

**USDA National Institute of Food and Agriculture**  
**Permanent Scientific Collections Management and Access Policy**

**DRAFT Updated, 7-2016**

**(Original policy, 9-2014)**

**BACKGROUND:** Beginning in 2005, the White House’s Office of Science and technology Policy (OSTP) and Office of Management and Budget (OMB) included in their priorities for interagency activity a call to “focus attention on integrated support and planning for the care and use of federally held scientific collections.” This call gave rise to the formation of an Interagency Working Group on Scientific Collections (IWGSC) under the Committee of Science of the National Science and Technology Council (NSTC). The IWGSC issued a report entitled, “Scientific Collections: Mission-Critical Infrastructure for Federal Science Agencies,” in December 2008 that made recommendations for the improvement of management, accessibility and impact of scientific collections owned by U.S. government departments and agencies.

On October 6, 2010, OSTP issued a memorandum to the heads of executive departments and agencies entitled, “Policy on Scientific Collections,” that directed IWGSC to develop plans for: i) budgeting for collections, ii) ensuring best management practices for collections, and iii) making collections more accessible.

On March 20, 2014, OSTP issued a memorandum to the heads of the executive departments and agencies entitled, “Improving the Management of and Access to Scientific Collections.” In the memorandum, OSTP directed federal agencies that own, maintain or otherwise financially support permanent scientific collections to develop a scientific collections management and access policy.

The following document is a response to the 2014 memorandum. It summarizes the management and access policies for institutional scientific collections that are financially supported by the National Institute of Food and Agriculture (NIFA). NIFA does not maintain or own any scientific collections.

**DEFINITIONS:** The following definitions apply as used herein.

- 1) *Permanent Scientific Collections* - broadly defined as sets of physical objects, living or inanimate, and their supporting records and documentation, which are used in science and resource management and serve as long term research assets that are preserved, catalogued, and managed by or supported by federal agencies for research, resource management, education and other uses. These collections are created for the purpose of supporting or doing science or providing germplasm, rather than for their market value as collectibles or their historical, artistic, cultural or other significance. The focus is on institutional permanent collections; it does not include project collections.
- 2) *Institutional collection* -
  - a. Subject to a formal accessioning process, including associated documentation and archival material (e.g., notes, photographs and maps);
  - b. Under the authority of scientific collection curators or scientists and housed in facilities devoted to long-term collection storage;
  - c. Inventory validated on a schedule determined by the Agency to ensure accountability of the collection;

- d. Physically labelled in some way with catalog numbers or other unique identifiers linked to a corresponding record in a database or other record-keeping system;
  - e. Routinely made available to all qualified users, with certain exceptions;
  - f. Made available to qualified parties through formal loan procedures for research, education, or exhibition; and
  - g. Preserved long-term, except under certain infrequent conditions which may justify de-accessioning under a set of formal de-accessioning procedures.
- 3) *Project collection* - materials assembled specifically for short-term use and not intended for long-term preservation. It includes specimens or parts of specimens used temporarily, that document individual-based observations (e.g., individuals alive or dead from an ecological census wherein data pertaining to each individual is not captured in the study-although, permanently accessioned taxon vouchers are always a recommended practice), or that are considered an exhaustible resource (e.g., a biotic reagent as part of a protocol).
- 4) *Specimen metadata*- information that describes a specimen that is part of a scientific collection. Generally, metadata make a specimen uniquely identifiable and more easily searchable. Specimen metadata also often provide important scientific information about the specimen that may have its own research or education value. Examples of specimen metadata include:
- a. Source specific information (e.g., date of isolation, source);
  - b. Phenotypic and genotypic scientific information (e.g., toxin producer, serotype, sequence type);
  - c. Species identification; and
  - d. Digital images of macroscopic specimens or cultures of microscopic specimens.
- 5) *Records and Registries*- The following are suggested ways to document records. Each institutional collection curator or working collection researcher will need to document collections appropriate to their intended use.
- a. Specimen record- composed of all metadata for a single specimen in a scientific collection.
  - b. Scientific collection database- a listing or database of all records associated with collection activity including specimens, taxa, accessions, transfers, loans, borrows, inventory, physical location, collection manager(s), and other relevant information.
  - c. Scientific collection record- also called a record of a scientific collection and is a descriptive guide to a scientific collection. The record contains essential information such as the title of the scientific collection, contact information, and the physical location of the specimens. Each scientific collection record is made available to the public via an online registry and points to the location of the associated scientific collection database.
  - d. Scientific collection registry- an online digital repository that stores and makes publicly available the scientific collection records and, as appropriate, the scientific collections database associated with that record. The Smithsonian Institution has identified GRSciColl (<http://grscicoll.org/>) as an appropriate federal scientific collection registry.

**NIFA SCIENTIFIC COLLECTIONS PHILOSOPHY:** NIFA does not maintain its own scientific collections, but acknowledges that permanent scientific collections provide an essential base for developing scientific evidence and can be an important outcome of NIFA funded research, education and extension efforts. As an extramural funding agency, NIFA is committed to ensuring the proper management, preservation, security, and ethical use of agency supported permanent scientific collections to inform scientific research and maintain the Nation’s legacy of exploration and discovery. The Federal Government has a responsibility to help ensure that scholars and resource managers are able to locate and access federally funded permanent scientific collections, while also ensuring that collections are appropriately preserved

and ethically managed. Therefore, agency-level oversight to ensure compliance with the OSTP “Policy on Scientific Collections” for NIFA’s competitive and capacity grant funding will occur during the award period. This document, establishes policy, responsibilities and procedures for management of and access to permanent scientific collections funded by NIFA.

**POLICY:** Permanent scientific collections that receive direct financial support (competitive or capacity funding) from NIFA are to be managed in a manner that makes them accessible to educators and researchers, including both Federal and non-Federal scientists, to maximize public benefit.

#### **RESPONSIBILITIES:**

NIFA will establish and maintain a NIFA web site that contains NIFA’s permanent science collection policy and other relevant information available to stakeholders and applicants.

NIFA’s science program staff (National Program Leaders or Program Specialists) will identify projects with permanent scientific collections (PSCs) and if the grant is awarded, will require regular updates on compliance to the PSC policy in a required annual report.

NIFA’s Office of Grants and Financial Management will incorporate the PSC policy and links to the NIFA webpage on PSCs in the NIFA Grants.gov Application Guide and/or the Requests for Applications. The award terms and conditions will include requirements for PSCs.

All awardees (non-federal and federal institutions) must be compliant with applicable award terms and conditions. They are also responsible for periodically reviewing project collections supported by NIFA funding to determine if they are combined with other related short-term collections and become institutional collections. For example, perennial crops or livestock herds that are within their normal useful life cycle are not considered scientific collections. Disparate strains of *Phytophthora* assembled to conduct a long term disease management study, but not intended to be kept as a permanent collection, would not be considered a scientific collection. However, genetic material from crops and livestock, cataloged and assembled to preserve a wide variety of traits, could be considered a scientific collection if intended for preservation as a long term institutional asset. If this occurs, the awardee is to consider the project collections as an institutional collection and thereby treat it as a permanent scientific collection and must inform the NIFA scientific program staff. Conversely, if a permanent scientific collection is no longer considered permanent and becomes a project collection, NIFA scientific program staff must be notified.

#### **LEGISLATIVE AND REGULATORY REQUIREMENTS AND AUTHORITIES**

NIFA does not have a specific funding authority solely focused on permanent scientific collections. Legislative authorities governing NIFA capacity and competitive funding can be viewed at [http://www.nifa.usda.gov/about/offices/legis/legis\\_statutes.html](http://www.nifa.usda.gov/about/offices/legis/legis_statutes.html).

#### **POLICIES AND PROCEDURES**

In many cases, maximizing public benefit of PSCs can be accomplished through online digital or other reproductions of collection elements. Where applicable, this includes online access with machine-readable and open formats, data standards, and common-core and extensible specimen metadata for all new information creation and collection. This should be done in a manner to facilitate search and discoverability and provide clear public guidance for accessing collections materials. Information regarding the scientific impact and public benefit associated with these collections should be clearly documented.

If an applicant submits a competitive proposal to NIFA that has maintenance, preservation, or development of a scientific collection as one or more of its objectives, additional information, consistent with the OSTP policy, will be required before funding will be released under the award. The additional information includes:

- The institution's strategy for providing online information about the contents of the funded permanent scientific collection and, where appropriate, for maximizing access to individual objects in digital form for scientific and educational purposes;
- How the institution will provide access to the public or other members of the research community, including how collections and information about collections will be disseminated equitably and safely (see last bullet below for biosafety and biosecurity requirements);
- If applicable, practices for safeguarding individual privacy, confidentiality, intellectual property rights, and national security;
- The institution's process for de-accessioning, transferring, and disposing of scientific collections, including documentation procedures and procedures for moving collections acquired for individual projects to institutional collections; and
- A description of the public benefit and scientific impact associated with the collection's availability.
- To ensure safety and environmental protection, the institution and their representatives are required to comply with all federal, state, and local regulations regarding the movement of pathogens (human, animal and plant) within or into the United States, and safeguarding those pathogens during maintenance and storage. Pathogens are distributed and transported only under authority of a permit (e.g., from the USDA Animal and Plant Health Inspection Service, the Department of Health and Human Services or the Department of Commerce, as appropriate) and a Material Transfer Agreement. Permitting agencies specify the level of containment for the pathogen as well as conditions for limiting access to pathogens and final disposal methods for pathogens. Acceptable disposal methods (such as autoclaving) for pathogens received under permit are specified in the permit. This is out of concern for protecting the institution from liabilities as well as protecting the end-user/requestor from potential harm.

If a recipient of NIFA capacity funding elects to use a portion of their formula allocation for the maintenance, preservation, or development of a scientific collection, the submission of similar supplemental information will be required as part of the award terms and conditions.

#### **BUDGETING**

NIFA does not maintain its own scientific collections and therefore does not project costs or budget for their stewardship.

#### **IMPLEMENTATION OF NIFA PSC POLICY**

The NIFA PSC will be implemented for all new awards as soon as possible but anticipated to be no later than October 1, 2017.