

Collecting Native Seed

MASTER GARDENER

Mikaela Boley- Senior Agent Associate
University of Maryland Extension
mboley@umd.edu

University programs, activities, and facilities are available to all without regard to race, color, sex, gender identity or expression, sexual orientation, marital status, age, national origin, political affiliation, physical or mental disability, religion, protected veteran status, genetic information, personal appearance, or any other legally protected class.

Why Collect Seed?



Photo by Janet Mackey

- Save money
- Plant selection for your environment
- Hard-to-find species
- Scientific exploration
- Genetic diversity or preservation

Topics

- Plant types
- Location & Species
- Characteristics of Seeds to Collect
- Techniques
 - *Gathering*
 - *Cleaning*
 - *Storing*
- Suggested Species for Seed Collecting



Types of Seeds

Annual

- Bears seeds the year they are planted
- Most likely will **not** overwinter
- *Impatiens capensis* (orange jewelweed)

Biennial

- Bear edible fruit the first year they are planted, flowers and seeds in the 2nd year
- *Oenothera biennis* (common primrose)

Perennial

- Grows year-after-year from established root system
- May grow more slowly in the first 1-2 years

Before Starting:

1. Select species based on location or project
2. What is the purpose?
3. Collection/propagation techniques will be dependent on genus
4. Takes patience and time!



Location

- Select the right species for your project or purpose
- **Identify the species**- don't wait until seed head stage!
 - Mark plants in bloom
- Permission of property owner or entity
 - Avoid public parks or spaces
 - Private property easiest
- Large population size
 - Genetic diversity
 - Ethics



Above: *H. moscheutos* in bloom
Below: *H. moscheutos* seed head

Ethics Note: Wild Collecting

- Take no more than 5-10% of a wild population
 - *20 Rule*
- You **must** have permission from landowner/entity
- **Do not** take seeds from [rare, threatened, and endangered plants](#)
- **Do not** collect seed from public parks, recreation areas, or other public regions
- **Do not** collect from small populations
 - *Larger populations best for both ethics and genetics*



Marking and Protecting Seeds



Columbine



Native Azalea

Collecting Seed

- Determine location
 - *Garden, roadside, wild, etc.*
- What you need:
 - Pruners, loppers, or scissors
 - Gloves for stripping
 - Paper bags, pillow cases, wide buckets, tarp
 - Labels or marker
 - *Optional: Organza sachets, hand lens*
- Selecting specimens
- Look for dry seed heads 6-8 weeks after bloom period

Preparing and Cleaning Seed

- Paper bags for collection
 - *Seed heads should face down, with stems upward*
 - *Can be stored here for 1-2 weeks while seeds dry*
- Remove “extra” plant material
 - *Chaff, stems, leaves, etc.*
- Mesh sieves (not necessary)
- Winnowing & debearding
- Organization helps
 - *Storing bags in boxes, envelopes upright in smaller boxes*

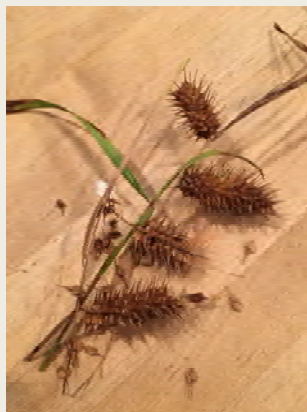
Cleaning Seed

- Line work area with newspaper, keep bucket on-hand
- Work with a single type of seed at a time
 - *Small seeds can be tricky!*
- Some may need several rounds of cleaning
- “Threshing” with pillow cases, rolling pin
- Use mesh sieves to separate chaff

Easy-to-Collect Seeds



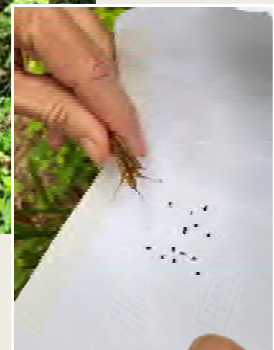
Blue flag iris
Iris Versicolor



Sallow Sedge
Carex lurida



Columbine
Aquilegia canadensis



More Easy-to-Collect Seeds:

- *Aquilegia canadensis*- wild columbine (summer)
- *Iris versicolor*- blueflag iris (late summer- fall)
- *Panicum virgatum*- switchgrass* (fall)
- *Asclepias* spp. – milkweed species* (fall)
- *Verbena hastata*- blue vervain (fall)
- *Hibiscus moscheutos*- marsh mallow, hibiscus (fall)
- *Chasmanthium latifolium*- northern sea oats* (fall)

*indicates prolific behavior



Seeds Requiring Special Techniques



Swamp Milkweed



Pawpaw

Seeds with Pappus



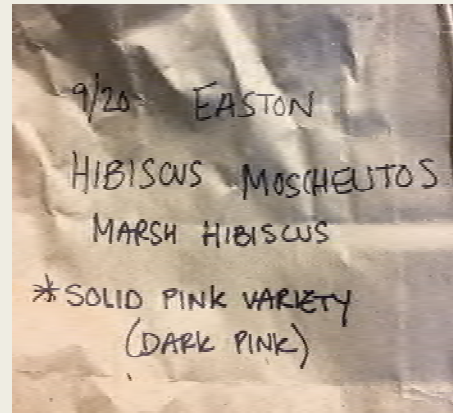
Golden Groundsel

Seed Heads



Taking Care of Collected Seed

- Coin envelopes are a good size for most seeds
- Mix with damp sand in plastic baggie for stratification
- LABEL the seed envelopes
 - *WHAT the plant is (common name and botanical name)*
 - *WHERE it was collected*
 - *DATE collected (at least the year)*
- Store them properly
 - Dry
 - Away from insect pests or animals
 - Out of the light



What Seeds Should I Collect?



Hard-to-Find Species



Pink Fuzzy Bean
Strophostyles umbellata



Genetic Variation

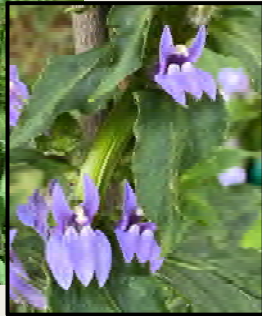


Photo Credit: Park Seeds

Genetic Variation



Great Blue
Lobelia
Lobelia siphilitica



White
Variation



Other Methods...



Propagation Methods: Transplant



Propagation Methods: Layering



Virginia Sweetspire
Itea virginica

Propagation Methods: Cuttings & Dividing



Blue-eyed grass
Sisyrinchium scoparium



Foamflower
Tiarella cordifolia

Self-Seeding Types



What should you collect?

- Easy to collect
- Easy to clean
- Easy to grow



Grasses



Bottlebrush Grass
Elymus hystrix



Splitbeard bluestem
Andropogon ternarius

- Most do not need stratification-
but it doesn't hurt!
- Dry, brown seeds (hand lens)
- Will germinate at temperatures
>70 degrees
- Warm-season vs. cool-season
- Bearded seeds
 - *May need "de-bearding"*
 - *Can be difficult to clean*

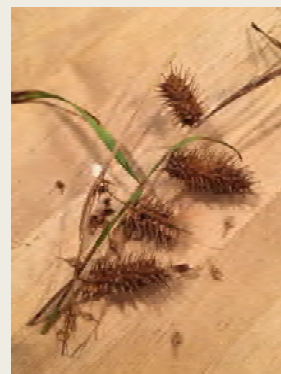


James H. Miller, hosted by the USDA-NRCS PLANTS Database

Sedges



Fringed sedge (*Carex crinita*), Sallow sedge (*C. lurida*), and Frank's sedge (*C. frankii*)



- Some *Carex* are “hydrophilic”
- Sow immediately, or store in damp sand (plastic bag)
- Cold stratification is good MB2
- Have papery coating- can be removed for better germination

James H. Miller, hosted by the USDA-NRCS PLANTS Database

Flowering Perennials



MB3

Slide 31

MB2 Need photo of sedge seeds under microscope, with and without perigynium

Mikaela Boley, 9/23/2020

Slide 32

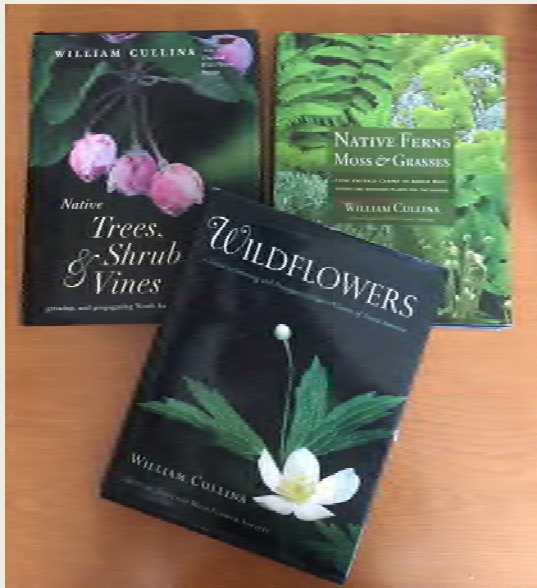
MB3 Need picture of seeds/seedhead

Mikaela Boley, 9/23/2020



Foxglove Beardtongue-
Penstemon digitalis

- More variation in treatment and collecting
- *Most* require stratification (cold)
- *Some* require scarification
- Watch for hybridization (species)
- Lots of variability



Resources

- Xerces Society- *Collecting and Using Your Own Wildflower Seed*
 - <https://xerces.org/publications/guidelines/collecting-and-using-your-own-wildflower-seed>
- Tallgrass Prairie Seed Collecting Guide
 - https://tallgrassprairiecenter.org/sites/default/files/techguide1_seedcollecting_2015_web.pdf
- Pleasant Valley Conservancy seed collecting chart
 - <https://pleasantvalleyconservancy.org/seedcollectingtimes.html>

Talbot County Free Seed Library

<https://www.facebook.com/talbotcountyfreeseedlibrary>



COLLECTING seeds is not enough



Seeds need a purpose!



Winter Sowing



“Sowing Native Seeds”

Friday, November 13th at 1:00 PM

Registration:

<https://go.umd.edu/nativeseeds>



<https://go.umd.edu/ENRTEACH>

Name: Boley, Mikaela
Date: September 30th, 2020
Topic: Master Gardener



University programs, activities, and facilities are available to all without regard to race, color, sex, gender identity or expression, sexual orientation, marital status, age, national origin, political affiliation, physical or mental disability, religion, protected veteran status, genetic information, personal appearance, or any other legally protected class.