



MISSOURI BOTANICAL GARDEN

Index Seminum 2023



4344 Shaw Boulevard, Saint Louis, MO 63110, United States of America

GENERAL INFORMATION

Missouri Botanical Garden is pleased to offer its eleventh annual *Index Seminum*. Most seed is collected from naturally occurring populations. Species that are known weeds in disturbed areas in North America, known to be invasive to North America or other continents, and related species known to be invasive to North America or other continents have been excluded from the list.

While we have made every effort to ensure that we are not distributing invasive or potentially invasive plants, selections should be made carefully with consideration of the environment in which the species will be grown.

We support the Convention on Biological Diversity. The seeds offered here are for the use of the common good in the areas of research and development of public gardens and plant collections. They should not be used for commercial profit. If publications result from the use of this material, we expect acknowledgement as the source of the material and an unsolicited reprint of any publication.

Missouri Botanical Garden is a member of the International Plant Exchange Network (IPEN). IPEN numbers are assigned to all plants that may be distributed. The IPEN number remains connected to the plant material and its derivatives through all generations to come. The IPEN number consists of the following:

1. Country of origin (two positions, abbreviation according to [ISO 3166-1-alpha-2](#), "XX" is used for seeds of plants of non-wild origin).
2. Restrictions of transfer (one position, "1" if there exist a restriction, "0" if none).
3. Garden code, which can be found on [Utrecht Botanic Garden's website](#).
4. Identification number (accession number of the specific garden. Example: 2004-149 or 03214, whatever the specific recording system of the gardens generates).

GEOGRAPHICAL DATA

Most seeds offerings were collected in Missouri, from all four of the Natural Divisions within the state: the Ozark Border; the Mississippi Lowlands located in the Missouri boot heel along the Mississippi River; the Ozark Highlands, located in south-central Missouri and northern Arkansas; and the Glaciated Plains, roughly including the northern third of the state. In general, Missouri's four eco-regions are separated by the Missouri and Mississippi Rivers, which divide the rolling prairie lands of northern Missouri which were formed by glaciers, from the Ozark Plateau that was formed by uplift and erosion.

Additional collections were made from the Blue Ridge and Piedmont regions of South Carolina and Virginia. The Blue Ridge Mountains, located on the eastern edge or front range of the Appalachian Mountains, are dominated by oak-hickory forests, and average 2,000-4,000 feet above sea level. The Piedmont, located at the foot of the Blue Ridge Mountains, consists primarily of rolling hills between 300 and 1,500 feet above sea level, with temperate climate that averages 45-50 inches of rain per year. The collections from Mississippi and Arkansas are from the Mississippi Alluvial Plain, characterized by broad, level river terraces coated in alluvium, loess, and lacustrine deposits. Finally, we offer a few Georgian collections from the Mediterranean forests between the Greater and Lesser Caucasus mountain ranges.

SEED SELECTIONS

Requests are limited to 10 items and must be submitted by August 1st, 2023. Please submit requests to via email to katherine.freeman@mobot.org or mail requests to: Missouri Botanical Garden, c/o Katherine Freeman/ Plant Records, 4344 Shaw Blvd., St. Louis, MO 63110, U.S.A.

NON INDEX SEMINUM PLANT MATERIAL REQUESTS

Requests for plant material not offered on our index seminar are reviewed on a case-by-case basis and can be submitted online through the [Plant Material Request form](#). The Missouri Botanical Garden will provide assistance for most requests from researchers or fellow botanical gardens free of charge, as staff resources allow. The Garden reserves the right to deny access to plant material based on the restrictions placed on the material by the country of origin, owner, or specific permit conditions. Requests originating from foreign countries must be accompanied by the proper import permits and mailing labels for importation purposes. A fee will be charged to cover shipping and phytosanitary certificates for all international requests on non index seminar requests.

ALISMATACEAE

Echinodorus berteroi var. *berteroi*
(IPEN [US-0-MO-2018-1285](#))
Collected 08/02/2018, St. Charles County, Missouri.

ASTERACEAE

Achillea millefolium L.
(IPEN [US-1-MO-2021-1682](#))
Collected 07/29/2021, Newton County, Missouri.

Antennaria parlinii Fernald
(IPEN [US-0-MO-2017-1434](#))
Collected 04/27/2016, Franklin County, Missouri.

Boltonia decurrens (Torrey & Gray) A. Wood
(IPEN [US-0-MO-2014-0162](#))
Collected 10/16/2013, Madison County, Missouri.

Coreopsis lanceolata L.
(IPEN [US-0-MO-2015-1171](#))
Collected 07/16/2015, Franklin County, Missouri.

Erechtites hieraciifolius var. *hieraciifolius*
(IPEN [US-0-MO-2018-1863](#))
Collected 10/25/2018, Lincoln County, Missouri.

Helenium autumnale L.
(IPEN [US-0-MO-2016-2008](#))
Collected 10/11/2016, Washington County, Missouri.

Helianthus mollis Lam.
(IPEN [US-0-MO-2016-1909](#))
Collected 09/28/2016, Crawford County, Missouri.

Liatris scariosa var. *nieuwlandii* Lunell
(IPEN [US-0-MO-2013-1690](#))
Collected 09/24/2013, Lincoln County, Missouri.

Marshallia caespitosa var. *signata* Beadle & F.E. Boynton
(IPEN [US-0-MO-2020-0770](#))
Collected 07/02/2020, Ozark County, Missouri.

Mikania scandens (L.) Willd.
(IPEN [US-0-MO-2017-2636](#))
Collected 10/05/2017, Scott County, Missouri.

Ratibida pinnata (Vent.) Barnhart.
(IPEN [US-0-MO-2017-2482](#))
Collected 09/14/2017, Franklin County, Missouri.

Rudbeckia fulgida var. *umbrosa* (C.L. Boynton & Beadle)
Cronquist
(IPEN [US-0-MO-2017-3073](#))
Collected 11/02/2017, Washington County, Missouri.

Rudbeckia hirta L.
(IPEN [US-0-MO-2013-1583](#))
Collected 08/17/2013, Howell County, Missouri.

Solidago gattingeri Chapm. ex A. Gray
(IPEN [US-0-MO-2013-2332](#))
Collected 11/11/2013, Shannon County, Missouri.

Solidago nemoralis subsp. *nemoralis*
(IPEN [US-0-MO-2016-2060](#))
Collected 10/11/2016, Washington County, Missouri.

Solidago patula var. *patula*
(IPEN [US-0-MO-2015-1724](#))
Collected 10/23/2015, Washington County, Missouri.

Solidago ptarmicoides (Torr. & A. Gray) B. Boivin
(IPEN [US-0-MO-2013-2331](#))
Collected 11/11/2013, Shannon County, Missouri.

Solidago riddellii Frank
(IPEN [US-0-MO-2015-1769](#))
Collected 10/29/2015, Washington County, Missouri.

Solidago rigida L.
(IPEN [US-0-MO-2013-2333](#))
Collected 11/11/2013, Shannon County, Missouri.

Solidago ulmifolia Muhl. ex Willd.
(IPEN [US-0-MO-2016-2350](#))
Collected 11/04/2016, Franklin County, Missouri.

Symphotrichum puniceum (L.) Á. Löve & D. Löve
(IPEN [US-0-MO-2015-1751](#))
Collected 10/29/2015, Washington County, Missouri.

ATHYRIACEAE

Diplazium pycnocarpon (Spreng.) M. Broun
(IPEN [US-0-MO-2017-2341](#))
Collected 08/10/2017, Shannon County, Missouri.

BRASSICACEAE

Boechera laevigata Al-Shehbaz
(IPEN [US-0-MO-2021-1689](#))
Collected 08/06/2021, Franklin County, Missouri.

Lepidium virginicum L.
(IPEN [US-0-MO-2018-0982](#))
Collected 06/14/2018, Benton County, Missouri.

CARYOPHYLLACEAE

Silene regia Sims
(IPEN [US-0-MO-2020-1210](#))
Collected 09/03/2020, Lawrence County, Missouri.

CYPERACEAE

Carex annectens var. *annectens*
(IPEN [US-0-MO-2016-1411](#))
Collected 07/04/2016, Reynolds County, Missouri.

Carex crinita Lam.
(IPEN [US-0-MO-2014-1817](#))
Collected 06/18/2014, Bollinger County, Missouri.

Carex cristatella Britton
(IPEN [US-0-MO-2016-2126](#))
Collected 10/25/2016, Lewis County, Missouri.

Carex festucacea Schkuhr. ex Willd.
(IPEN [US-0-MO-2018-0974](#))
Collected 06/13/2018, Barton County, Missouri.

Carex molesta Mack.
(IPEN [US-0-MO-2016-1117](#))
Collected 06/10/2016, Franklin County, Missouri.

Carex muskingumensis Schweinf.
(IPEN [US-0-MO-2016-2116](#))
Collected 10/25/2016, Lewis County, Missouri.

Carex normalis Mack.
(IPEN [US-0-MO-2020-1311](#))
Collected 10/01/2020, Mississippi County, Missouri.

Carex retroflexa Muhl. ex Willd.
(IPEN [US-0-MO-2013-1312](#))
Collected 06/13/2013, Franklin County, Missouri.

Carex suberecta (Olney) Britton
(IPEN [US-0-MO-2014-1926](#))
Collected 08/05/2014, Dent County, Missouri.

Carex suberecta (Olney) Britton
(IPEN [US-0-MO-2022-0912](#))
Collected 06/20/2022, Reynolds County, Missouri.

Carex tribuloides Wahlenb.
(IPEN [US-0-MO-2022-0935](#))
Collected 06/24/2022, Franklin County, Missouri.

Carex vulpinoidea Michaux
(IPEN [US-0-MO-2014-1930](#))
Collected 08/05/2014, Dent County, Missouri.

Carex vulpinoidea Michaux
(IPEN [US-0-MO-2016-1410](#))
Collected 07/04/2016, Reynolds County, Missouri.

Cyperus echinatus (L.) Alph. Wood
(IPEN [US-0-MO-2017-2510](#)) Collected
09/21/2017, Taney County, Missouri.

Cyperus pseudovegetus var. *pseudovegetus*
(IPEN [US-0-MO-2017-2630](#))
Collected 10/05/2017, Scott County, Missouri.

Cyperus squarrosus L.
(IPEN [US-0-MO-2017-2536](#))
Collected 09/26/2017, St. Louis County, Missouri.

Lipocarpha micrantha (Vahl) G.C. Tucker
(IPEN [US-0-MO-2017-2614](#))
Collected 10/05/2017, Scott County, Missouri.

Scirpus polyphyllus Vahl
(IPEN [US-0-MO-2014-2027](#))
Collected 07/10/2014, Bollinger County, Missouri.

Scirpus polyphyllus Vahl
(IPEN [US-0-MO-2014-2028](#))
Collected 08/25/2014, Bollinger County, Missouri.

Scirpus polyphyllus Vahl
(IPEN [US-0-MO-2014-2039](#))
Collected 08/20/2014, Madison County, Missouri.

DRYOPTERIDACEAE

Dryopteris marginalis (L.) A. Gray
(IPEN [US-0-MO-2022-1342](#))
Collected 08/24/2022, Ste. Genevieve County, Missouri.

ERICACEAE

Rhododendron minus Michx.
(IPEN [US-0-MO-2022-0022](#))
Collected 12/24/2021, Oconee County, South Carolina.

FABACEAE

Amorpha canescens Pursh
(IPEN [US-0-MO-2016-1926](#))
Collected 09/28/2016, Crawford County, Missouri.

Dalea candida (Michx.) Willd.
(IPEN [US-0-MO-2015-1407](#))
Collected 08/18/2015, Lincoln County, Missouri.

Desmodium canadense (L.) DC.
(IPEN [US-0-MO-2021-1739](#))
Collected 08/12/2021, Grundy County, Missouri.

GENTIANACEAE

Gentiana septemfida Pall.
(IPEN [GE-0-MO-2019-2547](#))
Collected 09/27/2019, Samtskhe-javakheti.

Sabatia angularis (L.) Pursh.
(IPEN [US-0-MO-2015-2082](#))
Collected 08/31/2015, Franklin County, Missouri.

HYDRANGEACEAE

Hydrangea arborescens L.
(IPEN [US-0-MO-2013-2340](#))
Collected 11/13/2013, Howell County, Missouri.

Hydrangea arborescens L.
(IPEN [US-0-MO-2019-1932](#))
Collected 10/01/2019, Highland County, Virginia.

Hydrangea arborescens L.
(IPEN [US-0-MO-2019-1978](#))
Collected 09/22/2019, Grayson County, Virginia.

Philadelphus caucasicus Koehne
(IPEN [GE-0-MO-2019-2551](#))
Collected 09/27/2019, Samtskhe-javakheti.

HYDROLEACEAE

Hydrolea uniflora Raf.
(IPEN [US-0-MO-2017-2756](#))
Collected 10/18/2017, Stoddard County, Missouri.

HYPERICACEAE

Hypericum androsaemum L.
(IPEN [GE-0-MO-2019-2539](#))
Collected 09/26/2019, Samtskhe-javakheti.

Hypericum sp.
(IPEN [US-0-MO-2019-1977](#))
Collected 09/21/2019, Grayson County, Virginia.

Triadenum walteri (J.F. Gmel.) Gleason
(IPEN [US-0-MO-2017-2718](#))
Collected 10/17/2017, Stoddard County, Missouri.

JUNCACEAE

Juncus acuminatus Michx.
(IPEN [US-0-MO-2016-1207](#))
Collected 06/13/2016, Reynolds County, Missouri.

Juncus acuminatus Michx.
(IPEN [US-0-MO-2018-0973](#))
Collected 06/13/2018, Barton County, Missouri.

Juncus anhelatus (Wiegand) R.E. Brooks
(IPEN [US-0-MO-2020-1375](#))
Collected 09/22/2020, Franklin County, Missouri.

Juncus biflorus Elliott
(IPEN [US-0-MO-2020-1134](#))
Collected 07/17/2020, Franklin County, Missouri.

Juncus brachycarpus Engelm.
(IPEN [US-0-MO-2017-1914](#))
Collected 06/21/2017, Dade County, Missouri.

LAMIACEAE

Agastache nepetoides (L.) Kuntze
(IPEN [US-0-MO-2020-1521](#))
Collected 10/10/2020, Lincoln County, Missouri.

Agastache scrophulariifolia (Willd.) Kuntze
(IPEN [US-0-MO-2022-1624](#))
Collected 09/17/2022, Harrison County, Missouri.

Pycnanthemum muticum (Michx.) Pers.
(IPEN [US-0-MO-2017-2762](#))
Collected 10/18/2017, Stoddard County, Missouri.

LYTHRACEAE

Ammannia coccinea Rottb.
(IPEN [US-0-MO-2013-1074](#))
Collected 10/31/2012, Washington County, Missouri.

MELANTHIACEAE

Melanthium virginicum L.
(IPEN [US-0-MO-2015-1722](#))
Collected 10/23/2015, Washington County, Missouri.

Melanthium virginicum L.
(IPEN [US-0-MO-2021-1735](#))
Collected 08/12/2021, Grundy County, Missouri.

ONAGRACEAE

Ludwigia alternifolia L.
(IPEN [US-0-MO-2013-1058](#))
Collected 10/14/2011, Madison County, Arkansas.

Ludwigia leptocarpa (Nutt.) H. Hara
(IPEN [US-0-MO-2017-2760](#))
Collected 10/18/2017, Stoddard County, Missouri.

Oenothera biennis L.
(IPEN [US-0-MO-2016-1876](#))
Collected 09/21/2016, St. Louis County, Missouri.

ORCHIDACEAE

Spiranthes magnicamporum Sheviak
(IPEN [US-0-MO-2019-2040](#))
Collected 09/20/2019, Franklin County, Missouri.

OROBANCHACEAE

Castilleja coccinea (L.) Spreng.
(IPEN [US-0-MO-2019-1118](#))
Collected 05/20/2019, Jefferson County, Missouri.

PENTHORACEAE

Penthorum sedoides L.
(IPEN [US-0-MO-2016-2115](#))
Collected 10/25/2016, Lewis County, Missouri.

PLANTAGINACEAE

Veronica catenata Pennell
(IPEN [US-0-MO-2021-1165](#))
Collected 06/03/2021, Phelps County, Missouri.

Veronicastrum virginicum (L.) Farw.
(IPEN [US-0-MO-2015-1408](#))
Collected 08/18/2015, Lincoln County, Missouri.

POACEAE

Chloris verticillata Nutt.

(IPEN [US-0-MO-2017-2523](#))

Collected 09/22/2017, Taney County, Missouri.

Eragrostis curtipedicellata Buckley

(IPEN [US-0-MO-2017-2522](#))

Collected 09/22/2017, Taney County, Missouri.

Eragrostis intermedia var. *intermedia*

(IPEN [US-0-MO-2017-2526](#))

Collected 09/22/2017, Taney County, Missouri.

Eragrostis spectabilis (Pursh) Steud.

(IPEN [US-0-MO-2017-2513](#))

Collected 09/21/2017, Taney County, Missouri.

Eragrostis spectabilis (Pursh) Steud.

(IPEN [US-0-MO-2017-2635](#))

Collected 10/05/2017, Scott County, Missouri.

Glyceria striata (Lam.) Hitchc.

(IPEN [US-0-MO-2014-1863](#))

Collected 06/25/2014, Madison County, Missouri.

Glyceria striata (Lam.) Hitchc.

(IPEN [US-0-MO-2016-1199](#))

Collected 06/13/2016, Reynolds County, Missouri.

Glyceria striata (Lam.) Hitchc.

(IPEN [US-0-MO-2022-0938](#))

Collected 06/24/2022, Franklin County, Missouri.

Koeleria macrantha (Ledeb.) Schult.

(IPEN [US-0-MO-2017-1929](#))

Collected 06/22/2017, Newton County, Missouri.

Leptochloa fusca subsp. *fascicularis* (Lam.) N. Snow

(IPEN [US-0-MO-2017-2537](#))

Collected 09/26/2017, St. Louis County, Missouri.

Muhlenbergia glabrifloris Scribn.

(IPEN [US-0-MO-2015-1879](#))

Collected 11/05/2015, Lincoln County, Missouri.

Panicum virgatum L.

(IPEN [US-0-MO-2014-0157](#))

Collected 10/22/2013, Ozark County, Missouri.

POLYGONACEAE

Rumex stenophyllus Ledeb.

(IPEN [US-0-MO-2020-1057](#))

Collected 08/06/2020, St. Charles County, Missouri.

Rumex triangulivalvis (Danser) Rech. f.

(IPEN [US-0-MO-2017-1921](#))

Collected 06/22/2017, Dade County, Missouri.

POLYPODIACEAE

Polypodium virginianum L.

(IPEN [US-0-MO-2017-1586](#))

Collected 05/11/2017, Jefferson County, Missouri.

PTERIDACEAE

Adiantum pedatum L.

(IPEN [US-0-MO-2022-1340](#))

Collected 08/24/2022, Ste. Genevieve County, Missouri.

RANUNCULACEAE

Clematis vitalba L.

(IPEN [GE-0-MO-2019-2528](#))

Collected 09/21/2019, Mtskheta-Mtianeti.

ROSACEAE

Geum vernum (Raf.) Torr. & A. Gray

(IPEN [US-0-MO-2019-1032](#))

Collected 05/17/2019, Jefferson County, Missouri.

Potentilla norvegica L.

(IPEN [US-0-MO-2020-1059](#))

Collected 08/06/2020, St. Charles County, Missouri.

SARRACENIACEAE

Sarracenia alata (Alph. Wood) Alph. Wood

(IPEN [US-0-MO-2021-2329](#))

Collected 10/27/2021, Greene County, Mississippi.

SAXIFRAGACEAE

Boykinia aconitifolia Nutt.

(IPEN [US-0-MO-2019-2001](#))

Collected 09/27/2019, Giles County, Virginia.

Heuchera americana L.

(IPEN [US-0-MO-2018-0908](#))

Collected 06/06/2018, Montgomery County, Missouri.

Heuchera richardsonii R. Br.

(IPEN [US-0-MO-2022-0899](#))

Collected 06/13/2022, St. Clair County, Missouri.

Heuchera villosa Michx.

(IPEN [US-0-MO-2019-1915](#))

Collected 09/22/2019, Grayson County, Virginia.

Heuchera villosa Michx.

(IPEN [US-0-MO-2019-1960](#))

Collected 09/29/2019, Giles County, Virginia.

SCROPHULARIACEAE

Scrophularia marilandica L.

(IPEN [US-0-MO-2013-1061](#))

Collected 10/12/2012, Pike County, Missouri.



Achillea millefolium



Antennaria parlinii



Solidago rigida



Hydrangea arborescens

Liatris scariosa var. *nieuwlandii*



Solidago ptarmicoides



Rudbeckia hirta



Coreopsis lanceolata



Dalea candida



Symphyotrichum puniceum



Sabatia angularis



Melanthium virginicum



Helianthus mollis



Helenium autumnale



Eragrostis spectabilis



Ratibida pinnata



Polypodium virginianum



Pycnanthemum muticum



Lepidium virginicum



Sarracenia alata



Heuchera richardsonii



Melanthium virginicum



Veronica catenata



Silene regia



Spiranthes magnicamporum



Castilleja coccinea



Adiantum pedatum



Agastache scrophulariifolia



MISSOURI BOTANICAL GARDEN