



The National Agricultural Library: Information to Support Research

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FDLP Academy
January 14, 2025

About NAL

- Houses one of the world's largest collections including more than 8.1 million print and physical format items devoted to agriculture and its related sciences, with both physical and digital collections
- One of five U.S. National Libraries
- Congressionally designated depository for U.S. Government documents
- Departmental library for USDA

1.1 million+ print collection materials

Access to 440,000+ eBooks

8 million+ digital items

211,000+ items digitized for the Internet Archive

Access to 117,000+ ejournals & 5,200+ newspapers


2,900+ journals indexed

100,000+ full-text articles in PubAg

6,900+ datasets in AgData Commons

National Agricultural Library (NAL) Mission

NAL facilitates the creation of agricultural knowledge through the acquisition, curation, and dissemination of information needed to solve agricultural challenges.



The screenshot shows the homepage of the National Agricultural Library. At the top left is the USDA logo and the text "National Agricultural Library U.S. DEPARTMENT OF AGRICULTURE". To the right are links for "Ask A Question", "Contact Us", and "DigiTop". Below these is a search bar with the placeholder text "What would you like to find?". A dark blue navigation bar contains links for "Home", "Topics", "Research Tools", "Collections", "Data", "Services", and "About Us". The main heading is "National Agricultural Library". Below this is a paragraph: "The National Agricultural Library (NAL) is one of five national libraries of the United States. It houses one of the world's largest collections devoted to agriculture and its related sciences." The bottom half of the page features a large image of cranberries. Overlaid on the right side of this image is a dark blue box with the heading "Cranberries" and the text "The link between American fall and winter holidays, roasted turkey, and cooked cranberries is a tight one." Below this text is a button that says "Read the Story of the Cranberry".

NAL Resources



NAL SEARCH

<https://search.nal.usda.gov>

- Find agricultural literature across 3 NAL databases including:
 - AGRICOLA – NAL catalog & articles index
 - PubAg – peer-reviewed article citations and access to USDA-funded full-text documents
 - NAL Digital Collections – historic materials
- 8,000,000+ records as far back as the 15th century
- Print and Electronic Materials from the NAL Collection and beyond:
 - scientific research
 - policy documents
 - technical reports
 - historical documents



Digital Collections

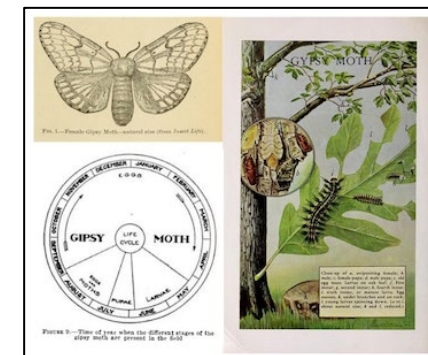
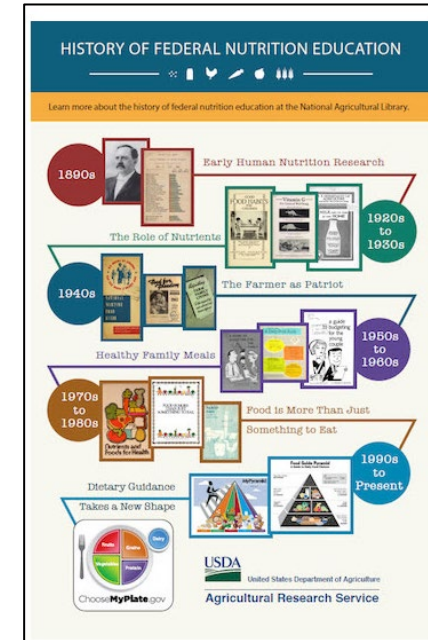
https://search.nal.usda.gov/discovery/collectionDiscovery?vid=01NAL_INST:MAIN

NAL Digital Collections (NALDC):

- Historical Dietary Guidance
- Organic Roots
- Fruit & Vegetable Market News
- USDA Publications
- USDA Pomological Watercolors
- and more!

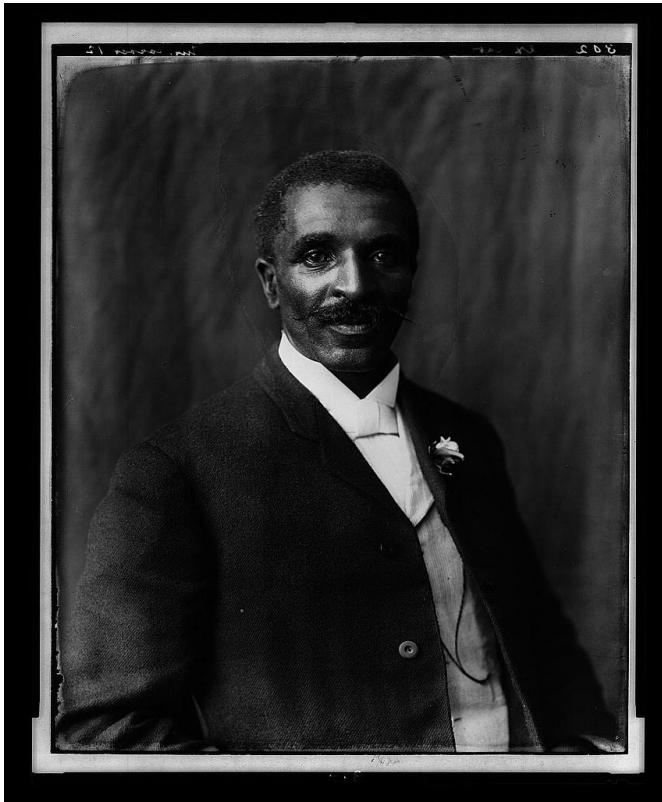
NAL Internet Archives Collection:

<https://archive.org/details/usdanationalagriculturalibrary>



Exhibits

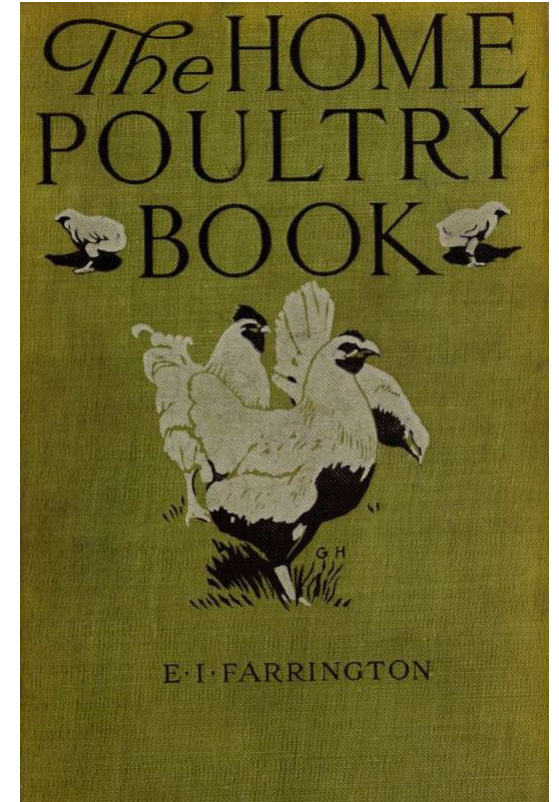
<https://www.nal.usda.gov/collections/exhibits>



George Washington Carver



House Agriculture Committee Timeline



Frost on Chickens

Special Collections

<https://www.nal.usda.gov/collections/special-collections>

Special Collections at the Library

Preserving USDA and Agricultural History

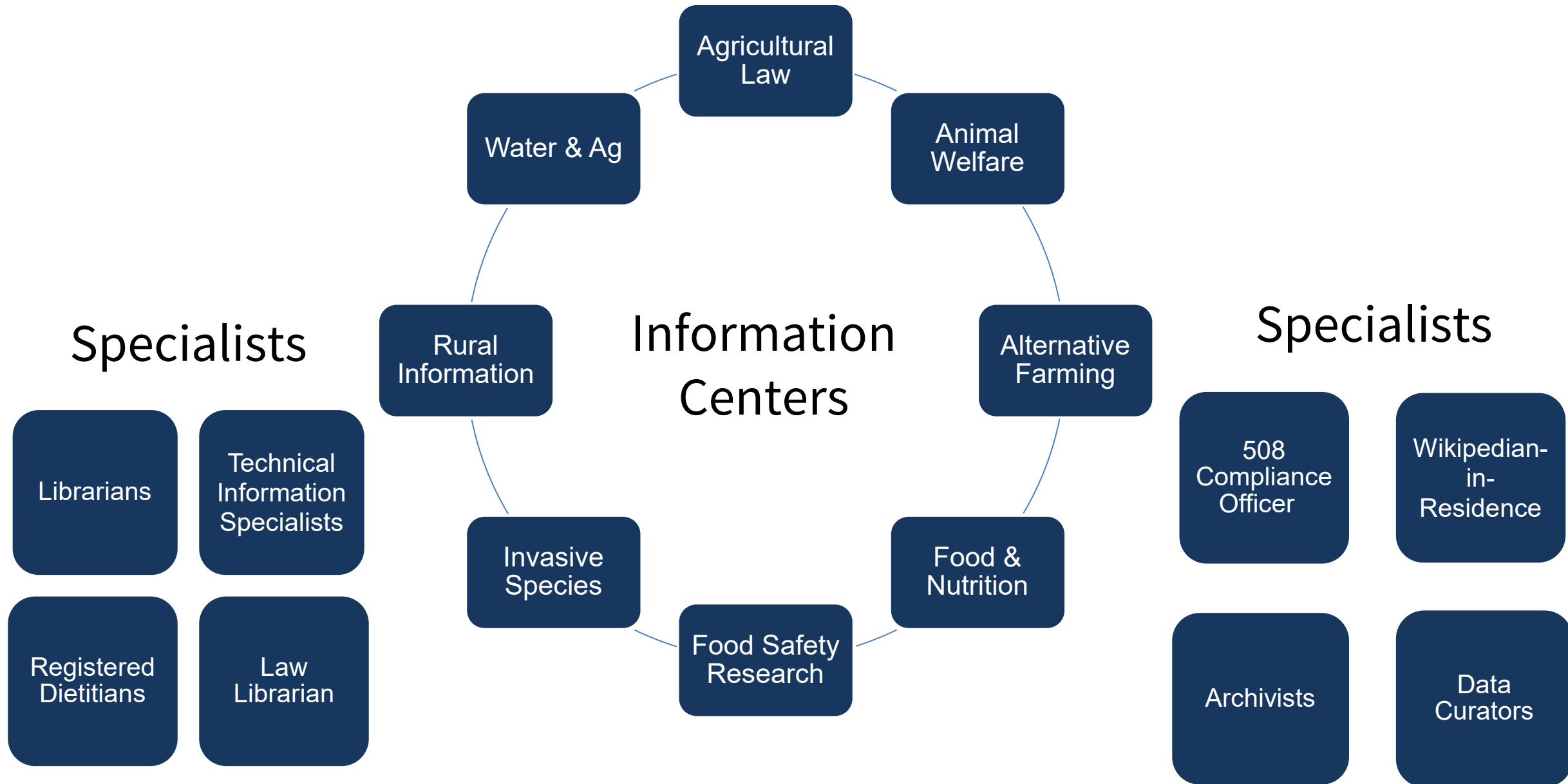
The Library houses rare books, manuscript collections, nursery and seed trade catalogs, photographs, posters, and more related to the history of agriculture.

Search the Collections

As part of the U.S. Department of Agriculture (USDA) National Agricultural Library, Special Collections preserves and provides access to manuscripts and archival materials related to the history of agriculture and the USDA. These collections document the work of USDA from the 19th through the 21st centuries, as well as non-USDA agricultural activities and organizations related to agriculture. Materials found in these collections include correspondence, field notes, journals, photographs, publications, posters, and other items. [Browse all collections](#) or search below.

Collections include the:

- records and archives of organizations
- personal papers of individuals
- rare books, correspondence, objects, photographs, posters, films, and other unique materials



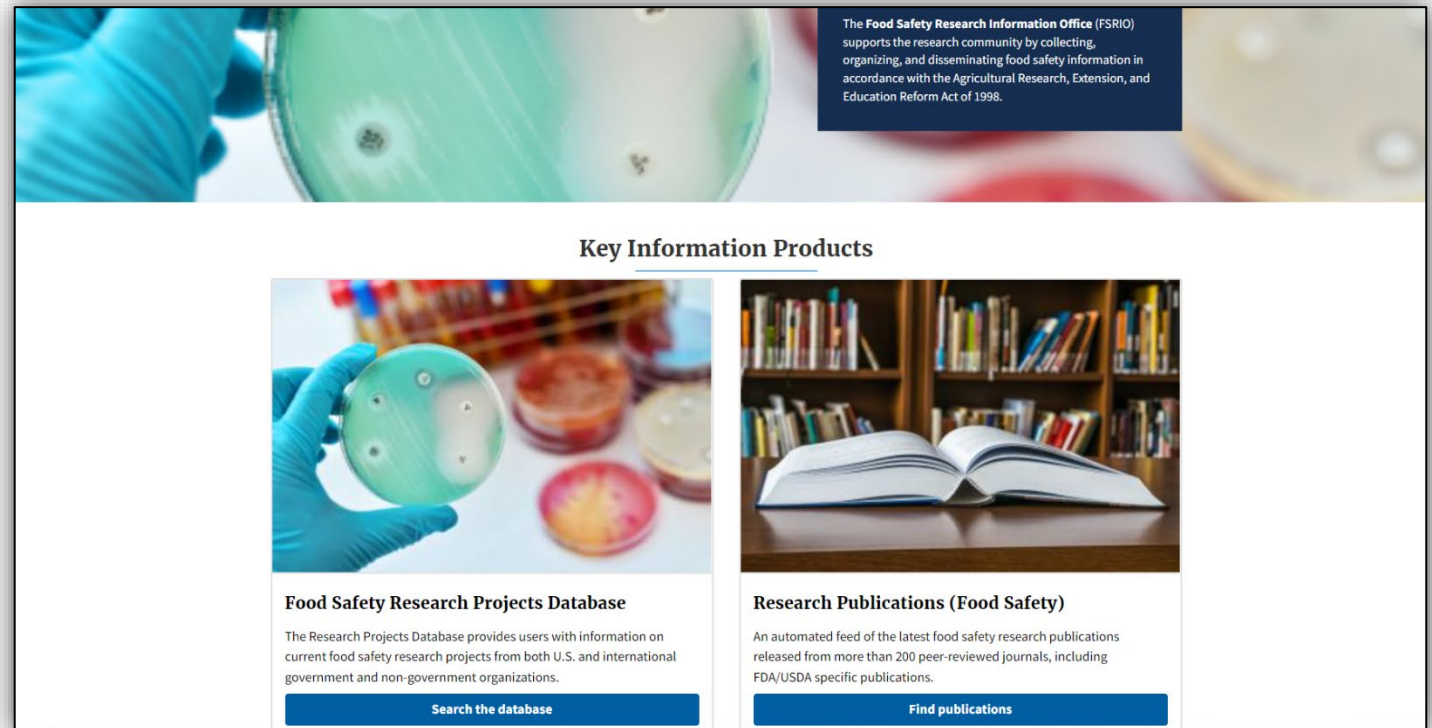
Food Safety Research Information Office (FSRIO)

<https://www.nal.usda.gov/programs/fsrio>

Find topical information including:


- Food Safety Research Projects Database
- Books or materials in the NAL catalog
- Meet the Experts topic specific videos
- External resources compiled from credible sources

Food Safety Research Information Office (FSRIO)



The **Food Safety Research Information Office (FSRIO)** supports the research community by collecting, organizing, and disseminating food safety information in accordance with the Agricultural Research, Extension, and Education Reform Act of 1998.


Key Information Products



Food Safety Research Projects Database

The Research Projects Database provides users with information on current food safety research projects from both U.S. and international government and non-government organizations.

[Search the database](#)



Research Publications (Food Safety)

An automated feed of the latest food safety research publications released from more than 200 peer-reviewed journals, including FDA/USDA specific publications.

[Find publications](#)

Food Safety Research Projects Database

<https://www.nal.usda.gov/human-nutrition-and-food-safety/research-publications-food-safety>

- Browse by food safety
 - Topic Categories
 - Commodities
 - Funding Sources
- Advanced features to sort by
 - Relevance
 - Date
 - Title
- Includes university research

The screenshot shows the USDA National Agricultural Library website's search interface for the Food Safety Research Projects Database. The page includes a search bar at the top right, a navigation menu, and a search results section. The search results are displayed in a list format, showing project titles, investigators, funding sources, and dates. The first result is titled "DECIPHERING THE ENVIRONMENTAL SOURCES AND GENETIC BASIS OF ANTIFUNGAL RESISTANT ASPERGILLUS FUMIGATUS" and is funded by the National Institute of Food and Agriculture. The second result is titled "UNDERSTANDING MECHANISM ACTIONS OF FRACTIONATED FLAVOR OIL NANOEMULSIONS FOR MYCOTOXIN MITIGATION DURING FOOD PROCESSING" and is also funded by the National Institute of Food and Agriculture. The third result is titled "CULTIVAR DEVELOPMENT: ACCELERATED INTROGRESSION OF SYNTHETIC HEXAPLOID DERIVED DIVERSITY INTO AN APPLIED HARD WINTER WHEAT BREEDING PROGRAM" and is funded by the National Institute of Food and Agriculture. The search interface includes a search bar, a search button, and a "Project Status" dropdown menu. There are also filter buttons for "Filter Results by Category", "Filter Results by Commodity", and "Filter Results by Funding Source". The search results are sorted by "Start date (Desc)".

USDA National Agricultural Library
U.S. DEPARTMENT OF AGRICULTURE

Ask A Question | Contact Us | DigiTop

What would you like to find?

Home Topics Research Tools Collections Data Services About Us

Home / Research Tools / Food Safety Research Projects Database / Search

Food Safety Research Projects Database Search

- Research projects can sorted by Relevance (default), Title, or Date.
- Narrow your search results with the "Filter Results by..." buttons.
- Multiple filters may be selected together. Deselect active filters with the links below the search form.

Search

Project Status
- Any -

NATURAL TOXINS x MYCOTOXINS x

Displaying projects 1 - 25 of 177

- 1. DECIPHERING THE ENVIRONMENTAL SOURCES AND GENETIC BASIS OF ANTIFUNGAL RESISTANT ASPERGILLUS FUMIGATUS**
Investigators: Ivey, Melanie L; Miller, Sally; Morley, Paul
Funding Source: [Nat'l. Inst. of Food and Agriculture](#)
Start date: 2022
End date: 2025
- 2. UNDERSTANDING MECHANISM ACTIONS OF FRACTIONATED FLAVOR OIL NANOEMULSIONS FOR MYCOTOXIN MITIGATION DURING FOOD PROCESSING**
Investigators: Rao, J.; Schwarz, Paul; Zhong, Sh.,; Chen, Bi, .
Funding Source: [Nat'l. Inst. of Food and Agriculture](#)
Start date: 2021
End date: 2024
- 3. CULTIVAR DEVELOPMENT: ACCELERATED INTROGRESSION OF SYNTHETIC HEXAPLOID DERIVED DIVERSITY INTO AN APPLIED HARD WINTER WHEAT BREEDING PROGRAM**
Investigators: Rao, Jiajia
Funding Source: [Nat'l. Inst. of Food and Agriculture](#)

Animal Welfare Information Center (AWIC)

- The Animal Welfare Act (AWA) requires researchers to consider animal use alternatives in research
- AWIC conducts workshops on “Meeting the Requirements of the Animal Welfare Act”
- Assists stakeholders in finding 3Rs information & literature

Animal Welfare Information Center (AWIC)



About AWIC
The Animal Welfare Information Center (AWIC) was established in 1988 as part of the U.S. Department of Agriculture's USDA National Agricultural Library (NAL) in Beltsville, Maryland. As a library service, AWIC provides information, products and services related to the improved care and use of animals in research, testing, and teaching as described in the Animal Welfare Act.

Key Products and Services



Animal Welfare Act Historical Digital Collection (AWAHC)
The AWAHC contains publications related to the Animal Welfare Act which fall into three categories: legislative history, regulatory history, and USDA publications.



Workshops on Meeting the Requirements of the Animal Welfare Act
AWIC's free virtual and in-person workshops focus on the Animal Welfare Act and its requirements, 3Rs alternatives, and



3Rs Alternatives Literature Search Support
AWIC provides free alternatives literature searching services, as well as instruction and best practices for performing an alternatives literature search.

Animal Welfare Act



The Animal Welfare Act (AWA) was signed into law on August 24, 1966. It is the only Federal law in the United States that regulates the treatment of animals in research, teaching, testing, exhibition, transport, and by dealers. The Act is enforced by USDA, APHIS, Animal Care.

The AWA has been amended numerous times since its original passage in 1966. The [Animal Welfare Information Center \(AWIC\)](#) was mandated under the AWA's 1985 amendment, "Improved Standards for Laboratory Animals Act". Therefore, as part of AWIC's mission, we provide information on the AWA to help people understand the law and its requirements.

Animal Welfare Act History Digital Collection (AWAHC)

The AWAHC contains U.S. Government publications related to the AWA that fall into three categories: legislative history, regulatory history, and USDA publications. Select the 4 resources to the right to read the original Act and some of its amendments.



1966



1976



1985



1990

[Read Other Publications in Our Collection](#)

Animal Welfare Act Timeline

Not sure where to start in our digital collection? Want a quick overview of the AWA and its amendments? Take a look at our [interactive timeline](#)! It highlights the amendments to the Act over time and shares a brief summary of how the law changed with each amendment. You can also view a [static version of the timeline](#).

Housing, Care and Welfare of Animals



What is Animal Welfare?
Animal welfare refers to how an animal copes with its environment. To assess an animal's well being, you must consider multiple factors such as its biological functioning (i.e. health), emotional state, and its ability to express natural behaviors. It's important to provide animals with positive welfare to support their mental and physical needs and increase their quality of life.

Animal Welfare in Federal Regulations
To meet the requirements of the [Animal Welfare Act \(AWA\)](#), the regulated community (any personnel working with animals in research, teaching, and testing) must provide animals with adequate housing, nutrition, water, handling, ventilation, sanitation, and veterinary care (7 U.S.C. § 1752(a)(2)(2022)). The [Animal Welfare Information Center \(AWIC\)](#) is mandated under the AWA to provide information that helps the regulated community meet these requirements. The information below provides guidance regarding housing, care and welfare regulations for various species used in research, teaching, and testing.

Related Topics

These pages provide more detailed information about animal care and welfare.








3Rs Alternatives: Technologies and Approaches

"3Rs alternatives" refers to the **Reduction, Refinement, and Replacement** of animals used in research, testing, and education. The 3Rs concept was developed over 50 years ago by two scientists, Drs. William Russell and Rex Burch. It is first described in their published book, [Principles of Humane Experimental Technique](#)[®]. Russell and Burch advocated new scientific approaches that would minimize the pain and distress of research animals via 3Rs methods.

The 3Rs Alternatives

- **Replacement** refers to technologies or approaches that directly replace or avoid the use of animals in experiments by incorporating [non-animal methods](#) where they would otherwise have been used. Replacement can be broken down into two categories: Full/Absolute and Partial/Relative.
 - Full/Absolute Replacement: Avoids the use of any animals. Examples may include the use of human volunteers, training manikins, tissues and cells, mathematical and computer models, and established cell lines.
 - Partial/ Relative Replacement: Animals are still used to provide tissue, cells and/or organs but experiments are conducted in vitro (tissue culture, tissue slices, etc.). Partial replacement can also include the use of animals that have been slaughtered for meat or euthanized due to other purposes.

Reference & Literature Search Assistance

AWIC assists patrons with animal welfare and 3Rs questions and conducts alternatives literature searches for free.

Fill out the form here:

<https://www.nal.usda.gov/services/literature-searching-animal-use-alternatives>

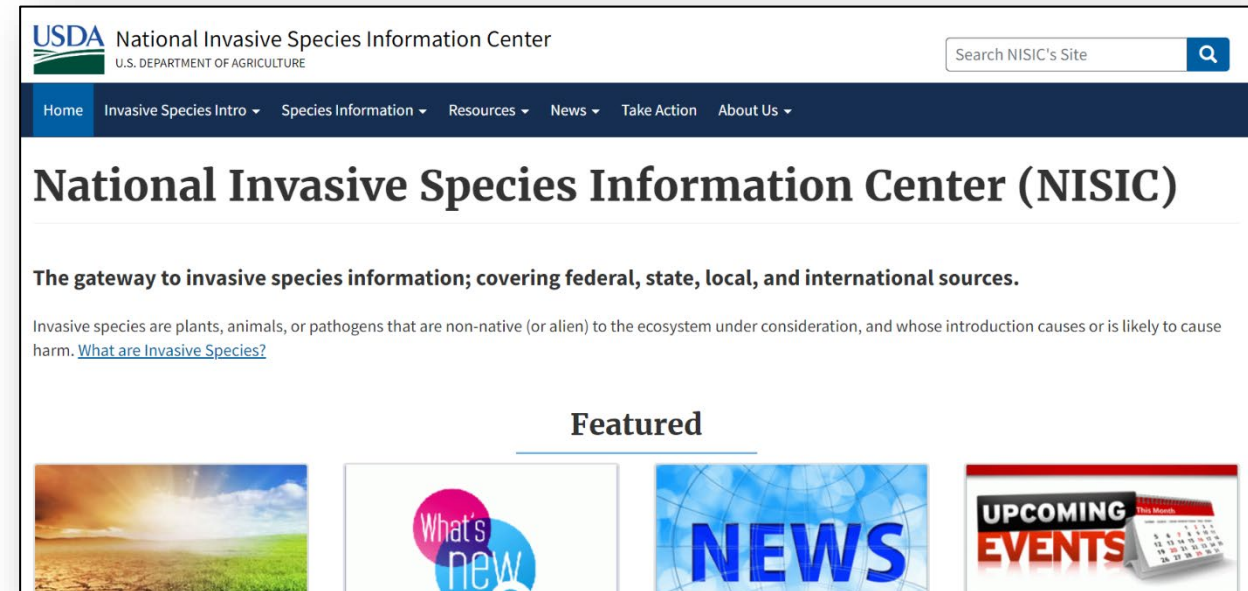


National Invasive Species Information Center (NISIC)

<https://www.invasivespeciesinfo.gov>

Resources:

- Invasive species profiles
- Location specific news and information
- Federal government policy and response
- Invasive species-related conferences and events



Agricultural Law Information Partnership

<https://www.nal.usda.gov/aglaw/>

The Agricultural Law Information Partnership was established by the 2014 Farm Bill to create and disseminate agricultural and food law content through tools, guides, conference and publications.

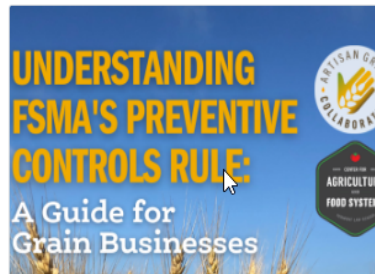
Audience:

- Legal Practitioners
- Agricultural Professionals
- Policymakers
- General Public



Agricultural Law Information Partnership

Key Products



Understanding FSMA's Preventive Controls Rule

A new guide from the Center for Agriculture and Food Systems in partnership with the Artisan Grain Collaborative to break down complicated federal food safety regulations related to FSMA for food-grade grain farmers and processors.

[Review the Guide](#)



Heirs' Property

A resource guide explaining heirs' property and highlighting tools available through federal, state, and non-governmental organizations.

[Find Heirs' Property Resources](#)



Defining Local Food: An Analysis of State Approaches and Challenges

A report put together by Center for Agriculture and Food Systems to analyze the term "local" from a legal perspective. The report describes various definitions for "local" and includes a scan laws from U.S. states.

[Explore the Report](#)



Family Law Issues in Agriculture

This fact sheet series by the National Agricultural Law Center covers topics in family law and agriculture such as farm succession, estate planning, keeping a farm business intact, issues related to animal law, child support, equitable distribution, and mental health.

[Search the Publication](#)



Farmland Access Legal Toolkit

The Farmland Access Legal Toolkit, created by the Center for Agriculture and Food Systems, includes legal resources to help farmers and landowners affordably access, transfer, and conserve farmland.

[Use the Toolkit](#)



Ag Issues & Economic Recovery

This question and answer style guide explores agricultural issues and support for economic recovery, including information on stimulus packages, agricultural labor, and direct marketing of specialty crops.

[Search the Resources](#)

Recent Programming:

- Land Matters: Understanding Heirs' Property
- Food, Agriculture & Environmental Justice
- Advancing Equity through Food and Nutrition
- Water Rights: Infrastructure, Inequities & Solutions
- Seed Stories: Preserving Culture and Culturally Appropriate Foods

Research Infrastructure



Public Access and Open Science at USDA

<https://www.nal.usda.gov/services/public-access>

USDA is committed to making all peer-reviewed, scholarly publications and digital scientific research data assets arising from unclassified scientific research supported wholly or in part by the USDA accessible to the public, to the extent practicable.

Public Access is a critical part of USDA's support of Open Science.

Public Access Requirements

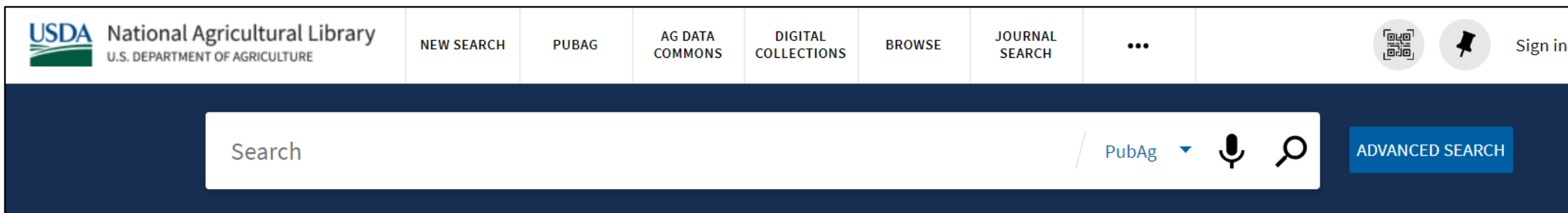
- Scholarly publications and digital scientific research data assets arising from scientific research supported wholly or in part by USDA starting on or after **October 1, 2022**.
 - **Scholarly publications** are peer-reviewed and accepted for publication in a journal.
 - **Digital scientific research data assets** are associated with a peer-reviewed publication OR the period of performance of the research award has ended, as determined by your USDA funding agency.
- Authors of scholarly publications and digital scientific research data assets must use individual persistent identifiers (e.g., ORCID iD)
 - Register for or update your ORCID iD at <https://orcid.org/>

PubAg

<https://pubag.nal.usda.gov/>

PubAg is a free, searchable database containing links to USDA –authored and funded peer-reviewed journal articles
300,000+ full-text articles relevant to the agricultural sciences


- indexed citations to peer-reviewed journal articles in the agricultural sciences



The screenshot shows the top navigation bar of the PubAg website. On the left is the USDA National Agricultural Library logo. The navigation menu includes links for NEW SEARCH, PUBAG, AG DATA COMMONS, DIGITAL COLLECTIONS, BROWSE, and JOURNAL SEARCH, followed by a three-dot menu. On the right are icons for QR code, a pushpin, and a 'Sign in' link. Below the navigation bar is a dark blue search bar with a white input field containing the text 'Search'. To the right of the input field are a dropdown menu currently set to 'PubAg', a microphone icon, and a magnifying glass icon. A blue button labeled 'ADVANCED SEARCH' is positioned to the right of the search bar.

PubAg Manuscript Submissions

<https://submit.nal.usda.gov>

 **PubAg Manuscript Submissions**
U.S. DEPARTMENT OF AGRICULTURE Log in

[Home](#) [Search PubAg](#) [Chat with Us](#)

Submit Your Manuscript

The PubAg Manuscript Submissions system supports public access requirements by enabling deposit of final peer-reviewed accepted manuscripts.

Criteria for submissions of manuscripts to PubAg are:

- USDA partially or completely funded the research and
- the article has been accepted for publication in a peer-reviewed journal.

Types of documents accepted are:

- final, peer-reviewed accepted manuscripts or
- the final, accepted article if the author has the right to submit the published version (e.g., open access articles).

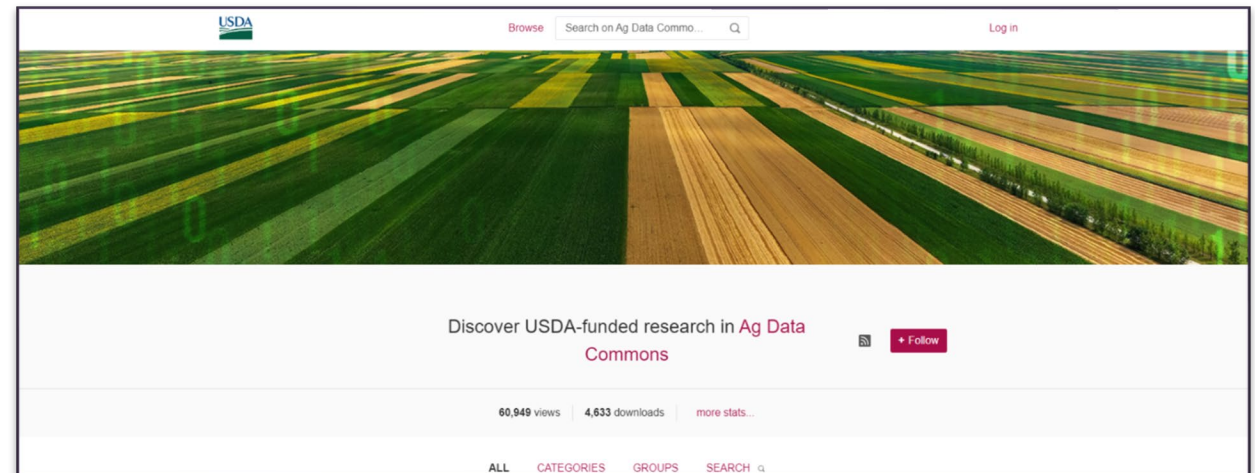
Begin Submission

Access to the PubAg Manuscript Submissions system requires a Login.gov account that is linked to a USDA eAuthentication.

- [Log in](#) to submit a manuscript
- Questions? [Visit the eAuth website FAQs](#)

Ag Data Commons

- Platform for sharing, discovering and accessing data outputs for USDA-funded research
<https://agdatacommons.nal.usda.gov/>
- Services to create, curate, and enable access to machine-readable scientific metadata, helping make USDA-funded data Findable, Accessible, Interoperable and Reusable (FAIR)
<https://www.nal.usda.gov/services/agdatacommons>



Data Submission Services

Catalog services support:



- Compliance with federal **Open Data policy** through a feed into **data.gov**
- Cross-domain discovery of agricultural research data through **harmonized metadata**

Repository services provide:



- **Public access**, storage and **preservation** for **long tail data** (data without subject-specific repository)
- **DOI** minting for deposited datasets, making them citable with a persistent identifier

Data Management Plans (DMPs)

- DMPs required by most funding agencies
- NAL services supporting Data Management Planning: <https://www.nal.usda.gov/data/data-management-planning>
- On these pages you can find:
 - Explanation of DMP components and DMP examples
 - Guidance on selecting appropriate data repository for data sharing and public access and more



Domain Specific Data Applications

<https://www.nal.usda.gov/main/data>

NAL provides an integrated portfolio of data products that support ARS and external agricultural research communities



Federal Life Cycle Assessment (LCA) Commons

An interagency data portal and community of practice for research methods



i5K Workspace

A workbench for arthropod genome communities to curate, visualize and share data.



FoodData Central

Nutrient profile data and links to related agricultural and experimental research.



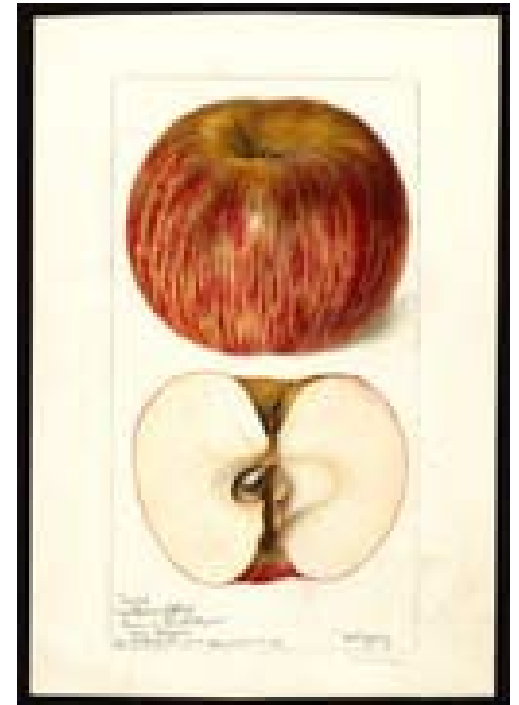
Geodata @ NAL

A catalog of location-based agricultural research data, imagery, and more.

Use NALT Concept Space for Keyword Generation

<https://lod.nal.usda.gov>

- Contains over 265,000 terms, including 153,000+ descriptors in English and Spanish
- NAL Thesaurus includes hierarchical, equivalents and associate relationships among concepts
- NAL Thesaurus is used to select controlled vocabulary terms for subject indexing of AGRICOLA, PubAg and other databases



U.S. Department of Agriculture
Pomological Watercolor Collection.
Rare and Special Collections,
National Agricultural Library,
Beltsville, MD 20705

Events, Training, and Support



Wikipedia Edit-A-Thons



Seed Stories: Preserving Culture and Culturally Appropriate Foods through Seed Saving

Presentation and Wikipedia Editing Event with guest speakers, April Jones and Bazile Panek

Friday, May 19, 2023
1:00pm EDT
Virtual via Zoom
Please register on Eventbrite

The poster features two photographs: on the left, a smiling woman with glasses and a white t-shirt that says "Pinehurst FARMERS MARKET"; on the right, a man with glasses and a grey t-shirt wearing a circular medal with a colorful design. The background is a collage of green and blue patterns.

Food Culture Webinar Series

Zea mays L. | Maize | Corn: Its Science, Culture, and Cuisine

SPECIAL EVENT

Date

May 19, 2022 11:00AM - 12:30PM

July 26, 2022 12:00PM - 1:30PM

August 9, 2022 1:00PM - 2:30PM

Location

Webinar

Zoom Webinar Connection Information

Join ZoomGov Meeting <https://www.zoomgov.com/j/1608560189>

Meeting ID: 160 856 0189

Dial in 1 646 828 7666

7/6/2022: A Taste for Maize: More than Popcorn & Corn on the Cob!

Speakers:



Iris Veronica Jimenez

Ms. Iris Veronica Jimenez is a Chef and Culinary Director at La Casita Pupusería. Iris is a first generation Salvadoran-American chef who co-founded La Casita Pupusería, a fast casual restaurant in the Washington, DC area. Prior to becoming a chef, she studied communication at George Mason University and worked for several years as a general and marketing manager in the restaurant industry. [More about Ms. Jimenez](#)



Freddie Bitsoie

Mr. Freddie Bitsoie is a former executive chef of Mitsitam Native Foods Café, located inside Washington, DC's Smithsonian National Museum of the American Indian. He is at the forefront of preparing, presenting, and educating about foods indigenous to the Americas. [More about Chef Bitsoie](#)



James "Jaycee" Couch

Mr. James Couch is currently the owner of Chef Jaycee LLC and an executive chef at Compass Group. [More about Chef Jaycee](#)

8/9/2022: What Does the Future Hold for Corn and Maize?

Speakers:



Rowen White

Ms. Rowen White is the Founder and Creative Director of Sierra Seeds. Rowen is a Seed Keeper and farmer from the Mohawk community of Akwesasne who advocates for indigenous seed and food sovereignty. She founded Sierra Seeds, an innovative organic seed stewardship organization that focuses on local seeds and education. [More about Ms. White](#)



Denisa Livingston, M.P.H.

Ms. Denisa Livingston is a Community Health Advocate at Diné Community Advocacy Alliance. She is a food justice organizer who advocates for tribal communities by focusing on public health and foodways of Native people and promoting better health through indigenous foods. [More about Ms. Livingston](#)



Psyche Williams-Forsen, Ph.D.

Dr. Psyche Williams-Forsen is a Professor and Chair in the Department of American Studies at the University of Maryland College Park. Dr. Williams-Forsen's research is focused on the ways in which Black people engage their material worlds, especially with food and food cultures. Some of her recent projects focus on food shaming and race in America. Photo credit: © John T. Consoli/University of Maryland. [More about Dr. Williams-Forsen](#)

Library Speaker Series



**USDA National Agricultural
Library Speaker Series:
Alternative Land
Ownership Models**

Thursdays at 2:00pm

September 1

September 22

September 29

Register on Eventbrite

National Agricultural Law Information Partnership

Ag Law events are focused on emerging topics & attendee/patron requests and trends

Speakers come from the grassroots and are directly involved in the issue or have personal experience

Events offer legal information and resources, personal experiences, and actionable items/ways to get involved.

Meeting the Requirements of the Animal Welfare Act Workshop

To register: <https://www.nal.usda.gov/about-us/events/awic-workshop>

 **USDA** National Agricultural Library
U.S. DEPARTMENT OF AGRICULTURE

Animal Welfare Information Center Workshop

Learn how to find 3Rs alternatives information
through literature searches!



**February
26 & 27,
2025
(virtual)**

**April 9 &
10, 2025
(virtual)**

**Fall 2025
(TBD)**

The objectives of the workshop are to provide:

- An overview of the AWA and its regulations as they pertain to considering alternatives;
- A review of the 3Rs (replacement, reduction, and refinement of animal use) alternatives concept and examples;
- Guidance for where to find 3Rs literature and resources;
- Instruction on database literature searching techniques (e.g., search syntax); and
- A demonstration of an alternatives literature search.

AWIC's Online Workshop

To register: <https://www.nal.usda.gov/about-us/events/awic-workshop>

Online Animal Welfare Workshop

This online version of the workshop provides an interactive environment where participants can learn about conducting literature searches, the history of animal welfare law and the specific responsibilities of researchers and IACUCs.

Combining the expertise of the AWIC staff and the flexibility of self-paced learning, the online workshop meets the needs of researchers, librarians and IACUC members nationwide.

What You'll Cover

- A historical overview of the Animal Welfare Act (AWA), and regulations
- What is meant by the Information requirements of the Animal Welfare Act (AWA)
- 3Rs Alternatives of Reduction, Refinement, and Replacement
- Databases and resources available to access scientific literature
- A systematic approach to accessing information and creating effective literature search strategies.

Access Anytime!
On-demand and self-paced.



Contact NAL With Your Questions

Use our chat service for a quick response!

Chat with us or email at:

<https://www.nal.usda.gov/ask-question>

Phone: 301-504-5755



Overview of Resources

- **National Agricultural Library (NAL):** <https://www.nal.usda.gov/>
- **NAL Search:** <https://search.nal.usda.gov>
- **Food Safety Research Information Office:** <https://www.nal.usda.gov/programs/fsrio>
- **Animal Welfare Information Center:** <https://www.nal.usda.gov/programs/awic>
- **National Invasive Species Information Center:** <https://www.invasivespeciesinfo.gov>
- **Agricultural Law Information Partnership:** <https://www.nal.usda.gov/aglaw/>
- **Special Collections:** <https://www.nal.usda.gov/collections/special-collections>
- **Digital Collections:** https://search.nal.usda.gov/discovery/collectionDiscovery?vid=01NAL_INST:MAIN
- **Exhibits:** <https://www.nal.usda.gov/collections/exhibits>
- **PubAg:** https://search.nal.usda.gov/discovery/search?vid=01NAL_INST:MAIN&search_scope=pubag&tab=pubag
- **Ag Data Commons:** <https://data.nal.usda.gov>
- **NAL Data Services:** <https://www.nal.usda.gov/programs/knowledge-services>
- **NAL Thesaurus:** <https://agclass.nal.usda.gov>
- **Ask Us a Question:** <https://www.nal.usda.gov/ask-question>

Photo Credits

- Slide 1: USDA National Arboretum Photo Collection
- Slide 4: Microsoft 365
- Slide 17: Microsoft 365
- Slide 22: USDA Flickr
- Slide 25: Microsoft 365
- Slide 30: Adobe Stock Photos
- Slide 32: USDA Flickr