



# CULTIVATED HERBARIUM COLLECTIONS POLICY

Policy reviewed and approved on 9 November, 2009

## **Mission Statement**

The Arnold Arboretum of Harvard University discovers and disseminates knowledge of the plant kingdom to foster greater understanding, appreciation, and stewardship of the Earth's botanical diversity and its essential value to humankind.

### **I. Introduction**

#### **A. Purpose of the Cultivated Herbarium Collections Policy**

The Cultivated Herbarium Collections Policy of the Arnold Arboretum guides the development, management, and enhancement of the institution's Cultivated Herbarium, and applies to all specimens outlined below under Scope of the Cultivated Herbarium. The Cultivated Herbarium Collections Policy is written and administered by the Curator of Living Collections and the Curatorial Assistant for Plant Records, with further review by the Living Collections Committee and approval by the Director. It is reviewed every five years and revised as needed.

#### **B. Purpose of the Cultivated Herbarium**

The Cultivated Herbarium of the Arnold Arboretum, in Jamaica Plain, MA, is a component of the Herbarium of the Arnold Arboretum (A), one of the units within the Harvard University Herbaria in Cambridge, MA. The cultivated herbarium only holds those vouchers collected from a cultivated location, regardless of that individual plant's original provenance. As a national and international resource for research in the various fields of plant biology and beyond, the Arboretum's living collections are actively developed and managed to support scientific investigation and study, as well as key educational and amenity roles. An important part of the ongoing documentation process of the living collections is the collection of voucher herbarium specimens. These record the growth, development, and performance of plants in the collection and are essential tools for identity verification. They also document the research use of living collections. New additions to the cultivated herbarium are primarily in 3 forms: flower, fruit, and vegetative. Occasional specimens may be in winter twig, seed, and seedling form, but these are project specific and are not present for all taxa. As a general rule, voucher specimens are collected from each accession rather than each plant within an accession, with the exception of specific individual plants used for research purposes. These are collected even if a complete voucher set (flower, fruit, and vegetative) already exists for a particular accession. Voucher specimens of non-Arnold Arboretum origin are also valuable resources to the research community, particularly when documenting historic introductions of plants into cultivation.

## II. Scope of the Cultivated Herbarium

The Cultivated Herbarium is divided into two primary collection categories: Arnold Arboretum Collections and Non-Arnold Arboretum Collections. Priority is assigned within Arnold Arboretum Collections through sub-categorization to guide development, management, and enhancement. It should be noted that none of the primary or secondary collections are mutually exclusive, and that many accessions fall into multiple categories. The Cultivated Herbarium contains approximately 131,000 specimens of cultivated origin. Of these, over 48,000 document accessions grown at the Arnold Arboretum over the course of its history. Approximately 700 voucher specimens from Arboretum accessions are added to the collections annually.

### A. Arnold Arboretum Collections

#### 1) Arnold Arboretum Reference Collections

The Cultivated Herbarium Collections are continually developed, managed, and enhanced. These collections are intrinsic to the mission of the institution through their research use, and preference is placed on material of documented wild origin. While priority is given to the collection of those accessions of wild provenance, it is important that all accessions growing on the grounds are permanently persevered in the form of a herbarium voucher specimen.

##### a) General or Synoptic Collection

This collection represents the living plants from the grounds of the Arnold Arboretum, with the initial requirement of having at least one voucher for each taxon. Collection from all accessioned living material is ongoing, with priority given to those of wild provenance and individual collections requested by the Curator.

##### b) NAPCC Collection

As part of its commitment to the North American Plant Collections Consortium (NAPCC), the Arboretum maintains and develops collections of botanical taxa within the following genera: *Acer*, *Carya*, *Fagus*, *Stewartia*, *Syringa*, and *Tsuga*. A complete voucher set is collected for each accession.

##### c) Conservation Collection

As part of its commitment to *ex situ* conservation and the Center for Plant Conservation (CPC), the Arboretum maintains and develops collections of the following species: *Amelanchier nantucketensis*, *Diervilla rivularis*, *Diervilla sessilifolia*, *Fothergilla major*, *Ilex collina*, *Rhododendron prunifolium*, *Rhododendron vaseyi*, *Spiraea virginiana*, and *Viburnum bracteatum*. These species, as well as other taxa of conservation value outside the scope of CPC, are documented with a complete voucher set for each accession.

d) **Research Vouchers**

Research voucher specimens are collected to document plants used by internal and external researchers. Collections are made at the plant level regardless of whether or not a complete voucher set exists for the accession. Individual plants are documented during the season they are used for research.

2) **Special Collections**

a) **Spontaneous Flora**

Spontaneous generation of native and exotic plants occurs throughout the Arboretum's cultivated landscape. As a matter of course, some of these plants are removed because of their noxious characteristics; some are left in place, and others are accessioned (in particular spontaneous interspecific hybrids or landscape specimens). Voucher specimen collections are made in special cases to document and study these occurrences.

b) **Plant Health**

The plant health voucher specimen collection documents the presence of pests and diseases associated with accessions growing on the grounds of the Arnold Arboretum. Collections are made to document and study these occurrences.

c) **Seed Collection**

Arboretum greenhouse staff members collect and maintain a seed herbarium of nearly 2,500 specimens. The associated Seed Herbarium Image Project (SHIP) photographed seed from the Arboretum's six NAPCC collections.

**B. Non-Arnold Arboretum Reference Collection**

Collections of cultivated taxa from the United States, Europe, and Asia are also maintained in the cultivated herbarium. At the present time, additions to this collection are limited to *Acer* (one of the Arboretum's NAPCC collections) and others at the Curator's discretion.