supervisory work done in or directed by this office (supplementing the part time and expenses of the national forest force)....	23,172.22
Research: Administrative and investigative work done in or directed by this office.....	676.00
Total.....	154,434.72

<sup>1</sup> Includes forest products laboratory at Madison, Wis.

## FOREST SERVICE—Continued.

Classification of expenditures for the fiscal year ended June 30, 1919—Continued.

Stationery.	Rent.	Telegraph, telephone, and postage.	Freight, express, and drayage.	Furnishing of heat, light, power, electricity.	Forage, purchased in bulk.	Fuel.	Specified items not otherwise classified.	Miscellane- ous supplies, services, etc.	Total.
		\$117.99	\$380.99		\$294.17		\$18.50		\$16,659.60 150
	\$30.00	198.70	752.31		842.62		4.05	\$61.93	67,684.89 151
	470.00	98.27	191.61		1,412.29		2.00	8.25	26,019.22 152
	398.70	81.80	405.43		610.81		11.65		46,738.74 153
	89.55	162.85	338.61		750.11		31.16		24,197.97 154
		103.85	277.96		698.12		2.34	18.96	15,835.49 155
	3.00	115.84	169.56		55.93			74.50	16,216.35 156
	566.50	120.55	269.98		920.86		36.08	172.25	22,702.72 157
	11.50	146.06	252.52		477.97		9.85	46.50	16,224.25 158
	526.87	135.87	518.88		306.00		9.13	.50	27,566.16 159
	368.87	147.57	553.51		1,090.18			58.88	22,730.76 160
	827.18	246.62	360.00		635.89		7.38	5.06	35,287.40 161
	13.75	43.80	24.00		49.50				8,300.23 162
	432.00	77.34	21.82		799.27		32.22	238.58	25,632.26 163
	100.50		145.07		593.25			24.50	6,438.91 164
\$0.10	1,943.97	1,117.09	1,620.52		1,941.77		244.13	103.71	114,743.25 165
50.10	65,031.98	21,973.98	187,950.00		139,457.49		3,318.38	62,144.29	5,295,407.80
<b>45,291.79</b>	<b>116,722.69</b>	<b>34,030.65</b>	<b>207,172.32</b>		<b>140,609.82</b>		<b>3 4,065.55</b>	<b>71,844.00</b>	<b>7,426,954.94</b>

\* Advertising.

## DISTRICT 2 (DENVER, COLO.).

Total expenditures as above.....	\$141,858.48
Outstanding liabilities Aug. 31 (estimated).....	804.04
<b>Total allotment.....</b>	<b>142,662.52</b>
Distributed among the several subactivities as follows:	
District forester's office: General supervision of 28 national forests, aggregating 20,112,182 acres.....	23,191.85
Operation: Administrative and supervisory work done in or directed by this office (supplementing the part time and expenses of the national forest force).....	40,434.31
Silviculture: Administrative and investigative work done in or directed by this office (supplementing the part time and expenses of the national forest force).....	11,881.73
Grazing: Administrative and investigative work done in or directed by this office (supplementing the part time and expenses of the national forest force).....	9,236.22
Lands: Administrative and investigative work done in or directed by this office (supplementing the part time and expenses of the national forest force).....	26,198.65
Engineering: Administrative and supervisory work done in or directed by this office (supplementing the part time and expenses of the national forest force).....	29,359.30
Research: Administrative and investigative work done in or directed by this office.....	2,360.46
<b>Total.....</b>	<b>142,662.52</b>

H. Doc. 362, 66-2—3

## DISTRICT 3 (ALBUQUERQUE, N. MEX.).

Total expenditures as above.....	\$98,761.90
Outstanding liabilities, Aug. 31 (estimated).....	3,781.94
<b>Total allotment.....</b>	<b>102,543.84</b>
Distributed among the several subactivities as follows:	
District forester's office: General supervision of 14 national forests, aggregating 19,565,334 acres.....	18,036.98
Operation: Administrative and supervisory work done in or directed by this office (supplementing the part time and expenses of the national forest force).....	22,958.61
Silviculture: Administrative and investigative work done in or directed by this office (supplementing the part time and expenses of the national forest force).....	13,388.88
Grazing: Administrative and investigative work done in or directed by this office (supplementing the part time and expenses of the national forest force).....	14,201.48
Lands: Administrative and investigative work done in or directed by this office (supplementing the part time and expenses of the national forest force).....	12,251.58
Engineering: Administrative and supervisory work done in or directed by this office (supplementing the part time and expenses of the national forest force).....	21,706.31
<b>Total.....</b>	<b>102,543.84</b>

DISTRICT 4 (OGDEN, UTAH).		DISTRICT 6 (PORTLAND, OREG.).	
Total expenditures as above.....	\$129,038.78	Total expenditures as above.....	\$176,091.72
Outstanding liabilities, Aug. 31 (estimated)	1,176.04	Outstanding liabilities, Aug. 31 (estimated)	4,567.38
Total allotment.....	<u>130,214.82</u>	Total allotment.....	<u>180,659.10</u>
Distributed among the several subactivities as follows:		Distributed among the several subactivities as follows:	
District forester's office: General supervision of 29 national forests, aggregating 27,952,857 acres.....	5,816.27	District forester's office: General supervision of 27 national forests, aggregating 43,767,607 acres.....	19,311.56
Operation: Administrative and supervisory work done in or directed by this office (supplementing the part time and expenses of the national forest force).....	42,714.56	Operation: Administrative and supervisory work done in or directed by this office (supplementing the part time and expenses of the national forest force).....	98,052.48
Silviculture: Administrative and investigative work done in or directed by this office (supplementing the part time and expenses of the national forest force).....	16,313.74	Silviculture: Administrative and investigative work done in or directed by this office (supplementing the part time and expenses of the national forest force).....	19,515.43
Grazing: Administrative and investigative work done in or directed by this office (supplementing the part time and expenses of the national forest force).....	21,344.84	Grazing: Administrative and investigative work done in or directed by this office (supplementing the part time and expenses of the national forest force).....	6,629.85
Lands: Administrative and investigative work done in or directed by this office (supplementing the part time and expenses of the national forest force).....	21,449.46	Lands: Administrative and investigative work done in or directed by this office (supplementing the part time and expenses of the national forest force).....	7,296.22
Engineering: Administrative and supervisory work done in or directed by this office (supplementing the part time and expenses of the national forest force).....	18,678.07	Engineering: Administrative and supervisory work done in or directed by this office (supplementing the part time and expenses of the national forest force).....	24,632.96
Research: Administrative and investigative work done in or directed by this office.....	3,897.88	Research: Administrative and investigative work done in or directed by this office.....	5,220.60
Total.....	<u>130,214.82</u>	Total.....	<u>180,659.10</u>
DISTRICT 5 (SAN FRANCISCO, CALIF.).		DISTRICT 7 (WASHINGTON, D. C.)	
Total expenditures as above.....	177,555.48	Total expenditures as above.....	24,884.56
Outstanding liabilities, Aug. 31 (estimated)	1,131.03	Outstanding liabilities, Aug. 31 (estimated)	230.85
Total allotment.....	<u>178,686.51</u>	Total allotment.....	<u>25,115.41</u>
Distributed among the several subactivities as follows:		Distributed among the several subactivities as follows:	
District forester's office: General supervision of 18 national forests, aggregating 18,958,004 acres.....	35,786.80	District forester's office: General supervision of 5 national forests, aggregating 1,284,012 acres, and 9 areas purchased or approved for purchase under the Weeks forestry law, aggregating 1,742,761 acres.	8,224.82
Operation: Administrative and supervisory work done in or directed by this office (supplementing the part time and expenses of the national forest force).....	54,777.47	Operation: Administrative and supervisory work done in or directed by this office (supplementing the part time and expenses of the national forest force).....	6,117.70
Silviculture: Administrative and investigative work done in or directed by this office (supplementing the part time and expenses of the national forest force).....	17,559.71	Silviculture: Administrative and investigative work done in or directed by this office (supplementing the part time and expenses of the national forest force).....	3,607.27
Grazing: Administrative and investigative work done in or directed by this office (supplementing the part time and expenses of the national forest force).....	8,517.40	Grazing: Administrative and investigative work done in or directed by this office (supplementing the part time and expenses of the national forest force).....	1,476.01
Lands: Administrative and investigative work done in or directed by this office (supplementing the part time and expenses of the national forest force).....	16,189.95	Lands: Administrative and investigative work done in or directed by this office (supplementing the part time and expenses of the national forest force).....	1,762.56
Engineering: Administrative and supervisory work done in or directed by this office (supplementing the part time and expenses of the national forest force).....	39,826.78	Engineering: Administrative and supervisory work done in or directed by this office (supplementing the part time and expenses of the national forest force).....	3,927.05
Research: Administrative and investigative work done in or directed by this office.....	6,028.40		
Total.....	<u>178,686.51</u>	Total.....	<u>25,115.41</u>

## STATEMENT OF EXPENDITURES OF THE DEPARTMENT OF AGRICULTURE.

35

## SUPPLY DEPOT, OGDEN, UTAH.

Total expenditures as above.....	\$81,154.72
Outstanding liabilities, Aug. 31 (estimated)	32,628.39

Total allotment.....	<u>113,783.11</u>
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Purchase and distribution of supplies for the whole service outside of the Washington office.

## PROPERTY AUDITOR, OGDEN, UTAH.

Total expenditures as above.....	11,689.63
Record, supervision, and inspection of all property of the Forest Service.	

## EXPERIMENT STATIONS.

Total expenditures as above.....	29,043.22
Outstanding liabilities, Aug. 31 (estimated)	317.64

Total allotment.....	<u>29,360.86</u>
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Distributed among the several stations as follows:

Experiment stations:	
District 2—Fremont, Manitou, Colo...	2,698.01
District 2—Wagon Wheel Gap, Wagon Wheel Gap, Colo...	2,405.55
District 3—Fort Valley, Flagstaff, Ariz...	11,514.62
District 4—Great Basin, Ephraim, Utah...	8,568.42
District 6—Wind River, Stabler, Wash...	4,174.26

Total.....	<u>29,360.86</u>
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Total, Forest Service, exclusive of national forests.....	<u>2,131,547.14</u>
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## THE NATIONAL FORESTS.

[146 national forests and 9 Appalachian purchase areas, comprising a net area of 155,862,937 acres.]

Total expenditures as above.....	\$5,295,407.80
Outstanding liabilities, Aug. 31 (estimated)	173,071.05

Total allotment.....	<u>5,468,478.85</u>
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Distributed among the several subactivities as follows:

Operation.....	4,117,587.92
Silviculture.....	455,412.06
Lands.....	165,022.62
Grazing.....	180,051.28
Engineering.....	546,191.87
Research.....	4,213.10

Total.....	<u>5,468,478.85</u>
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## RECEIPTS FROM NATIONAL FOREST RESOURCES.

Timber sales.....	1,503,367.37
Timber settlement.....	8,938.77
Timber trespass.....	8,623.38
Grazing.....	2,556,962.20
Grazing trespass.....	52,207.65
Special use.....	136,112.56
Occupancy trespass.....	689.43
Water power.....	72,322.06
Fire trespass.....	5,258.48
Property trespass.....	21.00
Turpentine sales.....	13,220.08
Turpentine trespass.....	691.88

Total.....	<u>4,358,414.86</u>
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## BUREAU OF CHEMISTRY.

Classification of expenditures for the fiscal year ended June 30, 1919.

Project.	Salaries.			Travel, station, and field expenses.	Equipment.			
	Statutory.	Lump fund.			Apparatus, instruments, laboratory.	Furniture.	Miscella- neous.	
		In Wash- ington.	Out of Washington.					
1 Administration.....	\$35,652.96	\$22,195.24	.....	\$57,848.20	\$1,486.58	.....	\$304.15	
2 Investigations in agricultural chemistry.....	5,864.99	31,695.18	.....	37,560.17	4,697.87	\$1,481.96	30.02	
3 Collaboration with other departments.....	1,183.00	12,765.00	.....	13,948.00	224.76	.....	.....	
4 Testing export food products.....	1,713.34	\$1,800.00	3,513.34	.....	.....	.....	.....	
5 Poultry and egg investigations.....	5,944.29	1,018.34	18,898.76	25,861.39	8,514.02	174.41	299.86	
6 Fish investigations.....	3,080.00	3,232.16	6,312.16	1,738.62	145.31	.....	54.00	
7 Oyster and other shellfish investigations.....	3,054.00	1,200.00	4,254.00	671.17	2.25	.....	4.70	
8 Biological investigations of food and drug products.....	956.00	11,861.66	163.71	12,981.37	221.82	42.38	32.98	
9 Citrus by-products investigations.....	4,319.33	340.00	7,405.00	12,064.33	972.99	382.55	27.30	
10 Color investigations.....	5,561.34	24,186.89	.....	29,748.23	1,086.78	4,130.77	400.77	
11 Table syrup investigations.....	4,276.66	525.00	4,801.66	989.82	.....	.....	21,888.08	
12 Enforcement of the food and drug act.....	303,342.93	187,301.38	191,669.09	682,313.40	80,699.84	3,494.38	2,562.29	
13 Naval stores investigations and demonstrations.....	.....	6,589.22	375.75	6,964.97	1,344.76	.....	49.08	
14 Insecticide and fungicide investigations.....	.....	5,645.00	.....	5,645.00	311.08	2,385.50	.....	
15 Investigations in the drying of vegetables, fruits, etc.....	238.34	.....	14,487.24	14,725.58	5,185.69	14,093.97	880.51	
Total.....	363,063.18	315,721.91	239,756.71	<sup>1</sup> 918,541.80	108,145.80	26,333.48	4,586.96	
							26,072.43	

<sup>1</sup> Includes increased compensation, amounting to \$47,851.21, provided by the legislative, executive, and judicial appropriation act for the fiscal year 1919.

## PROJECT STATEMENTS.

## ADMINISTRATION.

Total expenditures as above.....	\$61,335.73
Outstanding liabilities, Aug. 31 (estimated).....	1,994.02
Total allotment.....	<u>63,329.75</u>

General administration of the research, regulatory, and business affairs of the bureau, including the clerical work connected with the keeping of accounts, filing of correspondence, and editorial work..... 63,329.75

## INVESTIGATIONS IN AGRICULTURAL CHEMISTRY.

Total expenditures as above.....	46,699.42
Outstanding liabilities, Aug. 31 (estimated).....	737.48
Unexpended balance (estimated).....	2,014.76
Total allotment.....	<u>49,451.66</u>

Studies to determine the effect of environment on the composition of crops, to find new uses for waste agricultural products, to develop methods for preserving perishable farm products from seasons of oversupply to times of scarcity, to ascertain the nutritive value of feeds, and to apply the science of chemistry to the solution of problems in the production, distribution, and utilization of farm products, as follows:

Carbohydrate investigations.....	1,153.78
Fruit and vegetable utilization investigations.....	1,414.99
Leather and paper investigations.....	16,386.40
Insecticide and fungicide investigations.....	4,633.82
Nitrogen tests and investigations.....	262.63
Plant chemical investigations.....	17,389.45
Tin coating investigations.....	1,039.61
Utilization of corncobs.....	297.57
Utilization of agricultural products in the manufacture of gas.....	4,858.65
Total.....	<u>47,436.90</u>

## COLLABORATION WITH OTHER DEPARTMENTS.

Total expenditures as above.....	\$14,288.31
Outstanding liabilities, Aug. 31 (estimated).....	149.89
Unexpended balance (estimated).....	984.80
Total allotment.....	<u>15,423.00</u>

Distributed among the several subactivities as follows:

Miscellaneous tests for other departments: This project has for its object the rendering of assistance to the Post Office Department in preventing the use of the mails for fraudulent purposes, with special reference to drugs and medicines; the testing of certain supplies furnished under Government contract; work in the preparation of specifications for certain products, including foods and drugs for the Army and Navy; assisting the Treasury Department in classifying various products under the tariff act; analyzing samples of liquors for Department of Justice and Treasury Department; and making chemical analysis for other departments upon request....	5,115.00
Grain-dust explosion investigations: Study of the physical and chemical properties of grain and of the cereal dusts which occur in the threshing, storing, handling, and milling of wheat and other cereals, in order to determine the cause of explosions in threshers, mills, and elevators, and to secure knowledge that will lead to the prevention of such explosions.....	9,323.20
Total.....	<u>14,438.20</u>

## TESTING EXPORT FOOD PRODUCTS.

Total expenditures as above.....	3,727.26
Outstanding liabilities, Aug. 31 (estimated).....	14.00
Unexpended balance (estimated).....	738.74
Total allotment.....	<u>4,480.00</u>

## BUREAU OF CHEMISTRY.

Classification of expenditures for the fiscal year ended June 30, 1919.

Stationery.	Rent.	Telephone, telephone, and postage.	Freight, express and drayage.	Furnishing of heat, light, power. electricity.	Forage, purchased in bulk.	Fuel.	Specified items not otherwise classified.	Miscellane- ous supplies, services, etc.	Total.
\$192.00 287.62		\$0.95 102.66	\$109.54					\$740.90 2,380.08	\$61,335.73 46,699.42
		80.81	23.95				10.79	14,288.31	1
							213.92 2,880.96 647.65 88.37	3,727.26 41,733.82 10,070.68 5,045.70	2
58.20	\$3,130.00 900.00	266.60 182.24 0.45	351.30 53.74 24.76	\$68.95 36.96				1,754.26	15,139.37
		1.24	73.02				1,590.54	16,633.07	3
		960.00	94.02	185.43	158.21				
			75.08	130.85			7,923.14 347.35	65,383.70 6,754.97	4
			5.00	585.64			59,022.02	866,915.11	5
5,167.44	15,362.42	6,625.63	7,314.19	2,052.68					6
			21.65	19.29			683.60	9,118.85	7
			0.20	58.14			1,566.20	10,005.10	8
		350.00	164.01	373.17			9,333.56	45,660.76	9
5,705.26	20,702.42	7,620.54	9,303.02	2,316.80			89,183.34	1,218,511.85	10

Tests of samples of export food products, upon request of the exporters, in order to determine whether the goods will meet the requirements of the country to which consigned; the methods of analysis employed in foreign countries are also studied.....

\$3,741.26

## POULTRY AND EGG INVESTIGATIONS.

Total expenditures as above.....  
Outstanding liabilities, Aug. 31 (estimated).....  
Unexpended balance (estimated).....

41,733.82  
3,271.18  
1,731.15  
46,736.15

Total allotment.....

Dissemination of information to shippers, carriers, and others relative to improved methods of handling poultry and eggs; study of the breakage of eggs in transit; investigation of the preparation of frozen and dried eggs; poultry fleshing studies; and research work to discover fundamental scientific facts bearing on the preservation of the quality of poultry and eggs and the prevention of decay.....

45,005.00

## FISH INVESTIGATIONS.

Total expenditures as above.....  
Outstanding liabilities, Aug. 31 (estimated).....  
Unexpended balance (estimated).....

10,070.68  
1,401.73  
2,686.58  
14,158.99

Total allotment.....

Investigation of the methods of transporting and handling fish; study of the cold storage of fish and the utilization of by-products of the fish industry.....

11,472.41

OYSTER AND OTHER SHELLFISH INVESTIGA-  
TIONS.

Total expenditures as above.....  
Outstanding liabilities, Aug. 31 (estimated).....  
Unexpended balance (estimated).....

\$5,045.70

98.57

0.73

5,145.00

Investigations regarding the sanitary condition of shellfish areas and the handling and shipping of shellfish; study of the conservation of the by-products of the oyster industry; investigation of the sanitary character of water in relation to the sanitary condition of shellfish.....

5,144.27

BIOLOGICAL INVESTIGATIONS OF FOOD AND  
DRUG PRODUCTS.

Total expenditures as above.....  
Outstanding liabilities, Aug. 31 (estimated).....  
Unexpended balance (estimated).....

15,139.37

333.51

936.45

16,409.33

Investigation of the biological effects of food and drug products upon health; determination of the chemical composition of proteins as a basis for ascertaining their food value; study of nitrogen distribution in various cereals and other feeding stuffs; study of the utilization of hydrogenated oils.....

15,472.88

## CITRUS BY-PRODUCTS INVESTIGATIONS.

Total expenditures as above.....  
Outstanding liabilities, Aug. 31 (estimated).....  
Unexpended balance (estimated).....

16,633.07

879.85

86.41

17,599.33

Development of commercial methods for the utilization of cull citrus fruits, especially for the purpose of increasing the quantity and quality of the yield of essential oils from the peel and of juice from the fruit; study of methods for the extraction of other by-products from citrus fruits; and investigation of methods for determining maturity of fruits and vegetables..... \$17,512.92

## COLOR INVESTIGATIONS.

Total expenditures as above..... 65,383.70  
Outstanding liabilities, Aug. 31 (estimated)..... 11,020.12  
Unexpended balance (estimated)..... 409.85

Total allotment..... 76,813.67

Investigations and experiments in the utilization, for coloring purposes, of raw materials grown or produced in the United States; establishment, equipment, and maintenance of a plant on the Arlington Farm for the purpose of conducting these experiments on a manufacturing scale..... 76,403.82

## TABLE SIRUP INVESTIGATIONS.

Total expenditures as above..... \$6,754.97  
Outstanding liabilities, Aug. 31 (estimated)..... 232.63  
Unexpended balance (estimated)..... 124.73

Total allotment..... 7,112.33

Investigation and demonstration of processes for preparing sugar-cane and sorghum sirup of superior quality which will not crystallize or ferment, and of methods by which variability of flavor and color of the product may be overcome; the adoption of which methods,

it is believed, will greatly stimulate sirup production and prevent serious losses from spoilage..... \$6,987.60

## ENFORCEMENT OF THE FOOD AND DRUGS ACT.

Total expenditures as above..... 866,915.11  
Outstanding liabilities, Aug. 31 (estimated)..... 6,861.05  
Unexpended balance (estimated)..... 4,500.93

Total allotment..... 878,277.09

Enforcement of the provisions of the food and drugs act of June 30, 1906, and the necessary investigations, inspections, and analyses of food and drug products incident thereto, as follows:

General administrative work in connection with the enforcement of the act, including the preparation of evidence for presentation in cases, fees paid expert witnesses, etc..... 81,387.81  
State cooperative food and drug control..... 14,272.99  
Sherley amendment cases..... 8,817.73  
Animal physiological chemical investigations..... 4,587.77  
Carbohydrate tests and investigations..... 8,680.92  
Citrus-fruit investigations..... 18.03  
Color certification and investigations..... 5,556.86  
Drug tests and investigations..... 25,765.54  
Food control..... 42,101.86  
Food investigations..... 12,673.40  
Microbiological tests and investigations..... 25,058.40  
Microchemical tests and investigations..... 16,747.31  
Miscellaneous tests and investigations..... 13,966.30  
Net weight investigations..... 3,015.58  
Nitrogen tests and investigations..... 3,539.36  
Oil, fat, and wax tests and investigations..... 5,852.89  
Pharmacognosy investigations..... 12,494.78  
Pharmacological investigations..... 5,074.00

## BUREAU OF SOILS.

*Classification of expenditures for the fiscal year ended June 30, 1919.*

Project.	Salaries.			Travel, station, and field expenses.	Equipment.			
	Statutory.	Lump fund.			Apparatus, instruments, laboratory.	Furniture.	Miscella- neous.	
		In Wash- ington.	Out of Washington.					
1 Administration.....	\$33,083.62	\$4,449.17	.....	\$37,532.79	\$184.76	.....	\$120.86	
2 Soil chemical investigations.....	960.00	18,743.10	.....	19,703.10	.....	\$26.00	.....	
3 Soil physical investigations.....	2,472.00	10,416.20	.....	12,888.20	179.45	.....	\$37.50	
4 Investigations of fertilizer re- sources.....	3,065.00	24,883.10	\$64,710.95	92,659.05	3,000.29	958.00	226.11	
5 Soil-survey investigations.....	26,488.04	11,327.47	80,634.12	118,449.63	62,607.78	.....	404.20	
6 Classification of agricultural lands.....	.....	.....	1,920.00	1,920.00	2,355.46	.....	214.00	
Total.....	66,968.66	69,819.04	147,265.07	1,283,152.77	68,327.74	984.00	751.17	
							13,668.95	

<sup>1</sup> Includes increased compensation, amounting to \$11,301.99, provided by the legislative, executive, and judicial appropriation act for the fiscal year 1919.

## PROJECT STATEMENTS.

## ADMINISTRATION.

Total expenditures as above..... \$40,251.38  
Outstanding liabilities, Aug. 31 (estimated)..... 50.00  
Unexpended balance (estimated)..... 13,245.58

Total allotment..... 53,546.96

General direction and supervision of the various investigational activities of the bureau, including the offices of chief of bureau and chief clerk, and the accounts, editorial, supply, and files and records sections..... 40,301.38

## SOIL CHEMICAL INVESTIGATIONS.

Total expenditures as above..... 21,090.00  
Outstanding liabilities, Aug. 31 (estimated)..... 204.06  
Unexpended balance (estimated)..... 3,831.94

Total allotment..... 25,126.00

Distributed among the several subactivities as follows:

Supervision: Planning, direction, and supervision of the routine and investigational work in soil chemistry; conduct of correspondence and other clerical work relative thereto..... \$2,045.00

Mineral nature of agriculturally important American soils: Determination of the predominating minerals in important soil types, with a view to establish the origin, process of formation, and relations of these types.....

Routine microscopic work: Determination of the identity of rocks and other soil forming and fertilizer producing materials submitted by the various divisions of this bureau and other branches of the department..... 1,110.00

700.00

Physiochemical investigations.....	\$3,678.26	
Phytochemical investigations.....	7,194.10	
Special investigations.....	22,553.08	
Water tests and investigations.....	14,722.79	
Eastern district—		
New York station (including district headquarters).....	92,736.45	Cooperation with individuals, firms, and corporations, owning or operating plants for the drying or dehydration of vegetables, fruits, and other perishable edible products to determine the best means and processes of dehydration and to disseminate information as to the value and suitability of such products for human consumption.....
Boston station.....	19,899.46	
Baltimore station.....	25,330.32	
Buffalo station.....	9,362.85	
Philadelphia station.....	13,712.87	
Porto Rico station.....	8,302.58	
Savannah station.....	13,162.89	
Inspection, eastern district.....	64,669.46	
Central district—		
Chicago station (including district headquarters).....	79,137.77	
Cincinnati station.....	11,438.04	
Minneapolis station.....	11,694.66	
New Orleans station.....	9,148.66	
St. Louis station.....	15,697.97	
Inspection, central district.....	61,193.00	
Western district—		
San Francisco station (including district headquarters).....	39,029.62	
Denver station.....	18,819.05	
Honolulu station.....	320.00	
Seattle station.....	17,575.01	
Inspection, western district.....	24,785.74	
Total.....	873,776.16	
INVESTIGATIONS IN THE DRYING OF VEGETABLES, FRUITS, ETC.		
Total expenditures as above.....	45,660.76	
Outstanding liabilities, Aug. 31 (estimated).....	112,299.22	
Unexpended balance (estimated).....	92,338.36	
Total allotment.....	250,298.34	

Investigation of the grading, weighing, and handling of naval stores; preparation of definite and permanent type samples as a basis for trading and to insure fair, uniform, and simple grading; demonstration of improved methods and processes of preparing naval stores.....

9,203.52

#### INSECTICIDE AND FUNGICIDE INVESTIGATIONS.

Total expenditures as above.....

10,005.10

Outstanding liabilities, Aug. 31 (estimated).....

1,134.02

Unexpended balance (estimated).....

13,950.88

Total allotment.....

25,090.00

Investigation and development of methods of manufacturing insecticides and fungicides; and study of chemical problems relating to the composition, action, and application of insecticides and fungicides.....

11,139.12

#### BUREAU OF SOILS.

*Classification of expenditures for the fiscal year ended June 30, 1919.*

Stationery.	Rent.	Telephone, telephone, and postage.	Freight, express, and drayage.	Furnishing of heat, light, power, electricity.	Forage, purchased in bulk.	Fuel.	Specified items not otherwise classified.	Miscellaneous supplies, services, etc.	Total.
\$474.72		\$250.90	\$505.98					\$1,181.37	\$40,251.38
41.56								1,319.34	21,090.00
20.34								1,477.06	14,602.55
94.65	\$216.00	69.72	148.30	\$6,510.02				40,288.47	157,588.06
196.83		9.43	29.13					1,542.23	183,453.23
		2.80	7.99						4,286.25
828.10	216.00	332.85	691.40	6,510.02				45,808.47	421,271.47

Inorganic composition of soils: A systematic inquiry, in cooperation with the soil survey, into the chemical composition of important agricultural soils of the United States.....

\$6,000.00

Fixation of atmospheric nitrogen: Investigation of new processes of fixing nitrogen by reduction methods.....

\$2,100.00

Hydrolytic decomposition of soil forming minerals: Study of the action of water and such substances as may exist in the soil solution upon the decomposition and degradation of soil minerals and the possible synthesis of new mineral species.....

250.00

Production of potash from feldspar and other mineral sources: Determination of commercially possible methods for utilizing feldspar, alunite, natural brines, etc., as sources of potash.....

2,489.06

Routine laboratory analyses: Chemical analysis of soils, waters, and similar materials for this bureau and other branches of the department.....

6,000.00

Total.....

21,294.06

Liming of soils: Study of the effects of liming and determination of a proper basis for the practice of liming soils.....

600.00

Soil Physical Investigations.

Total expenditures as above.....

14,602.55

Outstanding liabilities, Aug. 31 (estimated).....

221.38

Unexpended balance (estimated).....

203.07

Total allotment.....

15,027.00

Distributed among the several subactivities as follows:	
Supervision: Planning, direction, and supervision of the routine and investigational work in soil physics; correspondence and other clerical details.....	\$3,200.00
Designing, construction, and standardization of instruments: Routine work in the repair of instruments and apparatus, and the designing and construction of special pieces of apparatus for the various divisions of the bureau.....	2,975.00
Physical examination of soils: Quantitative determination of the mechanical composition for an expression of the textural characteristics of soils; investigation of the physical composition of soils; and determination of the relation of the different components to the physical condition of the soil.....	4,725.55
Movement of the soil solution: Study of the movement and distribution of moisture in the soil and of methods for determining the critical moisture content; and devising an instrument that can be used in the field for determining the moisture content of soils.....	1,600.00
Fixation of nitrogen by catalytic processes: Investigation of methods of fixing nitrogen by the aid of catalytic reagents, with a view to increase the efficiency of the known methods and to devise new ones.....	2,323.38
<b>Total.....</b>	<b>14,823.93</b>
<b>INVESTIGATIONS OF FERTILIZER RESOURCES.</b>	
Total expenditures as above.....	\$157,588.06
Outstanding liabilities, Aug. 31 (estimated).....	213.78
Unexpended balance (estimated).....	8,069.49
<b>Total allotment.....</b>	<b>165,871.33</b>
Distributed among the several subactivities as follows:	
Supervision: Planning, direction, and supervision of the investigation of fertilizer resources of the United States.....	4,797.00
Extraction of potash salts from kelps: Investigation and demonstration on a semicommercial scale, of the practicability and economic value of various methods used for the extraction of potash salts from the giant kelps on the Pacific coast.....	121,187.41
Production of potash from feldspar and other mineral sources: Determination of commercially possible methods for utilizing feldspar, alunite, natural brines, etc., as sources of potash for fertilizer production.....	3,900.67
Fertilizer value of city and trade waste: Determination of the amount and value of city and trade waste as sources of commercial fertilizer material.....	500.00
Fertilizer value of nitrogenous materials: Determination by chemical and other methods of the actual fertilizer value of various nitrogenous materials.....	1,300.00
Fixation of nitrogen by catalytic processes: Investigation of methods of fixing nitrogen by the aid of catalytic reagents, with a view to increase the efficiency of the known methods and to devise new ones.....	7,040.00
Fixation of atmospheric nitrogen: Investigation of new processes of fixing nitrogen by reducing methods.....	6,264.44
Extraction of phosphoric acid from natural phosphates: Investigation of the sulphuric-acid and electrical methods used for the extraction of phosphoric acid from natural phosphates and devising improvements in these methods.....	3,060.67
Phosphate industry of the United States: Investigation of the sources, quantity, and production of phosphate rock, its manipulation for the fertilizer industry, the relative merits of the products obtained by the several manipulations, and other factors necessary to determine the cost to the farmer and to inform him concerning changing conditions.....	\$1,996.43
Concentration of low-grade phosphates: Determination of economical mechanical and chemical methods of separating phosphoric acid from impurities with which it is associated in the waste material resulting from mine operations.....	3,000.00
Production of raw materials suitable for fertilizer purposes: Collection of accurate and authentic data by correspondence with producers and by occasional visits to mines and factories regarding available or partially available fertilizer resources.....	2,450.00
Effect of harvesting and other factors on the growth of kelp: Determination of the effect of different methods of harvesting on the growth of kelp; study of the influence of fresh water and of the effect of storms on the kelp beds.....	390.22
Analyses of samples: Examination of samples of materials which give promise of value for fertilizer use.....	1,915.00
<b>Total.....</b>	<b>157,801.84</b>
<b>SOIL SURVEY INVESTIGATIONS.</b>	
Total expenditures as above.....	\$183,453.23
Outstanding liabilities, Aug. 31 (estimated).....	141.25
Unexpended balance (estimated).....	41,242.22
<b>Total allotment.....</b>	<b>224,836.70</b>
Distributed among the several subactivities as follows:	
Supervision: General direction and supervision of the soil survey investigations, including office correspondence, compilation of field reports, assignments of the field force, and all other matters relating to the administration of the work.....	15,386.35
Soil surveys: These activities comprise the surveying, mapping, and classifying of the soils of important areas in different parts of the country; the preparation of reports containing descriptive matter relating to the soils, their character, origin, and value for crops, and to the agricultural conditions found in each area surveyed; the preparation of maps showing the distribution of the soils; and the dissemination of information relating to the use of soils. The purpose is to acquire a knowledge of the soils of the United States and make it available for use by other bureaus and departments, agricultural colleges, experiment stations, and other institutions and agencies engaged in the development of agriculture. The following areas were surveyed in whole or in part during the fiscal year 1919, aggregating 40,073 square miles:	
Alabama: Geneva County, \$2,785.95; Houston County, \$2,718.38; Marengo County, <sup>1</sup> \$3,059.96.....	8,564.29
Arizona: Sentinel Reclamation Project.....	905.82
California: El Centro area, <sup>1</sup> \$1,719.19; Grass Valley area, <sup>1</sup> \$584.80; Siskiyou County, <sup>2</sup> \$532.25.....	2,836.24
Colorado: Montezuma and Dolores Reclamation Projects.....	927.23
Delaware: Kent County, <sup>1</sup> \$634.55; Sussex County, <sup>2</sup> \$887.62.....	1,522.17

<sup>1</sup> Surveyed in part during fiscal year 1918.<sup>2</sup> To be completed during fiscal year 1920.

Florida: Duval County, \$2,487.95; Orange County, <sup>1</sup> \$2,080.95.....	\$4,568.90	Wisconsin: Adams County, <sup>2</sup> \$117.97; Jackson County, <sup>1</sup> \$1,073.69; Kenosha County, <sup>1</sup> \$1,791.21; Outagamie County, <sup>1</sup> \$851.25; Racine County, <sup>2</sup> \$835.87; Walworth County, <sup>2</sup> \$1,111.09.....	\$5,781.08
Georgia: Butts-Henry area, \$3,529.87; Coweta-Fayette area, \$3,704.65; Green-Morgan-Oconee-Putnam area, \$7,565.02.....	14,799.54	Wyoming: Green River Basin Reclamation Project.....	415.25
Idaho: Bannock County, <sup>1</sup> \$1,309.40; Kootenai County, <sup>2</sup> \$411.06.....	1,720.46	Inspection, correlation, and supervision of field work: Inspection of soil survey field work to secure uniformity in methods and results; examination and review of field reports; preparation of memoranda for soil correlation and keeping of records pertaining thereto; and correlation of the soils of the various areas surveyed, so as to insure uniformity in the classification of the soils of the United States.....	14,661.97
Indiana: Decatur County <sup>2</sup> .....	426.09	Map drafting: Preparation of suitable base maps for the use of soil survey field parties; securing data regarding official boundaries, railroad alignments, and other miscellaneous information required by field parties; adjusting, drawing, and coloring soil maps to be used as copy for lithographic reproduction; measuring the areas of different soils types, etc.....	17,321.81
Iowa: Adair County, <sup>2</sup> \$135.08; Cedar County, <sup>2</sup> \$506.50; Fayette County, <sup>2</sup> \$508.01; Johnson County, <sup>2</sup> \$402.91; Louise County, <sup>1</sup> \$1,203.07; Mahaska County, <sup>2</sup> \$433.61; Madison County, \$1,024.25; Marshall County, <sup>1</sup> \$1,151.53; Palo Alto County, <sup>1</sup> \$1,807.78; Polk County, <sup>1</sup> \$1,488.09; Wayne County, <sup>1</sup> \$1,106.75; Winnebago County, <sup>1</sup> \$745.59; Wright County, <sup>2</sup> \$424.93.....	10,938.10	Photographic reproduction of base maps: Photographic enlargement or reproduction of base maps to a scale suitable for use of soil survey field parties.....	1,362.78
Kansas: Leavenworth County <sup>2</sup> .....	366.71	Special soil studies: Investigations of the distribution, relationship, and characteristics of the important soil series and soil types of the country, and studies of the adaptability of soils to certain crops.....	3,374.49
Kentucky: Logan County, <sup>2</sup> \$1,433.44; Muhlenberg County, <sup>1</sup> \$860.30.....	2,293.74	Advisory service: Identification of miscellaneous soils samples and giving advice, through correspondence or otherwise, regarding the use of soils.....	2,620.00
Louisiana: Sabine Parish <sup>1</sup> .....	2,009.66	Miscellaneous supplies: Purchase of field equipment, consisting of plane tables, compasses, augers, alidades, etc., and repairs to same, drafting and photographic supplies, and other materials required for field and office work.....	2,121.05
Maine: Kennebec and Androscoggin Counties <sup>1</sup> .....	43.58	Total.....	183,594.48
Maryland: Carroll County, <sup>2</sup> \$1,263.60; Charles County, <sup>1</sup> \$1,569.78; Frederick County, <sup>2</sup> \$201.34.....	8,015.86	CLASSIFICATION OF AGRICULTURAL LANDS.	
Massachusetts: Bristol County <sup>2</sup> .....	3,034.72	Total expenditures as above.....	\$4,286.25
Minnesota: Stevens County <sup>2</sup> .....	616.76	Unexpended balance (estimated).....	13,933.75
Mississippi: Choctaw County, <sup>1</sup> \$734.49; Lamar County, \$1,384.08; Simpson County, \$3,453.50; Smith County, \$2,443.79.....	304.42	Total allotment.....	18,220.00
Missouri: Chariton County, \$1,863.93; Polk County, <sup>2</sup> \$456.68; Reynolds County, <sup>1</sup> \$638.28; St Louis County, \$431.....	3,389.89	This work consists of assisting the Forest Service in the classification and segregation of agricultural lands in the several forest reserves with a view to determine their value for agricultural purposes, so as to enable the Forest Service to indicate what lands may be opened for settlement.	
Montana: Green River Basin Reclamation Project.....	427.01	Forest reserves in—	
Nebraska: Banner County, <sup>2</sup> \$422.37; Cheyenne County, <sup>1</sup> \$1,555.63; Red Willow County, <sup>2</sup> \$334.56; Sheridan County, <sup>1</sup> \$2,575.20; Sioux County, <sup>2</sup> \$375.79.....	5,263.55	Arizona.....	368.93
New Jersey: Bernardsville area, <sup>2</sup> \$2,793.25; Chatsworth area, <sup>1</sup> \$1,162.48.....	3,955.73	Colorado.....	263.65
New York: Chenango County, <sup>1</sup> \$1,238.68; Wayne County, <sup>2</sup> \$660.88; White Plains area, <sup>1</sup> \$566.75.....	2,466.31	Florida.....	1,700.29
North Carolina: Moore County, <sup>1</sup> \$3,509.34; Orange County, <sup>1</sup> \$946.80; Vance County, <sup>1</sup> \$1,184.35; Wilkes County, <sup>1</sup> \$1,412.23.....	7,052.72	Louisiana.....	149.03
North Dakota: McHenry County, <sup>2</sup> \$300.68; Traill County, <sup>1</sup> \$1,203.06.....	1,503.74	New Mexico.....	301.62
Ohio: Fulton County, <sup>1</sup> \$1,703.62; Lucas County, <sup>2</sup> \$37.28; Wayne County, <sup>1</sup> \$40.50.....	1,781.40	Utah.....	1,026.93
Oregon: Josephine County, <sup>2</sup> \$497; Multnomah County, <sup>2</sup> \$704.55; Washington County, <sup>1</sup> \$1,711.06.....	2,912.61	Supervision.....	475.80
Pennsylvania: Lycoming County <sup>2</sup> .....	295.89	Total.....	4,286.25
South Carolina: Greenville County, \$2,862.29; Kershaw County, \$4,840.04; Laurens County \$1,247.85; Spartanburg County, \$1,580.88.....	10,531.06	<sup>2</sup> To be completed during fiscal year 1920.	
South Dakota: Beadle County <sup>2</sup> .....	303.09		
Tennessee: Maury County, <sup>1</sup> \$1,079.25; Meigs County, <sup>2</sup> \$1,126.97.....	2,206.22		
Texas: Dallas County, \$1,081.12; Denton County, <sup>1</sup> \$2,797.52; Erath County, \$1,540.18; Freestone County, <sup>1</sup> \$1,125.96; Tarrant County, \$1,343.81; Western Texas reconnaissance area, <sup>2</sup> \$1,672.37.....	9,560.96		
Utah: Millard County <sup>2</sup> .....	521.30		
Virginia: Pittsylvania County <sup>1</sup> .....	1,457.93		
Washington: Wenatchee area <sup>1</sup> .....	1,488.97		
West Virginia: Braxton and Clay Counties, <sup>1</sup> \$765.08; Fayette and Nicholas Counties, <sup>2</sup> \$80; Webster County, <sup>1</sup> \$691.95.....	1,537.03		

<sup>1</sup> Surveyed in part during fiscal year 1918.

<sup>2</sup> To be completed during fiscal year 1920.

## BUREAU OF ENTOMOLOGY.

Classification of expenditures for the fiscal year ended June 30, 1919.

Project.	Salaries.			Travel, station, and field expenses.	Equipment.			
	Statutory.	Lump fund.			Apparatus, instruments, laboratory.	Furniture.	Miscella- neous.	
		In Wash- ington.	Out of Washington.					
1 Administration .....	\$36,000.31	\$6,477.48	.....	\$42,477.79	\$660.03	.....	\$215.68	
2 Deciduous-fruit insect investigations .....	3,253.34	17,889.34	\$45,335.17	66,477.85	10,398.38	\$777.47	5,264.17	
3 Cereal and forage insect investigations .....	13,491.14	12,670.98	78,703.57	104,865.69	16,689.04	780.86	512.51	
4 Southern field-crop insect investigations .....	6,068.46	12,136.17	44,685.31	62,889.94	16,449.00	286.25	442.67	
5 Forest and shade-tree insect investigations .....	5,718.17	14,362.99	28,894.07	48,975.23	7,336.46	402.25	199.90	
6 Truck-crop and stored-product insect investigations .....	4,629.67	15,544.34	24,987.57	45,161.58	6,131.75	1,458.83	650.87	
7 Bee culture investigations .....	4,072.00	13,141.67	12,767.49	29,981.16	2,703.37	.....	115.89	
8 Tropical and subtropical fruit insect investigations .....	5,343.32	1,706.00	6,432.50	13,481.82	1,793.69	305.40	299.06	
9 Investigation and control of the Mediterranean and other fruit flies .....	.....	10,693.72	7,796.83	18,490.55	6,665.26	1.20	224.18	
10 Miscellaneous insect investigations .....	13,416.50	30,787.71	12,989.46	57,193.67	4,805.09	383.12	239.84	
11 Investigation and control of gipsy moth and brown tail moth .....	13,440.92	480.00	64,971.46	78,892.38	142,102.56	298.81	287.94	
12 Investigation and control of sweet potato weevil .....	.....	.....	8,630.94	8,630.94	5,867.51	8.40	27.94	
Total .....	105,433.83	135,890.40	336,194.37	1,577,518.60	221,602.14	4,702.59	3,743.95	
							17,592.43	

<sup>1</sup> Includes increased compensation amounting to \$29,268.76, provided by the legislative, executive, and judicial appropriation act for the fiscal year 1919.

## PROJECT STATEMENTS.

## ADMINISTRATION.

Total expenditures as above .....	\$45,035.06
Outstanding liabilities, Aug. 31 (estimated) .....	415.45
Unexpended balance (estimated) .....	75.53
Total allotment .....	<u>45,526.04</u>

General administration, supervision, and direction of the investigations and business activities of the bureau, under the personal supervision of the chief of bureau .....	45,450.51
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## DECIDUOUS-FRUIT INSECT INVESTIGATIONS.

Total expenditures as above .....	\$96,473.17
Outstanding liabilities, Aug. 31 (estimated) .....	2,470.69
Unexpended balance (estimated) .....	84.81
Total allotment .....	<u>99,028.67</u>

Distributed among the several subactivities as follows:

Supervision: Planning and direction of the activities relating to deciduous-fruit insect investigations, including supervision of scientific work, general office routine, correspondence, etc .....

8,752.87

Apple insects: Studies of the life history and habits of and remedies for the apple tree borer, aphids, and other insects injurious to the apple, and development of methods for their control; also study of variations necessary in the spraying schedule to control the codling moth .....

28,804.97

Peach insects: Work on the biology of insects injurious to the peach, including thrips, peach tree borer, oriental peach moth, etc., and determination of methods of control .....

14,114.54

Grape insects: Investigation of the life history and habits of the grape berry moth, grape mealy bug, and other important grape insects in the United States, and development and application of remedies .....

\$8,346.98

Nut insects: General inquiry into the insect enemies of the pecan, chestnut, and other native cultivated nuts, and determination of appropriate remedies .....

8,726.26

Orchard insecticides and spraying machinery: Testing of proprietary insecticides and development of new insecticides; determination of the comparative merits of various types of spraying machinery in general use and of accessories used in spraying .....

6,627.47

Cranberry and small-fruit insects: Investigation of the important insects affecting the cranberry and other small fruits, and determination of appropriate remedial measures for same; study of methods of insect control now in vogue, with a view to develop improvements where possible .....

3,211.03

Deciduous-fruit insect control by natural agencies: Determination of the importance of hymenopterous parasites and predatory insects in the control of various species of insects injurious to deciduous fruit orchards, vineyards, etc., and development of methods for their practical propagation and dissemination .....

7,127.13

Orchard insect survey: Collection of data regarding a large number of insect pests of orchards, vineyards, etc., not normally of first class importance as pests but which in the aggregate do a large amount of injury and may become seriously destructive at any time, so as to be prepared to promptly suggest remedies in case of serious insect outbreaks and minimize the loss from such causes .....

4,909.67

## BUREAU OF ENTOMOLOGY.

Classification of expenditures for the fiscal year ended June 30, 1919.

Stationery.	Rent.	Telegraph, telephone, and postage.	Freight, express, and drayage.	Furnishing of heat, light, power, electricity.	Forage, purchased in bulk.	Fuel.	Specified items not otherwise classified.	Miscellane- ous supplies, etc.	Total.	
\$509.06		\$145.14	\$28.48					\$493.39	\$45,035.06	1
289.26	\$3,077.26	611.10	1,224.58	\$171.82		\$221.14		7,694.54	96,473.17	2
414.35	5,706.15	813.70	1,294.80	323.73		520.60		4,183.82	137,933.72	3
709.47	2,368.00	467.95	767.52	250.57		321.63		7,742.16	94,452.76	4
229.44	1,042.50	117.03	86.43	50.99		223.26		1,167.06	59,890.45	5
267.95	781.50	156.74	693.95	29.67		91.74		3,285.52	59,445.39	6
158.31	1,025.80	69.66	108.90	11.10		242.43		425.95	34,981.05	7
168.22	656.50	136.54	77.48	43.21		7.00		1,849.94	19,585.41	8
73.41	430.00	97.23	74.97	18.60				1,155.06	28,231.38	9
328.20	990.50	210.70	217.39	100.63				2,266.76	66,918.65	10
360.18	3,736.78	1,360.87	665.89	452.61		148.53	1 \$43.20	78,070.18	312,034.61	11
12.20	304.67	49.14	209.00	21.90		19.50		811.04	15,962.24	12
3,520.05	20,119.66	4,235.80	5,449.39	1,474.83		1,795.83	43.20	109,145.42	970,943.89	

<sup>1</sup> Advertising.

Investigation and control of the Japanese beetle: Investigations, in cooperation with the New Jersey State Department of Agriculture, of the life history and methods of control of this newly introduced pest of deciduous fruits, ornamentals, etc., including destruction of grubs in the soil by the use of soil insecticides; destruction of beetles by hand picking in the areas of densest infestation; maintenance of a wide band of poisoned foliage around the entire infested area; clearing food plants of insects from along roadways to reduce danger of distribution by vehicles and pedestrians; and adoption of quarantine measures, in cooperation with the Federal Horticultural Board. .... \$8,322.94

Total..... 98,943.86

CEREAL AND FORAGE INSECT INVESTIGA-  
TIONS.

Total expenditures as above..... \$137,933.72  
Outstanding liabilities, Aug. 31 (estimated)..... 1,382.95  
Unexpended balance (estimated)..... 826.62

Total allotment..... 140,143.29

Distributed among the several subactivities as follows:

Supervision: General supervision of all the cereal and forage insect investigations, preparation of results for publication, and usual office routine..... 12,748.00

Cereal insects: Investigations of insects attacking cultivated grains, including the white grub, corn earworm, European corn borer, cutworms, western army cutworm, jointworm, wireworm, chinch bug, Hessian fly, corn rootworms, and miscellaneous insects affecting rye, barley, and other small grains; and experiments in the utilization of natural enemies of such insects, besides remedial and preventive measures through mechanical means..... 83,580.53

Forage insects: Studies of insects attacking plants used as forage, including the alfalfa weevil, alfalfa seed chalcis, insects affecting the production of clover seed, and those attacking soy bean, cowpea, vetch, and other plants and grasses used for forage; and investigation of methods of combating these insects through the employment of their natural enemies and the utilization of mechanical remedial and preventive measures..... \$42,988.14

Total..... 139,316.67

SOUTHERN FIELD-CROP INSECT INVESTIGA-  
TIONS.

Total expenditures as above..... \$94,452.76  
Outstanding liabilities, Aug. 31 (estimated)..... 2,858.87  
Unexpended balance (estimated)..... 473.17

Total allotment..... 97,784.80

Distributed among the several subactivities as follows:

Supervision: General supervision of southern field-crop insect investigations and conduct of usual office routine..... 9,125.02

Cotton insects: Investigation of the cotton-boll weevil, including life history studies, experiments in methods of cultivation, determination of the efficiency of hand picking of squares, experiments with insecticides, value of parasitic enemies as a control measure, and collection of data as to the status and distribution of the weevil; study of the habits and extent of damage caused by cotton root aphids, cutworms, red spider, cotton bugs, and other insects, and development of methods of control; determination of the injury caused by thrips and other insects affecting cotton in the Imperial Valley, Calif., and of appropriate remedies; study of the relation of insects to the shedding of the cotton fruit, with a view to reduce loss from this cause.. 51,145.15

Tobacco insects: Study of insects attacking tobacco, including hornworms, budworms, wireworms, and the large tobacco beetle; determination of methods of control, by spraying and otherwise, and demonstration to planters of such methods; determination of feasible means to prevent losses in warehouses and factories due to the cigarette beetle; and investigation of insects which transmit the mosaic disease.....	\$28,152.42	and practical treatment of economic problems relating particularly to forest and other scolytoid beetles, hymenopterous, coleopterous, dipterous, lepidopterous, and isopterous insects, and buprestid, cerambycid, and other coleopterous larvae.....	\$13,598.58
Rice insects: Life history studies of the insect species responsible for injury to this crop, and determination and demonstration of control measures.....	964.17	Total .....	60,733.51
Sugar cane insects: Investigation of the moth borer, mealy bug, beetles, leafhoppers, and other insect enemies of sugar cane, with a view to discover means of suppressing them.....	5,883.73	TRUCK-CROP AND STORED-PRODUCT INSECT INVESTIGATIONS.	
Argentine ant: Surveys of territory in the southern States infested with the Argentine ant, and study and demonstration of control measures, with a view to reduce losses in cane plantations and orchards and to prevent annoyance in dwellings, warehouses, and elsewhere due to this pest.....	2,041.14	Total expenditures as above.....	\$59,445.39
Total.....	97,311.63	Outstanding liabilities, Aug. 31 (estimated).....	7,123.11
FOREST AND SHADE-TREE INSECT INVESTIGATIONS.		Unexpended balance (estimated).....	3,643.17
Total expenditures as above.....	\$59,890.45	Total allotment.....	70,211.67
Outstanding liabilities, Aug. 31 (estimated).....	843.06	Distributed among the several subactivities as follows:	
Unexpended balance (estimated).....	645.32	Supervision: General supervision of vegetable, truck-crop, and stored-product insect investigations and performance of administrative and routine duties common to the entire work.....	9,762.31
Total allotment.....	61,378.83	Vegetables and truck-crop insects: Determination by the usual field, experimental, and research methods of the causes, extent, and character of insect injury to vegetable and truck crops with a view to develop effective preventive and control measures; includes investigations of insects affecting potatoes, sweet potatoes, cabbage and other cole crops, beans, peas, and other leguminous food crops, tomatoes, onions, melons, cucumbers and other cucurbits, with especial attention to the Colorado potato beetle, potato tuber moth, potato aphid, potato leafhopper, potato flea beetles, onion thrips, bean ladybird, bean aphid, pea aphid, cabbage worms and loopers, root maggots, cabbage and spinach plant lice, melon aphid, cutworms, wireworms, grasshoppers, blister beetles, and insects injurious to greenhouse vegetables and certain miscellaneous crops; determination of the life history of sugar-beet infesting insects, such as leafhoppers, root aphid, sugar-beet wireworms, leaf beetles, white grubs, and other pests; insects injurious to strawberry, raspberry, and blackberry, including weevils, root worms, and root aphid; studies of the agency of insects in the transmission of cucumber and melon wilt and mosaic, potato blight, and "calico" wilt of tomatoes, white blight of spinach, curly-top of sugar beets, anthracnose of beans, asparagus rust, and similar diseases.....	41,774.60
Distributed among the several subactivities as follows:	7,775.09	Field investigations: Determination of the character, extent, cause, and methods of prevention and control of insect damage to forest growth, dying and felled timber; crude, finished, seasoned, and utilized forest products, including poles, posts, mine props, railroad ties, etc.; and insects affecting shade trees and hardy shrubs in general. Investigations of the relation of the bioclimatic law of latitude, altitude, and longitude to forest tree insects and of the interrelation of insects and fires, lightning, and storms in the destruction of forests. Systematic and economic investigations of the scolytoid bark and timber beetles of North America and other wood and bark boring and defoliating insects and of beneficial insects. Investigations of general laws and principles relating to methods of combating forest, forest-product, and shade-tree insects. Instructions and demonstrations in the national forests and national parks relating to practical methods of preventing and controlling extensive insect depredations.....	
Supervision: General supervision of forest insect investigations and performance of laboratory experiments and office routine pertaining to the work as a whole.....	39,359.84	Stored-product insects: Studies of both common and newly introduced insects injuriously affecting stored wheat, corn, oats, and other grains and flour, meal, and other mill products, including all cereal food-stuffs in flour mills, elevators, and warehouses, involving special investigation of railway and steamboat lines as carriers of infestation; study of the insect enemies of dried fruits and nuts, beans, peas, cowpeas, cured meats, hides, furs, and manufactured fabrics; and investigation and demonstration of appropriate measures for the control of such insects, including tests of promising and standard fumigants and other insecticides against these species, and of kiln-drying and heat methods against grain pests, especially grain weevils and insects attacking edible legumes.....	15,031.59
Field investigations: Identification and classification of species; preparation of original description of species and the various stages in their life history; revising and bringing up to date the systematic knowledge of North American species; determination of seasonal histories, food, and breeding habits, geographical distribution, and such other information of a technical nature about forest and shade-tree insects as is essential to best success in the investigation	Total.....		66,568.50

BEE CULTURE INVESTIGATIONS.	
Total expenditures as above.....	\$34,981.05
Outstanding liabilities, Aug. 31 (estimated).....	3,788.38
Unexpended balance (estimated).....	827.57
Total allotment.....	<u>39,597.00</u>
Determination of various methods by which bees respond to changes in external temperature, and best methods of caring for bees during winter; study of the development of the bee in the larval stage; investigation of the various diseases which affect brood and adult bees; demonstrations and instructions in beekeeping through and in cooperation with extension divisions of the State colleges and county agricultural agents.....	38,769.43
TROPICAL AND SUBTROPICAL FRUIT INSECT INVESTIGATIONS.	
Total expenditures as above.....	\$19,585.41
Outstanding liabilities, Aug. 31 (estimated).....	1,641.78
Unexpended balance (estimated).....	902.13
Total allotment.....	<u>22,129.32</u>
Distributed among the several subactivities as follows:	
Supervision: General direction and supervision of the investigations and routine laboratory and clerical work.....	4,697.75
Investigations in California: Investigation as a basis for control of insects affecting the subtropical fruits, particularly the orange, in southern California, including the perfecting of the use of liquid hydrocyanic-acid gas for disinfecting citrus groves; study of the Argentine ant in its relations to citrus scale insects; study of the life history of the two principal date palm scale insects with a view to determine methods of control.....	9,054.34
Investigations in Florida: Determination on a commercial basis of the practicability of control measures for the white fly and scale insects recommended as a result of investigations of previous years; also investigation of the biology, injury, and methods of control of the rust mite and other injurious insects affecting citrus trees; investigation of insects affecting mango, guava, avocado, and other subtropical fruits.....	4,231.23
Greenhouse investigations: Investigation of insects affecting tropical and subtropical fruits and plants in greenhouses, including greenhouse fumigation.....	3,243.87
Total.....	<u>21,227.19</u>
INVESTIGATION AND CONTROL OF THE MEDITERRANEAN AND OTHER FRUIT FLIES.	
Total expenditures as above.....	\$28,231.38
Outstanding liabilities, Aug. 31 (estimated).....	2,623.77
Unexpended balance (estimated).....	1,813.85
Total allotment.....	<u>32,669.00</u>
Distributed among the several subactivities as follows:	
Supervision: General direction and supervision of the various projects and conduct of the administrative office in cooperation with the Federal Horticultural Board,.....	4,031.36
Enforcement, in cooperation with the Federal Horticultural Board, of Quarantine No. 13 on account of the Mediterranean fruit fly and melon fly, including inspection and certification of pineapples, bananas, and other fruit for export from Hawaii to the mainland of the United States; inspection and regulation of fruit imported into the United States from Mediterranean and other countries in which fruit flies are known to occur; investigations of fruits imported into the United States as a basis for necessary quarantine action; study of the life history of the Mediterranean and other fruit flies and the control of these pests through the introduction and distribution of their natural enemies; study of the geographical distribution of fruit flies as a basis for needed quarantine or regulatory action; investigations of fruit flies and other tropical and subtropical fruit insects in the Canal Zone, Panama.....	<u>\$26,823.79</u>
Total.....	<u>30,855.15</u>
MISCELLANEOUS INSECT INVESTIGATIONS.	
Total expenditures as above.....	\$66,918.65
Outstanding liabilities Aug. 31, (estimated).....	306.05
Unexpended balance (estimated).....	93.14
Total allotment.....	<u>67,317.84</u>
Distributed among the several subactivities as follows:	
Supervision: General direction of investigations, including administrative and routine clerical work.....	1,341.76
Identification and classification of insects: This covers the miscellaneous investigational work not specifically provided for in other projects of the bureau.....	32,232.93
Insects affecting the health of man: Investigation and eradication of the house fly, malaria-carrying mosquitoes, stable fly, Rocky Mountain spotted fever tick, and other insects affecting the health of man; investigation and control of insects found in packing houses and associated with meat products and which may therefore transmit disease.....	18,050.96
Insects affecting the health of animals: Investigation of the various species of ticks which transmit disease or are important parasites of domestic animals, and of screw worm, ox warble, horsefly, horn fly, etc...	15,599.05
Total.....	<u>67,224.70</u>
INVESTIGATION AND CONTROL OF GIPSY MOTH AND BROWN TAIL MOTH.	
Total expenditures as above.....	\$312,034.61
Outstanding liabilities, Aug. 31 (estimated).....	5,723.14
Unexpended balance (estimated).....	3,573.18
Total allotment.....	<u>321,330.93</u>
Distributed among the several subactivities as follows:	
Supervision: General direction of work in the prevention of the spread of gipsy and brown tail moth, preparation of the results for publication, and routine clerical work.....	
Scouting and extermination: Determination of the area infested by the gipsy moth and the brown tail moth, for the purpose of preventing the spread of these insects and applying exterminative measures in the territory where the best results can be secured.	
	17,309.23
	176,464.58

Laboratory and field investigations: Studies of the habits and life history of imported parasites and natural enemies of the gipsy and brown tail moths; determination of the extent to which these parasites are increasing under field conditions and their values as enemies of the insects concerned; collection and colonization of beneficial species in areas where they do not now exist in the infested territory; determination of the natural increase of the gipsy moth under field conditions; study of the feeding habits of the gipsy moth larvae in all stages and of the food

plants upon which this species can not develop; investigation of the relation and effect on the increase of the gipsy moth of the disease known as "wilt" and of the effect of secondary insects on trees that have been defoliated by the gipsy moth; study of the means by which the gipsy moth spreads to new territory; and tests of new insecticides and methods of spraying or banding trees in order to enable control work to be carried on more efficiently and economically..... \$73,580.52

## BUREAU OF BIOLOGICAL SURVEY.

*Classification of expenditures for the fiscal year ended June 30, 1919.*

Project.	Statutory.	Salaries.			Travel, station, and field expenses	Equipment.			
		Lump fund.		Total.		Apparatus, instruments, laboratory.	Furniture.	Miscella- neous.	
		In Wash- ington.	Out of Washington.						
1 Administration.....	\$29,064.65	\$6,413.36	.....	\$35,478.01	\$873.62	.....	\$475.67	\$374.25	
2 Game preservation.....	3,152.66	10,867.69	\$18,138.14	32,158.49	16,596.08	\$30.00	43.81	1,396.57	
3 Economic investigations.....	4,777.45	25,322.74	57,665.47	87,765.66	259,284.85	274.82	1,050.43	1,851.92	
4 Biological investigations.....	7,828.67	17,376.72	2,474.99	27,678.38	4,197.34	26.55	20.00	198.55	
5 Enforcement of the migratory-bird treaty act.	2,481.34	3,620.72	24,506.65	30,608.71	19,089.55	.....	42.53	4,652.09	
Total.....	47,302.77	63,601.23	102,785.25	1 213,689.25	300,041.44	331.37	1,632.44	8,473.38	

<sup>1</sup> Includes increased compensation, amounting to \$9,117.46, provided by the legislative, executive, and judicial appropriation act for the fiscal year 1919.

## PROJECT STATEMENT.

## ADMINISTRATION.

Total expenditures as above.....	\$38,669.41
Outstanding liabilities, Aug. 31 (estimated).....	101.90
Unexpended balance (estimated).....	4,751.27

Total allotment..... 43,522.58

Administration of the investigational work of the bureau and conduct of its business and routine laboratory operations.....	38,771.31
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## GAME PRESERVATION.

Total expenditures as above.....	\$56,875.75
Outstanding liabilities, Aug. 31 (estimated).....	871.99
Unexpended balance (estimated).....	16,970.00

Total allotment..... 64,717.74

Distributed among the several subactivities as follows:

## ENFORCEMENT OF THE LACEY ACT.

Supervision: General direction of the activities under this group, including necessary clerical and other routine work.....	\$7,795.07
Interstate commerce in game: Enforcement of sections 242, 243, and 244 of the Criminal Code of the United States, regulating interstate shipment of game; involves the collection of evidence of violations of the Lacey Act and its transmission to the Department of Justice through the Solicitor's office and the giving of expert testimony when necessary.....	12,632.02

<sup>1</sup> Includes \$1,296.12 from continuing appropriation for Wind Cave national game preserve (agricultural appropriation act for the fiscal year 1913) and \$2,116.39 from continuing appropriations for Sullys Hill national game preserve (fiscal years 1915, 1916, 1917, 1918, and 1919).

Importation of foreign mammals and birds: The prevention, by inspection service, of the introduction from foreign countries of injurious birds and mammals.....

\$726.77

Publications: Compilation, publication, and distribution of information concerning game, game laws, interstate commerce in game, and importation of foreign birds....

476.00

## ESTABLISHMENT AND MAINTENANCE OF RESERVATIONS.

Supervision: General direction of the activities under this group, including necessary clerical and other routine work.....

\$6,194.51

General maintenance of reservations and refuges: Maintenance of areas set apart by Executive order or acts of Congress as breeding refuges for birds and game mammals and placed in charge of the Bureau of Biological Survey.....

15,900.48

Montana national bison range: Maintenance of reservation and care of the herds of buffalo and other big animals located therein.....

2,172.13

Wind Cave preserve: Maintenance of a national game preserve in Wind Cave National Park, S. Dak.....

1,874.81

Winter elk refuge: Maintenance of a permanent winter refuge to provide hay and insure perpetuation of elk in Wyoming....

6,590.02

Sullys Hill national game preserve: Maintenance and improvement of a game preserve in Sullys Hill National Park, N. Dak., by the construction of suitable corrals, sheds, buildings, and shelter for the proper care of animals and birds placed therein.....

1,818.73

Quarantine and inspection: Inspection of plants and forest and quarry products in order to prevent the dissemination of the gipsy moth and the brown tail moth from infested areas; enforcement of regulations prescribed by Federal Horticultural Board \$50,403.42  
 Total..... 317,757.75

## INVESTIGATION AND CONTROL OF SWEET POTATO WEEVIL.

Total expenditures as above..... \$15,962.24  
 Outstanding liabilities, Aug. 31 (estimated)..... 3,980.37  
 Unexpended balance (estimated)..... 292.39  
 Total allotment..... 20,235.00

Study of the distribution, food and other habits, life history and economy, and methods of control; cooperation in preventing further dissemination by State quarantine and in supplying weevil-free propagation stock; eradication in isolated locations; testing fumigation and other methods in cooperation with officials in States where the weevil is established..... \$19,942.61

## BUREAU OF BIOLOGICAL SURVEY.

*Classification of expenditures for the fiscal year ended June 30, 1919.*

Stationery.	Rent.	Telegraph, telephone, and postage.	Freight, express, and drayage.	Furnishing of heat, light, power, electricity.	Forage, purchased in bulk.	Fuel.	Specified items not otherwise classified.	Miscellaneous supplies, services, etc.	Total.
\$461.37		\$247.77	\$7.46					\$751.26	\$38,669.41
23.50	\$323.25	178.29	1,507.60		\$319.51	\$5.00		4,293.65	1 56,875.75
704.55	2,250.76	1,532.88	4,546.36		1,573.13			19,427.54	2 380,262.90
36.62	6.68	35.95	569.76		22.30			782.56	3 33,574.69
172.19	27.50	340.10	49.95		0.50			861.93	4 55,845.05
1,398.23	2,608.19	2,334.99	6,681.13		1,915.44	5.00		26,116.94	5 565,227.80

Restocking reservations: Restocking national game preserves and other reservations with big game and game birds adapted thereto. \$1,567.20  
 Total..... 57,747.74

Suppression of rabies in predatory wild animals: Destruction of wolves, coyotes, and other wild animals which prey upon live stock in territories in which rabies is prevalent; collection of information on the losses occasioned by such animals..... \$122,645.63

## ECONOMIC INVESTIGATIONS.

Total expenditures as above..... \$380,262.90  
 Outstanding liabilities, Aug. 31 (estimated)..... 4,656.74  
 Unexpended balance (estimated)..... 18,961.09  
 Total allotment..... 403,880.73

Destruction of ground squirrels in national forests and on other public lands: Development and application of practical methods for the control of ground squirrels in national forests and on other public lands, in order to prevent injury by them to range areas and invasion by them of private lands surrounded by or adjacent to Government lands..... 13,966.77

Distributed among the several subactivities as follows:  
 Supervision: General direction of the activities under this group, including necessary routine laboratory and office work..... 16,189.01  
 Relation of native and introduced mammals to agriculture: Investigation and demonstration of methods for the control of wild animals destructive to cereal, fruit, and vegetable crops, pasturage, forest growth, and other vegetation, live stock, and range lands, including moles, pocket gophers, prairie dogs, wolves, etc..... 89,432.88

Relation of native and introduced birds to agriculture: Field observations and laboratory investigations of birds, with a view to determine from a knowledge of their feeding habits which species are beneficial and which injurious, and to make recommendations for the guidance of farmers, fruit growers, and foresters in their protection or control..... 16,971.52

Destruction of predatory animals in national forests and on the public domain: Systematic and economical control on Government reservations and other public domain of wolves, coyotes, and other mammals destructive to live stock; collection of information on the losses occasioned by such animals..... 119,403.01

Rearing fur-bearing animals: Determination of the best methods of feeding, confining, and otherwise handling fur-bearing animals, especially foxes, minks, and martens; determination of species most suitable for domestication; development of superior types by selective breeding; investigation of the effects of temperature on fur growth; and tests of methods of dressing peltries and of caring for dressed furs..... 6,310.82

Total..... 384,919.64

<sup>1</sup> Includes \$1,674.28 from continuing appropriation for suppressing the spread of rabies in wild animals (urgent deficiency act approved Feb. 28, 1916).

## BIOLOGICAL INVESTIGATIONS.

Total expenditures as above.....	\$33,574.69	sevation of the bird and mammal life and to obtain data by which the boundaries of the natural life zones may be determined...	\$12,331.59
Outstanding liabilities Aug. 31 (estimated).....	157.03	Investigations of birds and mammals of the public domain: Investigation of the wild life of the public domain, particularly in the national forests and Federal preserves, with special reference to fur bearers and species classed as game, in order to assist in the conservation of the valuable species and the destruction of the harmful ones...	
Unexpended balance (estimated).....	1,174.95	Bird migration: Determination of the migratory movements of game and other birds and their breeding and wintering ranges, to serve as the basis for the intelligent conservation of useful species and for the formulation of regulations under the migratory bird treaty act.....	14,455.30
Total allotment.....	<u>34,906.67</u>	Total.....	<u>3,553.52</u>
Distributed among the several subactivities as follows:			
Supervision: General direction of the projects under this group, including necessary clerical and other routine work.....	3,391.31		
Biological surveys of the States and Territories: Determination of the distribution, abundance, and habits of the birds and mammals of the United States and the distribution of certain plants, in order to secure information which will be of use in the con-			

## DIVISION OF PUBLICATIONS.

Classification of expenditures for the fiscal year ended June 30, 1919.

Project.	Salaries.			Travel, station, and field expenses.	Equipment.			
	Statutory.	Lump fund.			Apparatus, instruments, laboratory.	Furniture.	Miscella- neous.	
		In Wash- ington.	Out of Washington.					
Publication work of the Department of Agriculture.....	\$180,853.42	\$1,789.55	.....	<sup>1</sup> \$182,642.97	\$6.00	\$658.05	\$1,332.83	\$1,452.67

<sup>1</sup> Includes increased compensation, amounting to \$16,510.30, provided by the legislative, executive, and judicial appropriation act for the fiscal year 1919.

## PROJECT STATEMENT.

Total expenditures as above.....	\$213,266.64	etc., for the printer; revising, proof reading, compiling, abstracting, etc.....	\$14,387.95
Outstanding liabilities, Aug. 31 (estimated).....	1,178.20	Indexing: Preparation of indexes to publications when necessary; card-indexing by subjects all publications issued by department.....	
Unexpended balance (estimated).....	16,805.46		10,239.02
Total allotment.....	<u>231,250.30</u>	Illustration work: Preparation of drawings and photographs used in illustrating publications of the department; photographic and drafting work for all branches of the department for official record and for lectures; preparation of lantern slides for official use and photographs and lantern slides for furnishing to applicants at a price authorized by law.....	36,288.85
Distributed among the several subactivities as follows:			
Administration: Direction and supervision of the publication work of the department, including expenditures from the general printing of \$600,000; routine correspondence and clerical work.....	21,608.29		
Editorial work: Editing and supervising the printing of manuscripts submitted for publication; preparation of copy for blanks,			

## ENFORCEMENT OF THE MIGRATORY BIRD TREATY ACT.

Total expenditures as above.....	\$55,845.05	sectivorous birds through the establishment of a warden service and cooperation with State game officials and associations in the enforcement of the regulations under the migratory bird treaty act.....
Outstanding liabilities Aug. 31 (estimated).....	696.91	
Unexpended balance (estimated).....	<sup>1</sup> 7,851.74	
Total allotment.....	64,393.70	
Distributed among the several subactivities as follows:		
Supervision: General supervision, including necessary clerical and other routine work.....	7,455.53	Investigation of migratory wild fowl: Securing information concerning the distribution and abundance of migratory wild fowl in their breeding and wintering resorts, for the purpose of determining the increase or decrease of the various species as a basis for the formulation of proper regulations under the migratory bird treaty act.....
Migratory bird protection: Protection of migratory waterfowl, shore birds, and in-		
		Total.....
		1,704.45
		56,541.96

## DIVISION OF PUBLICATIONS.

*Classification of expenditures for the fiscal year ended June 30, 1919.*

Stationery.	Rent.	Telegraph, telephone, and postage.	Freight, express, and drayage.	Furnishing of heat, light, power, electricity.	Forage purchased in bulk.	Fuel.	Specified items not otherwise classified.	Miscellaneous supplies, services, etc.	Total.
\$21,125.21		\$304.03	\$295.63				<sup>2</sup> \$823.45	\$4,625.80	\$213,266.64

<sup>2</sup> Engraving, \$329.59; cleaning and toilet supplies, \$493.86.

Motion-picture activities: Preparation of scenarios from material furnished by the various bureaus, etc.; direction of the making of film; supervision of the motion-picture laboratory in film manufacture; development and execution of plans for film distribution; dissemination of information concerning agriculture, forestry, home economics, and other subjects covered by the activities of the department through the medium of motion picture film.....  
 Distribution of documents: Cooperation with the Government Printing Office in the dis-

\$17,178.53

tribution of department publications to the public; distribution of publications to department lists; mailing of press notices; mailing of all publications sent to foreign addresses, and recording such distribution; maintenance of record of distribution of department publications; preparation of congressional correspondence relating to quotas of farmers' bulletins; supervision of mailing-list work, duplicating, etc.....

\$114,742.20

Total..... 214,444.84

<sup>1</sup> Includes \$5,271.69 of the appropriation for the protection of migratory birds carried over from the agricultural appropriation act for the fiscal year 1918 and reappropriated under the migratory bird treaty act, approved July 3, 1918.

## BUREAU OF CROP ESTIMATES.

Classification of expenditures for the fiscal year ended June 30, 1919.

Project.	Salaries.				Travel, station, and field expenses.	Equipment.			
	Statutory.	Lump fund.		Total.		Apparatus, instruments, laboratory.	Furniture.	Miscella- neous.	
		In Wash- ington.	Out of Washington.						
1 Administration.....	\$32,749.57	\$6,017.80		\$38,767.37		\$848.45	\$76.98	\$171.99	
2 Crop reporting and estimating.....	70,121.56		\$111,674.65	181,796.21	\$70,257.20	191.39	307.39	75.34	
3 Crop recording and abstracting.....	31,440.61	7,531.99		38,972.60		420.00		12.65	
Total.....	134,311.74	13,549.79	111,674.65	1 259,536.18	70,257.20	1,459.84	384.37	259.98	

<sup>1</sup> Includes increased compensation, amounting to \$12,732.42, provided by the legislative, executive, and judicial appropriation act for the fiscal year 1919.

## PROJECT STATEMENTS.

## ADMINISTRATION.

Total expenditures as above.....	\$41,772.37
Outstanding liabilities, Aug. 31 (estimated).....	1,000.00
Unexpended balance (estimated).....	400.00
 Total allotment.....	 43,172.37

This project covers the office of the chief, having general direction and supervision of the work of the bureau; also the office of the chief clerk, which has direct supervision of the fiscal operations, records, files and correspondence, custody of property, distribution of seeds and publications to crop correspondents, and matters relating to the personnel.....

42,772.37

## CROP REPORTING AND ESTIMATING.

Total expenditures as above.....	\$261,148.31
Outstanding liabilities, Aug. 31 (estimated).....	5,084.82
Unexpended balance (estimated).....	8,000.00
Total allotment.....	274,233.13

Distributed among the several subactivities as follows:  
General crop and live stock estimates: The issuance periodically of estimates on the acreage, condition, yield, and value of staple crops, and the number, condition, and value of the various classes of live stock in the United States, based on information furnished by the field agents and thousands of farmers, merchants, and others who act as voluntary crop correspondents of the bureau.....

220,233.13

## STATES RELATIONS SERVICE.

Classification of expenditures for the fiscal year ended June 30, 1919.

Project.	Salaries.				Travel, station, and field expenses,	Equipment.			
	Statutory.	Lump fund.		Total.		Apparatus, instruments, laboratory.	Furniture.	Miscella- neous.	
		In Wash- ington.	Out of Washington.						
1 General administration.....	\$60,570.93	\$10,972.42		\$71,543.35	\$304.80	\$28.18	\$1,254.75	\$39.20	
2 Administration of the Hatch, Adams, and Smith-Lever acts.....	13,417.65	60,131.27		73,548.92	7,275.15		1.55	1.95	
3 Farmers' cooperative demonstrations in the Northern and Western States.....	32,443.64	59,445.53	\$394,842.33	486,731.50	41,652.47	41.15	901.91	28.48	
4 Farmers' cooperative demonstrations in the Southern States.....	44,829.69	36,090.89	419,412.26	500,332.84	142,488.04		626.08	224.87	
5 Farmers' institutes and agricultural schools.....	5,471.67	14,871.52		20,343.19	2,204.93	15.00	198.08	41.32	
6 Alaska experiment stations.....			42,117.74	42,117.74	1,318.81		442.57	10,858.25	
7 Hawaii experiment station.....			36,466.88	36,466.88	1,260.44		376.85	2,827.34	
8 Porto Rico experiment station.....			30,156.84	30,156.84	1,983.81	325.53	488.30	3,282.43	
9 Guam experiment station.....			14,136.73	14,136.73	218.00	35.05	145.89	1,157.10	
10 Virgin Islands experiment station.....			5,429.61	5,429.61	328.23	490.57	220.05	4,634.07	
11 Home economics investigations.....	9,002.66	22,240.70		31,243.36	842.26	1,130.36	349.42	295.23	
Total.....	165,736.24	203,752.33	942,562.39	1,312,050.96	199,912.94	2,063.84	5,005.45	23,401.24	

<sup>1</sup> Includes increased compensation amounting to \$23,629.28, provided by the legislative, executive, and judicial appropriation act for the fiscal year 1919.

## PROJECT STATEMENTS.

## GENERAL ADMINISTRATION.

Total expenditures as above.....	\$75,466.20
Outstanding liabilities, Aug. 31 (estimated).....	542.68
Unexpended balance (estimated).....	714.66
Total allotment.....	76,723.54

General direction and supervision of the work of the States Relations Service, including the offices of the director, the chief clerk's office, the publication work, library, accounts, records, supplies, and property.....

76,008.88

## ADMINISTRATION OF THE HATCH, ADAMS, AND SMITH-LEVER ACTS.

Total expenditures as above.....	\$81,689.34
Outstanding liabilities, Aug. 31 (estimated).....	308.40
Unexpended balance (estimated).....	1,717.69
Total allotment.....	83,715.43

Supervision of the work and expenditures of the State agricultural experiment stations, under the acts of Mar. 2, 1887, and Mar. 16,

## BUREAU OF CROP ESTIMATES.

Classification of expenditures for the fiscal year ended June 30, 1919.

Stationery.	Rent.	Telegraph, telephone, and postage.	Freight, express, and drayage.	Furnishing of heat, light, power, electricity.	Forage purchased in bulk.	Fuel.	Specified items not otherwise classified.	Miscellaneous supplies, services, etc.	Total.
\$539.78 2,213.13 937.82	\$2,625.00	\$294.02 767.49	\$309.50				<sup>2</sup> \$82.77 <sup>3</sup> 47.74	\$991.01 2,557.92 140.04	\$41,772.37 261,148.31 40,483.11
3,690.73	2,625.00	1,061.51	309.50				130.51	3,688.97	343,403.79

<sup>2</sup> Cleaning and toilet supplies.<sup>3</sup> Engraving.

Truck crop estimates: The issuance periodically of estimates of the acreage, condition, and yield of truck crops in the United States, based on data furnished by the truck crop specialists and field agents of the bureau and secured from correspondence with a list of several thousand truck growers, dealers, canners, etc. ....

Fruit crop estimates: The issuance periodically of estimates of the acreage, condition, and yield of fruit crops grown commercially in the United States, based on data furnished by the fruit crop specialists and field agents of the bureau and secured from correspondence with a list of growers, dealers, etc. ....

Total.....

\$30,000.00

16,000.00

266,233.13

## CROP RECORDING AND ABSTRACTING.

Total expenditures as above.....	\$40,483.11
Outstanding liabilities, Aug. 31 (estimated):	500.00
Unexpended balance (estimated):	575.81
 Total allotment.....	 41,558.92
Collection, from published and unpublished records, of statistical data relative to agriculture in the United States and foreign countries, and the analysis of such data into forms suitable for study and practical use; includes the maintenance of a statistical library.....	40,983.11

## STATES RELATIONS SERVICE.

Classification of expenditures for the fiscal year ended June 30, 1919.

Stationery.	Rent.	Telegraph, telephone, and postage.	Freight, express, and drayage.	Furnishing of heat, light, power, electricity.	Forage, purchased in bulk.	Fuel.	Specified items not otherwise classified.	Miscellaneous supplies, services, etc.	Total.
\$224.25 418.47	\$120.00	\$456.59 133.57	\$54.61 2.59	\$18.43				\$1,562.47 168.71	\$75,466.20 81,689.34
1,305.03	9.30	1,557.25	5,953.88					2,485.45	540,666.42
3,160.41		2,182.65	775.11				<sup>2</sup> \$468.00	1,606.10	651,864.10
313.28		195.40	35.82					1,194.64	24,541.66
47.59	105.00	133.34	618.51	228.40	\$1,728.84	\$1,580.76		1,574.63	60,754.44
432.86		237.33	112.41	335.35	1,442.40	9.10		1,827.28	45,368.29
427.14		226.56	850.13	45.36	395.40	552.93		1,567.77	40,309.20
82.74		84.49	23.54		1,132.56	18.50		1,717.43	18,752.03
79.41		65.36	134.70	5.19	14.36	69.13		175.53	11,646.21
170.15		159.38	61.17					3,265.30	37,516.63
6,661.33	234.30	5,431.97	8,622.47	632.73	4,713.56	2,230.42	468.00	17,145.31	1,588,574.52

<sup>2</sup> Structures.

1906, and acts supplementary thereto, providing funds to State agricultural colleges for the prosecution of investigational work, and under the act of May 8, 1914, providing for cooperation in extension work between the State agricultural colleges and the Department of Agriculture; including the annual inspection of each college and station, examination of the accounts, financial reports, equipment, publications, etc., and personal conference with the college and

station officials to determine the legitimacy and efficiency of their work and expenditures; preparation of annual reports to Congress on the work and expenditures of each station; advice to stations regarding personnel, lines of work, equipment, publications, etc.; collections of literature on agricultural science throughout the world and the preparation of summaries of the same in the Experiment Station Record, consisting of 18 numbers of 100 pages each annually, with

detailed indexes; preparation of card indexes on publications of American stations for the use of agricultural colleges and experiment stations, State departments of agriculture, and others; and exchange of information regarding the organization and progress of agricultural research with over 1,000 experiment stations and kindred institutions in more than 50 countries.....	\$81,997.74	FARMERS' COOPERATIVE DEMONSTRATIONS IN THE SOUTHERN STATES.
FARMERS' COOPERATIVE DEMONSTRATIONS IN THE NORTHERN AND WESTERN STATES.		
Total expenditures as above.....	\$540,666.42	Total expenditures as above.....
Outstanding liabilities, Aug. 31 (estimated).....	24,300.09	Outstanding liabilities, Aug. 31 (estimated).....
Unexpended balance (estimated).....	24,115.14	Unexpended balance (estimated).....
Total allotment.....	<u>589,081.65</u>	Total allotment.....
Distributed among the several subactivities as follows:		Distributed among the several subactivities as follows:
Supervision: General supervision of farmers' cooperative demonstration work in the 33 northern and western States, including supplies, equipment, and miscellaneous labor.....	53,352.96	Supervision: General supervision of farmers' cooperative demonstration work in the 15 Southern States, including supplies, equipment, and miscellaneous labor.....
County agent work: Instructions and demonstrations in agriculture, in cooperation with State agricultural colleges, by means of county agricultural agents, for the purpose of securing the adoption of better farm practice, organization, and administration, to the end of increasing the profits of farming and improving rural social life.....	313,615.45	County agent and boys' club work: Instruction and demonstrations in agriculture, in cooperation with State agricultural colleges, by means of county agricultural agents, for the purpose of securing the adoption of better farm practice, organization, and administration, to the end of increasing the profits of farming and improving rural social life; teaching and demonstration of methods of meeting the ravages of the cotton boll weevil in all cotton territory; agricultural instruction to boys through the organization and work of boys' clubs.....
Boys' and girls' club work: Cooperation with State agricultural colleges in the organization of young people on the farms into clubs, with a view to interest boys and girls and, through them, farm men and women in farm, farm home, and rural community problems; to teach them better methods of farm, garden, and home practice; to bring them in touch with the work of the department and of the agricultural colleges and schools; and to encourage them in securing such an education as will aid in making them useful and successful workers, home makers, and citizens.....	114,466.83	Home demonstration work: Demonstrations in home gardening and poultry raising, and the organization of women's clubs for general study and of girls' clubs for the teaching of gardening, cooking, and other subjects.....
Farm-management demonstrations: Demonstrations to farmers, in cooperation with State agricultural colleges, of the importance of certain efficiency factors relating to the organization and administration of the farm, including instructions in methods of analyzing their own business and of working out their labor income.....	46,053.48	Total.....
Extension work in home economics: Cooperation with State agricultural colleges, counties, and local organizations in the organization, correlation, and conduct of extension work in home economics with farm women for the purpose of securing efficiency and promoting prosperity and contentment in the farm home.....	27,744.55	FARMERS' INSTITUTES AND AGRICULTURAL SCHOOLS.
Extension work through special field agents: Cooperation between the subject-matter bureaus of the Department of Agriculture and the extension divisions of the State agricultural colleges for the purpose of securing the dissemination to the public, through extension agencies, of the results of research work, with a view to their practical application.....	9,733.24	Total expenditures as above.....
Total.....	<u>564,966.51</u>	Outstanding liabilities, Aug. 31 (estimated).....
		Unexpended balance (estimated).....
		Total allotment.....
		Distributed among the several subactivities as follows:
Farmers' institutes and movable schools: Investigations and reports upon the organization and progress of farmers' institutes, movable schools, and similar organizations in the United States and foreign countries, for the purpose of obtaining special suggestions of plans and methods for making these organizations more effective for the dissemination of the results of the work of the department and the agricultural experiment stations and to improve methods of agricultural practice.....	4,688.62	Supervision: General supervision of farmers' cooperative demonstration work in the 15 Southern States, including supplies, equipment, and miscellaneous labor.....
Investigations of agricultural instruction in schools: Study of agriculture in this and other countries, with a view to determine the needs of such instruction, in order to make it practically useful to students who are to become farmers or workers in agricultural institutions; and furnishing schools with up-to-date and properly organized subject matter and illustrative materials to supplement and reinforce textbooks and field practice.....	20,186.60	County agent and boys' club work: Instruction and demonstrations in agriculture, in cooperation with State agricultural colleges, by means of county agricultural agents, for the purpose of securing the adoption of better farm practice, organization, and administration, to the end of increasing the profits of farming and improving rural social life; teaching and demonstration of methods of meeting the ravages of the cotton boll weevil in all cotton territory; agricultural instruction to boys through the organization and work of boys' clubs.....
Total.....	<u>24,875.22</u>	Home demonstration work: Demonstrations in home gardening and poultry raising, and the organization of women's clubs for general study and of girls' clubs for the teaching of gardening, cooking, and other subjects.....

ALASKA EXPERIMENT STATIONS.		
Total expenditures as above:		
Appropriation, 1919.....	\$60,499.09	
Receipts from sale of products.....	255.35	
Outstanding liabilities, Aug. 31 (estimated).....		
Total allotment.....		
Maintenance of a central station located at Sitka, Alaska, with subsidiary stations at Fairbanks, Rampart, Kodiak, and Matanuska, to investigate the agricultural and horticultural resources of Alaska and determine their possibilities, including the development of animal industry, dairying, etc., and the introduction of cattle and sheep for experimental purposes.....	65,316.01	
HAWAII EXPERIMENT STATION.		
Total expenditures as above:		
Appropriation, 1919.....	\$45,322.67	
Receipts from sale of products.....	45.62	\$45,368.29
Outstanding liabilities, Aug. 31 (estimated).....		
Total allotment.....		
Maintenance of a station at Honolulu, Hawaii, to study diversified agriculture, including the proper management of soils for rice and pineapples, plant breeding experiments, introduction of forage crops, and a general study of the peculiar agricultural needs of this group of islands; also demonstrations to farmers and communities on the different islands composing the group in growing, handling, and marketing tropical and subtropical crops, including pineapples, bananas, cotton, roselle, corn, potatoes, onions, garden vegetables, etc., and in stock raising, dairying, etc.....	45,426.29	
PORTO RICO EXPERIMENT STATION.		
Total expenditures as above:		
Appropriation, 1919.....	\$39,621.73	
Receipts from sale of products.....	687.47	\$40,309.20
Outstanding liabilities, Aug. 31 (estimated).....		
Total allotment.....		
Maintenance of a station at Mayaguez, P. R., to investigate problems underlying the development of agriculture and to devise means and methods of improving the art and practice, special attention being given to the development of the citrus fruit and pineapple industries, coffee improvement, methods for the control of various fungous and insect pests, the bee-keeping industry, and the breeding and feeding of live stock.....	46,322.47	
GUAM EXPERIMENT STATION.		
Total expenditures as above:		
Appropriation, 1919.....	\$18,683.61	
Receipts from sale of products.....	68.42	\$18,752.03
Outstanding liabilities, Aug. 31 (estimated).....		
Total allotment.....		
Maintenance of a station at Agana, Guam, to conduct investigations and carry on experiments to determine the agricultural possibilities and improve the agricultural practice of the island, through the introduction of improved varieties of forage, fruit, and vegetable crops, pure bred horses, cattle, goats, swine, and poultry, and the use of modern implements.....	20,248.42	
VIRGIN ISLANDS EXPERIMENT STATION.		
Total expenditures as above:		
Appropriation, 1919.....	\$11,646.21	
Outstanding liabilities, Aug. 31 (estimated).....		
Total allotment.....		
Maintenance of a station at St. Croix, Virgin Islands, to continue the agricultural investigations conducted for the past eight years by the Danish authorities; to determine the agricultural possibilities of the island through the diversification of crops, introduction of improved varieties, live stock breeding, dairying, etc., and the use of modern implements.....	15,000.00	
HOME ECONOMICS INVESTIGATIONS.		
Total expenditures as above.....		\$37,516.63
Outstanding liabilities, Aug. 31 (estimated).....		1,303.00
Unexpended balance (estimated).....		1,162.70
Total allotment.....		39,982.33
Distributed among the several subactivities as follows:		
Respiration calorimeter investigations: Studies by special calorimetric methods of agricultural products with reference to their use in the home for food, clothing, and equipment, and the household tasks which their use involves, for the purpose of suggesting plans and methods for the more effective utilization of such products for these purposes; including experiments on the incubation of eggs, ripening of fruits and vegetables, and studies of labor expenditures and efficiency in household activities.....	13,019.89	
Studies of food, dietetics, clothing, and household equipment, work, and management: Investigations of the nature of agricultural products used in the home for food, clothing and equipment; studies of household processes, methods, and uses pertaining thereto; classification, comparison, revision, and digest of information useful to housekeepers, students, and extension workers; and dissemination of the results of research.....	25,799.74	
Total.....		38,819.63

## BUREAU OF PUBLIC ROADS.

Classification of expenditures for the fiscal year ended June 30, 1919.

Project.	Salaries.			Travel, station, and field expenses.	Equipment.			
	Statutory.	Lump fund.			Apparatus, instruments, laboratory.	Furniture.	Miscella- neous.	
		In Wash- ington.	Out of Washington.					
1 Administration.....	\$13,613.88	\$205.83	.....	\$13,819.71	\$272.18	.....	\$416.42	
2 Road management.....	7,726.40	30,259.44	\$135.00	38,120.84	2,424.01	.....	97.95	
3 Road building and maintenance.....	27,118.83	56,483.10	20,415.55	104,017.48	17,012.19	\$101.50	2,785.01	
4 Road material investigations.....	9,862.78	38,213.13	.....	48,075.91	3,900.48	198.97	282.46	
5 Field experiments.....	1,083.00	.....	4,814.22	5,897.22	707.58	.....	336.05	
6 Farm irrigation investigations.....	16,817.77	1,790.00	50,789.23	69,397.00	26,819.70	44.50	106.66	
7 Farm drainage investigations.....	13,240.25	7,996.67	33,707.73	54,944.65	22,256.71	.....	236.05	
8 Rural engineering investigations.....	4,813.94	21,901.65	.....	26,715.59	864.15	.....	550.22	
Total.....	94,276.85	156,849.82	109,861.73	1 360,988.40	74,257.00	344.97	3,939.55	
							8,720.88	

<sup>1</sup> Includes increased compensation, amounting to \$13,187.36, provided by the legislative, executive, and judicial appropriation act for the fiscal year 1919.

## PROJECT STATEMENT.

## ADMINISTRATION.

Total expenditures as above.....	\$28,526.21
Outstanding liabilities Aug. 31 (estimated).....	13.77
Unexpended balance (estimated).....	1,034.31
Total allotment.....	<u>29,573.29</u>
Administration of the business affairs of the office and general direction of its investigational activities.....	28,539.98
ROAD MANAGEMENT.	
Total expenditures as above.....	\$42,299.95
Outstanding liabilities Aug. 31 (estimated).....	61.63
Unexpended balance (estimated).....	5,924.83
	<u>48,286.41</u>

Distributed among the several subactivities as follows:

Supervision: Direction of the various research and extension activities under this group and conduct of routine office business, including correspondence, maintenance of records, purchase of supplies and equipment, and other clerical work.....	5,213.68
Collection of current data relating to highways: Collection and systematization of available information and statistics relative to highways, including the maintenance of a current record and the compilation of road legislation; covers all statistical studies except the census of road mileage, revenues, and expenditures made at five-year intervals, and provides necessary information of a general statistical character for the use of persons engaged in or aiding road improvement.....	10,001.65
Economic studies of county and township highway systems: Study of the organization, procedure, cost of operation, and results obtained in the management of highway systems in counties and townships in various parts of the United States; determination of the type of road, character of materials, and methods of maintenance which are yielding the best results at the least cost, and of the elements of weakness in various local systems of management...	174.08

Economic studies of State highway systems: Study of the character of organization of State highway systems, working plans, cost of operation, systems of reports and records, character and cost of work done, location and classification of highways, and purposes served; and correlation and presentation of such information so as to make it available to the National Government for military and postal purposes and for the administration of the Federal aid road act, and to the States in the establishment and management of State and county highway systems.....	5,758.96
Traffic studies: The assembling of all practicable data on the regulation of traffic, the adaptation of various types of road surface to traffic conditions, and the relations of maintenance methods and cost to traffic requirements.....	\$12,124.80
Advice, lectures, and demonstration of road and bridge models: Expert advice on road legislation, organization, and management upon the request of public officials and organizations, by means of conferences, lectures, and demonstrations, including the use of road models, lantern slides, etc., showing the various phases of road construction and improvement.....	9,088.41
Total.....	42,361.58
ROAD BUILDING AND MAINTENANCE.	
Total expenditures as above.....	\$133,351.78
Outstanding liabilities Aug. 31 (estimated).....	4,372.39
Unexpended balance (estimated).....	32,189.19
Total allotment.....	<u>269,913.36</u>
Distributed among the several subactivities as follows:	
Supervision: Direction of the various research and extension activities under this group and conduct of routine office business, including correspondence, maintenance records, purchase of supplies and equipment, and other clerical work.....	27,400.21

## BUREAU OF PUBLIC ROADS.

Classification of expenditures for the fiscal year ended June 30, 1919.

Stationery.	Rent.	Telegraph, telephone, and postage.	Freight, express, and drayage.	Furnishing of heat, light, power, electricity.	Forage, purchased in bulk.	Fuel.	Specified items not otherwise classified.	Miscellaneous supplies etc.	Total.
\$3,918.87	\$120.00	\$2,673.96	\$1,438.14	\$1,959.55				\$3,590.93	\$28,526.21
237.76	14.90	3.39					2 \$609.65	600.20	42,299.95
2,525.25		11.50	452.70				3 30.90	2,951.53	133,351.78
125.91		7.32	38.62				2 25.00	1,887.24	56,338.50
	2.00		3,160.11				3 10.05	28,482.70	38,595.71
500.95	687.40	666.57	702.78	42.28			2 7.75	3,949.66	104,974.45
802.78	56.67	77.98	240.51					1,203.21	80,368.78
38.18		1.75						121.53	27,763.60
8,149.70	880.97	3,432.47	6,032.86	2,001.83			683.35	42,787.00	512,218.98

<sup>2</sup> Printing.<sup>3</sup> Advertising and publication of notices.

Investigation of costs of road maintenance: Study of costs of maintenance in counties where roads have been systematically improved under the direction of competent engineers, with a view to secure accurate cost data for various types of road.....

Investigations of various types of road construction and costs: Study of certain types of road construction which have been developed locally with available material and labor, as the basis for giving advice as to proper types of construction, such as bituminous-sand, rock-asphalt, bituminous-surfaced gravel, patented types, etc ..

Object-lesson roads: Demonstration of the proper methods of construction and the most efficient use of materials, for the purpose of instructing road officials in the art of road building, and correlation of conclusions drawn from laboratory tests with those resulting from field service tests....

County road systems: Study of the roads of a county or other political subdivision and preparation of general plans and specifications for their administration, improvement, and maintenance.....

Inspection advice and lectures: Inspections by highway engineers and studies of specific local problems in road construction, and maintenance; preparation of definite recommendations for the solution of these problems and the imparting of this information to road officials, highway associations, mass meetings of citizens, and others who require it.....

Superintendence of county roads: Demonstration to county officials of the advantages accruing from the supervision of all county roads by one skilled in highway construction and maintenance and of the advantages of centralized control over all roads in a county.....

Bridge construction in connection with road building and maintenance: This work consists of furnishing local officials plans and specifications for bridges and investigating conditions and advising the authorities interested as to the best methods of bridge construction to meet their peculiar needs and conditions.....

Road maintenance (advice and inspection): Supervision of the maintenance of certain post road projects for the purpose of determining accurately the relation between the cost of effective maintenance and the

available local funds and of determining maintenance costs on various types of roads; and advice to local road authorities on these matters.....

\$50.59

\$224.51 Total..... 137,724.17

## ROAD MATERIAL INVESTIGATIONS.

Total expenditures as above.....	\$56,338.50
Outstanding liabilities, Aug. 31 (estimated).....	1,037.70
Unexpended balance (estimated).....	4,531.83

208.98 Total allotment..... 61,918.03

Distributed among the several subactivities as follows:

Supervision: Direction of the various subactivities under this group and conduct of routine office work, including correspondence, maintenance of records, purchase of supplies and equipment, preparation of specifications, etc.....

16,735.33

Routine chemical testing and inspection: Routine chemical tests and inspections of bituminous and nonbituminous dust preventives and road binders, with a view to determine their fitness for particular classes of work, conformity with specifications, etc; includes the inspection of culvert metal for use in roads built under the supervision of this bureau.....

2,426.90

Microscopic examination and classification of road-building rocks: General study of rocks in relation to their adaptability for road construction and maintenance, identification of road-building rocks, and determination of the relation of physical properties to mineral composition; investigation of the mineral composition of blast-furnace and open-hearth slags in relation to their road-building qualities.....

1,260.11

Investigations of dust preventives and road binders: Studies of the effect of methods of production upon the character of bituminous materials, the relative fitness of the various types of bituminous materials for different classes of construction, and the changes which take place in these materials upon exposure to service conditions.....

5,765.34

Experimental bituminous road construction and maintenance: Development of new types of bituminous-bound and bituminous-treated roads, and the correlation of laboratory experiments with service tests.....

164.66

Physical tests of road-building materials: Determination, by means of physical tests, of the suitability of various materials for use in road construction.....	\$3,837.95	practice, for designing canals, pumping plants, and farm ditches, for formulating ditch regulations and contracts, and for the granting and adjudicating of water rights..	\$41,344.40
Concrete investigations: Investigation of the physical properties of concrete, including studies of the effect of flow, determination of the laws of expansion and contraction of concrete, factors involved in the distribution of stresses in reinforced slabs, study of strength of concrete bases, etc.....	13,123.26	Pumping for irrigation: Study of the adaptation of wells and pumping machinery for the supplying of water for irrigation; determination of the costs of installation, maintenance, and operation of wells and pumping machinery; and technical investigations to develop improvements in the design of pumps for irrigation.....	6,375.61
Nonbituminous road material investigations: Investigation of the physical properties of nonbituminous road materials, correlation of the results of physical tests with behavior in actual service, and development of tests to meet new conditions in road construction. Instrument making and repairing: Construction and repair of testing machines and instruments required in conducting road material investigations.....	9,656.56	Irrigation appliances and equipment: Development of the best general types of structures and equipment for diverting, transporting, dividing, distributing, and applying water used for irrigation.....	9,247.17
Standardization of methods of testing bituminous road materials: Revision of current methods of testing bituminous road materials and development or introduction of new and better methods.....	3,655.00	Flow of water for irrigation in ditches, pipes, and other conduits: Determination of the accuracy of formulas for the flow of water in conduits of various kinds and the development of new formulas, in order that conduits may be properly designed to carry the water which they are intended to convey.....	4,169.68
Standardization of methods of testing nonbituminous road materials: Standardization of the physical methods of testing nonbituminous road materials, so that the results obtained by various laboratories may be compared.....	374.83	Measurement of water for irrigation: Improvement and standardization of devices for measuring water for irrigation, in order to insure the economical use of water from the small streams delivered to individual farmers.....	778.46
<b>Total.....</b>	<b>376.26</b>	Customs, regulations, and laws relating to the irrigation: investigation of the effect of customs, regulations, and laws upon the use of irrigation water by farmers, upon the economical use of water from the standpoint of the public, and upon the success of irrigation development, with a view to suggest desirable changes.....	488.97
<b>FIELD EXPERIMENTS.</b>			
Total expenditures as above.....	\$38,595.71	Drainage of irrigated lands: The devising of methods for reclaiming lands which have been injured by overirrigation, by the rise of ground water due to irrigation, or by waste water from irrigation canals or irrigated lands, and the prevention of injury to irrigated lands from these sources; handling of general drainage problems in the sections where irrigation is practiced, and preparation of drainage plans for individuals and communities.....	22,734.91
Outstanding liabilities, Aug. 31 (estimated).....	6,429.06	Irrigation in humid regions: Investigation of the practicability of irrigation in humid regions, where rainfall ordinarily is sufficient for most field crops, and study of the equipment for irrigation plants in those regions.....	10,610.27
Unexpended balance (estimated).....	15,386.00	Expert advice and assistance: Assistance in irrigation development and improvement of irrigation practices by advising farmers, through correspondence and by personal visits, as to methods and equipment for irrigation.....	1,034.62
<b>Total allotment.....</b>	<b>60,410.77</b>	<b>Total.....</b>	<b>105,077.55</b>
Distributed among the several subactivities as follows:			
Supervision: Direction of the various subactivities under this group and conduct of routine office work.....	15.72	<b>FARM DRAINAGE INVESTIGATIONS.</b>	
Experimental road maintenance: Determination of the cost of maintenance of various types of experimental roads constructed by this bureau, maintenance cost records being kept for a period of five years or more.....	42,863.91	Total expenditures as above.....	\$80,368.78
Road and bridge foundation tests: Determination of the distribution of pressure through fills and foundations and study of the effect of loads on road surfaces and road foundations.....	2,145.14	Outstanding liabilities, Aug. 31 (estimated).....	312.79
<b>Total.....</b>	<b>45,024.77</b>	Unexpended balance (estimated).....	1,914.24
<b>FARM IRRIGATION INVESTIGATIONS.</b>			
Total expenditures as above.....	\$104,974.45	<b>Total allotment.....</b>	<b>82,595.81</b>
Outstanding liabilities, Aug. 31 (estimated).....	103.10	Distributed among the several subactivities as follows:	
Unexpended balance (estimated).....	738.32	Supervision: General direction of farm drainage investigations, including necessary clerical and other routine work, and the purchase of equipment and supplies not properly chargeable to specific projects....	8,848.28
<b>Total allotment.....</b>	<b>105,815.87</b>		
Distributed among the several subactivities as follows:			
Supervision: Direction of farm irrigation investigations and conduct of the editorial, clerical, and other routine work.....	8,293.46		
Utilization of water in irrigations: Investigations to determine what constitutes the best utilization of water in irrigation, as to the quantity used and method of applying, to serve as a basis for improving irrigation			

Construction, operation, and maintenance of drainage improvements: Study of the cost and efficiency of machines and implements for digging ditches and building levees under various conditions of work; study of the sizes, types, and arrangement of pumping equipment suitable for drainage works; investigation of the strength and durability of tile, especially of cement tile in alkaline soils; study of the cost of construction, operation, and maintenance of drainage improvements, and an analysis of such costs; and determination of the rate of depreciation of drainage improvements.....	\$9,487.61	Drainage of overflowed lands: Promotion of interest in the reclamation of lands subject to periodical overflow, with the view of making such lands available for agriculture.....	\$22,853.99
Drainage of peat, turf, and muck soils: Investigation of special problems involved in planning and constructing drainage systems for peat, turf, and muck soils.....	1,153.31	Drainage of swamp lands: Promotion of interest in the reclamation of swamp lands, with the view of making them available for agriculture.....	3,080.03
Drainage of tillable lands (research): Determination of the proper depth, spacing, and arrangement of tile drains in various types of soils, carrying capacities of tile drains, and the effect of drainage upon the soil temperature; ascertaining the amount of water that should be removed by tile drains per day from various kinds of soil under varying conditions of climate and topography; investigation of the effect of drainage on crop yields; and study of the best methods of terracing to prevent washing and gulling of hillside farm lands.....	4,454.83	Drainage of nonirrigated western lands: Investigation of the needs of drainage in the humid region of the Western and Pacific States, the practicability of organizing drainage districts, and the best design of drainage improvements for the soil and climatic conditions in those regions.....	3,581.68
Organization, financing, and legal regulations of drainage districts: Study of the organization of drainage districts and the laws under which such districts are formed; investigation of the various methods of financing drainage districts; determination of the effect of customs and drainage laws and regulations upon the economical organization of drainage districts; and study of the various methods of assessing costs of drainage improvements.....	1,106.84	Total.....	80,681.57
Run-off investigations: Determination of the rates of run-off which must be provided for by drainage channels in reclaiming wet lands and of the sizes of ditches necessary to remove the run-off.....	4,543.10	<b>RURAL ENGINEERING INVESTIGATIONS.</b>	
Drainage of tidal marshes: Investigation of the cause of failure in many attempts made to reclaim tidal marsh land, and determination of the proper arrangement and size of sluice openings and the requisite storage capacity of ditches.....	91.07	Total expenditures as above.....	\$27,763.60
Drainage of tillable lands (extension): Instructions to landowners in the proper methods of planning and constructing farm drains and terraces and dissemination of information concerning the benefits to be derived from such improvements.....	21,480.83	Outstanding liabilities, Aug. 31 (estimated)..	519.30
		Unexpended balance (estimated).....	2,351.98
		Total allotment.....	30,634.88
		Distributed among the several subactivities as follows:	
		Supervision: General direction of rural engineering investigations, including necessary clerical, drafting, and other routine work and the purchase of equipment and supplies not properly chargeable to specific projects.....	85.80
		Investigations of farm domestic water supply and drainage disposal: Improvement of the sanitary conditions of the farms of the country by making available to farmers a knowledge of proper systems of plumbing, water supply, and drainage disposal; also assistance to farmers in installing systems suited to existing conditions.....	3,119.30
		Investigations of the construction of farm buildings: Preparation of drawings for all kinds of farm structures and equipment and for the general layout of the farmstead, with a view to make the work of the farm less arduous and the home life more attractive.....	18,080.66
		Investigations of rural engineering problems involving mechanical principles: Investigation of the mechanical principles involved in various kinds of farm equipment, with a view to standardization and the securing of data which will be of assistance to farmers in selecting equipment; also the designing of new equipment and apparatus.	6,997.14
		Total.....	28,282.90

## BUREAU OF MARKETS.

Classification of expenditures for the fiscal year ended June 30, 1919.

Project.	Salaries.			Travel, station, and field expenses.	Equipment.			
	Statutory.	Lump fund.			Apparatus, instruments, laboratory.	Furniture.	Miscella- neous.	
		In Wash- ington.	Out of Washington.					
1 Administration.....	\$93,588.90	\$7,076.34	.....	\$100,665.24	\$345.23	\$42.02	\$1,932.49	\$1,188.41
2 Marketing and distribution.....	36,144.69	137,433.39	\$32,590.62	206,168.70	35,193.75	56.00	562.30	914.63
3 Market news service on fruits and vegetables.....	67,473.27	46,044.42	68,298.09	181,815.78	10,875.86	88.45	803.72	2,047.86
4 Market news service on live stock and meats.....	36,064.90	9,095.97	14,412.80	59,573.67	5,288.31	8.90	783.56	2,614.62
5 Food supply investigations.....	1,472.23	12,264.14	1,783.73	15,520.10	7,736.93	.....	62.92	99.17
6 Market inspection of perishable foods.....	2,080.00	9,450.26	68,518.62	80,048.88	12,940.04	168.77	948.31	2,123.19
7 Investigations and demonstrations of cotton standards.....	.....	8,627.01	1,440.50	10,067.51	3,624.58	.....	.....	26.70
8 Cotton testing.....	5,019.33	10,903.43	222.50	16,145.26	986.54	.....	.....	584.93
9 Rural cooperation.....	5,246.94	16,837.26	.....	22,084.20	1,271.21	8.20	12.38	147.90
10 State cooperation in marketing work.....	4,939.66	11,667.61	35,691.22	52,298.49	4,115.85	.75	328.66	293.98
11 Grain standardization and grain handling and transportation investigations.....	14,892.57	37,117.07	19,362.55	71,372.19	17,841.91	37.25	191.10	1,136.41
12 Enforcement of the standard container act.....	.....	3,680.00	.....	3,680.00	1,256.03	7.80	.....	.....
13 Milling and baking investigations.....	.....	13,034.67	1,903.12	14,937.79	1,028.43	420.01	1,058.74	1,955.61
14 Enforcement of the cotton futures act.....	5,959.50	51,318.26	1,139.43	58,417.19	5,750.60	2.50	232.09	1,008.18
15 Enforcement of the grain standards act.....	50,530.86	60,097.56	282,978.21	393,606.63	38,145.21	241.21	2,188.19	3,185.07
16 Administration of the warehouse act.....	.....	27,565.16	1,732.77	29,297.93	10,660.38	.....	284.03	27.75
Total.....	323,412.85	462,212.55	530,074.16	<sup>1</sup> 1,315,699.56	157,060.86	1,081.86	9,388.49	17,354.41

<sup>1</sup> Includes increased compensation, amounting to \$54,462.54, provided by the legislative, executive, and judicial appropriation act for the fiscal year 1919.

## PROJECT STATEMENTS.

## ADMINISTRATION.

Total expenditures as above.....	\$110,083.08
Outstanding liabilities, Aug. 31 (estimated).....	3,042.39
Unexpended balance (estimated).....	209.77
Total allotment.....	<u>113,335.24</u>

Supervision of the investigational, demonstrational, service, and regulatory work of the bureau and the execution of the necessary administrative details connected therewith.....	113,125.47
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## MARKETING AND DISTRIBUTION.

Total expenditures as above.....	\$270,524.10
Outstanding liabilities, Aug. 31 (estimated).....	27,883.71
Unexpended balance (estimated).....	26,169.11
Total allotment.....	<u>324,576.92</u>

Distributed among the several subactivities as follows:

Cotton handling and marketing: Investigation of the commercial processes involved in the handling, marketing, and utilization of cotton, in order to make recommendations as to improvements and economies; investigational work in connection with the organization of communities of cotton growers for the marketing of their product; and demonstrations of the advantage of growing cotton from pure seed in these communities.....	21,562.77
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Cooperative purchasing and marketing: Investigation of cooperative and semicooperative associations formed for the purpose of marketing and distributing or purchasing farm products and of the forms of organization and methods of management best suited for their use.....

\$13,973.09

Market surveys, methods, and costs: Comprehensive and detailed studies of the origin, movement, distribution, and consumption of market supplies of farm products, especially fruits and vegetables, in order to accumulate and disseminate useful information relating to all phases of the subject, including available and prospective production; movement of products into storage; the various agencies by and through which farm products are handled, distributed, stored, and sold; costs of doing business through existing market channels; and other matters.....

23,115.91

Market grades and standards: Investigation and demonstration of proper methods of preparing fruits and vegetables for market, and development of fixed grades and standards for universal use, with a view to the ultimate national standardization of market grades and packages or containers..

22,197.71

City marketing and distribution: Investigation of the distribution and marketing of farm products in cities, in order to determine and encourage the practice of the best methods and to extend advisory aid to city authorities and other interested persons in establishing economical and efficient marketing facilities.....

12,764.25

## BUREAU OF MARKETS.

Classification of expenditures for the fiscal year ended June 30, 1919.

Stationery.	Rent.	Telegraph, telephone, and postage.	Freight, express, and drayage.	Furnishing of heat, light, power, electricity.	Forage, purchased in bulk.	Fuel.	Specified items not otherwise classified.	Miscellane- ous supplies, services, etc.	Total.	
\$100.54		\$612.64	\$198.40				\$20.92	\$4,977.19	\$110,083.08	1
5,978.71	\$1,768.79	1,108.96	856.64				92.39	17,823.23	270,524.10	2
2,848.03	5,278.33	39,861.28	3,494.01	\$236.39			63.43	10,724.75	258,138.39	3
8,174.28	5.00	2,114.67	1,506.07	154.71			79.67	3,940.37	84,243.83	4
20.75		61.22	71.45					5,515.44	29,087.98	5
855.58	3,889.67	1,120.87	595.61	104.64			46.30	5,380.44	108,222.30	6
66.82		51.37	12.49					2,132.38	15,981.85	7
99.45		40.77	295.24	141.82				12,803.65	31,097.66	8
81.40		97.92	17.56					283.56	24,004.33	9
1,215.40		172.41	304.14				630.28	692.92	60,052.88	10
498.80	1,544.51	436.68	656.93				73.47	3,263.58	97,052.83	11
		11.27	43.30					37.30	5,035.70	12
1,423.51	510.00	30.41	384.83	134.28			21.73	4,052.45	25,957.79	13
740.69	9,598.91	1,190.86	1,739.23				19.69	28,553.16	107,253.10	14
4,591.70	45,013.82	3,324.01	4,281.82	364.68			301.16	24,546.00	519,789.50	15
211.37	2,300.00	164.15	140.08					1,076.96	44,162.65	16
26,907.03	69,909.53	50,399.49	14,597.80	1,136.52			2 1,349.04	125,803.38	1,790,687.97	

2 Mechanics', engineers', and electricians' supplies, \$246.22; cleaning and toilet supplies, \$1,102.82.

Transportation and storage: Investigation of the service furnished throughout the United States by common carriers of every kind in the transportation of farm products, particularly perishables, and of the need for more and better service in individual sections in connection with particular commodities; cooperation with shippers in securing, and with carriers in inaugurating, such service; dissemination of information to carriers as to the greater needs of shippers in transportation service, and bringing to shippers a better understanding of their rights, duties, and joint responsibilities with the carriers in the safe transportation of their products to the consumers; cooperation with shippers and carriers in a campaign of education for the use of better packages and better methods of harvesting, packing, and loading, so as to reduce the present great economic loss of foodstuffs in transit; encouraging the proper construction of cold-storage houses wherever desirable; accurate determination of the amount, kind, and location of all available public-storage space in the United States for foodstuffs (except grains), as well as its ownership and the rates charged for its use; ascertaining the relative quantity of foodstuffs held in public storage, as well as that held in private storage for sale, the points at which these foodstuffs are so held, and the relation of these points to producing sections, the length of time they are held, and the effect upon prices of holding them; issuing reports regarding the cold-storage holdings of certain food products.....

\$18,183.49

Miscellaneous problems in marketing and cooperation: Cooperation with other governmental agencies already conducting in-

vestigations in the marketing of specific products; and investigations relative to the preparation, handling, preservation, and marketing of food and miscellaneous products not specifically provided for in other projects, and regarding rural organization work.....

\$16,607.88

Direct marketing: Determination of the feasibility, both from a physical and economic standpoint, of marketing farm products by parcel post and by express from producer to consumer direct, and ascertaining the best methods to be used.....

9,730.54

Marketing live stock, meats, and animal by-products: Conduct of a thorough study of existing markets and methods of marketing live stock through the large central and small local markets, including transportation, yardage, sale, and delivery of live stock and the slaughter, packing, and wholesale and retail distribution of meat products and by-products derived therefrom; classification and grading of live stock and meats; and other allied subjects, with a view to improve the methods and reduce the cost of marketing live stock, meats, and animal by-products.....

23,123.17

Market business practice: Investigation of the business practices of cooperative and farmers' marketing, distributing, purchasing, and rural business organizations and other marketing agencies, with special reference to their accounting systems and methods of auditing, business organizations, and financing, and the devising of suitable methods of business practice and accounting systems for these organizations and agencies for the purpose of increasing their efficiency.....

27,527.07

Marketing grain and hay: Study of the primary and terminal marketing of grain and hay, including the cost of marketing; comparison of services rendered by independent and line elevators and cooperative purchasing and selling associations; future transactions and exchange practices, scalping, prices, market quotations, supply and demand, export trade, and related subjects, in order to suggest possible improvements and economies in marketing the grain and hay crops.....	\$13,346.93	countered abroad by American producers and shippers; incidentally, investigations of successful foreign systems, cooperative and otherwise, for purchasing farm supplies and marketing farm products, including a study of representative consumers' organizations, municipal markets, and the conditions under which they have been developed; and the investigation of the importation by the United States of farm and nonmanufactured food products and the influence of such imports on the domestic markets.....	\$15,003.83
Marketing seeds: Investigations of the methods and costs of marketing; services rendered and methods followed by various seed marketing agencies; methods of keeping records of seed stocks in their course from producer to consumer, in order to identify the stocks as to origin; relation of prices received by producers and those paid by consumers, methods of assessing dockage, market quotations, factors affecting supply and demand, relations of vegetable seed production to seed marketing agencies, forms of advance growing contracts, factors affecting commercial quality and germination of seeds, cleaning methods and machinery, and exports and imports of seeds and their bearing on domestic production and markets.....	19,130.56	Preservation of fruits and vegetables in transportation and storage: Determination of the effect on the keeping qualities of fruits and vegetables of commercial methods and facilities used in harvesting and preparing them for shipment, and of the amount of deterioration superinduced by the conditions under which they are stored and transported, in order to demonstrate improved methods of and facilities for harvesting, precooling, loading, refrigeration in transit, transporting, and storing such commodities, so as to insure a minimum of deterioration and decay.....	31,272.49
		Total.....	298,407.81
Marketing cotton seed and its products: Investigation of present methods of handling, marketing, and utilizing cotton seed and its crude products, with a view to suggest means whereby improvements may be made and economies effected; and studies regarding future trading, the establishment of standard grades, and the standardization of conditions under which cotton seed and its products are handled and stored.....	4,738.50	MARKET NEWS SERVICE ON FRUITS AND VEGETABLES.	
Marketing dairy products: Study of the marketing of dairy products and dairy substitutes, including the agreements under which they are sold, the methods and costs of their preparation for market, market grades and classification of dairy products, market quotations and quotation systems, market requirements and conditions, marketing methods and facilities, and related subjects, in order to suggest measures by which market conditions and marketing methods may be improved and the cost of marketing dairy products reduced.....	19,774.30	Total expenditures as above.....	\$258,138.39
Cotton warehousing investigations: Accumulation and dissemination of useful information relating to the warehousing of cotton, insurance rates while in storage, and benefits, including better arrangements for financing, to be derived from conserving cotton in storage houses, the construction of different types of warehouses, and the relation of present methods and practices of compressing cotton to warehousing.....	6,355.32	Outstanding liabilities, Aug. 31, (estimated). . . . .	7,514.07
Foreign market investigations: Investigation of foreign markets for American farm and nonmanufactured food products, from the handling at the American seaboard to the distribution in foreign countries, and assistance in the development of the export trade in such products; investigation especially of the export facilities at the American seaboard and beyond, the methods and costs of physically handling products intended for shipment abroad, transoceanic and foreign transportation, the methods of distribution and sale in foreign countries, their sources of supply, the consumptive demand, trade practices and preferences, and the various competitive factors en-		Unexpended balance (estimated). . . . .	3,268.65
		Total allotment.....	268,921.11
		Collection and distribution by telegraph, mail, or otherwise, of timely information on the supply, commercial movement, disposition, and market prices of fruits and vegetables, and assistance to shippers in securing better distribution of perishable products.....	265,652.46
		MARKET NEWS SERVICE ON LIVE STOCK AND MEATS.	
		Total expenditures as above.....	\$84,243.83
		Outstanding liabilities, Aug. 31 (estimated). . . . .	6,511.01
		Unexpended balance (estimated). . . . .	3,584.40
		Total allotment.....	94,339.24
		Gathering, compiling, and publishing, at such frequent intervals as will most effectively guide producers, consumers, and distributors in the sale and purchase of live stock, meats, and other animal products, information concerning market supplies, prices, and distribution of such products and on related subjects.....	90,754.84
		FOOD-SUPPLY INVESTIGATIONS.	
		Total expenditures as above.....	\$29,087.98
		Outstanding liabilities, Aug. 31 (estimated). . . . .	2,539.46
		Unexpended balance (estimated). . . . .	18,894.13
		Total allotment.....	50,521.57
		Investigations relating to the production, transportation, storage, preparation, marketing, manufacture, and distribution of agricultural food products, including the extent, manner, and methods of any manipulation of the markets or control of the visible supply of such food products, or any of them, by individuals, groups, associations, combinations, or corporations....	31,627.44

## MARKET INSPECTION OF PERISHABLE FOODS.

Total expenditures as above.....	\$108,222.30
Outstanding liabilities Aug. 31 (estimated).....	9,446.07
Unexpended balance (estimated).....	246.30
<b>Total allotment.....</b>	<b>117,914.67</b>

Investigating and certifying to shippers and other interested parties the quality and condition of fruits vegetables and other perishable farm products when received at important central markets..... 117,668.37

## INVESTIGATIONS AND DEMONSTRATIONS OF COTTON STANDARDS.

Total expenditures as above.....	\$15,981.85
Outstanding liabilities Aug. 31 (estimated).....	3,632.76
Unexpended balance (estimated).....	1,432.38
<b>Total allotment.....</b>	<b>21,046.99</b>

Field laboratory investigations and demonstrations of standards for the different grades, qualities, and conditions of cotton, and investigations of the ginning, grading, baling, stapling, marking, compressing, and tare of cotton..... 19,614.61

## COTTON TESTING.

Total expenditures as above.....	\$31,097.66
Outstanding liabilities Aug. 31 (estimated).....	1,627.23
Unexpended balance (estimated).....	289.11
<b>Total allotment.....</b>	<b>33,014.00</b>

Determination of the waste, tensile strength, and bleaching qualities of the different grades, classes, and varieties of cotton, in order to ascertain their commercial and spinning value and to demonstrate the results of such tests..... 32,724.89

## RURAL COOPERATION.

Total expenditures as above.....	\$24,004.33
Outstanding liabilities Aug. 31 (estimated).....	331.98
Unexpended balance (estimated).....	9,970.89
<b>Total allotment.....</b>	<b>34,307.20</b>
Distributed among the several subactivities as follows:	

Rural credit, insurance, and communication: Investigation of the problems relating to the organization of rural communities for the purpose of obtaining better credit, insurance, and communication facilities by the accumulation and dissemination of useful information relating to the various phases of the subject..... 17,690.34

Rural social and educational activities: Improvement of social and educational conditions in rural communities by the accumulation and dissemination of useful information growing out of a study of typical communities with reference to their social and educational needs, the work of their existing forms of organization, and the possibilities for improvement through organized activity; investigation of methods of encouraging social organization activities and study of means of improving social, economic, and educational conditions of women and children through the work of women's rural organizations..... 6,645.97

**Total.....** 24,336.31

## STATE COOPERATION IN MARKETING WORK.

Total expenditures as above.....	\$60,052.88
Outstanding liabilities Aug. 31 (estimated).....	489.67
Unexpended balance (estimated).....	6,061.94
<b>Total allotment.....</b>	<b>66,604.49</b>

Cooperation with the several States in the employment of agents to study the methods of marketing and distributing farm products; assistance in the coordination of marketing activities undertaken by the various States; and dissemination throughout the States cooperating with this project of the results of the department's investigations relative to marketing and distributing farm products..... 60,542.55

## GRAIN STANDARDIZATION AND GRAIN HANDLING AND TRANSPORTATION INVESTIGATIONS.

Total expenditures as above.....	\$97,052.83
Outstanding liabilities, Aug. 31 (estimated).....	13,734.86
Unexpended balance (estimated).....	3,839.14
<b>Total allotment.....</b>	<b>114,626.83</b>

Distributed among the several subactivities as follows:  
Investigation and determination of grain standards: Investigations of such phases of harvesting, handling, transportation, storage, and grading of grain as contribute information fundamental and necessary for establishing, fixing, and perfecting standards for corn, wheat, rye, oats, barley, grain sorghum, flaxseed, and other grains; the relation of grades and standards to the feeding and manufacturing value of sound and unsound grain; the milling and the manufacturing value of wheat and such other grains as are used in the manufacture of flour, meal, and cereal products; the control of smut in so far as this factor has to do with commercial grading of wheat; and the influence on grade of biophysical, biochemical, and physiological changes which take place in grain during harvesting, transportation, and storage; development of laboratory methods for determining the condition and quality of grain and of special apparatus for use in grain grading.  
Grain handling and marketing: Investigations of general and specific commercial problems connected with the handling, transportation, and storage of grain, including methods employed on the farm, at the country elevator, and at distributing and consuming centers; the effect of shrinkage, drying, bleaching, mixing, dockage, cleaning, and handling on commercial value and market practice; the relation of transportation facilities to the economical and efficient marketing and distribution of grain in domestic and foreign commerce; the construction and equipment of elevators and warehouses in their relation to efficient and economic handling, transportation, and storage of grain; and such other related subjects as may furnish information useful to the various agencies engaged in the handling, transportation, storage, and merchandising of grain..... 31,383.40

**Total.....** 110,787.69

ENFORCEMENT OF THE STANDARD CONTAINER ACT.							
Total expenditures as above.....		\$5,035.70					
Outstanding liabilities, Aug. 31 (estimated).....		36.30					\$9,825.08
Unexpended balance (estimated).....		108.00					
	Total allotment.....		5,180.00				
Supervision and direction of the investigational and regulatory activities incident to the enforcement of the standard container act and of the rules and regulations of the Secretary thereunder.....			5,072.00				
MILLING AND BAKING INVESTIGATIONS.							
Total expenditures as above.....		\$25,957.79					
Outstanding liabilities, Aug. 31 (estimated).....		9,848.73					
Unexpended balance (estimated).....		14,758.30					
	Total allotment.....		50,564.82				
Investigation of the milling and baking qualities of wheat and other grains for the purpose of determining the relation to intrinsic values of such factors as test weight per bushel, gluten content, color, texture, general appearance, different forms of damage, mixtures of different kinds and qualities of the same grain and of different grains, admixtures of various impurities, and various treatments to which grain is subjected in commercial handling, storing, and milling, with the view of establishing and revising grades for these grains.....		35,806.52					
ENFORCEMENT OF THE COTTON FUTURES ACT.							
Total expenditures as above.....		\$107,253.10					
Outstanding liabilities, Aug. 31 (estimated).....		12,815.61					
Unexpended balance (estimated).....		8,770.51					
	Total allotment.....		128,839.22				
Distributed among the several subactivities as follows:							
Administration: Supervision and direction of investigational and regulatory activities incident to the enforcement of the United States cotton futures act and of the rules							
and regulations of the Secretary of Agriculture thereunder, and the performance of such executive and clerical duties as may be necessary in connection therewith.....							
Determination of disputes: Hearing and determining disputes as to the grade, quality, or length of staple of cotton tendered in settlement of future contracts made in compliance with section 5 of the cotton futures act and referred to the Secretary of Agriculture under the terms of the act for determination of facts; and drafting of memoranda of conclusions upon which are based the Secretary's findings in cases of disputes.....							
Investigations of future and spot markets for cotton: Investigation of future markets for cotton to ascertain how accurately their future quotations reflect spot values; collection of general information as to conditions within the future exchanges; investigation of spot markets to determine their fitness for designation as bona fide spot markets; securing daily reliable quotations for cotton from each of the designated spot markets; and inspection of the designated bona fide spot markets from time to time.....							
Preparation and distribution of the official cotton standards: Preparing and distributing practical forms of the official cotton standards of the United States for grades of white cotton, promulgated by the Secretary of Agriculture on Dec. 15, 1914, under section 9 of the United States cotton-futures act, and practical forms of the official standards for colored cotton, promulgated by the Secretary of Agriculture on Jan. 28, 1916, under the same section of that act; and inspection of these copies of the standards, condemning them when necessary and replacing them upon request.....							
	Total.....						12,061.49
ENFORCEMENT OF THE GRAIN STANDARDS ACT.							
Total expenditures as above.....		\$519,789.50					
Outstanding liabilities, Aug. 31 (estimated).....		27,551.58					
Unexpended balance (estimated).....		2,592.00					
	Total allotment.....						89,182.11
							120,068.71

## INSECTICIDE AND FUNGICIDE BOARD.

Classification of expenditures for the fiscal year ended June 30, 1919.

Project.	Salaries.				Travel, station, and field expenses.	Equipment.			
	Statutory.	Lump fund.		Total.		Apparatus, instruments, laboratory.	Furniture.	Miscella- neous.	
		In Wash- ington.	Out of Washington.						
Enforcement of the insecticide act....	\$26,290.38	\$47,899.69	\$6,925.92	\$81,115.99	\$12,792.56	\$3,115.80	\$362.38	\$442.73	

<sup>1</sup> Includes increased compensation, amounting to \$4,075.36, provided by the legislative, executive, and judicial appropriation act for the fiscal year 1919.

## PROJECT STATEMENT.

## ENFORCEMENT OF THE INSECTICIDE ACT.

Total expenditures as above.....	\$110,100.08
Outstanding liabilities Aug. 31 (estimated).....	2,871.88
Unexpended balance (estimated).....	8,268.04
	Total allotment.....
	121,240.00

Distributed among the several activities as follows:

Administration: Supervisory work in connection with the enforcement of the insecticide act, including maintenance of necessary records, fiscal operations, correspondence, inspection work, etc.....	\$39,202.61
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Distributed among the several subactivities as follows:									
Administration: Supervision and direction of investigational and regulatory activities involved in the enforcement of the United States grain standards act and the rules and regulations of the Secretary of Agriculture thereunder, and the performance of such executive and clerical duties as may be necessary in connection therewith.....	\$477, 670. 14								
Appeals and inspection procedure: Hearing and determining appeals and disputes referred to the Secretary of Agriculture, and preparing findings in each case; review of analyses and separations of samples submitted in connection with appeals and disputes, and the supervision work performed under the act; preparation and distribution of type samples of grain illustrating the application of the official grain standards; standardization of laboratory methods and procedure employed in the handling of appeals and disputes; preparation of outlines of procedure and instructions relating to sampling, testing, and analyzing of grain under the act; standardization, adjustment, and calibration of grain-testing apparatus in use in the offices of Federal grain supervision of the Bureau of Markets, grain inspection departments, and grain testing laboratories; and development of improved laboratory methods and grain testing apparatus and equipment.....	22, 526. 28								
Inspection efficiency: Supervision of the inspection of grain in order to secure the correct and uniform application of the official grain standards of the United States; examination of grain shipped or delivered for shipment in interstate or foreign commerce when sold, offered, or consigned for sale by grade or which has been graded by a licensed inspector, for the purpose of determining whether it conforms to the standard of the grade specified; supervision of the keeping of all records of grain graded and inspected by licensees under the grain standards act, the collection of reports, and the compilation for publication of the summary of facts required by section 7 of the act.....	27, 749. 94								
Licenses and violations: Investigation of supposed or alleged violations of the grain standards act and of the rules and regulations thereunder, holding hearings, and making recommendations regarding action to be taken in each case; carrying into effect the provisions of sections 7 of the act with respect to the issuance, suspension, revocation, or cancellation of licenses; passing upon the forms of grain inspection certificates used by licensed inspectors; and assisting in the preparation of rules and regulations under the act.....	\$19, 394. 72								
	Total.....								
	547, 341. 08								
	ADMINISTRATION OF THE WAREHOUSE ACT.								
	Total expenditures as above.....	\$44, 162. 65							
	Outstanding liabilities, Aug. 31 (estimated).....	4, 678. 23							
	Unexpended balance (estimated).....	6, 496. 63							
	Total allotment.....	55, 337. 51							
	Inspection and classification of warehouses applying for licenses under the United States warehouse act; licensing warehouses found to be suitable for the proper storage of cotton, grains, flaxseed, wool, and tobacco; licensing qualified persons to classify any agricultural products stored (or to be stored) in a warehouse licensed under this act, according to grade or otherwise, and certificating the grade or class thereof, or weighing the same and certificating the weight thereof; licensing persons not warehousemen to accept custody of cotton, grain, flaxseed, wool, and tobacco, and storing same in a warehouse owned or operated by any State; prescribing duties of warehousemen licensed by the Secretary of Agriculture; making rules and regulations for carrying out the provisions of the United States warehouse act; prescribing the conditions of the bond required of licensed warehousemen; investigation of the storage, warehousing, classifying, weighing, and certification of cotton, grains, flaxseed, wool, and tobacco; making such investigations as may be necessary for carrying out the provisions of the United States warehouse act; and establishing standards for such agricultural products defined in this act as are not already standardized.....								
	48, 840. 88								

## INSECTICIDE AND FUNGICIDE BOARD.

Classification of expenditures for the fiscal year ended June 30, 1919.

Stationery.	Rent.	Telegraph, telephone, and postage.	Freight, express, and drayage.	Furnishing of heat, light, power, electricity.	Forage purchased in bulk.	Fuel.	Specified items not otherwise classified.	Miscellaneous supplies, services, etc.	Total.
\$711.45	\$911.00	\$187.87	\$955.94			\$338.73		\$9,165.63	\$110,100.08

Chemical, microscopic, and bacteriological examination of insecticides and fungicides other than those used on horses, cattle, sheep, swine, or goats.....	\$38, 648. 74	Testing the efficacy of insecticides and the action on vegetation of insecticides.....	\$13, 351. 05
Testing the efficacy of fungicides and the action on vegetation of insecticides and fungicides.....	12, 960. 56	Chemical and bacteriological examination of insecticides and fungicides used on horses, cattle, sheep, swine, or goats, and efficacy tests of same.....	8, 809. 00
		Total.....	112, 971. 96

## FEDERAL HORTICULTURAL BOARD.

Classification of expenditures for the fiscal year ended June 30, 1919.

Project.	Salaries.			Travel, station, and field expenses.	Equipment.			
	Statutory.	Lump fund.			Apparatus, instruments, laboratory.	Furniture.	Miscella- neous.	
		In Wash- ington.	Out of Washington.					
1 Enforcement of the plant quarantine act.	\$21,145.59	\$20,838.67	\$19,207.02	\$61,191.28	\$5,209.29	\$173.30	\$420.27	
2 Preventing the entrance and establishment of the pink bollworm of cotton.	7,682.27	90,269.21	97,951.48	174,657.70	652.35	1,006.51	3,595.55	
Total.....	21,145.59	28,520.94	109,476.23	1 159,142.76	179,866.99	825.65	1,426.78	
							3,911.61	

<sup>1</sup> Includes increased compensation, amounting to \$3,770.32, provided by the legislative, executive, and judicial appropriation act for the fiscal year 1919.

## PROJECT STATEMENTS.

## ENFORCEMENT OF THE PLANT-QUARANTINE ACT.

Total expenditures as above.....	\$70,724.56
Outstanding liabilities, Aug. 31 (estimated).....	1,964.71
Unexpended balance (estimated).....	20,791.38

93,480.65

Total allotment.....

Distributed among the several subactivities as follows:

Administration: Conduct of administrative and clerical work necessary for the proper enforcement of the plant-quarantine act...

Control of entry of plants and plant products under regulation: Foreign inspection and certification of nursery stock and other plants and plant products under regulation; prompt notification of arrival and proposed distribution and provision for the proper inspection, either at port of entry or at place of destination, of such imports.....

Foreign plant quarantines: Prevention of the entry of plant materials affected with white pine blister rust, black stem rust, potato

62,191.28

1,261.72

wart, Mexican fruit fly, avocado weevil, pink bollworm of cotton, European pine shoot moth, Japanese beetle, European corn borer, citrus canker and other citrus diseases, *Sclerotinia maydis* disease of Indian corn, insect enemies and plant diseases of sugar cane, and insect enemies of sweet potatoes, yams, and banana plants.....

Domestic-plant quarantines: Prevention of the further distribution within the United States of the Mediterranean fruit fly and melon fly, the gipsy moth and brown-tail moth, date-palm scale insects, pink bollworm of cotton, insect enemies and plant diseases of sugar cane, insect enemies of sweet potatoes, yams, and banana plants, bamboo smut, and flag smut and take-all diseases of wheat and other small grains...

Plant-quarantine investigations: Investigation of insect and plant-disease conditions as a basis for needed quarantine action....

Total.....

\$2,532.19

2,635.12

2,104.25

70,724.56

## FEDERAL HORTICULTURAL BOARD.

Classification of expenditures for the fiscal year ended June 30, 1919.

Stationery.	Rent.	Telegraph, telephone, and postage.	Freight, express, and drayage,	Furnishing of heat, light, power, electricity.	Forage, purchased in bulk.	Fuel.	Specified items not otherwise classified.	Miscellane- ous supplies, services, etc.	Total.	
\$1,532.01	\$325.00	\$342.12	\$32.62	\$30.00	-----	-----	\$306.85	\$785.76	\$70,724.56	1
2,583.31	3,047.97	1,179.00	2,563.70	92.29	-----	-----	6.57	27,344.19	314,680.62	2
4,115.32	3,372.97	1,521.12	2,656.32	122.29	-----	-----	1 313.42	28,129.95	385,405.18	

<sup>1</sup> Advertising and publication of notices.

## PREVENTING THE ENTRANCE AND ESTABLISHMENT OF PINK BOLLWORM OF COTTON.

Total expenditures as above.....	\$314,680.62
Outstanding liabilities, Aug. 31 (estimated).....	38,470.96
Unexpended balance (estimated).....	160,369.39

Total allotment.....	<u>513,520.97</u>
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Distributed among the several subactivities as follows:

Supervision: General planning and direction of the activities necessary for the proper enforcement of the work of suppressing the spread of the pink bollworm of cotton, including routine clerical work.....	\$314,680.62
Border control work: Preventing the movement of cotton and cotton seed from Mexico into the United States, including the regu-	116,614.92

lation of the entry into the United States of railway cars and other vehicles, and freight, express, baggage, and other materials from Mexico, and the inspection, cleaning, and disinfection thereof.....

\$26,842.30

Surveys and inspections: Conducting surveys to determine the actual distribution of the pink bollworm in Mexico; also surveys and inspections in Texas and other cotton-growing States to detect any infestation; and carrying out necessary control measures, in cooperation with the State of Texas, including the establishment of cotton-free areas on or near the border of Mexico.....

168,280.62

Investigational work: Investigations of the pink bollworm in Mexico and elsewhere as a basis for control measures.....

2,942.78

Total.....	314,680.62
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## ACQUISITION OF LANDS UNDER THE WEEKS FORESTRY LAW.

Classification of expenditures for the fiscal year ended June 30, 1919.

Project.	Statutory.	Salaries.			Travel, station, and field expenses.	Equipment.			
		Lump fund.		Total.		Apparatus, instruments, laboratory.	Furniture.	Miscella- neous.	
		In Wash- ington.	Out of Washington.						
1 National Forest Reservation Commission.									
2 Acquisition of lands:									
3 Forest Service.		\$6,865.61	\$50,938.21	\$57,803.82	\$15,013.79		\$166.20	\$19.48	
4 Solicitor's office.		7,277.50	31,132.12	38,409.62	7,023.01			11.50	
5 Geological Survey.					73.01				
Purchase of lands.									
Total.		14,143.11	82,070.33	96,213.44	22,109.81		166.20	30.98	

<sup>1</sup> Includes increased compensation, amounting to \$4,491.82, provided by the legislative, executive, and judicial appropriation act for the fiscal year 1919.

## PROJECT STATEMENTS.

## NATIONAL FOREST RESERVATION COMMISSION.

Total expenditures as above.....	\$86.38
Unexpended balance.....	24,913.62
Total appropriation.....	<u>25,000.00</u>

This commission, consisting of the Secretary of War, the Secretary of the Interior, the Secretary of Agriculture, two Members of the Senate, and two Members of the House of Representatives, considers and passes upon land recommended for purchase as provided by sec. 6 of the Weeks forestry law (act approved Mar. 1, 1911) and fixes the price at which such land may be purchased.....

86.38

The cost of the work, including administrative expenses and purchase of lands, is distributed as follows:

Forest Service: As provided by sec. 6 of the Weeks forestry law, the Forest Service, by direction of the Secretary of Agriculture, examines, locates, and recommends for purchase such lands as, in the judgment of the Secretary, may be necessary to the regulation of the flow of navigable streams, reporting to the National Forest Reservation Commission the results of such examinations.....

\$79,013.26

Solicitor's office: As provided by sec. 8 of the Weeks forestry law, the Solicitor's office of the Department of Agriculture, by direction of the Secretary of Agriculture, makes all necessary examinations of title records to secure safe title in the United States to the lands to be acquired under this law, no payment being made, however, until the title is satisfactory to and approved by the Attorney General and vested in the United States.....

\$46,517.42

## ACQUISITION OF LANDS.

Total expenditures as above.....	\$1,130,444.81
Unexpended balance, June 30, 1919 (available for further disbursement).....	<sup>1</sup> 2,562,020.82
Total available July 1, 1918.....	<sup>2</sup> 3,692,465.63

<sup>1</sup> Includes \$1,824,788.96 covered by executed contracts on which no actual payment had been made up to June 30, 1919, and \$737,231.86 balance available for incumbrance during the fiscal year 1919.

<sup>2</sup> Includes \$4,491.82 for increased compensation provided by the legislative, executive, and judicial appropriation act for the fiscal year 1919.

## ACQUISITION OF LANDS UNDER THE WEEKS FORESTRY LAW.

Classification of expenditures for the fiscal year ended June 30, 1919.

Stationery.	Rent.	Telegraph, telephone, and postage.	Freight, express, and drayage.	Furnishing of heat, light, power, electricity.	Forage, purchased in bulk.	Fuel.	Specified items not otherwise classified.	Miscellaneous supplies, services, etc.	Total.	
\$7.10							1 \$79.28		\$86.38	1
1.75	\$710.65 561.40	\$111.57 59.53	\$270.54 109.02		\$29.13 29.42	2 108.00 1 20.55	\$4,780.08 291.62	79,013.26 46,517.42 73.01	2 3 4	
							3 1,004,841.12		1,004,841.12	5
8.85	1,272.05	171.10	379.56		58.55	1,005,048.95	5,071.70	1,130,531.19		

<sup>1</sup> Printing and binding.<sup>2</sup> Options for purchase of lands.<sup>3</sup> Lands purchased.

Geological Survey: Before any lands are purchased by the National Forest Reservation Commission they are examined by the Geological Survey, as provided by sec. 6 of the Weeks forestry law, and a report is made to the Secretary of Agriculture showing that the control of the lands will promote or protect the navi-

gation of streams on whose watersheds they lie..... \$73.01  
Purchase of lands: During the fiscal year ended June 30, 1919, the payments for the actual purchase of lands acquired under the Weeks forestry law amounted to... 1,004,841.12  
Total..... 1,130,444.81

## SUMMARY OF EXPENDITURES OF THE DEPARTMENT AGRICULTURE.

The total expenses of the Department of Agriculture for the fiscal year ended June 30, 1919, were \$30,851,399.07, of which amount \$29,685,849.37 was paid and \$1,165,549.70 represented outstanding liabilities on Aug. 31, 1919. The payments were classified as follows:

Statutory salaries.....	\$5,771,940.27
Lump-fund salaries:	
In Washington.....	3,032,815.85
Out of Washington.....	12,775,301.56
Travel, station, and field expenses.....	2,830,539.77
Equipment:	
Apparatus, instruments, and laboratory.....	104,701.32
Furniture.....	66,044.31
Miscellaneous.....	1,002,490.84
Stationery.....	201,673.55
Rent.....	543,487.67
Telegraph, telephone, and postage.....	382,271.42
Freight, express, and drayage.....	320,878.91
Furnishing of heat, light, power, and electricity.....	47,597.15

Forage purchased in bulk.....	\$277,446.54
Fuel.....	84,055.25
Land, including acquisitions under the Weeks forestry law.....	1,004,949.12
Structures and parts and nonstructural improvements to land.....	8,426.57
Purchase of animals for experimental and control purposes.....	103,972.99
Unclassified items, including mechanics', engineers', and electricians' supplies; printing, engraving, lithographing, and binding; subsistence and care of animals and storage and care of vehicles; cleaning and toilet supplies; and advertising and publication of notices.....	79,297.89
Miscellaneous supplies and services.....	1,047,958.39
Total.....	29,685,849.37

