

## THE ROLE OF THE NATIONAL AGRICULTURAL LIBRARY

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Today, I would like to take a few minutes to speak to you about the National Agricultural Library--about its scope, its responsibilities, its programs, etc., as well as some of our exciting new projects that are underway. Some of these new technologies already have had or will have an impact on all of our futures.

There are three national libraries: The National Agricultural Library for agricultural information, containing almost 2 million volumes, the National Library of Medicine (NLM) for medical information containing 1.7 million volumes, and the Library of Congress (LC) containing 20.1 million volumes covering all other subjects. We have quite different programs, report to different bosses, and cooperation among the three is carried out informally.

The National Agricultural Library services as the Nation's chief agricultural library information resource and service. It facilitates access to and utilization of needed information in any medium by agricultural researchers, regulators, educators, and extension personnel; those employed in agriculture; those living in rural areas and communities; consumers of agricultural products; and the public at large insofar as they need agricultural information.

NAL serves as the library of the United States Department of Agriculture (USDA), as well as the national library for the United States for agricultural information. Our chief constituents, other than USDA, are the libraries of land-grant universities throughout the 50 states who have strong agricultural programs. The libraries work closely together and NAL does assume some coordinating responsibilities, but our relationships are completely voluntary.

In addition, we serve anyone else in the nation and indeed the rest of the world who has a need for information. Except for USDA personnel, we serve all others, generally speaking, as a library of last resort, i.e., NAL provides information to patrons who have been unable to find that information in their own state or country. For instance, if a farmer in Texas needs information on

rice farming, we encourage him to use his local library first. If the information is not available locally, then the local library seeks the information from other libraries in the state or region. If not available there, then NAL will try to provide it.

Our collection of almost 2 million volumes represents materials from all countries and all languages. Approximately 40 percent are in a foreign language. Our acquisitions budget for fiscal year 1988 is \$1,395,200 and in addition to our ongoing periodical and serial subscriptions, we purchase approximately 15,000 titles every year. We also get agricultural materials by transfer from the Library of Congress as a result of the copyright law, as well as through LC's extensive exchange program.

Through gifts and exchanges of USDA publications with agricultural institutions throughout the world, we receive approximately 27,000 titles annually. As you can see this is a very important source of material for us.

One of our most important products is our machine-readable bibliographic data base called AGRICOLA. The data base includes 2,400,000 entries. Approximately 10 percent are cataloging records and 90 percent indexing records. These records are all produced following national standards. The AGRICOLA data base is available for purchase at a reasonable cost. It is available in several ways:

1. Machine-readable tape.
2. The U.S. portion is sent to FAO and becomes part of AGRIS.
3. Paper form in the Bibliography of Agriculture published by Oryx Press.
4. On-line via DIALOG, BRS, and DIMDI. OCLC has the cataloging portion on-line.
5. CD-ROM by both Silver Platter and OCLC.

In the past, NAL has been cataloging and indexing in many languages from many countries. We firmly believe in AGRIS and its principle of cooperation among nations whereby each country catalogs and indexes its own publications. To this end, NAL has adopted a plan whereby the highest priority will be placed on U.S. publications. We will be systematically reducing our coverage of foreign titles already indexed elsewhere.

Having one of the world's greatest collections of agricultural information, we feel that it is our responsibility to make it available for use throughout the U.S., as well as the rest of the world through interlibrary loan which, in our case, consists mainly of providing photocopies. Unfortunately, we are unable to provide this service at no cost. We must charge on a cost reimbursable basis. In 1987, we provided 21,896 interlibrary loan requests. We participate in the OCLC interlibrary loan system which allows requests be received electronically. Our turn-around time for most requests is 24 hours.

NAL has two programs going that will help the U.S. concerning cooperation in cataloging:

One program concerns state agricultural publications. Agricultural publications published in the 50 states by state extension and experiment stations are an important source of agricultural information. The acquisitions, cataloging, and indexing of these has not been comprehensive. NAL, with the help of some of the libraries in the land-grant institutions, are making a concerted effort to implement a national plan to assure comprehensive coverage of these materials and the subsequent entry into the AGRICOLA data base.

The other program is cooperative cataloging. NAL has established a network of libraries to participate in a cooperative cataloging project of agriculture monographs using OCLC as the host bibliographic utility. The goal is to catalog cooperatively monographic titles following national standards so that all other institutions can make use of standard records without having to do their own cataloging.

What I have discussed so far can fit into traditional library services and it is important that we not lose sight of the fact that all of us have a lot more to do before we reach our goal. However, I think it is important for us to think of the future and what technology will do to change our libraries and service to those needing information.

NAL is currently engaging in the development, demonstration, and early application of a number of advanced information technologies. An example is a 12-inch laser disc. In addition, it has the text of 12 other books. It will hold approximately 800,000,000 bytes of information and approximately 200,000 pages of text. An example is our laser II disc which has 13 books on it.

Another technology that is equally exciting is the 5-1/2 inch CD-ROM which will hold approximately 500,000,000 bytes of information or approximately 125,000 pages of text. One is able to search under any term one needs as long as necessary and not have to pay the telecommunications charges as we at NAL do now.

The laser disc technology has been shown to be very effective for instruction and training. NAL, working with the University of Maryland (University College, Center for Instructional Design and Evaluation), has designed and produced a system using a computer coupled with laser videodisc to provide instruction in the searching of the AGRICOLA data base. It incorporates text, graphics, moving pictures, animation, and sound. It is a stand-alone system, for one-on-one use, or it can be used to assist an instructor with a group. Such instructional systems have been demonstrated in some situations to result in student test scores higher than from typical classroom instruction. The advantage is in the direct user interaction with and control of the system, and in the visual interest and clarity of motion and still pictures and graphics. Instruction for familiarization, for the beginner and for the expert is all included.

Extension Service, together with several land-grant universities, has established an interactive video extension network which merges the microcomputer and videodisc technologies.

NAL's Special Collections has recently completed a 12-inch optical laser disc containing 34,000 pictures from the USDA Forest Service Historical Photograph Collection. The collection contains photographic documentation on the westward movement in America--farmers, foresters, miners, cowboys, Indians, scientists, and many others. Work on this photo project was accomplished in partnership with the Non-Print Media Branch of the University of Maryland Library.

The disc contains over 34,000 still photos spanning 69 general subject chapters. Also, a computer-based, menu-drive, word searchable data base register for the laser disc (on several high-density 5-1/4 inch floppy disks) is part of the package.

The staff at the National Agricultural Library are also creating small-scale microcomputer systems to mimic advisory work done by human experts, in this

case subject specialists and reference librarians. These systems guide users to appropriate references--books, articles, laws, etc.--or in some instances, to the answers to specific questions. Expert advisory systems free the professional staff for more complex tasks.

In the "advisor" mode, they allow the user to make selections based on a series of questions; according to the selections made, the user is directed to appropriate information sources. Linkage to external on-line and CD-ROM databases is also possible.

NAL and over 40 land-grant libraries have entered into a cooperative project to test a new method of capturing full-text and images in digital format for publication on CD-ROM laser discs. Nancy L. Eaton, Director of Libraries, University of Vermont, is the project manager.

Much of the U.S. and world literature of agricultural research and application remains difficult to access because of the cost of in-depth indexing and/or abstracting by humans. Much of that same literature is subject to eventual disappearance because of the disintegration of the acidic paper on which it appears.

The scanning equipment has been installed at the National Agricultural Library, where scanning of selected agricultural collections is taking place. The microcomputer/CD-ROM workstations, search software, and collections on CD-ROM discs of the selected agricultural information will be field tested by participating land-grant libraries.

The National Agricultural Library is developing an electronic bulletin board system (BBS) to provide a convenient, economical tool for electronically communicating information about the NAL, its products and services, and for exchanging agricultural information resources among agricultural libraries, information centers, and other users on a national level.

The BBS is open to all those with an interest in agriculture. It is available 24 hours per day, 7 days a week. To reach NAL's BBS callers need a computer terminal computer, a modem, and communications software. The telephone number is (301) 344-8510. The caller's communications software should be set at 300, 1200, or 2400 baud, full duplex, no parity, 8 data bits, and 1 stop bit.

The computer software used for NAL's Bulletin Board is called Remote Bulletin Board System for Personal Computers (RBBS-PC). RBBS-PC is

menu-driven and runs on IBM personal computers and compatibles. It is distributed by the Capital PC Users Group as shareware which means that it can be passed along at no charge if it is not altered.

The Bulletin Board supports three basic types of communication:

- Bulletins - Contain information about library hours, policies, services, contacts, and other reference materials of general interest such as lists of available publications, calendar of events, training workshops, etc.
- Messages/Conferences - Allow participants to exchange messages either publicly or privately without coming together in time or space. Conferencing (not currently in operation) enables caller to gain access to different special interest group discussions.
- File Transfer - Used for exchanging programs and text files. By "downloading" or "uploading" files callers can share public domain programs and information products.

For libraries, bulletin board technology provides a way of increasing services to library users, improving communications among librarians, and expanding public access to the library beyond traditional boundaries. NAL hopes to take full advantage of this technology to deliver information to its users.

Another important push concerns information centers. Robyn Frank is here to day to tell you about this initiative.

We are anxious to tell you about the blossoming (even if slowly) Rural Information Center. While its beginnings are hampered by a small budget, we are optimistic about its future. My colleague Pat John is here to tell you about this important center.