



National Agricultural Library 2000-2002

United States Department of Agriculture

Agricultural Research Service

National Agricultural Library

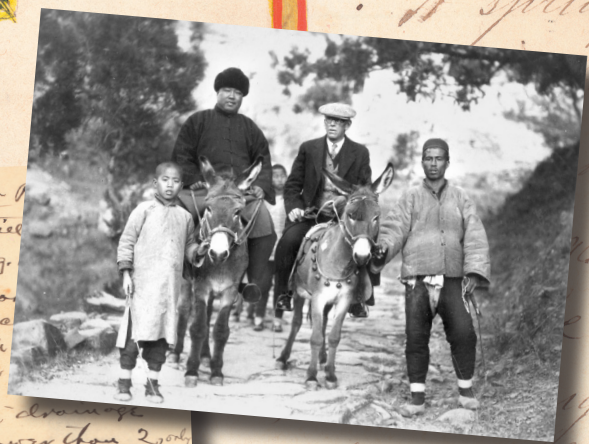
December 2004

The Swallow-tailed



is one of the of British, is not a species; it the new near Beverly. If Springs

most splendid Butterflies common is found in forest, and Bristol from a which is



Plot of Lunery Point Owned by Dr. W.S. Maxwell, Steel Made by Edwin F. Smith, Aug. This orchard is five years has never borne a fruit it has received much "Yellow" fruit appeared

- Arrows indicate drainage
- 1 = slightly lower than 2, only 5-6 ft. distance
 - 2 = nearly level, 10. park a little lower
 - 3 = side hill, 4 = bottom
 - at base 20 ft. ...
 - # = fine dirt
 - x = tree wood
 - o = healthy
 - ? = Slight
 - * = tree dead
 - o = soil
 - a, b, c, d. =



The crop X means butterfly

Abstract

U.S. Department of Agriculture, Agricultural Research Service, National Agricultural Library. 2004. National Agricultural Library 2000-2002. USDA-ARS-NAL, 16 pp.

Summarizes the accomplishments of the National Agricultural Library from 2000 to 2002.

Keywords: AGRICOLA, agricultural history, agricultural information, agricultural library, agriculture, Department of Agriculture, human nutrition, information center, national libraries



About the Cover

The images featured on the cover are drawn from various manuscript collections from Special Collections of the National Agricultural Library.

1. The swallow-tailed butterfly. Drawing by C.V. Riley, 1858. C.V. Riley Collection.
2. Field notes on disease in Maryland peach orchard. 1887. Erwin Frink Smith Papers.
3. P.H. Dorsett (second from right) and his Chinese interpreter Peter Liu on the trail. About 1929-1931. Dorsett-Morse Oriental Agricultural Exploration Expedition Collection.
4. Color landscape painting of Rhine river banks at dusk. No date. C.V. Riley sketchbook of art studies from 1856-1859. C.V. Riley Collection.

ARS Mission

The Agricultural Research Service conducts research to develop and transfer solutions to agricultural problems of high national priority and provides information access and dissemination to—

- Ensure high-quality, safe food and other agricultural products.
- Assess the nutritional needs of Americans.
- Sustain a competitive agricultural economy.
- Enhance the natural resource base and the environment.
- Provide economic opportunities for rural citizens, communities, and society as a whole.

The National Agricultural Library—

- Serves as a national library of the United States and as the library of the U.S. Department of Agriculture.
- Acquires, organizes, manages, preserves, and provides access to information and provides quality stewardship of its unique collection.
- Assists, trains, and educates people based on assessment of their information needs.
- Provides leadership in information management.
- Maximizes access to information through collaborative efforts and utilization of technology.
- Enhances global cooperation through international exchange of information and the provision of services and technical assistance.

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Director Peter R. Young examines National Agricultural Library special collections, including a desk and other items in the C.V. Riley Collection. ARS photo by Stephen Ausmus.

From the Director

Since it was created within the Department of Agriculture in 1862 and established by the Congress as a national library in 1990 charged to “serve as the primary agricultural information resource of the United States,” the National Agricultural Library (NAL) has continued to grow in size, capability, and mission. Today, with more than 3.5 million items in its collections and significant strengths in most core sciences of agriculture, NAL is the largest agricultural library in the world. The library’s Web presence and

state-of-the-art document delivery services equip it to instantly connect customers in the United States and the world with the information they seek about agriculture and the array of sciences that it entails.

This combined-year report for the National Agricultural Library is its first in the 21st century and my first report as its director. Our purpose is to give you a 3-year statement of NAL’s accomplishments across its mission in calendar years 2000-2002.

I began serving as NAL director nearly at the end of the 3 years covered by this report—in June 2002. To my predecessor—NAL director Pamela Q.J. André—to NAL’s fine staff, and to cooperators and contractors working at the National Agricultural Library, therefore, goes credit for the achievements described here.

The National Agricultural Library’s mission is reflected in six broad areas; on the next several pages, we list NAL accomplishments in each of these areas.

Throughout this report we highlight some accomplishments that reveal how NAL is working to build for the future—collaboratively, digitally, globally, and for the long term.

To help shape that future, then USDA Deputy Secretary Richard Rominger and Under Secretary for Research, Education, and Economics (REE) I. Miley Gonzalez appointed an interagency panel in October 2000 to review NAL activities and make recommendations on “NAL’s management, staff, programs and operations.”

The interagency panel’s August 2001 report to REE Under Secretary Joseph J. Jen recommended that NAL “move as quickly as possible to attain and maintain a leadership position in obtaining, managing, and distributing new and previously

unavailable agricultural knowledge using the tools of the electronic digital age to meet demands of customers located anywhere and in need of information anytime.” The interagency panel’s report recommended steps to reach that end but made it clear that NAL would need an immediate infusion of funds to revitalize its services and achieve its potential.

In August 2002, Under Secretary Jen requested public comment on the interagency panel’s report (<http://www.nal.usda.gov/spevents/commentrelease.html>) and asked USDA’s National Agricultural Research, Extension, Education, and Economics (NAREEE) Advisory Board to review the panel’s recommendations as well as public comments in developing its own specific recommendations for the future of the National Agricultural Library. In its December 2002 letter to Secretary of Agriculture Ann Veneman and to the chairs of the House and Senate Agriculture Committees, the NAREEE Board wrote that NAL “is a great national resource with untapped potential to provide information resources to the benefit of all Americans and peoples around the world,” but requires “a renewed commitment to ensure that it has the necessary human and financial resources” to reach its congressionally established goal. The NAREEE Board strongly endorsed all the interagency panel’s findings with “particular emphasis that NAL’s national mission be carried out with the highest visibility to scientists, educators, producers, industry, and American citizens.” The NAREEE Board recommended that the Secretary of Agriculture “be NAL’s champion and help support its positive growth and increased visibility as a national public resource,” that “revitalization and visibility of the NAL should be high on USDA’s overall priorities for the future,” and that Congress provide increased support and funding for NAL.

You can read the interagency panel’s full report, a summary and analysis of public comments received, and the recommendations of the NAREEE Board on the NAL website at <http://www.nal.usda.gov/assessment/comments/index.html>.

I invite you to read these assessment documents and this report. As they suggest, and with the help of its dedicated and talented people, NAL and the developing National Digital Library for Agricultural Information have a bright and exciting future.

Agricultural information—information encompassing an array of sciences— is increasingly vital to the prosperity of the United States and the capacity of the world to feed and sustain itself. While NAL is clearly successful across its broad mission, it is still only on the threshold of what it must become within this decade to better serve the people of the United States and the world with information about food, agriculture, and natural resources.

Toward that end, please share with us your own suggestions for NAL’s future. You may e-mail me your ideas and concerns at Director@nal.usda.gov. I look forward to hearing from you, and we look forward to your help in shaping NAL’s future vision and direction.

Peter R. Young
Director

Mission 1: NAL serves as a national library of the United States and as the library serving the United States Department of Agriculture

Digital Desktop Library for USDA

NAL developed a digital desktop library for USDA—DigiTop—to bring a vast amount of published information about agriculture and its related sciences to the computers of USDA employees and to other users at USDA public access points.

Launched at the end of 2002 for a 12-month pilot year, DigiTop provides 24-hour Web access to key databases, full-text journals and journal articles, newspapers, statistics, and other digital information sources. DigiTop features products that focus on scientific research, though it also includes access to digital information services for directories of institutional leaders, facts on foreign countries, and a broad array of commercial, licensed digital content. Funding for DigiTop's pilot year came from USDA agency contributions. NAL is working with USDA agencies to develop future funding structures.

At the end of 2002, NAL customers within USDA were telling us they liked DigiTop and wanted additional services and resources delivered digitally. A USDA Forest Service scientist in Arkansas wrote: "Our unit is ecstatic to have this kind of digital access. I hope this is a long-term arrangement that will be expanded as time goes on."

An Agricultural Research Service ecologist in Mississippi wrote: "This DigiTop resource is fantastic. I spent an hour yesterday searching pertinent articles for a manuscript, whereas before I would have spent half a day or more. I also appreciate the other resources that are available on the same home page. It's like one-stop shopping. Whoever designed this had us in mind."

Across-Government Web Resources

To serve public need for information across Government about science, nutrition, and invasive species, NAL worked with other Federal agencies to establish three multiagency websites:

- www.science.gov, a collaborative Governmentwide science website, created as an interagency initiative of 17 U.S. Government science organizations within 12 Federal agencies. Science.gov provides wide public access and a unified search of the Government's vast stores of scientific and technical information.
- www.nutrition.gov, a central source of science-based nutrition information, hosted by the Department of Agriculture in cooperation with the Department of Health and Human Services.
- www.invasivespecies.gov, an online system established by 12 Federal departments and agencies and hosted by NAL as a gateway to Federal efforts concerning invasive species. Invasivespecies.gov provides reliable information about the impacts of invasive species and the Federal Government's response, as well as select species profiles and links to agencies and organizations dealing with invasive species issues.

3,509,804

Items—books, periodicals, maps, manuscripts, etc.—in the NAL collections, September 30, 2002.

K-12 Education

As the Department of Agriculture continued to support agricultural education outreach, NAL created a science website (<http://www.nal.usda.gov/Kids/>) oriented toward children. Launched in early 2000, the website is designed to provide opportunities for children to explore agriculture-related subjects such as animals, plants, the environment, and food and nutrition.

Mission 2: NAL acquires, preserves, organizes, and provides access to information and provides quality stewardship of its unique collection

149,726

Requests for documents received by NAL in FY 2002. Of these, 71 percent were filled from NAL collections, the balance filled from other sources.

New Acquisitions

NAL added some of the historic literature and art in agricultural science to its special collections. Included in its 2000-2002 acquisitions are:

- U.S. National Animal Parasite Collection covering the history of veterinary parasitology since the 1890s.
- Rudolph Wendelin Collection of Smokey Bear paintings, featuring 19 original paintings of fire-prevention ace Smokey Bear, created by longtime Smokey Bear illustrator Rudy Wendelin.
- Society of American Florists Collection, early records of the floral industry in the United States including several rare books from the society's library.
- Sketchbook of art studies, 1856-1859, from Charles Valentine Riley, noted entomologist, former entomologist to the U.S. Department of Agriculture, leader in development of biological control of insects, and scientific illustrator. The sketchbook will enhance the C.V. Riley collection, one of NAL's treasures.

Making Special Collections Accessible

NAL digitized and made Web-accessible (<http://www.nal.usda.gov/specoll>) the records of several important agricultural researchers and research programs plus other significant resources, including:

- Curtis's Botanical Magazine (1787-1791) (<http://www.nal.usda.gov/curtis>); Curtis's Botanical is the longest running botanical periodical featuring color illustrations of plants. Detailed but readable text combines horticultural and botanical information with such topics as history, conservation, and economic uses of a worldwide range of plants. It has been published continuously since 1787, currently by Kew Gardens. NAL has digitized some of the early volumes.
- The Papers of Erwin F. Smith (1813-1938) and his "Bibliography of Peach Yellows." Smith, a pioneer in bacterial plant pathology, served as USDA's chief of plant pathology for almost four decades. His work on



Mexican wheat. Photographer and date unknown. USDA History Collection. Special Collections, National Agricultural Library.

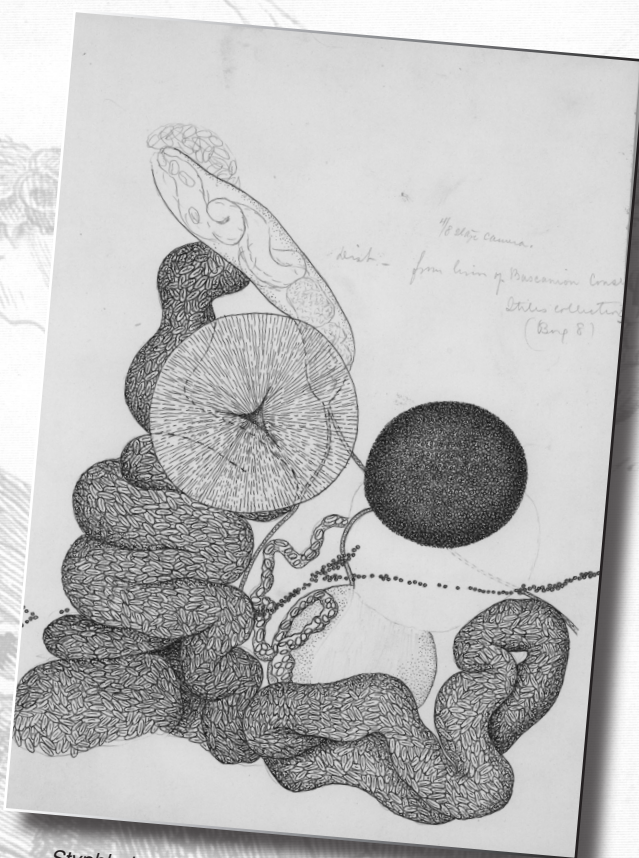
peach yellows continues to be considered valuable for scientists and historians. His papers are described at <http://www.nal.usda.gov/speccoll/findaids/smith/>. His bibliography received full conservation treatment and was microfilmed and digitized.

- Jean François Durande’s “Notions élémentaires de botanique” (<http://www.nal.usda.gov/speccoll/collect/durande>), digitized for preservation and access. Jean François Durande (1732-1794) was a French botanist and teacher in Dijon, France. In his 1782 textbook, “Notions élémentaires de botanique,” Durande attempted to summarize the state of knowledge in botany, especially the classification of plants.
- Dorsett-Morse Oriental Agricultural Exploration Expedition Collection (<http://www.nal.usda.gov/speccoll/findaids/dorsett/>); documentation of the Oriental Agricultural Exploration Expedition of 1929-1931.
- The USDA History Collection, containing materials transferred from the Agricultural History Branch of USDA’s Economic Research Service in 1997 (<http://www.nal.usda.gov/speccoll/collect/history/index.htm>), a collection built by the Department’s historians over 80 years, described as the best single source for information on the history of the Department of Agriculture.
- Screwworm Eradication Collection (<http://www.nal.usda.gov/speccoll/collect/screwworm/>), seven decades of records on one of USDA’s greatest accomplishments, first released as a CD and later added to the NAL website for greater accessibility.
- Alvin L. Young Collection on Herbicide Agent Orange (<http://www.nal.usda.gov/speccoll/findaids/agentorange/>); 3,000 of over 150,000 documents on the development, use, and potential health effects of this herbicide are available as full-text documents.

To date, NAL’s special collections website provides access to about 150,000 digitized pages of full-text articles and scientific documentation on a variety of agricultural subjects.

Environmental Storage for Special Collections

In 2000, NAL began planning to build secure and environmentally stabilized storage for its rare books and manuscript materials, a state-of-the-art facility to meet or exceed the environmental standards set by the National Archives and Records Administration (NARA). SmithGroup, an architectural and engineering firm specializing in design of museum and archives facilities, was hired to design the space and oversee this specialized construction project on NAL’s fifth floor. In 2001 and 2002, the offices



Styphlodora bascaniensis. Artist unknown, 1898. U.S. National Animal Parasite Collection Records. Special Collections, National Agricultural Library.

44.7 million
Total hits to NAL websites in FY 2002 (an average of about 85 hits each minute, 24/7), increasing by 26 percent each year.

occupying the space were demolished and construction of the new storage began. Meanwhile, NAL special collections staff worked on detailed plans for the transfer of about 15,000 rare volumes and several hundred manuscript collections to the newly constructed space.

Completed in early 2003, this space for NAL's special collections includes its own air-handling system, lighting designed for optimum visibility with complete protection of materials from exposure to damaging ultraviolet light, air filtration to eliminate damaging gases and particulate matter, and temperature and humidity controls with very small fluctuations—making the environment a very stable one for the library's treasures. The project serves as a model for institutions considering renovation in older buildings and having limited budgets.

19,079

Print serials received
by NAL, FY 2002.

Advancing AGRICOLA

NAL continued to add bibliographic records to its AGRICOLA (AGRICultural On-Line Access) flagship database of citations to agricultural literature, adding the 4-millionth record on July 9, 2001. Launched in 1970, AGRICOLA is now one of the largest bibliographic databases for agriculture in the world.

AGRICOLA has been available for free public use via the World Wide Web (<http://agricola.nal.usda.gov/>) since 1998. By the end of September 2002, more than 32,000 AGRICOLA citations to electronic publications were directly linked to full-text articles, databases, and image files available on the Web, with more added each month. Subjects encompass all aspects of agriculture and allied disciplines, including animal and veterinary sciences, entomology, plant sciences, forestry, aquaculture and fisheries, farming and farm systems, agricultural economics, extension and education, food and human nutrition, and environmental and earth sciences.

Preserving Materials Digitally

NAL participated in the National Digital Information Infrastructure and Preservation Program (NDIIPP) at the Library of Congress. This congressionally funded initiative

is charged with developing national standards and a nationwide collaborative collection and long-term preservation strategy for digital materials. By serving on the NDIIPP Advisory Board, the NAL director provided vital input to the national digital planning process.

USDA's Digital Publication Preservation Program (DP3) Steering Committee began developing standards required to preserve USDA digital publications, which will be housed at NAL. DP3 was established to ensure that USDA digital publications are systematically identified, prioritized,



P.H. Dorsett tries a waterwheel. About 1929-1931. Dorsett-Morse Oriental Agricultural Exploration Expedition Collection. Special Collections, National Agricultural Library.

preserved, archived, and made accessible. The DP3 Steering Committee consists of members representing the USDA mission areas, Federal stakeholders, the agricultural research community, research libraries, and agribusiness.

NAL developed a survey instrument for identifying digital publications and guidelines for selecting digital publications for preservation (<http://www.nal.usda.gov/preserve/NALDigiPresProg/worksht.shtml>). In April 2000, an article published in a prestigious journal cited NAL's digital preservation selection policy as a model for what other libraries might do (Gertz, J. 2000. Selection for preservation in the digital age: An overview. *Library Resources & Technical Services* 44 (2), pp 97-104). NAL has already digitally preserved some of the core literature in agriculture, such as the *Journal of Agricultural Research*, *Yearbook of Agriculture*, *Agronomy Journal*, and articles or reprints from several USDA programs.



Rudolph A. Wendelin, best-known Smokey Bear artist, at work. Photographer unknown, 1965. U.S. Forest Service Smokey Bear Collection. Special Collections, National Agricultural Library.

During 2000-2002, NAL reviewed the preservation needs of over 10,600 linear feet of manuscripts and rare books in its collections. About 1,000 linear feet of oversize materials were rehoused, increasing their lifespan and allowing improved access. In an ongoing effort to preserve very fragile volumes from NAL's general collection, 651 books were rehoused in custom boxes to retard further physical damage. Analog efforts to preserve and increase access to deteriorating materials also continued during this period with the microfilming of 42 volumes.

NAL continued an initiative to review its extensive newspaper collection. It is being examined for condition and relevance to the scope of the library's collection and is being completely rehoused to prevent physical damage and make it more convenient to move during future redistribution projects. Deteriorating newspapers that are within the library's scope of preservation responsibility will be microfilmed.

NAL maintains the National Agricultural Literature Archive for microfilmed materials, with original negatives stored in the NAL vault at the National Underground Storage site in Boyers, Pennsylvania.

Disaster Recovery Preparedness

As part of a larger effort to improve safety, security, and emergency preparedness, an NAL-wide task force systematically reviewed and revised the library's disaster recovery plan for collections. The task force assessed the vulnerability of the collections and their storage areas to damage, developed a prioritized list for salvaging collections in the event of a disaster, and added detailed floor plans showing locations of the high-priority collections. The task force wrote recovery procedures for specific materials and updated lists of suppliers and pertinent additional resources.

1509

Publication date of NAL's earliest imprint, "Incipit tractatus de virtutibus herbarum." According to Stanley H. Johnston, Curator of Rare Books, Holden Arboretum, Kirtland, Ohio, this 1509 edition of the Latin *Herbarius* was printed in Italy and was written for an audience with little or no access to doctors. Though richly illustrated with 150 woodcuts, the illustrations are stylized drawings rather than exact illustrations suitable for field identification of the medicinal plants described. It is an anonymous compilation from classical, Arabic, and medieval sources published under various titles.

Mission 3: NAL assists, trains, and educates people based on an assessment of their information needs

Outreach to Underserved Communities

Collaborations with public and private educational institutions and private organizations expanded the library's outreach services to traditionally underserved communities.

These included:

- Formalizing a partnership with Medgar Evers College, City University of New York, to facilitate urban agriculture programs involving minority-serving K-16 educational institutions.
- Supporting approval of membership in the AgNIC alliance of the Oglala Lakota College (OLC), a Tribal Land-Grant College in Kyle, South Dakota. The Oglala Lakota College now manages the AgNIC website on bison ranching (<http://library.olc.edu/bison.htm>).
- Hosting at NAL the 2001 Tribal College Librarians Professional Development Institute, usually held at Montana State University, and supporting travel to the institute in 2000-2002 of librarians and library technicians from Tribal Colleges.
- Creating, through NAL's Water Quality Information Center, a Web page (<http://www.nal.usda.gov/wqic/Spanish.html>) with annotated links in Spanish titled "Información Español Sobre Agua" (Spanish Language Information About Water Resources).
- Through NAL's Rural Information Center, publishing guides for rural development officials and rural health practitioners to Innovative Approaches in Rural Education (<http://www.nal.usda.gov/ric/ricpubs/educate.pdf>) and Federal Funding Sources for Rural Areas (<http://www.nal.usda.gov/ric/ricpubs/funding/federalfund/fed03ful.pdf>).
- Creating, through NAL's Rural Information Center, Web pages of key resources for Native Americans (<http://www.nal.usda.gov/ric/ruralres/nativeam.htm>) and special populations (<http://www.nal.usda.gov/ric/ruralres/minority.htm>), including organizations, planning resources, best practices, funding and program assistance, statistics and contacts, and publications.

4,084,895

Bibliographic records cited in AGRICOLA, September 30, 2002, including 32,608 linked to full text content.



Two farmers cutting and bundling wheat. Photographer and date unknown. USDA History Collection. Special Collections, National Agricultural Library.

systems at the 2000 and 2001 meetings of the Congressional Black Caucus; at the 2000 and 2002 meetings of the National Association of Women, Infants, and Children Directors; to the National Association of Agricultural Educators in 2000 and 2001; and at the 2001 Computers in Libraries Conference.

NAL exhibited each year at the USDA Technology Showcase in USDA's Whitten Building in Washington, D.C., the USDA Outlook Conference in Arlington, Virginia, the FFA National Convention in Louisville, Kentucky, and the Annual Conferences of the American Library Association and Special Libraries Association.

Reaching Audiences Via the World Wide Web

NAL's Food and Nutrition Information Center (FNIC) produced several education and training resources for targeted audiences that are accessible via the Web, including:

- Food Stamp Nutrition Connection (<http://www.nal.usda.gov/foodstamp/>), a resource for Food Stamp Program nutrition educators, developed with the University of Maryland.
- Cultural and Ethnic Food and Nutrition Education Materials: A Resource List for Educators (August 2001) (<http://www.nal.usda.gov/fnic/pubs/bibs/gen/ethnic.html>).
- Nutrition and the Elderly: A Resource Guide for Community Educators (November 2002) (<http://www.nal.usda.gov/fnic/pubs/bibs/gen/nutritionelderly.html>).
- Nutrition Education for Low-Literate Teens & Adults (September 2002) (<http://www.nal.usda.gov/fnic/pubs/bibs/gen/lowlit.html>).
- Consumer Corner (<http://www.nal.usda.gov/fnic/consumersite/index.html>), a single website with links to information on the food and nutrition topics that the public asks about most often, much of it presented in full-text documents.

114,552

Approximate number of USDA employees authorized access to DigiTop, the Digital Desktop Library for USDA, November 2002.

NAL also began to provide the food service retail community with food safety information management services via the Food Safety Training and Education Alliance (FSTEa). NAL staff developed and maintained the organization's website (<http://www.fstea.org/>) and assisted with arranging meetings for information sharing.

NAL's Water Quality Information Center compiled and published print and online bibliographies on a broad array of topics related to agriculture and natural resources:

- An extensive resource for agricultural aspects of drought, weather, and climate, the Web page contains links to



Printing blocks created from original C.V. Riley drawings used to illustrate entomology publications. C.V. Riley Printing Blocks Collection. Special Collections, National Agricultural Library.

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prediction and monitoring tools, drought and weather organizations, State-specific drought information, and related full-text papers and articles, available on the Web at <http://www.nal.usda.gov/wqic/drought.html>.

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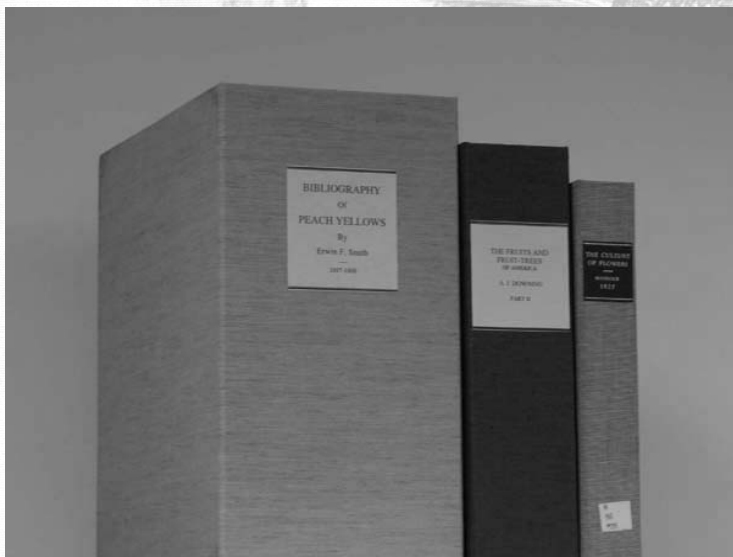
NAL partner institutions in AgNIC (Agriculture Network Information Center) Alliance, September 30, 2002, an increase of 6 since 2001.

- Over 300 electronic resources related to water and agriculture that appear on the WQIC website, cataloged with help from NAL's Cataloging Branch, and linked to records in the AGRICOLA database.
- A "Database of Online Documents Covering Water and Agriculture" (<http://www.nal.usda.gov/wqic/wqdb/eseach.html>) containing almost 1,000 titles. The Web service provides unique access to documents because of the special assignment of data tags (metadata) and keywords, improving the retrieval of the most pertinent materials.

NAL's Alternative Farming Systems Information Center (AFSIC), in collaboration with USDA's Sustainable Agriculture Research and Education (SARE) Program and the National Organic Program (NOP), developed a website on organic food production and USDA's Organic Standards rule.

AFSIC also published, in print and on the Web, an array of information resources to assist and educate other groups of food producers and consumers, including:

- Urban Agriculture (http://www.nal.usda.gov/afsic/AFSIC_pubs/urbanag.htm) (2000).
- Selected Aquatic Resources for Teachers (2000) (<http://www.mda.state.md.us/aqua/teachers.htm>).
- Educational and Training Opportunities in Sustainable Agriculture (http://www.nal.usda.gov/afsic/AFSIC_pubs/edtr.htm) (2000, 2001, 2002).
- Great Places To Find Information About Farming Alternatives (http://www.nal.usda.gov/afsic/AFSIC_pubs/findinfo.htm) (2000, 2001).
- Sustainable Agricultural Resources for Teachers, K-12 (http://www.nal.usda.gov/afsic/AFSIC_pubs/k-12.htm) (2000, 2002).
- Community-Supported Agriculture (CSA) Resources for Producers (<http://www.nal.usda.gov/afsic/csa/csafarmer.htm>) (2001).



Boxes specifically designed for fragile volumes in NAL's collections as part of the ongoing preservation effort.

Educational Workshops

On April 12, 2000, NAL held a symposium on “Who Will Pay for On-Farm Environmental Improvements in the 21st Century?” coinciding with the reopening of NAL’s newly renovated public reading room. The symposium gave individuals with different perspectives on the economic aspects of agricultural operations and environmental quality the opportunity to exchange views and ideas on the topic. Participants in the day-long symposium included representatives from agribusiness, environmental groups, Government, and farmers. For more information on the symposium and a useful resource guide published by NAL, visit <http://www.nal.usda.gov/wqic/Bibliographies/agecon.html>.

NAL’s Animal Welfare Information Center (AWIC) has for many years offered a workshop, “Meeting the Information Requirements of the Animal Welfare Act,” to all those regulated under the Animal Welfare Act (<http://www.nal.usda.gov/awic/awicworkshops/awicworkshops.htm>). In 2002, the U.S. Food and Drug Administration asked NAL to provide a modified version of the workshop to 50 FDA scientists, administrators, and information specialists who use animals in research. This was the first time that another Federal agency has asked AWIC to train such a large group. AWIC is also collaborating with the Department of Veterans Affairs to develop a Web-based training program that will help VA researchers meet the information requirements of the Animal Welfare Act.

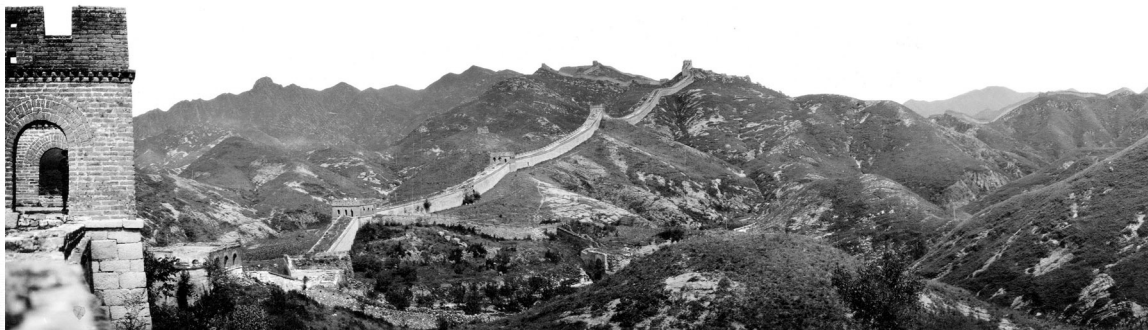
315,000
Total square feet,
NAL’s 200’ tall
Abraham Lincoln
Building.

Mission 4: NAL provides leadership in information management

Library Management System

NAL began the process of evaluating, selecting, and implementing a new library management system to replace the VTLS library management system installed in 1988.

In April 2002 NAL selected the Voyager system, a fully integrated, multitiered system produced by Endeavor Information Systems, Inc. When fully implemented at NAL [implemented on schedule in 2003], the new integrated system will support the basic library operations of acquisitions and fund accounting, bibliographic control and access, circulation, and collection management of traditional printed and audiovisual library materials. NAL’s Voyager system and Citation Server will also support the integration



Landscape near Ching Lung Chiao, Chihli, China. View of the Great Wall of China. According to field notes, plant explorers P.H. Dorsett and William J. Morse thought this view of the Great Wall of China showed the general character and appearance of the Asian countryside. Dorsett-Morse Oriental Agricultural Exploration Expedition Collection. Special Collections, National Agricultural Library.

and management of the increased volume of digital resources hosted on the library's own servers and from remote hosts on the World Wide Web. With improved reporting capabilities, the new system will make it easier to manage all facets of NAL operations.

Controlled Vocabulary

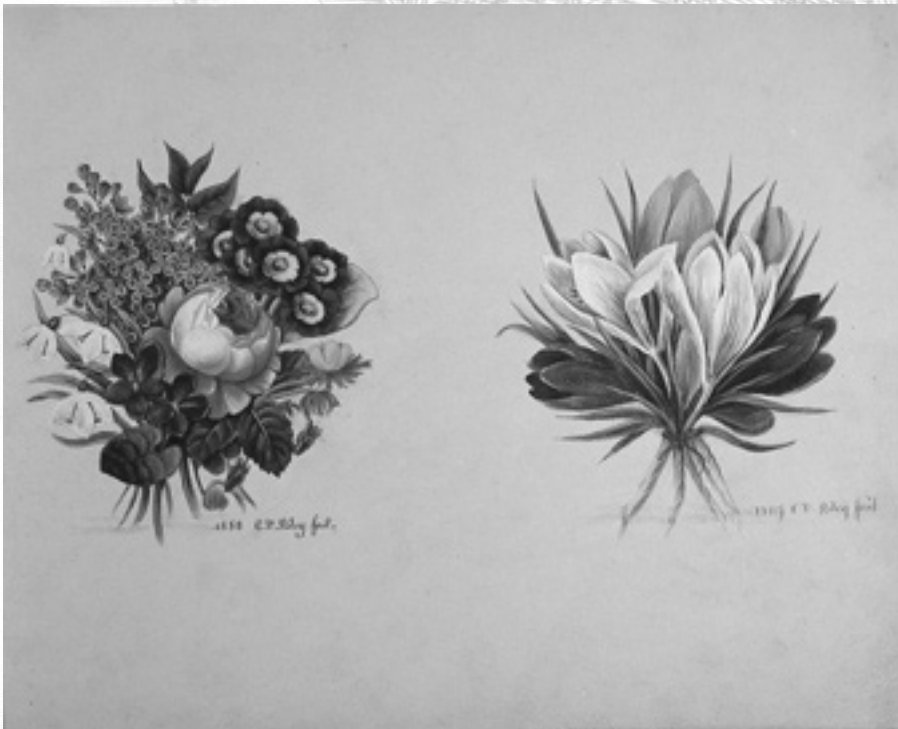
On January 1, 2002, NAL published the first edition of its thesaurus (<http://agclass.nal.usda.gov/agt/agt.htm>) of over 56,000 agricultural terms. The NAL Thesaurus broadly covers the topic of agriculture and includes specific terminology in the biological, physical, earth, and social sciences.

The NAL Thesaurus terms can be used to describe, organize, and classify agricultural resources. The thesaurus is used as the controlled indexing vocabulary for the Agriculture Network Information System (AgNIC) and the Agricultural Research Service's Agricultural Research Information System (ARIS) database. NAL will implement the new thesaurus as the controlled indexing vocabulary for AGRICOLA in conjunction with the implementation of its Voyager integrated library management system.

Upgrades to Information Technology Infrastructure

NAL continued to build the capacity of its telecommunications systems to improve the accessibility and use of its programs and services in 2000-2002. NAL implemented use of Relais Express, an automated delivery system, in March 2002 for delivering articles in response to document delivery requests. With Relais Express, articles are scanned directly from the original document; the system then identifies the requester's address information and preferred delivery method based on the information in his or her patron record and automatically delivers the article by the patron's preferred method. Relais Express enabled NAL to expand our delivery options to patrons to include e-mail and post-to-web delivery while also streamlining processing of requests by staff. By April 2002, turnaround time on document delivery to NAL patrons was reduced to 2 days from an average 5-7 days. By May 2002 over 40 percent of all document delivery articles supplied by NAL were delivered to patrons as post-to-web documents, providing desktop delivery to patrons without requiring them to purchase or install specialized software.

164/80
NAL Federal employees/
contractors, FY 2002.



Floral painting of two bouquets. 1858, 1859. C.V. Riley sketchbook of art studies from 1856 to 1859. C.V. Riley Collection. Special Collections, National Agricultural Library.

Implementation of Relais Express marked NAL's first step toward truly automated document delivery and opened the door for future enhancements to the document delivery process.

Mission 5: NAL maximizes access to information through collaborative efforts and utilization of technology

Collaborations with many other agencies, libraries, universities, and commercial and nonprofit organizations have made it possible for NAL to make information on food, agriculture, and natural resources even more widely available.

NAL is an active participant in the Agriculture Network Information Center (AgNIC) [<http://www.agnic.org>], an alliance of partners working together to bring quality agricultural information resources to the Internet and provide reference assistance in specific subjects relating to agriculture. The AgNIC alliance grew from 34 members in 2000 to 40 members in 2002, including the addition of one not-for-profit organization—the American Farmland Trust—to membership. Aggregate hits to AgNIC websites increased by 80 percent from 2000 through 2002.

\$19,989,980

Funds appropriated for salaries and programs at the National Agricultural Library for FY2002. Another \$898,020 was appropriated for building repairs and maintenance.

Some other notable collaborations in 2000-2002 include:

- NAL's Food and Nutrition Information Center, with the U.S. Department of Health and Human Services, developed an International Bibliographic Information on Dietary Supplements (IBIDS) database (http://ods.od.nih.gov/Health_Information/IBIDS.aspx). FNIC also collaborated with industry groups to produce a Food Service Internet Training Module and Food Safety Information Handbook.
- In conjunction with U.S. Nuclear Regulatory Commission (NRC) staff, NAL staff compiled information sources and data supporting the formulation and characterization of scenarios related to exposure to residual radioactivity in reused soils. The resulting report (<http://www.nrc.gov/reading-rm/doc-collections/nuregs/staff/sr1725/>) compiled, for the first time, citable data and information sources for variables specific to soil reuse. NRC staff and contractors are using this information to define realistic soil reuse scenarios and estimate variables for simulating exposure pathways if soil is removed from NRC-licensed facilities and reused.
- NAL's Animal Welfare Information Center collaborated with the Brookfield Zoo in Chicago to develop standards for a manual on how to buy, store, and process frozen food for captive animals (<http://www.nal.usda.gov/awic/pubs/meatprey.pdf>). AWIC also collaborated with the



One of the many USDA Home and Garden Bulletins digitized in collaboration with AgNIC and Michigan State University.

Feb 13/1857
National Library of Medicine to develop a list of terms related to reducing and replacing use of experimental animals.

- NAL worked with Cornell University in 2001 to produce a 25-minute videotape, "Precious Seeds: The Legacy of Hank Beachell and Fellow Rice Scientists," available for loan. The video history is built from oral history interviews of Hank Beachell, a pioneer in rice breeding. Beachell received the World Food Prize in 1996 for research on dwarf varieties that laid the foundation for the "green revolution" that now provides food security to nations in Asia and elsewhere.
- With the U.S. Agricultural Information Network (USAIN), NAL identified key journals in several subject areas of interest to agriculture, particularly those not already indexed in AGRICOLA.
- With AgNIC and AgNIC partner Michigan State University, NAL began digitizing USDA's Home and Garden Bulletin publication series (HG) (<http://www.agnic.msu.edu/hgpubs/index.html>) as a demonstration of the logistics of digitizing publications according to the NAL digital preservation guidelines. HG had previously been identified as a top candidate for digitizing because of heavy demand through interlibrary loan and the Cooperative Extension System.
- NAL's Food and Nutrition Information Center partnered with the University of Maryland Department of Nutrition to offer a dietetic internship with an emphasis on technology. Approved by the Commission on Accreditation of Dietetic Education, the program may be the first of its kind to emphasize information technology.
- NAL's Technology Transfer Information Center worked with the Federal Laboratory Consortium and Louisiana Tech University to identify and transfer Federal technologies (for example, night vision, landmine detection) that can be used to locate underground utilities.
- NAL's Public Affairs Office worked with the University of Arkansas Center for Agricultural Law Research and Information to organize an International Symposium on Agricultural Trade, held in Beltsville, Maryland, May 2001.
- NAL collaborated with the Joint Institute for Food Safety Research to launch the Food Safety Research Information Office (FSRIO). FSRIO is serving the needs of the research community through its website (<http://www.nal.usda.gov/fsrio>) featuring a searchable database of research abstracts and a reference service. The database will assist food safety researchers and policymakers in assessing research needs and priorities.

Mission 6: NAL enhances global cooperation through international exchange of information and the provision of services and technical assistance

NAL continued work with an array of international partners to advance use of information technology in the service of agricultural research and development.

For example, NAL and the U.S. Department of State collaborated in 2001 to provide ARIEL (a document transmission system that delivers over the Internet using both the FTP and MIME standards) workstations and training, plus AGRICOLA access in Russia for the All-Russian Institute for Animal Health, the State Research Center of Virology and Biotechnology, the All-Russian Institute of Phytopathology, and the State Research Center for Applied Microbiology. NAL continues to provide briefings and demonstrations for interns and visitors from other countries and many international organizations.

NAL and the Agricultural Research Service's Mycotoxin Research Unit jointly funded a 1998-1999 review of recent wheat-head scab research in China. The review surveyed U.S. wheat breeders and researchers to identify what they wanted to know about recent Chinese research initiatives and resistant wheat varieties. U.S. researchers of Chinese ancestry were sent to China to find the answers to those questions. The literature and program reviews were summarized in English and made available over the Internet. The resulting study, "Recent Advances in Wheat Head Scab Research in China," was published on the NAL website (<http://www.nal.usda.gov/pgdic/WHS/about.html>) in 2000. As a result of reading the report, one scientist went to China to collect specific resistant germplasm.

NAL trained information specialists from other countries in management and delivery of agricultural information. From 2000 through 2002, NAL trained five information professionals from the Agricultural Research Council of South Africa who received Cochran Fellowship Program (CFP) support administered by USDA's Foreign Agricultural Service. The U.S. Congress provides CFP funding for training senior and midlevel specialists or agriculturalists from middle-income countries, emerging markets, and emerging democracies.

In May 2000, NAL hosted the 32nd annual meeting of the Council on Botanical and Horticultural Libraries, allowing information specialists from Canada and Europe to have a look at NAL's electronic systems and resources. In May 2001, NAL hosted a reception during a conference on "Food Safety Through Dynamic Leadership," which drew participants from public and private institutions in North, Central, and South America. NAL staff gave a well-received presentation at the 2002 conference of the International Association of Technological University Libraries.

NAL and other AgNIC institutions welcomed Agricultural Information and Documentation System for America (SIDALC) and its participating Latin American and Caribbean partners as an AgNIC member in 2000. SIDALC is a joint effort among agricultural information providers in the Americas and the Caribbean and is coordinated by the Inter-American Institute for Cooperation in Agriculture (IICA). In 2001, NAL agreed to bring up a website that mirrors the SIDALC website.

Selected Statistics*

	2000	2001	2002
Collections			
Volumes held	2,336,549	2,351,433	2,364,878
Volumes added during the year (net)	21,236	14,884	13,445
Monographs purchased	5,609	4,700	3,705
Current serials received	20,763	19,616	19,079
Microform units	1,073,975	1,075,913	1,078,365
Computer files	1,519	1,607	1,675
Manuscripts and archive (linear feet)	18,769	18,819	18,867
Cartographic	1,870	4,287	4,506
Graphic	821	1,087	1,104
Audio	461	461	401
Film and video	3,664	3,622	3,779
Information Services			
Mediated reference transactions**	23,727	30,611	17,151
Document requests received	151,846	138,198	149,726
Requests filled from NAL collection	115,850	103,754	106,617
Requests filled through borrowing	16,873	15,676	19,727
Weekly public service hours	40	40	40
Web-based services			
Hits to NAL main server	17,769,657	24,129,599	36,287,534
Hits to school meals server	995,641	1,151,165	2,287,063
Hits to NAL AgNIC Web server	4,662,131	4,300,572	4,601,617
Hits to InvasiveSpecies.gov server	37,101	1,060,677	1,036,847
NAL Web search engine queries***	—	—	275,429
Hits to FSTEAs server***	—	23,997	245,394
Personnel			
Professional, FTE	108	107	109
Support, FTE	65	62	55
Total	173	169	164

* Statistics are October 1 through September 30 each year.

** The decline in mediated reference transactions from 2001 to 2002 is due largely to the application (in 2002) of a different means of counting these transactions.

*** In 2001 and 2002, NAL began to measure hits not previously reported.

