

The History of the National Agricultural Library

ALAN E. FUSONIE

The first milestone in the development of a federally supported National Agricultural Library was reached 125 years ago on May 5, 1862, with the signing of the Organic Act. It was then that the Department of Agriculture Library was officially established. Yet the seeds ensuring the signing of the Organic Act had been sown back around the time of the American Revolution with the active acquisition of agricultural knowledge by gentleman farmers of this young nation. And, while these seeds germinated, history witnessed several significant and timely events—the creation of the Congressional Committee on Agriculture in the 1820s and the establishment of the Agricultural Division of the Patent Office in 1839. It was indeed fortunate that agriculture—more specifically the acquisition and diffusion of agricultural knowledge—played such a major role in the lives of the gentleman farmers who developed an information network both at home and abroad.¹ These planters kept themselves informed of the latest developments in agriculture through correspondence and by actively seeking out and acquiring outstanding books, treatises, and journals on agriculture for their own private working libraries and for the libraries of developing agricultural societies.² The early trans-Atlantic exchange of agricultur-

ALAN E. FUSONIE is Historian and Head of Special Collections at the National Agricultural Library.

1. Wayne D. Rasmussen, "The American Revolution and Agriculture: A Comment," *Agricultural History* 43 (January 1969): 125; see also Rodney Loehr, "Arthur Young and American Agriculture," *Agricultural History* 43 (January 1969): 46-47.

2. For a list of agricultural books included in George Washington's Library see *The Boston Athenaeum Catalog of Washington Collection in the Boston Athenaeum* (Cambridge: Massachusetts University Press for J. Wilson, 1897), 542-48 located in Library of Congress, Rare Book Room; see also *Inventory of the Contents of Mount Vernon 1810, With Prefatory Note by Worthington Chauncey Ford* (Portland, Oregon: Printed by Keldam Stationery and Printing Co., 1909), 15-40; the inventory was reportedly printed from a manuscript owned by Mr. W. K. Bixby of St. Louis who donated his copies to the Mount Vernon Ladies' Association Research and Reference Library.

agricultural history volume 62 · number 2 · 1988. © agricultural history society

ally related knowledge was, in part, an outgrowth of the collecting activities of explorers, sea captains, missionaries, and others.³

As it turned out, the most notable of the early agricultural libraries in the colonies included the private collections of Pickering, Livingston, Mitchell, Jefferson, and Washington. Foster Mohrhardt, former Director of the Department Library (1954–1968), believed George Washington more than any other President would have been supportive of the Department of Agriculture Library.⁴

Certainly, we find in George Washington a deep intellectual curiosity and experimental interest in the latest developments taking place in husbandry abroad as well as in the limited number of improvements taking place within the colonies. Washington's Mansion House Library reflected his personal interest in improving the agricultural potential of his own eight-thousand-acre estate. In particular, Washington's library was a working office and focal point for agricultural reading and planning for the management of his farming operations.⁵ He exchanged his findings and ideas with leading agriculturalists in Britain, the most notable of whom were Arthur Young, author of *Annals of Agriculture*, and Sir John Sinclair, a Scottish agriculturalist and first President of the British Board of Agriculture.⁶ The trans-Atlantic correspondence of these two agriculturalists with Washington was eventually published in 1801.⁷

Washington was not an avid reader; he did, however, study and assiduously extract information from the recently acquired books on agriculture in his library. Washington's agricultural records include, for example, carefully hand-written notes from Jethro Tull's *The Horse-Hoeing Husbandry* (1731), Henry Homes' *The Gentleman Farmer* (1776), Henri Louis du Monceau Duhamel's *A Practical Treatise on Husbandry . . .* (1759).⁸ Wash-

3. Alan Fusonie and Donna Jean Fusonie, "Introduction", *Journal of NAL Associates*, "Introduction" (10, 1–4 January/December 1985), 1.

4. Foster E. Mohrhardt, "The Library of the Department of Agriculture," *The Library Quarterly* 27 (April 1957): 61–62.

5. Descriptive annotations to works by these and other authors of the period are contained in *A Selective Bibliography on George Washington's Interest in Agriculture* compiled by Alan E. and Donna Jean Fusonie (Davis, Calif.: Agricultural History Center, University of California, 1976). These works were either known to and/or read by many American gentlemen farmers.

6. Cecil Wall, "George Washington Country Gentleman," *Agricultural History* 43 (January 1969): 5.

7. Letters from His Excellency George Washington to Arthur Young, esq. F.R.S., and Sir John Sinclair, bart., M.P. (London, 1801; Alexandria, Virginia, 1803). National Agricultural Library, Rare Books [hereinafter cited as NAL, RB]; for a comprehensive examination of Young's life as a public and private figure see J. G. Gazley, *The Life of Arthur Young, 1741–1820* (Philadelphia: The American Philosophical Society, 1973).

8. According to Presidential Papers Microfilm: George Washington Papers, Series 8A-P, Notes, Reel 124, Library of Congress, Manuscript Division [hereinafter cited as LCMD, GWP 8A-D Notes, Reel 124], Washington definitely took handwritten notes from chapters 1–4 and 6–20 in Jethro Tull's book entitled *Horse-Hoeing Husbandry: or, An Essay on the Principles of Vegetation and Tillage. Designed to Introduce a New Method of Culture; Whereby the Produce of Land*

ington reflected upon what he read and, in some instances, used small experiments to test the soundness of the printed advice. In a letter to Arthur Young dated August 6, 1786, Washington noted that most of Young's publications on husbandry were not based upon "experimental knowledge."⁹

Washington's interest in encouraging a broader acceptance of useful agricultural knowledge within the Colonies was supported by his friend Sir John Sinclair. Sinclair, in corresponding with America's first President, pointed out the need for establishing both state and local agricultural societies throughout the United States as well as a National Board of Agriculture at the federal level. Similar societies in England had already proven themselves to be instrumental in promoting much needed knowledge and improvements within the field of agriculture.¹⁰ Within the Colonies, the increased land under cultivation by farmers along the eastern seaboard accentuated the growing need for establishing state and local societies for promoting the importance of agriculture.¹¹ Learned societies such as the American Philosophical Society, which was organized in 1743, provided a framework to emulate. As early as 1766, the New York Society gave substantial attention to the improvement of agriculture.¹² Nine years later, in 1775, a number of farmers in Pennsylvania reportedly expressed interest in establishing an agricultural society.¹³

Will be Increased, and the Usual Expense Lessened. Together with Accurate Descriptions and Cuts of the Instruments Employed In It. 3rd edition, very carefully corrected. To Which Is Prefixed, a New Preface by the Editors, Addressed to All Concerned in Agriculture. (London: Printed for A. Millar, 1751). An examination of LCMD, GWP 8A-D, Notes, Reel 124 reveals Washington's careful sketching and notetaking from Henry Home's (also referred to as Kaimes or Lord Kaimes) *The Gentleman Farmer: Being An Attempt to Improve Agriculture by Subjecting It To The Test of Rational Principles* (Edinburgh: Printed for W. Creech, 1776), Plates 1, 2, pp. 124, 129, 131. Also Washington took notes from the following chapters in Henri Louis de Monceau Duhamel's book, *A Practical Treatise of Husbandry: Wherein Are Contained, Many Useful and Valuable Experiments and Observations in the New Husbandry, Collected During a Series of Years . . . Also, the Most Approved Practice of the Best English Farmers, In the Old Method of Husbandry* (London: Printed for C. Hitch and L. Hawes, 1762); Part I, Chapters 1-14; Part II, Chapters 1-5; Part III, Chapters 1, 5-7, 9-12; Part IV, Chapters 1-3.

9. Letter from George Washington to Arthur Young, August 6, 1786, *The Writings of George Washington From the Original Manuscript Sources, 1745-1799*, John C. Fitzpatrick, Ed. (Washington, D.C.: GPO, 1938) [hereinafter cited as Fitzpatrick,]. XXIX, p. 511.

10. Donald McDonald, *Agricultural Writers from Sir Walter of Henley to Arthur Young, 1200-1800* (London: n.p., 1908), 4.

11. Rodney True, "Sketch of the History of the Philadelphia Society for Promoting Agriculture," *Memoirs of the Philadelphia Society for Promoting Agriculture* (Philadelphia Society for Promoting of Agriculture, 1939), VI, p. 5.

12. *New York Gazette*, March 13, 1766; *New York Mercury*, March 10, 1766; *Weekly Post Boy*, March 13, 1766.

13. *American Husbandry. Containing An Account of the Soil, Climate, Production and Agriculture, of the British Colonies in North America and the West Indies; with Observations on the Advantages of Settling in Them, Compared with Great Britain and Ireland* (London, J. Bew, 1775), I, 180. This is an anonymous book in which the author appears to have been familiar with

The first organization to be concerned exclusively with the promotion of agricultural reform in America—the Philadelphia Society for Promoting Agriculture—was finally established in 1785. Meetings were held at Patrick Byrne's Tavern "Sign of the Clock" until June of 1785 when the meetings were moved to Carpenters' Hall. The Society itself was partially modeled after the agricultural societies which had been formed already in Europe. The Society embarked immediately upon a plan to acquire outstanding works on agriculture for its library. On May 14, 1785, John Beale Bordley, founder of the Society, presented it with 60 copies of his work entitled *Summary Views on the Course of Crops in Husbandry of England and Maryland* (1784).¹⁴ Two years later, on July 3, 1787, Washington, who was an "honorary member," deposited with the Society six volumes of the *Annals of Agriculture*.¹⁵ The potential importance of agricultural society libraries was reflected in the 1794 proposal of the New York Society:

... each Country Society should be furnished with all the publications on agriculture in America, as well as the most approved European publications. This will lay the foundation of Country Libraries ... in every town and neighborhood. ...¹⁶

At the federal level, Washington's efforts to evoke support for the promotion of agriculture met with little success for, at the time, there were other more pressing national problems which demanded the immediate attention of Congress. In 1794, Washington, in a letter to Sir John Sinclair, explained the situation in the following way: "It will be sometime, I fear before an Agricultural Society with Congressional aid will be established in the Country; we must walk as other countries have done before we can run. ..."¹⁷

In spite of his pessimistic outlook on this matter, Washington recommended to Congress, in his "Farewell Address" which was given two years later, that public funds be appropriated to assist in the development of a National Board of Agriculture for the purpose of collecting and disseminating agricultural information:

the agriculture of Maryland and Virginia. It has been suggested that possibly Dr. John Mitchell, an English physician and naturalist, who lived in Virginia for a time may have been the author. NAL, RB.

14. *Minutes Book of the Philadelphia Society for Promoting Agriculture 1787-1810* (Manuscript), 60.

15. *Ibid.*

16. *Transactions of the Society, ... State of New York, For the Promotion of Agriculture...* (New York: Childs and Swain, 1794), XXV.

17. Letter from George Washington to Sir John Sinclair, July 20, 1794, LCMD, GWP, Series 2, Reel 7.

It will not be doubted, that with reference either to individual, or National Welfare, Agriculture is of primary importance. . . . Institutions for promoting it, grow up, supported by the public purse. . . . Among the means which have been employed to this end, none has been attended with greater success than the establishment of Boards, . . . charged with collecting and diffusing information, . . . and . . . drawing to a common centre, the results . . . of individual skill and observation; and spreading them thence over the whole Nation.¹⁸

More than any other leading national figure of the time, Washington was fully aware of ". . . the importance of National encouragement to Agriculture."¹⁹ Although the proposal was not seriously considered at the time, the idea endured down through the years due mainly to the efforts of the agricultural societies. Throughout the first half of the nineteenth century, interest in the promotion of good agricultural practices in America continued as reflected in the growing number of agricultural societies engaged in acquiring books, magazines, newspapers, and in preparing lists of their holdings.²⁰ These efforts to disseminate agricultural information did not go unnoticed in Congress. On May 20, 1820, the House created a Committee on Agriculture and, in 1825, the Senate followed suit. In 1828, Congress issued the first technical publication in the field of agriculture entitled *Manual on the Growth and Manufacture of Silk and Treatise on the Rearing of Silk-worms* authored by Joseph Ritter Von Hazzi.²¹

The first official Federal interest in the acquisition of agricultural information began in 1836 under the leadership of Henry L. Ellsworth, Commissioner of the Patent Office, and son of the distinguished third Chief Justice of the Supreme Court. At this time, progress in the relationship between science and agriculture meant a gradual increase of reviews in the area of inventions, patents, manufactures, and sales of labor-saving machinery. Ellsworth had an unusual interest in agricultural patents, as well as in information related to plants and seeds. In 1837, he stressed the need for the Patent Office to develop a working library of scientific writings in the field of agriculture stating that: "The necessity of a library of scientific

18. "Farewell Address" delivered by George Washington, December 7, 1796, in Fitzpatrick, XXXV, pp. 315-16. See also Letter from George Washington to William Strickland, July 15, 1797, in Fitzpatrick, XXXV, 501.

19. Letter from George Washington to Sir John Sinclair, January 20, 1799, in Fitzpatrick, XXXVI, p. 97.

20. Loehr, "Arthur Young," 55. For an example of this practice see also *Memoirs of the Philadelphia Society for Promoting Agriculture* (Philadelphia: Benjamin Warner, 1818), IV, xi-xx; see also *The Massachusetts Agricultural Repository and Journal* (Boston: Walls and Lilly, 1819), V, 393-400. NAL, RB.

21. "Abridged List of Federal Laws Applicable to Agriculture," U.S. Department of Agriculture Office of Information, No.2, November 1, 1949.

works to facilitate the discharge of the duties of this office, need only be mentioned to be duly appreciated."²²

In 1839, the establishment of the Division of Agriculture in the Patent Office was accompanied by the slow growth of works dealing with agriculture. On March 3rd, of that year the sum of \$1,000 was set aside for the purchase of books for the Patent Office's Agricultural Division.²³

With the growing demands upon the Patent Office on the one hand, and the budgetary limitations on library funds for the purchase of essential but costly publications on the other hand, the performance of the Office was increasingly viewed as unsatisfactory in the eyes of a growing number of agriculturalists.

It was not long, however, before the proponents of the idea for greater federal support for agriculture could be found in various state organizations. The Maryland State Agricultural Society, under the stewardship of Charles Calvert, was one of the most active supporters of the idea of establishing a separate Department of Agriculture. In 1852, a convention was held at the Smithsonian attended by President Fillmore, Secretary of State Daniel Webster, and 153 delegates representing twenty-three states, to organize a national agricultural society.²⁴ A privately supported United States Agricultural Society was formed based upon the principles originally laid down in Washington's "Farewell Address."²⁵ By now there had been a steady increase in the number of agricultural journals, societies, and farm clubs interested in the diffusion of agricultural information.²⁶ At each of its annual meetings, the Society, functioning primarily as a pressure group or lobby along with the Maryland Agricultural Society and other state and local societies, urged the establishment of a separate federally funded national Department of Agriculture. At this time, growing public awareness of the importance of agriculture was to a degree evidenced by the United States Agricultural Society's printed list of forty-five agricultural newspapers which, if considered on a broad geographic basis, extended from the Atlantic Seaboard to include most of the Midwest.²⁷

President Abraham Lincoln had never been personally drawn to farming and agriculture. As a politician and the highest public official, however,

22. *Report of The Commissioner of Patents, 1837 United States Patent Office 1832-1837—Agriculture* (Washington, DC.: GPO [1842]), 3.

23. *Report of the Commissioner of Patents, 1845 United States Patent Office* (Washington, DC.: GPO [1846]), 13.

24. *The Journal of Agriculture: Comprising The Transactions and Correspondence of the United States Agricultural Society*, III, (1860), 14.

25. *The Journal of Agriculture: Comprising the Transactions and the Correspondence of the United States Agricultural Society*, III, i (April, 1860), 161.

26. "Remarks on The Tabular Estimate," *United States Patent Office—Agriculture 1847* (Washington, DC. 1847), 93.

27. *The Journal of the United States Agricultural Society*, II (1853), pp. 263-64, NAL, RB.

he was keenly aware not only that a major segment of the country was agricultural but also that an appreciation for the importance of agriculture was developing among the populace. In 1859, Lincoln took the opportunity to deliver an address at the Wisconsin State Fair in which he indicated his concern for the continuing development of agriculture.²⁸ On December 3, 1861, President Lincoln, in his message to Congress, recommended the establishment of an agricultural and statistical bureau at the federal level. At this juncture, the United States' Agricultural Society, envisioning a more effective federal agency for agriculture, encouraged farmers to petition Congress for a separate Agriculture Department and a compromise bill, calling for such a department, finally emerged. On May 15, 1862, the compromise providing for a separate Department of Agriculture, headed by a Commissioner who would be appointed by the President, was sent to the White House for signature.²⁹

Some sixty-six years after Washington's plea for a federally supported Board of Agriculture, President Lincoln signed the Organic Act and the Department of Agriculture Library was established along with the Department itself. Considering the strain and turmoil associated with the Civil War, it is quite probable that the creation of the Department of Agriculture and its Library would have been considerably delayed had it not been for the influence exerted by the local and state agricultural societies.

Focusing upon the objectives of the Agricultural Department Library, the language of the new law contained many thoughts, dating as far back as George Washington, on the utilization of agricultural literature. On the other hand, the new law also indicated rather concisely just what the Library's basic mission should be—to collect, maintain, and disseminate information pertinent to agriculture and its related fields:

... there is hereby established at the seat of government of the United States a Department of Agriculture, the general designs and duties of which shall be to acquire and to diffuse among the people of the United States useful information on subjects connected with agriculture in the most general and comprehensive sense of that word. . . .³⁰

The act further stated that "the Commissioner of Agriculture . . . acquire and preserve in his Department all information concerning agriculture which he can obtain by means of books and correspondence. . . ."³¹

28. *The Transactions of the Wisconsin State Agricultural Society, 1858-1859* (Madison, Wisconsin, 1860), pp. 289-92; see also Earle D. Ross, "Lincoln and Agriculture," *Agricultural History* 3:2 (April 1929): 55.

29. Gladys L. Baker, Wayne Rasmussen, Vivian Wiser, and Jane M. Porter, *Century of Service: The First 100 Years of the United States Department of Agriculture* (U.S. Department of Agriculture, Centennial Committee, 1963), 11-12.

30. *Report of the Commissioner of Agriculture For the Year 1862* (Washington: GPO, 1862), 1.

31. *Ibid.*

In a broad national sense, this Act presented a fitting tribute to the interest and support of farmers in the Colonies, as well as to the generations of farmers who succeeded them.

With the establishment of the Department Library in 1862, a new federal era in agricultural information was inaugurated. At this time, the eleven largest state university libraries together held only 8,500 agricultural books. In 1863 books and journals numbering about 1,000 volumes were transferred from the Agricultural Division of the Patent Office to the new Department and, in 1864, an appropriation of \$4,000 was set aside for the Library and Laboratory. The first librarian, Aaron Burt Grosh (1867-1869), is best remembered as one of the founders of the National Grange. By 1868, the Department Library occupied a special room on the first floor in the west end of the new Department building and the Librarian began administering a program of international exchange of publications with foreign governments, societies, public libraries and individuals—a step which would hopefully lead to the accumulation of additional valuable publications. Through correspondence, fruitful contacts in Europe were established with major agricultural societies and academies as well as horticultural and natural history societies.³² Under the publication exchange program, an additional 1,000 volumes of valuable books and periodicals in such languages as German, French, Italian, Spanish, Danish, and Swedish were added to the Library's collection.³³

Early signs of the Department Library's emerging national responsibility appeared in the *Report of the Commissioner of Agriculture* for the year 1871:

The library continues to receive the journals and reports of the leading agricultural and scientific associations of the world, many of which are in exchange for the annual and monthly reports of the Department. . . . Many of them are probably not accessible in any other library in the country. They furnish the results of the very latest investigations in

32. U.S. Department of Agriculture, *Annual Report of the Commissioner 1868*, (Washington, D.C.: GPO, 1869), 530. *Report of the Commissioner of Agriculture for the year 1869* (Washington, D.C.: GPO, 1870), 13. *U.S. Department of Agriculture Yearbook for the year 1897* (Washington, D.C.: GPO, 1898), 220; see also National Archives, RG48 Records of the Office of the Secretary of Interior, Patents and Miscellaneous Division, Letter from Horace Capron, Commissioner of Agriculture to Honorable O.H. Browntry, Secretary of Interior, July 22, 1868, Concerning the claim of the Department of Interior upon the book obtained by exchanges on appropriation of books by the Agricultural Division when a part of the Patent Office. Aaron Burt Grosh, 1867-69, was succeeded by Stuart Aldridge, 1869-1871, John B. Russell, 1871-1877, and Ernestine H. Stevens, 1877-1893.

33. See National Archives, RG16 Records of the Office of the Secretary of Agriculture, Library Correspondence, List of Exchanges, 1867-1871.

entomology, botany, agricultural geology, and microscopy, as well as experiments in agriculture.³⁴

Among the notable purchased additions to the library at this time were *English Botany, or Coloured Figures of British Plants . . .* by James Sowerby and *Nouvelle Flora Francaise* by Claude Casimer Gillet.³⁵

By 1876, one hundred years after the declaration of American Independence, the Department of Agriculture Library, with holdings of about 7,000 volumes, was referred to in a Special Report by the Department of Interior as the most complete agricultural library on the American continent.³⁶ Unfortunately, the growth in both the field of agriculture and the programs of the Department of Agriculture was expanding at a much faster rate than that of the Department's Library so that it became increasingly difficult for researchers in the divisions to receive adequate library service. Aware of the seriousness of the situation, William Gates Le Duc, Commissioner of Agriculture since 1877, stated in the Annual Report for 1880 that the current appropriation for books and periodicals for the Department Library was insufficient.³⁷ In 1887, Norman Colman, the last Commissioner of Agriculture, stressed the need for "a well equipped library, systematically arranged and properly conducted. . . ."³⁸ By this time, there was an increased impetus for agricultural research with the passage of the Hatch Act. With federal funds being allocated to each state to stimulate scientific investigations as well as published results, the Department Library was experiencing even greater demands on its collection and services. Jeremiah Rusk, the second Secretary of Agriculture, also voiced the practical need for a "well-selected and well-stocked library covering all lines of inquiry of agriculture and agricultural science."³⁹

In 1889, W. T. Fletcher, the librarian of Amherst College, was hired to develop a classification scheme for about 20,000 volumes. By 1892, the Department Library was located in a large high-ceilinged room with galleries in the central portion of the second floor of the main Department Building. Despite this improvement, the library still lacked adequate finan-

34. U.S. Department of Agriculture, *Report of the Commissioner of Agriculture for the Year 1871* (Washington, D.C.: GPO Office, 1872), 7-8.

35. *Report of the Commissioner on Agriculture, Frederick Watts, For the Year 1873, Annual Report of the Department of Agriculture* (Washington, D.C.: GPO, 1874), 12.

36. *Special Report Department of Interior; Bureau of Education* (Washington, D.C.: GPO, 1876), Part I, 272.

37. U.S. Department of Agriculture, *Report of the Commissioner of Agriculture for the Year 1880* (Washington, D.C.: GPO Office, 1881), 33.

38. U.S. Department of Agriculture, *Report of the Commissioner of Agriculture for the Year 1887* (Washington, D.C.: GPO, 1888), 43.

39. U.S. Department of Agriculture, *Report of the Secretary of Agriculture for the year 1889* (Washington, D.C.: GPO, 1889), 34.

cial support, proper facilities, and appropriate personnel.⁴⁰ In the light of the Department's expanding national responsibilities the situation was critical.

In 1893, the winds of change brought internal improvement to the Department of Agriculture's Library. Shortly after Julius Sterling Morton assumed his duties as the third Secretary of Agriculture, he reviewed the existing operation of the Library. On March 28, 1893, Secretary Morton wrote to Colonel William Lowdermilk, a well-known book dealer in Washington, D.C., asking for a written opinion as to the cost of undertaking a monetary appraisal and inventory of the Department Library's holdings as well as an estimated cost of preparing a complete catalogue.⁴¹ In cooperation with the Civil Service Commission, Secretary Morton also made plans for a meeting to be held at Colonel Lowdermilk's home for the purpose of preparing the first Civil Service examination to be taken by applicants for the position of Librarian of the Department.⁴² On June 17, 1893, Secretary Morton, definitely intending to improve the operations of the Department Library, wrote a letter to the renowned Melville Dewey, then Director of the New York State Library and Secretary of the State University of New York, in which he said, "the Library of the Department . . . (should) be put into the hands of a most thorough and competent librarian."⁴³ Dewey was the architect of the Dewey Decimal System of Classification and a major force behind the development of library science in the United States.

Morton, in his letter, asked Dewey to prepare some appropriate questions which the Civil Service Commission could administer to the numerous applicants for the posted library position.⁴⁴ On July 11, the examination for Librarian of the Department of Agriculture was administered and evaluated on the following subjects: orthography, penmanship, letter writing, elements of the English language, arithmetic, modern language, library economy, bibliography, and literature of agriculture.⁴⁵

After examinations were given to about 30 applicants, only William P. Cutter, a graduate of Cornell University and then member of the faculty at

40. Claribel Barnett, "The Library of the United States Department of Agriculture," *Special Libraries* 10, 2 (March 1919), p. 40.

41. National Archives, RG16 Records of the Office of the Secretary of Agriculture, Letter from J. Sterling Morton, Secretary of Agriculture to Colonel William Lowdermilk, Washington, D.C., March 28, 1893.

42. National Archives, RG46 Records of the United States Civil Service Commission, Minutes of Civil Service Commission, No. 6, June 14, 1893.

43. National Archives, RG16 Records of the Secretary of Agriculture, Letter from J. Sterling Morton, Secretary of Agriculture to Melville Dewey, Secretary and Director State Library Regents Office, Albany, New York, June 17, 1893.

44. *Ibid.*

45. National Archives, RG46 Records of the United States Civil Service Commission, Minutes of the Civil Service Commission No. 6, June 19, 1893.

Utah Agricultural College, was certified as eligible for appointment.⁴⁶ With the aid of his newly appointed assistant, Josephine Clark, former bibliographer in the Botany Division and graduate of the New York State Library School, he began the challenging task of reorganization and improvement in services. Secretary Morton gave his full support to William Cutter and, at times, even personally recommended a book purchase, i.e., *English Forests and Forest Trees, Historical, Legendary and Descriptive* (1853).⁴⁷ Cutter's plans for modernizing the Library included basic renovations and changes such as additional space requirements, the replacement of dangerous gas lamps with incandescent lamps, and the introduction of competent library practices for accessioning and cataloging of books.⁴⁸ In a letter dated October 25, 1894, to Secretary Morton, Cutter pointed out that he believed the major obstacle to improving library services to be "the existence of sectional libraries necessitated by the long distance from the offices and laboratories of the several . . . Divisions of the Department to the Main library."⁴⁹ Secretary Morton was quite pleased with the Library's progress made under William Cutter. In the Report of the Secretary for 1894, Morton expressed his appreciation in this way:

Since the present librarian, Mr. W. P. Cutter who was certified by the United States Civil Service Commission, took charge of the library of the Department of Agriculture, modern methods have been introduced, for the first time, into its conduct. A dictionary catalogue has been instituted, and the books have been arranged in a regular system, in accordance with which valuable information in it will be made available for students. The increased appropriation has been used to fill out the fragmentary sets of scientific periodicals and to purchase works bearing upon the sciences studied by the Department experts. A reading room has been arranged and increased facilities provided for the convenience of investigators. The library has been made in this manner a working laboratory instead of a miscellaneous storehouse.⁵⁰

46. National Archives, RG16 Records of the Office of the Secretary of Agriculture, Letter from J. Sterling Morton, Secretary of Agriculture to George Labingier, Beaver Falls, Pennsylvania, August 9, 1893, see also Salary Book (July 1, 1893 to June 30, 1894), 12.

47. National Archives, RG16 Records of the Secretary of Agriculture, Letters from J. Sterling Morton, Secretary of Agriculture to William P. Cutter, Librarian, Department of Agriculture, September 2, 1893.

48. National Archives, RG16 Library Correspondence, Letter from William P. Cutter, Librarian to the Honorable Assistant Secretary of Agriculture, September 14, 1893.

49. National Archives, RG16 Records of the Office of the Secretary of Agriculture, Library Correspondence, Letter from William P. Cutter to J. Sterling Morton Secretary of Agriculture, October 25, 1894.

50. U.S. Department of Agriculture, Report of the Secretary of Agriculture, 1894 (Washington, D.C.: GPO, 1895), 70.

The Library Collection continued to grow so that by 1894 there were about 38,000 books of which about 18,000 were in the Central Library and 20,000 in the divisional libraries.⁵¹

Cutter was deeply committed to improving access for the users. On April 25, 1894, he told Secretary Morton that only through the preparation of indexes and catalogues will the scientific "... work of the past be made available."⁵² In May of 1895 Cutter sought authorization from the Secretary of Agriculture to recall books from the divisions for permanent retention in the main library. He pointed out that he would use the authorization in a manner beneficial to the larger number of employees in the Department.⁵³ In November of that year, Cutter was given the authority to recall all books for cataloging and storage in the main library, the only exceptions being the books in the Weather Bureau and Divisions of the Department. The implementation of this plan was to begin with the books in the Division of Statistics and move, in order of importance, through the other Division Libraries.⁵⁴ Cutter saw a strong relationship between the library services of the nearly 59,000 volumes and the welfare of the farming community, for the information acquired and stored in the library reached out to the farmer indirectly through the utilization of the Library's holdings.⁵⁵ Cutter believed that:

Through its relationship with the agricultural experiment stations and colleges, the Library is attempting to be of assistance to those workers in agricultural science who are located nearer to the farmer and are thus familiar with his interests.

Little work can be accomplished in scientific investigation without access to the literature of the subject investigated and a careful search after the truth as discovered by previous investigators.⁵⁶

By the close of the century, the Library of the Department had started printing catalog cards for Department publications and making them avail-

51. National Archives, RG16 Records of the Office of the Secretary of Agriculture, Library Correspondence, Report of the Operations of the Library, September 1, 1893–October 25, 1894, by William P. Cutter.

52. National Archives, RG16 Records of the Office of the Secretary of Agriculture, Library Correspondence, Letter from William P. Cutter, Librarian to the J. Sterling Morton, Secretary of Agriculture, April 25, 1894.

53. National Archives, RG16 Records of the Office of the Secretary of Agriculture, Library Correspondence, Letter from William P. Cutter to J. Sterling Morton, Secretary of Agriculture, May 10, 1895.

54. National Archives, RG16 Records of the Office of the Secretary of Agriculture, Letter from J. Sterling Morton, Secretary of Agriculture, Department of Agriculture to William P. Cutter, Librarian, November 7, 1895.

55. William P. Cutter, "The Library" *Yearbook of the Department of Agriculture 1897* (Washington, D.C.: GPO, 1898), 221, 223.

56. *Ibid.*, 223.

able to other libraries; 75 percent of the Library's 68,000 volumes dealt specifically with agricultural matters.⁵⁷ By 1900, the Department Library was already functioning as a national institution providing extensive interlibrary loan services. With the growth in agricultural research, there followed increased demands upon the Library for the loan of books and journals. From the administration of William P. Cutter (1893–1901) through that of Josephine Clark (1901–1907) and the thirty-seven year stewardship of Claribel Barnett (1907 to 1940), Department Library loans and reference services steadily increased until such services reached libraries and research workers throughout the country, particularly those connected with the land-grant colleges.⁵⁸ Between 1902 and 1910, the Library participated with the Library of Congress in the printing of catalog cards and their general distribution to libraries in the United States and other countries.⁵⁹ In addition, in 1908 the Library had outgrown its quarters in the old red-brick administration building and was moved to the basement of the East Wing.

Claribel Barnett came to the Library as a cataloger and was appointed to succeed Josephine Clark in 1907. Interested in establishing improved communications among the agricultural librarians, Claribel Barnett, who was an active member of many professional library related organizations, chaired the first meeting in the Agricultural Library Section of the American Library Association, 1910–1914. In the beginning, round table sessions were held at the Mackinac Island A.L.A. Meeting from June 30th to July 7th, 1910. These sessions were so well attended that steps were taken to establish a permanent Agricultural Library Section of the American Library Association.⁶⁰ During World War I, agricultural production increased as farmers, with the support of government assistance, price guarantees and other economic incentives, responded to the wartime need. Secretary of Agriculture David E. Houston, who served from 1913 until 1920, reorganized the Department to centralize its functions so that information could be disseminated to the farmers more effectively. Writing in the July, 1915 issue of the American Library Association Journal, Claribel Barnett discussed relations with the Agricultural College and Experiment Stations Libraries, expressing her desire "to extend . . . [Department Library] services as far as possible to the investigators in agricultural science

57. Charles H. Greathouse, Editorial Clerk, Division of Publications, "Development of Agricultural Libraries," *Yearbook of the Department of Agriculture 1897* (Washington, D.C.: GPO, 1900), 504–05.

58. J. Richard Blanchard, "The History of Agricultural Libraries in the United States," *Agricultural Literature: Proud Heritage—Future Promise* (Washington, D.C.: GPO, 1977), 225–26.

59. Foster E. Mohrhardt, "Research and Innovation in Agricultural Libraries," *International Agricultural Librarianship: Continuity and Change*, Alan Fusonie and Leila Moran, (Westport, Connecticut: Greenwood Press, 1979), 21.

60. American Library Association Circular, December 10, 1910. NAL Archives.

throughout the country."⁶¹ The Library was already engaged in the free distribution of duplicate publications to the agricultural colleges and experiment stations, as well as some on-the-job training for visiting librarians from state agricultural colleges.⁶² Storage space continued to be a major concern so, in March of 1915, the Library was moved to enlarged quarters in the new Bieber office building at 1358 B Street, S.W. In 1919, the Library, in cooperation with the Division of Fruit and Vegetable Crops and Diseases of the Bureau of Plant Industry, also assumed administrative responsibility for servicing the *Horticultural Trade Catalogue Collection*. This valuable and rapidly growing collection received extensive use in the horticultural work of the Department.⁶³

After World War I, the Department placed increased emphasis on the study of the problems of distribution and other economic phases of agriculture. After all, it was the rural sectors of the Nation that suffered most from the sudden discontinuation of wartime assistance. The Department Library with its branches in the bureaus provided critical literature necessary to assist the research being conducted on many agricultural problems across the country.⁶⁴ In promoting the usefulness of the collection, the Library issued a *List of Serials Currently Received* . . . (Department Circular 187) and *Agricultural Library Notes*. Under Claribel Barnett's direction, the Department Library continued to grow in national importance, size, reputation, and service. Strong subject areas where extensive collecting had taken place included chemistry, botany, economics, and microbiology to mention just a few. Extensive bibliographic services were provided by staff members of both the main and bureau libraries. Notable lists included the following: *Plant Science Catalog* by Alice C. Atwood, Librarian, Bureau of Plant Industry; *Literature of American Economic Entomology* by Mabel Colcord, Librarian, Bureau of Entomology and Plant Quarantine; *Food Control During Forty Six Centuries: A Contribution to the History of Price Fixing* and *Bibliography on Land Utilization* both by Mary Goodwin Lacy, Librarian, Bureau of Agricultural Economics. A growing number of important users began to depend upon the Department's library services and useful literature lists. On October 23, 1925, one user, L. E. Nettling, a railroad statistician in Chicago, described the usefulness and importance of the Department Library:

61. Claribel Barnett, "Relations of the Agricultural College and Experiment Station Libraries to the Library of the Federal Department of Agriculture." *American Library Association* 9,4 (July 1915): 156-159.

62. *Ibid.*, 158.

63. M.F. Warner, "Horticultural Libraries in the United States," *The Gardeners Chronicle* (May 1919): 247.

64. Letter from Claribel Barnett, Librarian to Herbert Brigham, Editor, *Special Libraries*, January 23, 1926.

The work of the Library is of great value to economists and students of Agricultural Industry. Its educational value to agriculturalists is beyond calculation and impossible for translation into dollars. The Library has in the past been consulted frequently for data needed in our rate cases, and we have found much valuable data which could not be obtained elsewhere.⁶⁵

From the study of current prices and price spreads, to agriculturally related transportation problems, to forestry, to research in botany and plant pathology, to veterinary medicine and economic entomology, and other research areas, the Department Library with its branches in the bureaus had become increasingly important to the Department and to the larger agricultural community. And yet, the Library continued to suffer from inadequate facilities and funding. During the 1930s, the Department Library continued to increase the size of its collection and to expand its services. In the summer of 1932, the Library was moved to the first floor of the 4th and 5th wings of the South Building at 14th and Independence Ave., S.W. This location was more centrally located and included much larger stack space. On May 9th, 1934, the Library reached a special milestone as the 250,000th volume was added to the collection. In the fall of the same year, the Library under Claribel Barnett's leadership entered into a far-reaching cooperative arrangement with the American Documentation Institute and Science Service. With the technical assistance of Dr. Atherton Seidell of the National Institutes of Health and R. H. Draeger of the Medical Department of the United States Navy, the needed equipment and funds came together. Using a Bibliofilm Service, this became the first experimental center for supplying microfilm and photocopies of articles on a large-scale to scientific workers.⁶⁶ Watson Davis, Director of the Science Service in an August 5, 1935 letter to Assistant Secretary of Agriculture, Paul Appleby, paid tribute to Miss Barnett, noting that "Under Miss Barnett's direction, this is a successful and pioneer attempt to substitute micrographic reproduction on film for the actual physical loaning of books and periodicals."⁶⁷

In the first year of the Bibliofilm Service over 300,000 microfilm pages were distributed.⁶⁸ The impact was widespread, with film copy distribution

65. Letter from L. E. Wettling, Manager, Statistical Bureau—Western Lines to A.C. Johnson, Vice President, Chicago and Northwestern Railroad, Chicago, Illinois, October 23, 1925. NAL Archives.

66. Foster Mohrhardt, "The Library of the United States Department of Agriculture," *The Library Quarterly* 27 (April 1957) : 75.

67. Letter from Watson Davis, Director, Science Service, Washington, D.C. to Paul H. Appleby, Assistant to the Secretary, Office of the Secretary, U.S. Department of Agriculture, August 5, 1935. NAL Archives; see also Claribel Barnett, "The Bibliofilm Service . . ." Department of Agriculture Library, *Agricultural Library Notes* 11, 1 (January 1938): 55-60.

68. See Pauline Jennings, "History of the Photocopying Services of the National Agricultural Library," unpublished (March 8, 1971).

throughout the public and private sectors of the agricultural community.⁶⁹ In retrospect, the Department of Agriculture was a "... pioneer in the application of microforms in scholarly, scientific, and library fields."⁷⁰

By the time the United States entered World War II, once familiar raw materials became increasingly unobtainable. There emerged a need in the United States to begin growing plants from which critical fibers, oils, and drugs could be produced. The commercial growers and amateur gardeners also needed to know where to obtain seeds and stocks of vital plants. Millions of Americans were encouraged to grow Victory Gardens. Fortunately, the answer to many of these questions could be found in the Department Library's *Nursery and Seed Trade Catalog Collection*.⁷¹

Six days after Pearl Harbor, the first major wartime reorganization of the Department of Agriculture was announced. This emergency effort included the reorganization of the Library to meet the new war-service problems, the rapidly shifting agricultural programs, and demand for agricultural information.⁷² Actually, since 1920, the Department Library had included a group of independent libraries supported by various agencies and Claribel Barnett had annually mentioned the deficiencies of the decentralized system.⁷³ In 1940, Dr. Ralph R. Shaw, formerly the Librarian of the Gary (Indiana) Public Library and now the newly appointed Director of the Library of the U.S. Department of Agriculture, moved quickly to convince the new Secretary of Agriculture, Claude R. Wickard, that a major consolidation of all library facilities would be an appropriate part of the Department's emergency plan.⁷⁴

On January 31, 1942, Wickard submitted the Department's consolidation plan through proper channels for White House approval. On February 23, President Roosevelt signed the Executive Order entitled "Consolidating Certain Agencies within the Department of Agriculture." Secretary Wickard stated not only that "it would be necessary to husband all our library resources" but also that the library staff time needed to be "... re-

69. *Ibid.*, p. 2

70. Letter from Vernon D. Tate, Executive Secretary and Archivist, The National Microfilm Association to Joseph F. Caponio, Associate Director, NAL, March 1971. NAL Archives.

71. Percy L. Ricker and Magdalene R. Newman, "The Nursery and Seed Trade Catalog Collection of the United States Department of Agriculture," *National Horticultural Magazine* (October 1944): 220.

72. Ralph R. Shaw, "The United States Department of Agriculture Library," *Library Journal* 69, 6 (April 15, 1944): 333.

73. Gladys L. Baker et al., *Century of Service . . .*, 288.

74. S. Richard Blanchard, "The Changing Nature of Agricultural Librarianship: Observations and Overview," in *International Agricultural Librarianship: Continuity and Change*, 8; see also National Archives, Record Group 164, Memorandum from S.B. Herrell, Chief Division of Employment to Dr. J.T. Jardine, Director of Research with enclosures: Description of Duties and Evaluation of the Candidates Certified, September 24, 1940.

directed into those services most essential to the war functions.⁷⁵ The new Department Librarian, Ralph Shaw, was given full authority to "... integrate the entire library service now divided between the central Department Library and the several bureaus libraries."⁷⁶

Under the direction of Ralph Shaw, a difficult and controversial consolidation was accomplished resulting in major economic savings in operation. In 1932, the Department Library appropriation had been \$110,000 as compared to the 1942 Library appropriation of \$102,000. During the ensuing year, Ralph Shaw introduced modern library management practices and technological improvements. From the consolidation of the Department Library, to the establishment of the *Bibliography of Agriculture*, to the pioneering of photocopying, microfilming, and microfilm reading techniques, the name Ralph Shaw became associated with effective library management and innovation.⁷⁷

From 1954 to 1982, under Library Directors Foster Mohrhardt (1954–1968) John Sherrod (1968–1973), and Dr. Richard Farley (1974–1982), the Department Library continued to make advances in size, research importance, and world-wide access to its collection. On May 23, 1962, the Secretary of Agriculture, Orville Freeman, officially designated the Department Library as the National Agricultural Library. Two days prior, a special land-grant college Advisory Committee to the National Agricultural Library recommended to Freeman that support for NAL's acquisition program, for the *Bibliography of Agriculture*, for automation, and for new library facilities be increased.⁷⁸ In 1964, Congress made funds available for preliminary studies and planning for a new library building. The selection of the Beltsville location enabled the Library to remain in the Washington metropolitan area as well as to maintain its essential liaison with the other two national libraries while also providing improved services to the departmental scientists at the Agricultural Research Center. Construction began in 1965 and the cornerstone was laid by Secretary Orville Freeman on September 21, 1967.

By this time, NAL's holdings comprised the most extensive agricultural

75. Letter from Claude R. Wickard, Secretary of Agriculture to Harold D. Smith, Director, Bureau of the Budget, January 31, 1942; also letter from M. H. McIntyre, Secretary to President Franklin Roosevelt, to Claude Wickard, Secretary of Agriculture, February 24, 1942, in the Franklin Roosevelt Papers, Franklin Roosevelt Presidential Library.

76. Ralph R. Shaw, "Organization of the USDA Library as Indicated by Its Organization Charts," *College and Research Libraries* 1 (December 1942): 30.

77. Mohrhardt, "The Library of the United States Department of Agriculture," 75–78, see also Ralph R. Shaw, "The Organization of the Department Library," talk given before the Organization and Procedure Conference of the Department of Agriculture, December 13, 1943, NAL Archives.

78. Letter and attached report from Advisory Committee, the National Agricultural Library, to the Secretary of Agriculture, Orville Freeman, May 21, 1962, NAL Archives.

collection in the world. The card catalog alone included over 90,000 subject headings and cross references. In addition to the publication of the *Dictionary Catalog of the National Agricultural Library 1862-1965*, NAL was also exchanging about 200,000 departmental publications annually with over 7,000 institutions and agencies in more than 150 governments.⁷⁹ In 1969, the fifteen-story building containing 1.5 million volumes was opened. The following years the Library's manual reproduction of the *Bibliography of Agriculture* was replaced by an automated program of more timely magnetic tape records. On December 28, 1970, through the sponsorship of Senator Bob Dole and Congressman Fred Schwengel, Public Law 91-591 was passed, giving the National Agricultural Library the authority to accept gifts of books, manuscripts, and other important agricultural memorabilia.⁸⁰ In 1971, the Associates of the National Agricultural Library, Inc. was founded to serve as a supportive "Friends of the Library" organization.

Today, NAL, as the Nation's storehouse of agricultural information, is important to the maximization of all agricultural research—past, present, and future. The Library's 1.9 million volumes, inclusive of 25,000 journal titles as well as rare books, manuscripts, maps, oral histories, nursery and seed trade catalogs, photographs, microforms, audiovisuals, and the donated private libraries of scientists and administrators, is expanding daily and so is its reach. Through an effective network with the State Land-Grant and USDA Agency Field Libraries, NAL delivers information to all sectors of the population—from researchers to extension workers, farmers, foresters, lawmakers, industrialists, students, private citizens and others with an interest in agriculture. Internationally, NAL is the designated U.S. center for worldwide agricultural information systems sponsored by the United Nations Food and Agriculture Organization (FAO). The comprehensiveness and uniqueness of NAL's collections attracts the attention of researchers around the world.

Currently, NAL responds annually to more than 30,000 requests for information exclusive of the more than 180,000 requests received solely for documents. From a scientist in Texas conducting research on polyculture of channel catfish, to an EPA scientist conducting studies on acid rain, to a USDA research administrator monitoring risk factors in the potential release of genetically engineered organisms into the environment, one finds NAL's reference staff as well as the staff of its relatively new subject information centers actively responding with a variety of

79. *Scientific Information Activities of the Federal Agencies—Department of Agriculture, Part III*, No. 30 (March 1965): 3-13.

80. Remarks by Under Secretary of Agriculture J. Phil Campbell, at ceremonies, at the National Agricultural Library, May 4, 1971, NAL Archives.

specialized strategies, literature searches, and other relevant information assistance. In particular, inquiries in subject areas such as alternative farming, biotechnology, aquaculture, critical materials, food irradiation, animal welfare, food and nutrition receive a special in-depth focused response.⁸¹

The future effectiveness of the National Agricultural Library has been significantly enhanced under the leadership of Joseph Howard, the current Director. In spite of limited resources, NAL, in cooperation with both the public and private sectors, is pro-actively involved in infrastructure development on a variety of promising information dissemination projects:

- Expanding use of computerized data bases as the sources of finding information.
- Converting full text of the AGRICOLA Database to a digitized form on a CD-ROM (Compact Disc, Read Only Memory) for faster and more inexpensive searching.
- Converting photo images to laser videodisc in order to improve speed, access, and identification while strengthening preservation efforts through reduced handling of the original files and prints.
- Developing a training and education program on the AGRICOLA Database using interactive laser disk technology.
- Developing Expert Systems to support and complement the work of reference librarians answering questions and guiding users in finding information.

Exploring the potential for transmitting agricultural information—image and other mediums—nationally and internationally—via satellite.

From the private libraries of the gentlemen farmers in colonial America, to the largest agricultural library in the free world, this is a story of handing on, transition, change, and new technologies. Yet throughout the agricultural journey, the needs of the users continue to be of primary importance.

81. Maria Pisa, "Information Centers: From Irradiation to Biotechnology and Beyond," *1986 Yearbook of Agriculture—Research for Tomorrow* (Washington, D.C.: GPO, 1986), 285-93.