

**NATRES: COTTON RESEARCH DATABASE
AND LINKS ON THE INTERNET**
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Abstract

To facilitate efficient searches for timely information on current cotton research in the U.S., a survey of cotton researchers was conducted and the results placed in a searchable database accessible through the Internet. Additionally, electronic links to other websites that are relevant to cotton research were created. This single gateway to cotton research information from many sources, called NATRES, will eventually allow researchers to add and update information directly through the website.

Introduction

Basic and applied cotton research has made U.S. cotton competitive in the world market. Continued research is crucial to maintain this competitive position. Much of the research is funded by federal, state, or other public/private institutions or by cotton producers themselves. When funding organizations are informed about the content and financial support of current and ongoing research projects, they can target crucial research issues that are not being sufficiently addressed, avoid duplication of efforts, and allocate their resources most efficiently. Furthermore, researchers can gain synergistic benefits from having easy access to information about current research in their field.

Objective

The objective of this project is to provide a clearinghouse of information on current and ongoing cotton research in the United States by:

- Conducting a survey to collect information on current cotton research in the U.S.
- Making that information available to users by placing it in a searchable database on the Internet.
- Creating electronic links to other relevant sites on the Internet.

Survey

In both 1995 and 1996, the National Cotton Council provided the NFRIC with its mailing list for the Beltwide Cotton Conference. Each time, the list was customized to target those in the cotton industry who are involved in

research. A cover letter and survey, both of which were kept as brief as possible, were written, revised, and pretested. Issues that arose during this process included:

- Maximizing the response rate by streamlining the letter, simplifying the questions, and offering several methods to return
- Choosing wording to both solicit the desired information and to avoid ambiguities
- Logistics of formatting for different methods to return surveys
- Constructing the survey to reduce amount of time required to enter data upon receipt of surveys
- Selecting and describing categories of research to reflect the state of knowledge in the industry
- Reaching as many cotton researchers as possible using information, time, and referral sources available

Over 800 surveys were mailed in the fall of 1995 and over 900 were mailed in the fall of 1996. The latter included sending previous respondents a copy of their entry in the database with a request to update the information if necessary. Results of the 1995 survey show a final tally of 406 projects from 172 respondents. Figure 1 shows the breakdown of responses by type of institution.

New responses received in the 1996 mailing increased the number of projects in the database by about 30%. The breakdown of responses by research category for both years is shown in Figure 2.

Although a good deal of information relevant to cotton research is available elsewhere, we considered it important to compile as much information as possible in one location, using one format, in order to facilitate and make more efficient the process of seeking information. At the same time, we did not want to make the submission of information burdensome for researchers; thus, we kept the survey brief and allowed ample time to respond.

Database

An original computer program was written for survey data input. Survey responses were entered using a standardized format. The database comprised of these responses was initially made accessible through the NFRIC's existing electronic bulletin board system. Because the Internet has become the most common and preferred way of accessing information electronically, the database was transferred to the NFRIC's website. To accomplish this task, the information was converted into text files and exported to Unix, where they can be viewed on the Internet using a browser such as Netscape. To make the database searchable on the website, CGI (common gateway interface) scripts were written in Perl, a programming language. These scripts, which act like small programs, allow a user to enter search criteria on the web page and then submit the inquiry.

The scripts then retrieve the information based on the search criteria.

On the NFRIC home page, clicking on the heading **Electronic Services** will bring up three choices:

- NATSTAT, Natural Fibers Statistical Database
- NATNEWS, Natural Fibers On-Line Newsletter
- NATRES, Natural Fibers Research Information
<<http://www.utexas.edu/depts/bbr/natfiber/res.html>>

Clicking on NATRES will allow users to choose the searchable *database* or the *links* to other relevant websites. (It also includes a choice for the 1995 final report on this project to Cotton Incorporated, which provided funding for the project.)

Clicking on *NATRES: Database* will bring up a screen showing brief instructions and the variables by which a search can be conducted. Different combinations of the following variables can be used:

- name of project investigator
- city, state
- key words
- title key words
- category
- funding source

Searching by date will be added in the future.

Clicking on *Natural Fibers Research Links* will open a gateway to a wealth of information relevant to natural fibers research. Some of the linked sites are very specifically related to research, such as USDA's Current Research Information Service, or CRIS. NATRES complements this service by providing information about researchers outside the USDA funding system, including research in the private sector. Among the other links found in NATRES are the following.

USDA Agricultural Research Service

USDA Economics and Statistics System

USDA Research Database
Current Research Information System (CRIS)

USDA NGRP/GRIN Introduction Page

USDA Southern Regional Research Center, Cotton Fiber Quality Research Unit

USDA National Agricultural Library

USDA Agricultural Genome Information Server (AGIS)

Community of Science Web Server

TAMU Subject Index

Ag Eco Virtual Library (Texas Tech)

Not Just Cows

The AGRALIN World Wide Web server

Agricultural Databases for Decision Support (ADDS)

Uruguay Round - Final Act (24-May-1994)

Biological, Agricultural and Medical Resources

USDC Industrial Products by Subject
U.S. Dept. of Commerce, Bureau of the Census.
Manufacturing data.

Includes apparel, broadwoven fabrics, consumption on the cotton system, consumption on the woolen system, etc.

USDC 1992 Census of Agriculture—Texas highlights

U.S. Department of Commerce Economic Indicators
Includes data from the Census of Agriculture.

International Textile Center
The Center is affiliated with Texas Tech University.

North Carolina State University College of Textiles

Mississippi Agricultural and Forestry Experiment Station,
Mississippi State University

Cotton Incorporated

America's Textiles International

DAMA
A national sourcing database with information on textiles, fiber, and machinery.

Textile Information Management System

Textile Web

National Cotton Council of America

CottonDB Data Collection Site

King Cotton Magazine

Texas A&M University—Other Cotton-Related Sites

International Cotton Advisory Committee

Future Plans

We have three main goals for the future of NATRES.

First, we would like to expand the database to include more research projects. The more comprehensive the database is, the more useful it will be. To establish the database, we believe that using the Beltwide mailing list was the most appropriate way to contact the largest number of cotton researchers and that sending a survey was the most efficient way to obtain a large amount of information from diverse sources in a standardized format. We anticipate that researchers not already in the database who find the website while browsing will want to have their research information added to the database.

Second, we want to streamline the process of expanding and updating the database by allowing researchers to add or update information through a form directly on the website. We believe the ease and speed of direct website access will encourage more researchers to submit information and will facilitate the task of keeping information current. Eventually, it will obviate the more cumbersome survey process. Putting this form on the website will require a good deal of programming.

Third, we will continue to monitor the electronic links to keep URLs current and to add new relevant sites.

Acknowledgments

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Figure 1.
Responses to Cotton Research Survey, 1996: Breakdown by Origin

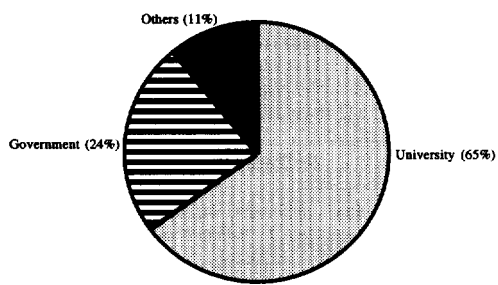


Figure 2.
Responses to Cotton Research Survey, 1995-1996: Breakdown by Category

