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MISCELLANEOUS PUBLICATION No. 252

LIST OF PUBLICATIONS

OF THE

UNITED STATES

DEPARTMENT OF AGRICULTURE

FROM JANUARY 1931, TO DECEMBER 1935, INCLUSIVE

COMPILED BY COMPARISON WITH THE ORIGINALS

BY

MABEL G. HUNT

*In Charge, Indexing Section
Division of Publications, Office of Information
United States Department of Agriculture*

Supplementary to Miscellaneous Publications Nos. 9 and 153



UNITED STATES
GOVERNMENT PRINTING OFFICE
WASHINGTON : 1936

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UNNUMBERED PUBLICATIONS

- Emergency food relief and child health. United States Department of Labor, Children's Bureau, and United States Department of Agriculture, Bureau of Home Economics. 10 p. 1931.
- Emergency low-cost food supply which will help prevent pellagra. Hazel K. Stiebeling and Miriam Birdseye, United States Department of Agriculture, and Clyde B. Schuman, American Red Cross. 1 p. 1931.
- Getting the most for your food money. 4 p. 1931.
- New credit for farmers. National Advisory Loan Committee, Agricultural Credits Division, and United States Department of Agriculture. 14 p. 1931.
- The family's food at low cost. Hazel K. Stiebeling and Miriam Birdseye, United States Department of Agriculture, and Clyde B. Schuman, American Red Cross. 4 p. 1931.
- Index to publications of the United States Department of Agriculture, 1901-1925. Mary A. Bradley and Mabel G. Hunt. 2689 p. 1932.
- Proceedings of the National Conference on Land Utilization. 251 p. 1932.
- Economic bases for the Agricultural Adjustment Act. Mordecai Ezekiel and Louis H. Bean. 67 p. 1933.
- Economic trends affecting agriculture. Louis H. Bean and Arthur P. Chew. [46 p.] 1933.
- Family food budgets for the use of relief agencies. United States Department of Labor, Children's Bureau, and United States Department of Agriculture, Bureau of Home Economics. 8 p. 1933.
- Canned beef recipes. Bureau of Home Economics in cooperation with the Federal Surplus Relief Corporation. 1 p. 1934.
- Canned meat recipes. Bureau of Home Economics in cooperation with the Federal Surplus Relief Corporation. 1 p. 1934.
- Index to publications of the United States Department of Agriculture, 1926-1930. Mary A. Bradley. 694 p. 1935.

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OFFICE OF BUDGET AND FINANCE¹

REPORT OF THE DIRECTOR OF FINANCE

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OFFICE OF PERSONNEL¹

REPORT OF THE DIRECTOR OF PERSONNEL

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 7. Rye adjustment handbook, 1936-39. 51 p. 1935.

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GENERAL INFORMATIVE MATERIAL ³

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 G- 3. "Progress on all fronts" under the Farm Act. George N. Peck. 9 p. 1933.
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MISCELLANEOUS

BANKHEAD ACT

- B. A.-1. Preliminary questions and answers covering the Bankhead Act. 12 p. 1934.

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- Cattle No. 1. The beef-cattle problem. 12 p. 1934.

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- C.-H.- 1. The corn-hog problem. 9 p. 1933.
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- C.-H.- 10. What the adjustment program offers corn-hog producers. 4 p. 1933. Revised, 1934.
- C.-H.- 28. Questions and answers relating to the corn-hog production adjustment program and contract. 12 p. 1934.
- C.-H.- 32. The processing taxes on corn and hogs. 13 p. 1934.
- C.-H.-113. Corn-hog adjustment. 103 p. 1935.
- C.-H.-115. The 1935 corn-hog adjustment program. 4 p. 1934.
- C.-H.-118. The processing taxes on corn and hogs. 16 p. 1935.

COTTON³

- Cotton 4. Questions and answers covering 1934 and 1935 cotton acreage reduction plan. 12 p. 1933.

RICE³

- Rice-12. Questions and answers covering the 1934 rice production control program. 6 p. 1934.

WHEAT³

- W- 5. A balanced harvest. Henry A. Wallace. 12 p. 1933.
- W- 6. Planned production means more for your wheat. 4 p. 1933.
- W-17. Answers to the questions you are asking on the wheat adjustment plan. 8 p. 1933.

BUREAU OF AGRICULTURAL ECONOMICS

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- 1932. Nils A. Olsen. 32 p. 1932.

REPORT OF THE CHIEF

- 1933. Nils A. Olsen. 24 p. 1933.
- 1934. Nils A. Olsen. 29 p. 1934.
- 1935. A. G. Black. 27 p. 1935.

AGRICULTURAL SITUATION

- Vol. 15, no. 1 to vol. 19, no. 12. January 1, 1931-December 1, 1935. Monthly.

CROPS AND MARKETS

- Vol. 8, no. 1 to vol. 12, no. 12. January 1931-December 1935. Monthly.

SERVICE AND REGULATORY ANNOUNCEMENTS

- 122. Regulations for warehousemen storing seeds under the United States Warehouse Act. 21 p. 1931.
- 123. Official United States standards for grades of lamb carcasses, yearling mutton, and mutton carcasses. Effective February 16, 1931. 6 p. 1931.
- 124. Regulations of the Secretary of Agriculture under the United States Cotton Futures Act. Effective May 1, 1931. 22 p. 1931.
- 125. Regulations of the Secretary of Agriculture under the United States Cotton Standards Act. Effective May 1, 1931. 23 p. 1931.

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126. Revised regulations for cotton warehouses, approved April 27, 1931. 23 p. 1931.
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 128. Regulations for warehousemen storing wool under the United States Warehouse Act. 20 p. 1931.
 129. Regulations for warehousemen storing tobacco under the United States Warehouse Act. 22 p. 1931.
 130. Regulations for warehousemen storing dry beans under the United States Warehouse Act. 21 p. 1931.
 131. Rules and regulations of the Secretary of Agriculture governing the inspection and certification of dressed poultry and dressed domestic rabbits for external condition and of dressed poultry and dressed domestic rabbits and edible products thereof for condition and wholesomeness. 10 p. 1931.
 132. Regulations for warehousemen storing canned foods. 15 p. 1932.
 133. The official standards of the United States for the grading, sampling, and analyzing of cottonseed sold or offered for sale for crushing purposes. Effective June, 1932. 10 p. 1932.
 134. Regulations for warehousemen storing cherries in sulphur dioxide brine. 19 p. 1932.
 135. Official standards of the United States for grades of wool and wool top and rules and regulations for distribution of practical forms of wool and wool top standards under Wool Standards Act of May 17, 1928. 5 p. 1932.
 136. Regulations supplementary to the commodity regulations under the United States Warehouse Act for field warehousemen. 9 p. 1932.
 137. Rules and regulations of the Secretary of Agriculture governing the grading and certification of butter, cheese, eggs, dressed poultry, and dressed domestic rabbits for class, quality (grade), and condition. 9 p. 1932.
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 140. United States standards for grades of canned peas. 5 p. 1933.
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 142. United States standards for grades of canned snap (or stringless) beans. 6 p. 1933.
 143. Grades, requirements, and regulations of the Secretary of Agriculture for carrying out the provisions of the Export Apple and Pear Act of June 10, 1933. (48 Stat. 123.) 4 p. 1933.
 144. Official grain standards of the United States for wheat, barley, oats, feed oats, mixed feed oats, rye, and mixed grain, effective July 2, 1934; for flaxseed, effective August 1, 1934; and for corn and grain sorghums, effective September 1, 1934. 31 p. 1934.
 145. United States standards for grades of canned grapefruit. 5 p. 1934.
 146. Items relating to the administration of the United States Cotton Standards and Cotton Futures Acts. 21 p. 1934.
 147. Air-oven and water-oven methods specified in the United States official grain standards for determining the moisture content of grain. 2 p. 1935.
 148. Regulations of the Secretary of Agriculture under the United States Grain Standards Act. 16 p. Effective July 1, 1935.

UNNUMBERED PUBLICATIONS

- A handbook of dairy statistics. T. R. Pirtle. 129 p. 1933.
 Handbook of official United States standards for individual eggs. Effective February 16, 1934. 8 p. 1935.
 Handbook of official United States standards for beans. Effective August 1, 1935. 34 p. 1935.

BUREAU OF AGRICULTURAL ENGINEERING

REPORT OF THE CHIEF

1932. S. H. McCrory. 22 p. 1932.
 1933. S. H. McCrory. 22 p. 1933.
 1934. S. H. McCrory. 23 p. 1934.
 1935. S. H. McCrory. 22 p. 1935.

BUREAU OF ANIMAL INDUSTRY

REPORT OF THE CHIEF

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 1932. J. R. Mohler. 58 p. 1932.
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 1934. J. R. Mohler. 52 p. 1934.
 1935. J. R. Mohler. 55 p. 1935.

SERVICE AND REGULATORY ANNOUNCEMENTS

Nos. 284 to 343. January 1931-December 1935. Monthly. Annual index.

UNNUMBERED PUBLICATIONS

Directory of the Bureau of Animal Industry. Revised to February 16, 1931; February 16, 1932; February 16, 1933; February 16, 1934; March 16, 1935.
 Index-catalogue of medical and veterinary zoology. Part 1. Authors AALL to AZZOLINA. Albert Hassall and Margie Potter. 142 p. 1932.

BUREAU OF BIOLOGICAL SURVEY

REPORT OF THE CHIEF

1931. Paul G. Redington. 63 p. 1931.
 1932. Paul G. Redington. 30 p. 1932.
 1933. Paul G. Redington. 32 p. 1933.
 1934. J. N. Darling. 32 p. 1934.
 1935. J. N. Darling. 51 p. 1935.

ALASKA GAME COMMISSION CIRCULARS

8. Laws and regulations relating to game, land fur-bearing animals, and birds in Alaska. 1931-32. 34 p. 1931.
 8-Supp. Amendment to regulations respecting game animals, land fur-bearing animals, game birds, nongame birds, and nests and eggs of birds in Alaska, approved March 7, 1931, effective July 1, 1931. 2 p. 1931.
 9. Laws and regulations relating to game, land fur-bearing animals, and birds in Alaska. 1932-33. 36 p. 1932.
 10. Federal laws relating to wild life in Alaska. 12 p. 1933.
 11. Regulations relating to game, land fur animals, and birds in Alaska. 1933-34. 32 p. 1933. Revised, 1934.
 11-Supp. [1]. Amendment of regulations 4 and 5 of the regulations respecting game animals, land fur-bearing animals, game birds, nongame birds, and nests and eggs of birds in Alaska. Effective January 5, 1934. 2 p. 1933.
 11-Supp. 2. Amendment of regulations 12, 13, and 14 of the regulations respecting game animals, land fur-bearing animals, game birds, nongame birds, and nests and eggs of birds in Alaska. Effective August 20, 1934. 2 p. 1934.
 11-Supp. 3. Amendment of regulations 4, 5, and 19 of the regulations respecting game animals, land fur-bearing animals, game birds, nongame birds, and nests and eggs of birds in Alaska. Effective January 1, 1935. 2 p. 1934.
 12. Regulations relating to game, land fur animals, and birds in Alaska. 1935-36. 32 p. 1935.

NORTH AMERICAN FAUNA

53. Mammals of New Mexico. Vernon Bailey. 412 p. 1931.
 54. Alaska-Yukon caribou. Olaus J. Murie. 93 p. 1935.

SERVICE AND REGULATORY ANNOUNCEMENTS

74. Laws and regulations for the administration of the Aleutian Islands Reservation, Alaska. 6 p. 1931.
 75. Migratory Bird Treaty Act regulations and text of Federal laws relating to game and birds. Amended March 17, 1931. 18 p. 1931.
 76. Migratory Bird Treaty Act regulations and text of Federal laws relating to game and birds. Amended September 12, 1931. 18 p. 1931.
 77. Migratory Bird Treaty Act regulations and text of Federal laws relating to game and birds. Amended July 20, 1932. 20 p. 1932.
 78. Migratory Bird Treaty Act regulations and text of Federal laws relating to game and birds. Amended September 11, 1933. 20 p. 1933.
 79. Migratory Bird Treaty Act regulations and text of Federal laws relating to game and birds. Amended August 20, 1934. 21 p. 1934.
 80. Regulations for the administration of the Upper Mississippi River Wildlife and Fish Refuge. 3 p. 1934.
 81. Migratory Bird Treaty Act regulations. Amended to July 30, 1935. 8 p. 1935.
 82. Text of Federal laws relating to the protection of wildlife. 20 p. 1935.
 83. Migratory Bird Treaty Act regulations. 1935. 8 p. 1935.

BUREAU OF CHEMISTRY AND SOILS

REPORT OF THE CHIEF

1931. Henry G. Knight. 78 p. 1931.
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 1933. Henry G. Knight. 51 p. 1933.
 1934. Henry G. Knight. 54 p. 1934.
 1935. Henry G. Knight. 44 p. 1935.

SOIL SURVEY REPORTS (BY SERIES)

1925

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1926

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1927

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1928

2. Soil survey of the Deming area, New Mexico. A. T. Sweet and E. N. Poulson. 20 p. 1931.
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- 1929
1. Soil survey of Gates County, N. C. W. A. Davis and R. E. Devereux. 22 p. 1931.
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1930

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37. Part I. Description and soil classification. Soil survey of Ohio and Switzerland Counties, Ind. B. H. Hendrickson, T. M. Bushnell, H. P. Ulrich, and D. R. Kunkel. Part 11. Management of the soils of Ohio and Switzerland Counties. A. T. Wiancko and S. D. Conner. 60 p. 1935.
38. Soil survey of Hubbard County, Minn. P. R. McMiller, C. S. Simmons, G. A. Swenson, and W. J. Leighty. 33 p. 1935.
- 39 and following numbers not issued. (December 31, 1935.)

1931

1. Soil survey of Dundy County, Nebr. E. A. Nieschmidt, B. J. Abashkin, F. A. Hayes, and S. Rankin Bacon. 44 p. 1934.
2. Soil survey of Steuben County, N. Y. C. S. Pearson, F. B. Howe, D. F. Kinsman, Robert Wildermuth, R. C. Roberts, and A. H. Hasty. 62 p. 1934.
3. Soil survey of Queen Annes County, Md. S. O. Perkins, and H. B. Winant. 24 p. 1934.
4. Soil survey of Rockbridge County, Va. R. C. Journey, R. E. Devereux, and Edward Shulkeum. 42 p. 1934.
5. Soil survey of Sherman County, Nebr. L. A. Brown, R. L. Gemmell, and F. A. Hayes. 35 p. 1934.
6. Soil survey of Bay County, Mich. C. H. Wonser, J. O. Veatch, L. R. Jones, and L. R. Schoenmann. 30 p. 1934.
7. Soil survey of the Dixon area, California. Stanley W. Cosby and E. J. Carpenter. 47 p. 1935.
8. Soil survey of Woodson County, Kans. M. H. Layton and C. E. Dornberger. 30 p. 1935.
9. Soil survey of Monroe County, Iowa. C. L. Orrben and W. E. Tharp. 41 p. 1935.
10. Soil survey of Grant County, Okla. A. W. Goke, C. A. Hollopeter, and M. E. Carr. 33 p. 1935.
11. Not issued. (Dec. 31, 1935.)
12. Soil survey of Bourbon County, Kans. M. H. Layton and C. E. Dornberger. 29 p. 1935.
13. Soil survey of Scurry County, Tex. E. H. Templin and T. C. Reitch. 45 p. 1935.
14. Soil survey of Kiowa County, Okla. A. W. Goke and C. A. Hollopeter. 39 p. 1935.
- 15 and following numbers not issued. (December 31, 1935.)

1932

1. Soil survey of the Brighton area, Colorado. W. G. Harper, Lloyd Acott, and Elmer Frahm. 35 p. 1935.
2. Soil survey of the Lovington area, New Mexico. W. G. Harper and L. H. Smith. 21 p. 1935.
3. Soil survey of Chemung County, N. Y. C. S. Pearson, W. W. Reitz, John Mack, Ward Ellsworth, and James Schwartz. 42 p. 1935.
4. Soil survey of Valley County, Nebr. R. L. Gemmell, E. A. Nieschmidt, R. H. Lovald, F. A. Hayes, and S. Rankin Bacon. 38 p. 1935.
5. Soil survey of Greene County, Miss. J. W. Moon and S. Rankin Bacon. 42 p. 1935.
- 6 and following numbers not issued. (December 31, 1935.)

SOIL SURVEY REPORTS (BY STATE AND COUNTY)

ALABAMA

- Coosa County. Arthur E. Taylor and J. F. Stroud. 28 p. (No. 18, series 1929.) 1933.
Franklin County. J. F. Stroud, B. H. Williams, and W. W. Strike. 32 p. (No. 30, series 1927.) 1931.
Perry County. J. F. Stroud, M. E. Stephens, M. E. Swann, G. A. Swenson, W. E. Tharp, and B. H. Williams. 42 p. (No. 30, series 1930.) 1935.

ARIZONA

- Gila Bend area. F. O. Youngs, W. G. Harper, T. W. Glassey, and M. R. Isaacson. 22 p. (No. 4, series 1928.) 1931.
Nogales area. T. W. Glassey. 32 p. (No. 6, series 1930.) 1933.
Paradise-Verde area. F. O. Youngs, T. W. Glassey, E. N. Poulson, and M. R. Isaacson. 22 p. (No. 6, series 1928.) 1931.
Salt River Valley area. W. G. Harper, F. O. Youngs, A. T. Strahorn, S. W. Armstrong, H. C. Schwalen. 55 p. (No. 32, series 1926.) 1931.
Yuma-Wellton area. F. O. Youngs, W. G. Harper, James Thorp, and M. R. Isaacson. 37 p. (No. 20, series 1929.) 1933.

CALIFORNIA

- Yuma-Wellton area. F. O. Youngs, W. G. Harper, James Thorp, and M. R. Isaacson. 37 p. (No. 20, series 1929.) 1933.
- Capistrano area. E. J. Carpenter and R. Earl Storie. 48 p. (No. 19, series 1929.) 1933.
- Clear Lake area. E. J. Carpenter, R. Earl Storie, and Stanley W. Cosby. 45 p. (No. 13, series 1927.) 1931.
- Dixon area. Stanley W. Cosby, and E. J. Carpenter. 47 p. (No. 7, series 1931.) 1935.
- El Cajon area. R. Earl Storie and E. J. Carpenter. 42 p. (No. 15, series 1930.) 1934.
- Oceanside area. R. Earl Storie and E. J. Carpenter. 41 p. (No. 11, series 1929.) 1933.
- Paso Robles area. E. J. Carpenter and R. Earl Storie. 67 p. (No. 34, series 1928.) 1933.
- Placerville area. R. Earl Storie and D. F. Trussell. 35 p. (No. 34, series 1927.) 1932.
- San Luis Obispo area. E. J. Carpenter and R. Earl Storie. 60 p. (No. 29, series 1928.) 1933.
- Santa Ynez area. E. J. Carpenter, T. W. Glassey, and R. Earl Storie. 48 p. (No. 15, series 1927.) 1931.
- Suisun area. E. J. Carpenter and S. W. Cosby. 60 p. (No. 18, series 1930.) 1934.

COLORADO

- Brighton area. W. G. Harper, Lloyd Acott, and Elmer Frahm. 35 p. (No. 1, series 1932.) 1935.
- Fort Collins area. A. T. Sweet and J. N. Spencer. 29 p. (No. 27, series 1927.) 1931.
- Greeley area. A. T. Sweet, L. A. Brown, and W. E. Haines. 30 p. (No. 5, series 1929.) 1932.
- Longmont area. A. T. Sweet and C. H. Dodson. 35 p. (No. 29, series 1930.) 1935.

FLORIDA

- Polk County. Earl D. Fowler, Arthur E. Taylor, E. W. Knobel, S. W. Phillips, F. R. Lesh, A. L. Gray, A. T. Sweet, M. J. Edwards, H. M. Smith, R. E. Devereux, A. H. Hasty, and Robert Wildermuth. 39 p. (No. 39, series 1927.) 1932.

GEORGIA

- Cook County. J. W. Moon and A. L. Gray. 28 p. (No. 11, series 1928.) 1931.
- Elbert County. G. L. Fuller and B. H. Hendrickson. 34 p. (No. 15, series 1928.) 1931.
- Hart County. G. L. Fuller. 35 p. (No. 12, series 1929.) 1933.
- Jefferson County. R. T. Avon Burke, S. W. Phillips, J. W. Moon, R. Wildermuth, and A. L. Gray. 37 p. (No. 26, series 1930.) 1935.
- McIntosh County. G. L. Fuller, B. H. Hendrickson, and J. W. Moon. 34 p. (No. 6, series 1929.) 1932.
- Worth County. Robert Wildermuth, S. W. Phillips, J. A. Kerr, A. L. Gray, and W. D. Lee. 32 p. (No. 13, series 1929.) 1933.

IDAHO

- Benevah County. E. N. Poulson and K. B. Platt. 34 p. (No. 22, series 1930.) 1935.
- Gooding area. F. O. Youngs, Glenn Trail, and B. L. Young. 30 p. (No. 10, series 1929.) 1933.
- Jerome area. E. N. Poulson and J. A. Thompson. 22 p. (No. 16, series 1927.) 1931.

INDIANA

- Blackford County. Part 1. W. E. Tharp and S. R. Bacon. Part 2. The management of Blackford County soils. A. T. Wiancko and S. D. Conner. 41 p. (No. 32, series 1928.) 1933.
- Miami County. Part 1. W. E. Tharp and D. R. Kunkel. Part 2. The management of Miami County soils. A. T. Wiancko and S. D. Conner. 58 p. (No. 24, series 1927.) 1931.
- Ohio and Switzerland Counties. B. H. Hendrickson, T. M. Bushnell, H. P. Ulrich, D. R. Kunkel, A. T. Wiancko, and S. D. Conner. 60 p. (No. 37, series 1930.) 1935.
- Vermillion County. W. H. Buckhannan, J. S. James, A. T. Wiancko, and S. D. Conner. 39 p. (No. 20, series 1930.) 1934.

IOWA

- Buchanan County. T. H. Benton, M. H. Layton, and J. H. Zentmire. 38 p. (No. 33, series 1926.) 1931.
- Butler County. J. Ambrose Elwell and E. N. Poulson. 48 p. (No. 5, series 1928.) 1931.
- Calhoun County. W. E. Tharp, T. H. Benton, and W. J. Leighty. 24 p. (No. 2, series 1930.) 1932.
- Crawford County. T. H. Benton and M. H. Layton. 29 p. (No. 30, series 1928.) 1933.
- Guthrie County. C. L. Orrben, A. M. O'Neal, A. H. Hasty, and W. C. Boatright. 34 p. (No. 15, series 1929.) 1933.
- Hancock County. F. R. Lesh, T. H. Benton, and G. B. Killinger. 28 p. (No. 9, series 1930.) 1933.
- Lyon County. A. M. O'Neal, D. S. Gray, H. M. Smith, and R. E. Devereux. 24 p. (No. 11, series 1927.) 1931.
- Monroe County. C. L. Orrben and W. E. Tharp. 41 p. (No. 9, series 1931.) 1935.
- Pocahontas County. A. M. O'Neal and R. E. Devereux. 24 p. (No. 19, series 1928.) 1932.
- Poweshiek County. T. H. Benton and A. E. Shearin. 39 p. (No. 29, series 1929.) 1934.

- Sac County. C. L. Orrben, A. L. Gray, and W. C. Boatright. 36 p. (No. 24, series 1928.) 1932.
 Union County. J. Ambrose Elwell and W. J. Moran. 35 p. (No. 14, series 1927.) 1931.
 Washington County. C. L. Orrben and W. H. Buckhannan. 35 p. (No. 17, series 1930.) 1934.

KANSAS

- Bourbon County. M. H. Layton and C. E. Dornberger. 29 p. (No. 12, series 1931.) 1935.
 Crawford County. M. H. Layton, J. A. Kerr, E. W. Knobel, H. W. Higbee, and R. W. O'Hara. 20 p. (No. 3, series 1928.) 1931.
 Doniphan County. E. W. Knobel, R. H. Davis, and H. W. Higbee. 34 p. (No. 25, series 1927.) 1931.
 Johnson County. E. W. Knobel and R. H. Davis. 32 p. (No. 17, series 1928.) 1932.
 Labette County. E. W. Knobel, R. L. von Trebra, and H. W. Higbee. 23 p. (No. 30, series 1926.) 1931.
 Marion County. E. W. Knobel and R. O. Lewis. 35 p. (No. 35, series 1930.) 1935.
 Neosho County. M. H. Layton, R. W. O'Hara, and C. E. Dornberger. 26 p. (No. 33, series 1930.) 1935.
 Wilson County. J. A. Kerr, J. T. Whetzel, and H. W. Higbee. 29 p. (No. 22, series 1927.) 1931.
 Woodson County. M. H. Layton and C. E. Dornberger. 30 p. (No. 8, series 1931.) 1935.

KENTUCKY

- Mercer County. H. W. Higbee, Yandal Wrather, and W. C. Boatright. 59 p. (No. 23, series 1930.) 1935.

LOUISIANA

- Beauregard Parish. A. C. Anderson, M. H. Layton, R. E. Devereux, R. T. Avon Burke, J. A. Kerr, Harvey Oakes, S. S. Diedrichs, J. L. Green, and R. O. Lewis. 34 p. (No. 20, series 1928.) 1932.

MARYLAND

- Anne Arundel County. S. W. Phillips, S. O. Perkins, and H. B. Winant. 29 p. (No. 18, series 1928.) 1932.
 Calvert County. S. O. Perkins and Merle Hershberger. 22 p. (No. 13, series 1928.) 1931.
 Caroline County. H. B. Winant and S. R. Bacon. 26 p. (No. 7, series 1929.) 1932.
 Cecil County. S. O. Perkins and W. H. Moore. 30 p. (No. 23, series 1927.) 1931.
 Harford County. S. O. Perkins and H. B. Winant. 30 p. (No. 26, series 1927.) 1931.
 Kent County. H. B. Winant and J. P. Bewley. 24 p. (No. 3, series 1930.) 1933.
 Queen Annes County. S. O. Perkins and H. B. Winant. 24 p. (No. 3, series 1931.) 1934.
 Talbot County. S. O. Perkins and Merle Hershberger. 21 p. (No. 8, series 1929.) 1932.

MASSACHUSETTS

- Franklin County. W. J. Latimer, L. R. Smith, and Carey Howlett. 45 p. (No. 9, series 1929.) 1933.
 Hampden and Hampshire Counties. W. J. Latimer and L. R. Smith. 60 p. (No. 25, series 1928.) 1932.

MICHIGAN

- Alger County. J. O. Veatch, L. R. Schoenmann, F. R. Lesh, and Z. C. Foster. 41 p. (No. 32, series 1929.) 1934.
 Bay County. C. H. Wonser, J. O. Veatch, L. R. Jones, and L. R. Schoenmann. 30 p. (No. 6, series 1931.) 1934.
 Branch County. J. W. Moon, Robert Wildermuth, J. O. Veatch, C. H. Wonser, B. E. Musgrave, and J. A. Porter. 40 p. (No. 23, series 1928.) 1932.
 Chippewa County. J. O. Veatch, L. R. Schoenmann, A. L. Gray, C. S. Simmons, and Z. C. Foster. 44 p. (No. 36, series 1927.) 1932.
 Crawford County. J. O. Veatch, L. R. Schoenmann, Z. C. Foster, and F. R. Lesh. 38 p. (No. 29, series 1927.) 1931.
 Eaton County. J. W. Moon, J. O. Veatch, C. H. Wonser, and R. E. Pasco. 46 p. (No. 10, series 1930.) 1933.
 Kalkaska County. J. O. Veatch, L. R. Schoenmann, Z. C. Foster, and F. R. Lesh. 44 p. (No. 28, series 1927.) 1931.
 Luce County. J. O. Veatch, L. R. Schoenmann, C. E. Millar, and A. E. Shearin. 41 p. (No. 36, series 1929.) 1935.
 Mecosta County. Robert Wildermuth and J. F. Fonder. 30 p. (No. 18, series 1927.) 1931.
 St. Clair County. E. B. Deeter, H. W. Fulton, B. E. Musgrave, and L. C. Kapp. 28 p. (No. 27, series 1929.) 1934.
 Tuscola County. E. B. Deeter and A. E. Matthews. 40 p. (No. 29, series 1926.) 1931.
 Washtenaw County. J. O. Veatch, L. C. Wheeting, and Arnold Bauer. 47 p. (No. 21, series 1930.) 1934.

MINNESOTA

- Hennepin County. P. R. McMiller, C. C. Nikiforoff, E. A. Fieger, Sam Hill, C. H. Mattson, G. A. Swenson, and W. C. Boatright. 34 p. (No. 24, series 1929.) 1934.
 Houston County. A. L. Gray, W. J. Moran, A. H. Hasty, Sam Hill, C. H. Mattson, H. C. Newman, and H. T. Petraborg. 36 p. (No. 31, series 1929.) 1934.

- Hubbard County. P. R. McMiller, C. S. Simmons, G. A. Swenson, and W. J. Leighty. 33 p. (No. 38, series 1930.) 1935.
 Mille Lacs County. G. B. Bodman, C. H. Hammar, S. Hill, T. H. Mather, H. T. Petraborg, J. W. Moon, A. H. Hasty, and J. H. Zentmire. 46 p. (No. 37, series 1927.) 1932.

MISSISSIPPI

- Greene County. J. W. Moon and S. Rankin Bacon. 42 p. (No. 5, series 1932.) 1935.
 Hancock County. Clarence Lounsbury, E. B. Deeter, S. R. Bacon, and J. T. Miller. 31 p. (No. 4, series 1930.) 1933.
 Jackson County. J. Ambrose Elwell, A. W. Goke, W. J. Moran, E. Malcolm Jones, and E. P. Lowe. 32 p. (No. 19, series 1927.) 1931.
 Rankin County. Robert Wildermuth, E. W. Knobel, A. L. Gray, and Grove B. Jones. 42 p. (No. 27, series 1926.) 1931.

MONTANA

- Lower Flathead Valley area. William DeYoung and R. C. Roberts. 48 p. (No. 22, series 1929.) 1934.
 Milk River area. William DeYoung, F. O. Youngs, and T. W. Glassey. 35 p. (No. 22, series 1928.) 1932.
 Northern Plains, reconnaissance. L. F. Giesecker, E. R. Morris, A. T. Strahorn, and C. B. Manifold. 74 p. (No. 21, series 1929.) 1933.

NEBRASKA

- Cedar County. R. C. Roberts, A. W. Goke, F. A. Hayes, W. H. Buckhannan, R. L. Gemmell, R. H. Lovald, and E. A. Nieschmidt. 32 p. (No. 16, series 1928.) 1932.
 Clay County. R. C. Roberts and Ralph Gemmell. 28 p. (No. 8, series 1927.) 1931.
 Colfax County. A. W. Goke, W. J. Moran, F. A. Hayes, and E. A. Nieschmidt. 37 p. (No. 11, series 1930.) 1933.
 Custer County. F. A. Hayes, M. H. Layton, E. A. Nieschmidt, C. H. Hayes, A. N. Huddleston, and S. S. Diedrichs. 54 p. (No. 36, series 1926.) 1931.
 Dixon County. A. W. Goke and L. A. Brown. 35 p. (No. 4, series 1929.) 1932.
 Dundy County. E. A. Nieschmidt, B. J. Abashkin, F. A. Hayes, and S. Rankin Bacon. 44 p. (No. 1, series 1931.) 1934.
 Franklin County. F. A. Hayes, Louis A. Wolfanger, and E. A. Nieschmidt. 50 p. (No. 31, series 1926.) 1931.
 Furnas County. L. A. Brown and S. R. Bacon. 33 p. (No. 16, series 1930.) 1934.
 Hamilton County. A. W. Goke and W. H. Buckhannan. 26 p. (No. 10, series 1927.) 1931.
 Harlan County. W. J. Moran, R. Covell, and B. J. Abashkin. 29 p. (No. 12, series 1930.) 1933.
 Hitchcock County. F. A. Hayes, W. J. Moran, S. R. Bacon, R. L. Gemmell, H. Otte, B. J. Abashkin, and E. A. Nieschmidt. 32 p. (No. 8, series 1930.) 1933.
 Knox County. F. A. Hayes, E. A. Nieschmidt, L. A. Brown, B. J. Abashkin, R. L. Gemmell, R. H. Lovald, and H. Otte. 51 p. (No. 25, series 1930.) 1935.
 Lincoln County. A. W. Goke, E. A. Nieschmidt, and R. C. Roberts. 31 p. (No. 35, series 1926.) 1931.
 Pierce County. A. W. Goke and W. H. Buckhannan. 26 p. (No. 9, series 1928.) 1931.
 Saline County. F. A. Hayes, R. C. Roberts, and E. A. Nieschmidt. 34 p. (No. 12, series 1928.) 1931.
 Sherman County. L. A. Brown, R. L. Gemmell, and F. A. Hayes. 35 p. (No. 5, series 1931.) 1934.
 Stanton County. F. A. Hayes, W. J. Moran, and R. L. Gemmell. 40 p. (No. 3, series 1929.) 1932.
 Thayer County. E. A. Nieschmidt, R. H. Lovald, R. L. Gemmell, and R. C. Roberts. 38 p. (No. 20, series 1927.) 1931.
 Valley County. R. L. Gemmell, E. A. Nieschmidt, R. H. Lovald, F. A. Hayes, and S. Rankin Bacon. 38 p. (No. 4, series 1932.) 1935.
 York County. F. A. Hayes and A. W. Goke. 37 p. (No. 10, series 1928.) 1931.

NEW JERSEY

- Camden area. R. T. Avon Burke and L. L. Lee. 35 p. (No. 28, series 1926.) 1931.
 Freehold area. L. L. Lee and J. E. Tine. 53 p. (No. 33, series 1927.) 1932.

NEW MEXICO

- Deming area. A. T. Sweet and E. N. Poulson. 20 p. (No. 2, series 1928.) 1931.
 Fort Sumner area. A. T. Sweet and E. N. Poulson. 17 p. (No. 1, series 1930.) 1933.
 Lovington area. W. G. Harper and L. H. Smith. 21 p. (No. 2, series 1932.) 1935.
 Rincon area. A. T. Sweet and E. N. Poulson. 24 p. (No. 5, series 1930.) 1933.
 Socorro and Rio Puerco areas. E. N. Poulson and E. G. Fitzpatrick. 27 p. (No. 2, series 1929.) 1931.

NEW YORK

- Chemung County. C. S. Pearson, W. W. Reitz, John Mack, Ward Ellsworth, and James Schwartz. 42 p. (No. 3, series 1932.) 1935.
 Delaware County. Clarence Lounsbury, P. D. Beers, F. B. Howe, E. E. Waite, C. S. Pearson, and C. H. Diebold. 31 p. (No. 7, series 1930.) 1933.
 Erie County. Arthur E. Taylor, F. B. Howe, C. S. Pearson, and W. J. Moran. 52 p. (No. 14, series 1929.) 1933.
 St. Lawrence County. Clarence Lounsbury, H. G. Lewis, F. B. Howe, and Salvador Diadato. 44 p. (No. 34, series 1925.) 1931.

Steuben County. C. S. Pearson, F. B. Howe, D. F. Kinsman, Robert Wildermuth, R. C. Roberts, and A. H. Hasty. 62 p. (No. 2, series 1931.) 1934.
Suffolk and Nassau Counties. Clarence Lounsbury, F. B. Howe, R. E. Zautner, W. J. Moran, and P. D. Beers. 46 p. (No. 28, series 1928.) 1933.

NORTH CAROLINA

Craven County. R. C. Journey, W. A. Davis, and J. J. Morgan. 27 p. (No. 23, series 1929.) 1934.
Gates County. W. A. Davis and R. E. Devereux. 22 p. (No. 1, series 1929.) 1931.
Macon County. R. E. Devereux, E. F. Goldston, and W. A. Davis. 21 p. (No. 16, series 1929.) 1933.
Martin County. S. O. Perkins and S. R. Bacon. 32 p. (No. 8, series 1928.) 1931.
Montgomery County. R. C. Journey and W. A. Davis. 34 p. (No. 13, series 1930.) 1933.
Person County. R. C. Journey, S. R. Bacon, and J. J. Morgan. 36 p. (No. 14, series 1928.) 1931.

OHIO

Belmont County. S. W. Phillips, Ralph Blaney, George Drewes, Jr., A. H. Paschall, and J. G. Steele. 25 p. (No. 17, series 1927.) 1931.
Butler County. Earl D. Fowler and T. C. Green. 41 p. (No. 12, series 1927.) 1931.
Ottawa County. A. H. Paschall, J. G. Steele, G. W. Conrey, and S. W. Phillips. 38 p. (No. 26, series 1928.) 1933.

OKLAHOMA

Grant County. A. W. Goke, C. A. Hollopeter, and M. E. Carr. 33 p. (No. 10, series 1931.) 1935.
Kiowa County. A. W. Goke and C. A. Hollopeter. 39 p. (No. 14, series 1931.) 1935.
Texas County. E. G. Fitzpatrick and W. C. Boatright. 33 p. (No. 28, series 1930.) 1935.
Tillman County. A. W. Goke, E. G. Fitzpatrick, and W. C. Boatright. 37 p. (No. 24, series 1930.) 1935.

OREGON

Columbia County. W. G. Harper and E. F. Torgerson. 50 p. (No. 35, series 1929.) 1934.
Marion County. E. F. Torgerson and T. W. Glassey. 46 p. (No. 32, series 1927.) 1932.

PENNSYLVANIA

Tioga County. B. H. Hendrickson, R. T. Avon Burke, K. V. Goodman, and R. L. Smith. 47 p. (No. 30, series 1929.) 1934.
Wyoming County. B. H. Hendrickson, R. T. Avon Burke, K. V. Goodman, and R. L. Smith. 36 p. (No. 34, series 1929.) 1934.

SOUTH CAROLINA

Greenwood County. F. R. Lesh, B. H. Hendrickson, A. H. Hasty, W. J. Latimer, and S. R. Bacon. 31 p. (No. 26, series 1929.) 1934.
Williamsburg County. W. J. Latimer, B. H. Hendrickson, F. R. Lesh, A. H. Hasty, W. E. Tharp, and C. S. Simmons. 37 p. (No. 7, series 1928.) 1931.

TEXAS

Collin County. M. W. Beck, E. G. Fitzpatrick, and L. G. Ragsdale. 26 p. (No. 32, series 1930.) 1935.
Frio County. M. W. Beck, H. W. Hawker, and L. G. Ragsdale. 38 p. (No. 25, series 1929.) 1934.
Galveston County. Z. C. Foster and W. J. Moran. 18 p. (No. 31, series 1930.) 1935.
Midland County. E. H. Templin and J. A. Kerr. 32 p. (No. 31, series 1928.) 1933.
Polk County. H. M. Smith, T. C. Reitch, Harvey Oakes, L. G. Ragsdale, and A. H. Bean. 37 p. (No. 36, series 1930.) 1935.
Potter County. E. H. Templin and A. E. Shearin. 48 p. (No. 33, series 1929.) 1934.
Randall County. E. H. Templin and T. C. Reitch. 32 p. (No. 27, series 1930.) 1935.
Scurry County. E. H. Templin and T. C. Reitch. 45 p. (No. 13, series 1931.) 1935.
Trans-Pecos area, reconnaissance. W. T. Carter, M. W. Beck, H. M. Smith, H. W. Hawker, E. H. Templin, and T. C. Reitch. 66 p. (No. 35, series 1928.) 1934.
Van Zandt County. A. W. Goke, W. I. Watkins, E. N. Poulson, Z. C. Foster, E. G. Fitzpatrick, and W. J. Moran. 35 p. (No. 33, series 1928.) 1933.
Victoria County. William T. Carter, C. S. Simmons, H. W. Hawker, and T. C. Reitch. 61 p. (No. 21, series 1927.) 1931.

VIRGINIA

Grayson County. R. E. Devereux and G. W. Patteson. 35 p. (No. 19, series 1930.) 1934.
Rockbridge County. R. C. Journey, R. E. Devereux, and Edward Shulkcum. 42 p. (No. 4, series 1931.) 1934.

WASHINGTON

Columbia Basin area, reconnaissance. A. T. Strahorn, E. J. Carpenter, W. W. Weir, Scott Ewing, H. H. Krusekopf, A. F. Heck, and H. A. Lunt. 55 p. (No. 28, series 1929.) 1934.

WEST VIRGINIA

Hampshire County. B. H. Williams. 33 p. (No. 9, series 1927.) 1931.
Hardy and Pendleton Counties. B. H. Williams and H. M. Fridley. 47 p. (No. 14, series 1930.) 1933.

WISCONSIN

Brown County. A. C. Anderson, W. J. Geib, M. J. Edwards, M. B. Whitson, C. E. Born, and Harold Bandoli. 27 p. (No. 17, series 1929.) 1933.
Crawford County. M. J. Edwards, W. J. Geib, Olaf Larson, D. E. Wilcox, and E. H. Tyner. 39 p. (No. 34, series 1930.) 1935.
Manitowoc County. A. C. Anderson, W. J. Geib, M. J. Edwards, H. H. Hull, and Merritt Whitson. 28 p. (No. 34, series 1926.) 1931.
Trempealeau County. M. J. Edwards, E. H. Bailey, W. J. Geib, J. F. Fudge, Burel Butman, and Harold Cook. 50 p. (No. 35, series 1927.) 1932.
Vernon County. M. J. Edwards, A. C. Anderson, A. H. Meyer, J. A. Chucka, and D. E. Wilcox. 43 p. (No. 21, series 1928.) 1932.
Winnebago County. A. C. Anderson, W. J. Geib, H. H. Hall, and Merritt Whitson. 34 p. (No. 31, series 1927.) 1931.

WYOMING

Basin area. James Thorp, E. G. Fitzpatrick, T. J. Dunnewald, and F. T. Gorsuch. 48 p. (No. 27, series 1928.) 1933.
Shoshone area. T. J. Dunnewald, Carl Pearson, James Thorp, E. J. Carpenter, and E. G. Fitzpatrick. 50 p. (No. 38, series 1927.) 1932.

UNNUMBERED PUBLICATIONS

The naval stores station. [Folder.] 1932.

BUREAU OF DAIRY INDUSTRY

REPORT OF THE CHIEF

1931. O. E. Reed. 35 p. 1931.
1932. O. E. Reed. 20 p. 1932.
1933. O. E. Reed. 22 p. 1933.
1934. O. E. Reed. 24 p. 1934.
1935. O. E. Reed. 27 p. 1935.

BUREAU OF ENTOMOLOGY⁵

REPORT OF THE CHIEF

1931. C. L. Marlatt. 87 p. 1931.
1932. C. L. Marlatt. 38 p. 1932.
1933. C. L. Marlatt. 47 p. 1933.
1934. Lee A. Strong. 20 p. 1934.

BUREAU OF ENTOMOLOGY AND PLANT QUARANTINE⁶

REPORT OF THE CHIEF

1935. Lee A. Strong. 96 p. 1935.

SERVICE AND REGULATORY ANNOUNCEMENTS

Nos. 120 to 124. January-December 1935.

OFFICE OF EXPERIMENT STATIONS

REPORT OF THE CHIEF

1931. Walter H. Evans. 12 p. 1931.⁷
1932. James T. Jardine. 9 p. 1932.
1933. James T. Jardine. 12 p. 1933.
1934. James T. Jardine. 8 p. 1934.
1935. James T. Jardine. 8 p. 1935.

REPORT ON THE AGRICULTURAL EXPERIMENT STATIONS

1930. W. H. Beal and H. M. Steece. 100 p. 1931.
1931. J. T. Jardine, W. H. Beal, and H. M. Steece. 146 p. 1932.
1932. J. T. Jardine and W. H. Beal. 62 p. 1933.
1933. J. T. Jardine and W. H. Beal. 78 p. 1934.
1934. J. T. Jardine and W. H. Beal. 120 p. 1935.

⁵ Combined with Bureau of Plant Quarantine to form Bureau of Entomology and Plant Quarantine, July 1, 1934.

⁶ Preceded by Bureau of Entomology and Bureau of Plant Quarantine.

⁷ Report of the acting chief.

EXPERIMENT STATION RECORD

Vol. 64, no. 1 to vol. 73, no. 6. January 1931–December 1935. Monthly. Two volumes and indexes a year.

INSULAR EXPERIMENT STATIONS

ALASKA AGRICULTURAL EXPERIMENT STATIONS

REPORT

1930. H. W. Alberts. 48 p. 1931.
 1931, 1932.⁸ H. W. Alberts, C. D. Cordy, J. C. Wingfield, F. L. Higgins, and W. T. White.
 26 p. 1933.

BULLETINS

9. The potato in Alaska. H. W. Alberts. 19 p. 1931.
 10. Oat production in Alaska. F. L. Higgins. 18 p. 1932.
 11. Forage crops in the Matanuska region, Alaska. H. W. Alberts. 14 p. 1933.

CIRCULARS

3. List and analytical index of publications of the Alaska agricultural experiment stations, January 1898 to July 1931. Elizabeth H. Langdale. 56 p. 1932.
 4. Field crops for interior Alaska. F. L. Higgins. 13 p. 1933.
 5. Feeding dairy cows in the Matanuska region, Alaska. W. T. White. 10 p. 1933.

GUAM AGRICULTURAL EXPERIMENT STATION

REPORT

1929. C. W. Edwards, F. B. Leon Guerrero, Joaquin Guerrero, and S. R. Vandenberg.
 20 p. 1931.
 1930. C. W. Edwards, F. B. Leon Guerrero, Joaquin Guerrero, and S. R. Vandenberg.
 29 p. 1931.
 1930–31, 1931–32.⁹ C. W. Edwards, F. B. Leon Guerrero, Joaquin Guerrero, S. R. Vandenberg, and A. I. Cruz. 24 p. 1933.

HAWAII AGRICULTURAL EXPERIMENT STATION

REPORT

1930. J. M. Westgate, M. Takahashi, H. F. Willey, R. K. Paban, M. Maneki, J. C. Ripperton, C. Richter, Elizabeth V. Harrold, Carey D. Miller, W. T. Pope, C. M. Bice, and H. A. Wadsworth. 38 p. 1931.
 1931. J. M. Westgate, J. S. Low, M. Takahashi, L. A. Henke, M. Maneki, J. C. Ripperton, D. W. Edwards, Leonora N. Bilger, W. Y. Young, Ruth C. Robbins, W. T. Pope, Carey D. Miller, C. M. Bice, H. A. Wadsworth, H. F. Willey, and R. K. Pahau. 38 p. 1932.
 1932. J. M. Westgate, C. P. Wilsie, M. Takahashi, L. A. Henke, J. C. Ripperton, D. W. Edwards, Leonora Neuffer Bilger, Mark Westgate, Robert Loveland, W. T. Pope, Carey D. Miller, Ruth C. Robbins, C. M. Bice, H. A. Wadsworth, H. F. Willey, and R. K. Pahau. 23 p. 1933.
 1933. 27 p. 1934.
 1934. 31 p. 1935.

BULLETINS

62. Physical properties of Hawaii soils, with special reference to the colloidal fraction. Charles Richter. 45 p. 1931.
 63. Physicochemical properties of edible-canna and potato starches. J. C. Ripperton. 48 p. 1931.
 64. The pigeon pea (*Cajanus indicus*), its improvement, culture, and utilization in Hawaii. F. G. Krauss. 46 p. 1932.
 65. Range grasses of Hawaii. J. C. Ripperton, R. A. Goff, D. W. Edwards, and W. C. Davis. 58 p. 1933.
 66. Survey of the physical features that affect the agriculture of the Kona district of Hawaii. H. A. Powers, J. C. Ripperton, and Y. B. Goto. 29 p. 1932.
 67. Cane molasses in poultry rations. C. M. Bice. 16 p. 1933.
 68. Japanese foods commonly used in Hawaii. Carey D. Miller. 41 p. 1933.
 69. Cane molasses as a supplement to fattening rations for swine. L. A. Henke. 11 p. 1933.
 70. The manufacture of poi from taro in Hawaii: With special emphasis upon its fermentation. O. N. Allen and Ethel K. Allen. 32 p. 1933.
 71. Citrus culture in Hawaii. W. T. Pope. 37 p. 1934.

⁸The fiscal year ended June 30, 1932, marked the closing of the Alaska Agricultural Experiment Stations.

⁹Because of the closing of the station June 30, 1932, the work of the fiscal years 1930–31 and 1931–32 is incorporated in the one report with a summary of results of work of the station since its establishment in 1909.

72. Napier grass (*Pennisetum purpureum*), a pasture and green fodder crop for Hawaii. C. P. Wilsie and M. Takahashi. 17 p. 1934.
 73. Cane molasses as a feed for dairy cows. L. A. Henke. 17 p. 1934.
 74. The edible passion fruit in Hawaii. W. T. Pope. 22 p. 1935.
 75. Coffee cultural practices in the Kona district of Hawaii. J. C. Ripperton, Y. B. Goto, and R. K. Pahau. 64 p. 1935.
 76. Factors affecting the chemical composition of pasture grasses. D. W. Edwards and R. A. Goff. 31 p. 1935.

PUERTO RICO AGRICULTURAL EXPERIMENT STATION

REPORT

1930. T. B. McClelland, D. W. May, J. O. Carrero, R. L. Davis, H. C. Henricksen, and H. L. Van Volkenberg. 50 p. 1931.
 1931. T. B. McClelland, J. O. Carrero, R. L. Davis, H. C. Henricksen, and H. L. Van Volkenberg. 27 p. 1932.
 1932. T. B. McClelland, J. O. Carrero, R. L. Davis, H. C. Henricksen, and H. L. Van Volkenberg. 24 p. 1933.
 1933. 24 p. 1934.
 1934. 24 p. 1935.

BULLETINS

34. Experiments with fertilizers on coconut palms and variation in palm productivity. T. B. McClelland. 23 p. 1931. Also Spanish edition.
 35. Sugarcane variety P. O. J. 2878 in Puerto Rico. Robert L. Davis. 45 p. 1934.
 36. Parasites and parasitic diseases of cattle in Puerto Rico. H. L. Van Volkenberg. 26 p. 1934.
 37. Parasites and parasitic diseases of horses in Puerto Rico. H. L. Van Volkenberg. 19 p. 1935.

VIRGIN ISLANDS AGRICULTURAL EXPERIMENT STATION

REPORT

1930. J. B. Thompson, G. A. Roberts, Claud L. Horn, Maybin S. Baker, W. M. Perry, and A. Bisserup. 19 p. 1931.
 1931. J. R. Ricks, G. A. Roberts, Claud L. Horn, Helen L. Cawley, W. M. Perry, C. B. Doyle, James Thorp, U. C. Loftin, and A. Bisserup. 21 p. 1933.
 1932.¹⁰ Glen Briggs, Claud L. Horn, G. A. Roberts, N. N. Nichols, W. M. Perry, Helen L. Cawley, E. V. Roberts, A. Bisserup. 21 p. 1933.

EXTENSION SERVICE

OFFICE OF COOPERATIVE EXTENSION WORK

1929. Cooperative extension work. 137 p. 1931.¹¹

REPORT OF EXTENSION WORK IN AGRICULTURE AND HOME ECONOMICS IN THE UNITED STATES

1931. 136 p. 1932.¹²
 1932. 80 p. 1933.

EXTENSION SERVICE REVIEW

- Vol. 2, no. 1, to vol. 6, no. 12. January 1931 to December 1935. Monthly.

FOOD AND DRUG ADMINISTRATION

REPORT

1931. W. G. Campbell. 30 p. 1931.
 1932. W. G. Campbell. 18 p. 1932.
 1933. W. G. Campbell. 19 p. 1933.
 1934. W. G. Campbell. 18 p. 1934.
 1935. W. G. Campbell. 25 p. 1935.

NOTICES OF JUDGMENT

CAUSTIC POISON ACT

- Nos. 1 to 33. July 1931-December 1935.

FOOD AND DRUGS ACT

- Nos. 17151 to 24350. January 1931-November 1935.

¹⁰ On July 1, 1932, the station was transferred to the Department of the Interior.

¹¹ Superseded by Report of Extension Work in Agriculture and Home Economics in the United States, 1931.

¹² This report supersedes the annual reports entitled "Report of the Director of the Extension Service" last issued for the fiscal year 1930, and "Cooperative Extension Work" last issued for the calendar year 1929.

INSECTICIDE ACT

Nos. 1191 to 1375. January 1931–November 1935.

NAVAL STORES ACT

Nos. 3 to 9. May 1931–April 1935.

SERVICE AND REGULATORY ANNOUNCEMENTS

- No. 2, Rev. 1, Supp. 3. Revised and amended definitions and standards for food products. 1 p. 1931.
 No. 2, Rev. 2. Definitions and standards for food products. 19 p. 1931.
 No. 2, Rev. 2, Supp. 1. New and revised definitions and standards for food products. 2 p. 1931.
 No. 2, Rev. 3. Definitions and standards for food products. 20 p. 1932.
 No. 2, Rev. 4. Definitions and standards for food products. 20 p. 1933.
 No. 3, Rev. 1. Certification of coal-tar food colors. 10 p. 1931.
 No. 4. Amendment of July 8, 1930, to Federal Food and Drugs Act and requirements thereunder. 6 p. March 1931; rev. 1, 8 p. May 1931; rev. 2, 11 p. 1932; rev. 3, 12 p. 1935.

TEA SERIES

5. Standards under the Tea Act. Effective May 1, 1931. 1 p. 1931.
 6. Standards under the Tea Act. Effective May 1, 1932. 1 p. 1932.
 7. Standards under the Tea Act. Effective May 1, 1932. 1 p. 1933.
 8. Standards under the Tea Act. Effective May 1, 1934. 1 p. 1934.
 9. Standards under the Tea Act. Effective May 1, 1935. 1 p. 1935.

FOREST SERVICE

REPORT OF THE FORESTER

1931. Robert Y. Stuart. 82 p. 1931.
 1932. Robert Y. Stuart. 38 p. 1932.
 1933. Robert Y. Stuart. 46 p. 1933.
 1934. F. A. Silcox. 50 p. 1934.
 1935. F. A. Silcox. 55 p. 1935.

FOREST WORKER

Vol. 7, no. 1 to vol. 9, no. 4. January 1931–July 1933. Bi-monthly.

UNNUMBERED PUBLICATIONS

- Directory of the Forest Service. Corrected to April 1931; October 1931; April 1932; April 1933; July 1934; November 1935.
 Eastern and southern national forests. 18 p. 1932.
 Summer homes in the national forests of Oregon and Washington. Fred W. Cleator. 14 p. 1932.
 Possibilities of shelterbelt planting in the plains region. 201 p. 1935.

GRAIN FUTURES ADMINISTRATION

REPORT OF THE CHIEF

1931. J. W. T. Duvel. 11 p. 1931.
 1932. J. W. T. Duvel. 8 p. 1932.
 1933. J. W. T. Duvel. 10 p. 1933.
 1934. J. W. T. Duvel. 9 p. 1934.
 1935. J. W. T. Duvel. 8 p. 1935.

BUREAU OF HOME ECONOMICS

REPORT OF THE CHIEF

1931. Louise Stanley. 19 p. 1931.
 1932. Louise Stanley. 8 p. 1932.
 1933. Louise Stanley. 13 p. 1933.
 1934. Louise Stanley. 13 p. 1934.
 1935. Louise Stanley. 13 p. 1935.

OFFICE OF INFORMATION

REPORT OF THE DIRECTOR

1931. M. S. Eisenhower. 13 p. 1931.
 1932. M. S. Eisenhower. 8 p. 1932.
 1933. M. S. Eisenhower. 11 p. 1933.
 1934. M. S. Eisenhower. 12 p. 1934.
 1935. M. S. Eisenhower. 16 p. 1935.

CLIP SHEET

Nos. 653 to 913. January 4, 1931–December 29, 1935.

UNNUMBERED PUBLICATIONS

- Science serving agriculture. Arthur P. Chew with the cooperation of specialists in the Department. 42 p. 1933.
 Special administrative list of publications of the United States Department of Agriculture. M. A. Downes. 20 p. 1934.

LIBRARY

REPORT OF THE LIBRARIAN

1931. Claribel R. Barnett. 15 p. 1931.
 1932. Claribel R. Barnett. 10 p. 1932.
 1933. Claribel R. Barnett. 15 p. 1933.
 1934. Claribel R. Barnett. 11 p. 1934.
 1935. Claribel R. Barnett. 12 p. 1935.

BUREAU OF PLANT INDUSTRY

REPORT OF THE CHIEF

1931. Wm. A. Taylor. 38 p. 1931.
 1932. Wm. A. Taylor. 28 p. 1932.
 1933. Wm. A. Taylor. 32 p. 1933.
 1934. Knowles A. Ryerson. 36 p. 1934.
 1935. Frederick D. Richey. 40 p. 1935.

INVENTORIES OF SEEDS AND PLANTS IMPORTED

These inventories list seeds and plants sought throughout the world by agents of the Department and introduced by them into this country.

- No. 100. Plant material introduced by the Office of Foreign Plant Introduction, Bureau of Plant Industry, July 1 to September 30, 1929. (Nos. 80811-81619.) 44 p. April 1931.
 Nos. 101-113. Plant material introduced by the Division of Foreign Plant Introduction, Bureau of Plant Industry, October 1, 1929 to December 31, 1932. (Nos. 81620-101584.)
 Nos. 114-116. Plant material introduced by the Division of Plant Exploration and Introduction, Bureau of Plant Industry, January 1, 1933 to September 30, 1933. (Nos. 101585-103776.)

SERVICE AND REGULATORY ANNOUNCEMENTS

17. Regulations under the Federal Seed Act. 11 p. 1931.
 18. Prosecutions under the interstate clause (sec. 6) of the Federal Seed Act. 4 p. (July 1, 1931, to June 30, 1933.) 1933.
 19. Prosecutions under the interstate clause (sec. 6) of the Federal Seed Act. 7 p. (July 1, 1933, to June 30, 1934.) 1934.
 20. Prosecutions under the interstate clause (sec. 6) of the Federal Seed Act. 14 p. (July 1, 1934, to Dec. 31, 1934.) 1935.
 21. Prosecutions and seizures under the interstate clause (sec. 6) of the Federal Seed Act. 6 p. (Jan. 1, 1935, to June 30, 1935.) 1935.

PLANT QUARANTINE AND CONTROL ADMINISTRATION¹³

REPORT OF THE CHIEF

1931. Lee A. Strong. 99 p. 1931.
 1932. Lee A. Strong. 63 p. 1932.

SERVICE AND REGULATORY ANNOUNCEMENTS

- Nos. 104 to 111. January 1931-September 1932.

BUREAU OF PLANT QUARANTINE^{14 15}

REPORT OF THE CHIEF

1933. Lee A. Strong. 66 p. 1933.
 1934. Avery S. Hoyt. 68 p. 1934.¹⁶

SERVICE AND REGULATORY ANNOUNCEMENTS

- Nos. 112 to 119. December 1932-September 1934.

¹³ Superseded by Bureau of Plant Quarantine, July 1, 1932.

¹⁴ Preceded by Plant Quarantine and Control Administration.

¹⁵ Combined with Bureau of Entomology to form Bureau of Entomology and Plant Quarantine, July 1, 1934.

¹⁶ Report of acting chief.

BUREAU OF PUBLIC ROADS

REPORT OF THE CHIEF

1931. Thomas H. MacDonald. 88 p. 1931.
1932. Thomas H. MacDonald. 44 p. 1932.
1933. Thomas H. MacDonald. 46 p. 1933.
1934. Thomas H. MacDonald. 62 p. 1934.
1935. Thomas H. MacDonald. 60 p. 1935.

PUBLIC ROADS

Vol. 11, no. 11 to vol. 16, no. 10. January 1931–December 1935. Monthly.

SOIL CONSERVATION SERVICE

REPORT OF THE CHIEF

1935. H. H. Bennett. 42 p. 1935.

SOIL CONSERVATION

Vol. 1, nos. 1 to 5. August–December 1935. Monthly.

OFFICE OF THE SOLICITOR

REPORT

1931. Elton L. Marshall. 41 p. 1931.
1932. Elton L. Marshall. 22 p. 1932.
1933. Seth Thomas. 22 p. 1933.
1934. Seth Thomas. 24 p. 1934.
1935. Seth Thomas. 28 p. 1935.

WEATHER BUREAU

REPORT OF THE CHIEF

1929–30. C. F. Marvin. 264 p. 1931.
1930–31. C. F. Marvin. 250 p. 1932.
1931–32. C. F. Marvin. 129 p. 1933.
1932–33. C. F. Marvin. 137 p. 1933.
1933. C. F. Marvin. 8 p. 1933.
1933–34. W. R. Gregg. 157 p. 1934.
1934. W. R. Gregg. 7 p. 1934.
1935. W. R. Gregg. 13 p. 1935.

CLIMATOLOGICAL DATA

Vol. 18, no. 1 to vol. 22, no. 12. January 1931–December 1935. Monthly and an annual volume.

MONTHLY WEATHER REVIEW

Vol. 59, no. 1 to vol. 63, no. 12. January 1931–December 1935. Monthly.

SNOW AND ICE BULLETIN¹⁷

Winter 1930–31 to winter 1931–32. January 7, 1931–March 30, 1932. Weekly.

WEATHER MAPS

1931–35. First edition. Daily except Sunday.
1931–35. Second edition. Daily.

WEEKLY WEATHER AND CROP BULLETIN

Series 1931, no. 1, to series 1935, no. 53. January 6, 1931–December 31, 1935. Weekly.

¹⁷ Beginning Dec. 13, 1932, material contained in Weekly Weather and Crop Bulletin, which from December to March will have title "Weekly Weather and Crop Bulletin with Snow and Ice Data."



