



# Lake County, Illinois, USA

## Lake County Seed Collection Guide

### Summer Woodland Forbs

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Kelly Schultz<sup>1</sup>, Dale Shields<sup>2</sup>

<sup>1</sup>Lake County Forest Preserve District, <sup>2</sup>Volunteer Stewardship Network

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The pictures in this guide were assembled to help restoration volunteers identify ripe seeds of native species. The squares are 1" on a side in the indoor shots with white squares on the gray background. The seed shots are on a metric scale (mm divisions). Names used are those of Flora of the Chicago Region by Gerould Wilhelm and Laura Richa. Our heartfelt thanks go to Laurie Ryan of the McHenry County Conservation District for her review.

### Harvest notes

Successful collection of viable seed requires an understanding of when to collect, how to collect, how to store, how to process, and when to sow. Determine these criteria and have a plan before harvesting seeds, especially of uncommon species. The species are listed in order of the photo dates, so will give an approximate time for collection, but collection dates vary according to local weather effects on blooming and pollinators; proximity to Lake Michigan; slopes; sun vs shade, etc. Many seed harvest charts are available with collection dates, but it is best to scout each site rather than relying on historic dates.

Seeds collected before mid-June should be sown right away. They are intolerant of dry storage and most of them require both warm & cold treatments to stimulate germination. Late June seeds are more tolerant of dry storage; sow these seeds soon, but you can let them dry for a few weeks. Seeds ripening July and later can be held for fall/winter sowing, sow by Jan 1<sup>st</sup> for best results.

**Collect ethically & sustainably.** Everything is protected in forest preserves, including seeds. Collection is only allowed by staff and volunteers in our restoration programs. If you are collecting within those programs, it is important to avoid overharvesting wild populations. For perennials: **leave 50% behind**. For annuals, biennials, rare, threatened, or endangered species: **collect only 10% of the seed**.

### Seed Groups

*Time sensitive groups – seeds disperse in a few days or weeks due to wildlife, sensitivity to wind, etc.*

**Elaiosomes** are “ant candy” attached to the seeds. Ants are strong and motivated, able to quickly carry the candy back to their home and tossing the heavy “candy wrapper” (seeds) into their compost piles. Check these species frequently; ants will rapidly collect all of the seeds. These seeds have higher germination when sown within a day or two.

**Ballistic** capsules catapult their babies away, up to 30 feet! Search YouTube for “exploding seeds” to see these in action. To harvest: learn the ripening sequence & harvest just before explosion; store in a \*sealed\* paper bag or mesh bag for a day or two. Another option is to cover the seed heads with mesh hoods (\*after flowers wilt\*) to contain the seeds. Snip the entire stem after the seeds have popped, and carefully open the hoods indoors.

**Fluffy** seeds are quite common, allowing for wind to efficiently move seeds over long distances. Collect when fluffy. It is ok to collect these seeds \*slightly\* early, by collecting entire stems with seeds that are either fully poofed or have dropped their ray florets (the colorful “petals”); snip the stems and let them poof in a paper or mesh bag. Spring fluffy seeds are typically more sensitive to strong weather.

**Milkweed** seeds are ripe when pods are split open & seeds are brown. Ignore the pod color. Pro tip: rubber band the unripe pods, to prevent seeds from flying away.

**Berries** turn a vibrant color when ripe, as an advertisement to the wildlife to EAT ME and disperse the seed. Collection window is small for some of these seeds. These species need to be sown fresh in damp soil OR cleaned & stored in plastic in the refrigerator (which maintains a higher level of humidity). The natural process of a seed stored in a juicy berry, followed by chewing, digestion, and dispersal in a pile of “fertilizer” means these seeds are not used to completely drying out.





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*Mama's Boys will remain on the stem for a while. Ideal for forecasting future workdays.*

**Shakers** drop seeds very close to the mother plant, when shaken loose by the wind or a passing critter. Usually a Mama's Boy, unless strong weather occurs.



**Beaks** are a subset of the shaker group, with seed capsules that split open like a beak when the seeds are ripe. Collect when beaks are open.



**Coneheads** are flowers with a cone-shaped center. Imagine these flowers without their colorful parts, and you know exactly what they look like when seeds are ripe. Seeds are inside the hard cone.



**Crumbly Coneheads** are cone-shaped or thimble-shaped. Softer than standard coneheads, they crumble when ripe and are easily stripped by hand.



**Shattering** seeds can be tough to visually judge for ripeness. Use a \*gentle\* touch test to see if the seeds easily loosen. Spring seeds remain green (perhaps for camouflage) and swell slightly. Fall seeds typically turn brown or beige when ripe. Often found in colonies, these seeds do not travel far on their own. Some of these species drop quickly & are not Mama's Boys.



**Hitchhikers** are easy to tell when ripe – they hitch a ride on your pants! Color can be an indicator, but not always.



**Do Not Collect.** This symbol is placed on images of non-native & invasive native seeds, which have been included as comparisons for similar native species. Do not collect these species, unless you are collecting for removal.





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False Dandelion  
aka  
Two-flowered  
Cynthia

*Krigia biflora*

ASTERACEAE



Photo: 6-25-20

Fluffy. This flower blooms with an orange-yellow flower, closer to tang-orange than the yellow of dandelions. Leaves are unique: the stem leaves broadly clasp the stem and are echoed in a smaller form under the flower stalks. Two (or more) flowers per stem. Grows in sandy habitats, savannas and their associated prairies.

Red Baneberry

*Actaea rubra*

RANUNCULACEAE



Photo: 7-5-18

Berries. Red baneberry is the bright sister to doll's eyes aka white baneberry. Berries need to be reddish before collecting. Birds are apparently immune to the toxicity of this plant, but berries often linger, uneaten.

Wild Onion  
aka  
Wild Garlic

*Allium canadense*

ALLIACEAE

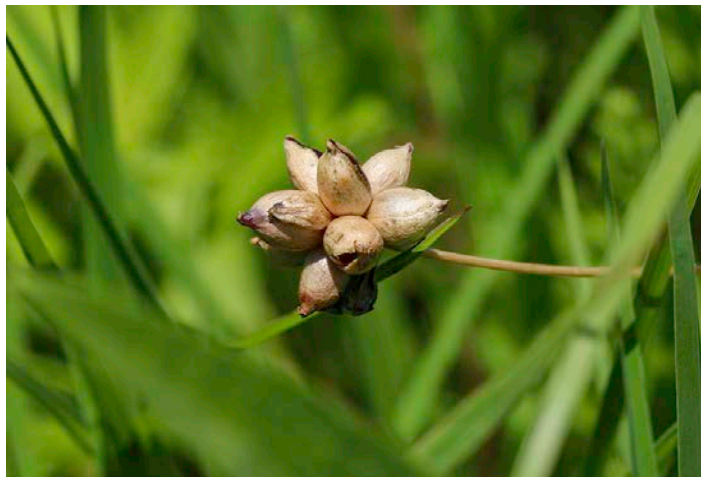


Photo: 7-7-19

Shattering. This native garlic rarely forms seed, but it does form "bulblets." Collect the bulblets when they easily separate from the plant. The outer papery shell will be beige and the inner bulblet can vary in color.





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Cancer Root

*Conopholis americana*

OROBANCHACEAE

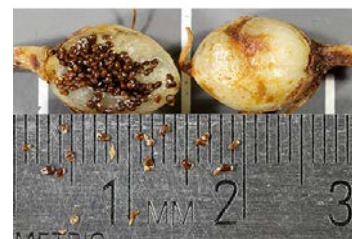


Photo: 7-18-2019

Berries. This uncommon parasite attaches to the roots of Oaks, primarily the red oak group. Little is known about germination. Capsules are dull and dark when ripe, due to the deep brown color of the seeds inside, and start to fall off the "cone." Fleshy capsules are reportedly eaten by mammals, but can also dry & split open. Collect <10%. Sow fresh around red oaks. 4+ years to attach & flower.

Smooth Sweet Cicely

*Osmorhiza longistylis*

APIACEAE



Photos: 7-15-2017  
And 8-10-2019

Shattering. Hitchhikers. The sweet cicely species are very similar. This species has anise-scented foliage, 5-6 bracts, and 8-16 flowers per umbellet. Plants are smooth or fuzzy, but do not have long hairs. Seeds shatter in place, but can hitch a ride by the tips.

Hairy Sweet Cicely

*Osmorhiza claytonii*

APIACEAE

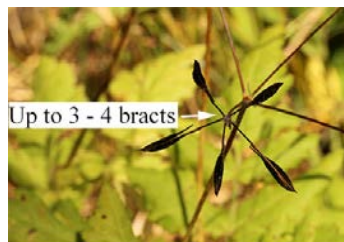


Photo: 7-18-2017

Shattering. Hitchhikers. The sweet cicely species are very similar. This species has 3-4 bracts, typically 4-7 flowers per umbellet. Lacks the anise (licorice) odor. Plants have long spreading hairs. Seeds shatter in place, but can hitch a ride by the tips.



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Virginia Waterleaf

*Hydrophyllum  
virginianum*

HYDROPHYLLACEAE



Photo: 7-18-19

Beaks. Seeds are shades of brown and cratered. Capsules split open to release seeds. Snip entire head once an open capsule has been spotted. Variable patterns on the leaves: some are entirely green, others have "water spots" - white or pale green blotches of various sizes.

Mayapple

*Podophyllum  
peltatum*

BERBERIDACEAE

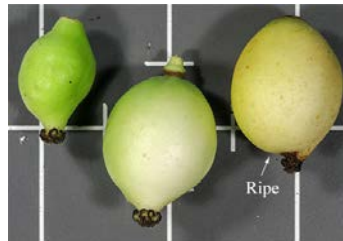
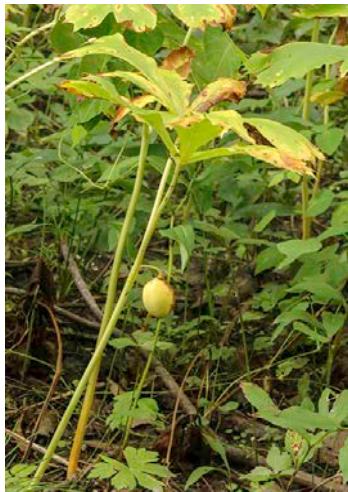


Photo: 7-23-18

Berries. These fruits are reportedly eaten by box turtles. The fruits turn from unripe green to a ripe pale yellow; the inside should be soft & gelatinous. Most spread by rhizomes so it's nice to provide genetic diversity by moving seeds around.

Early Figwort

*Scrophularia  
lanceolata*

SCROPHULARIACEAE

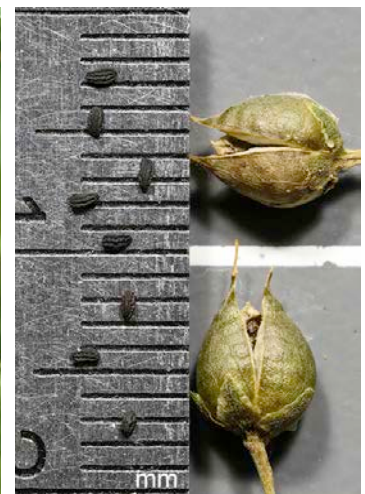


Photo: 7-24-20

Beaks. Mama's Boy. In the extended family of the mints, with square stems. Brown teardrop capsules open to release tiny seeds. Blooms earlier than *S. marilandica*. Leaves on this species are lance-shaped; heart-shaped on the later species.





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Garlic Mustard

*Alliaria petiolata*

BRASSICACEAE



Photo: 7-28-18

Ballistic. This evil invasive spreads throughout woodlands, especially right after clearing work. Flowers have 4 petals, indicating this is in the mustard family, and leaves have a garlicky odor. Pull it when blooming or pods are green. Beige seed pods are fragile & ballistic; pulling at this stage only scatters the seeds around. Reportedly harms the beneficial mycorrhizal fungi that natives need to thrive.

Shooting Star

*Dodecatheon meadia*

PRIMULACEAE



Photo: 7-29-17

Beaks. Look for brown & open capsules. Capsules start off green-yellow and nodding, then they raise to the sky, then turn brown, and finally open. Seeds are tiny. Germination is high, but survival past seedling stage is low due to damping off. Takes several years to flower.

Eastern Tall  
Anemone

*Anemone virginiana*

RANUNCULACEAE

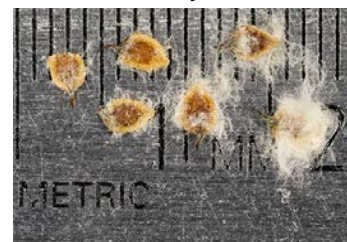


Photo: 8-1-17

Crumbly coneheads. The thimble-shaped cone fluffs up into a cottony mass when ripe. Check for loose cotton, strips easily by hand when ripe. *A. cylindrica* leaves are more deeply lobed, have more slender coneheads (pencil-width), and are found in full sun.





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Wood Self Heal

*Prunella vulgaris*  
var. *lanceolata*

LAMIACEAE



Photo: 8-3-18

Shakers. This ultra-common native weed grows in disturbed old fields, woodlands, and prairies. A variety of the lawn weed, both have purple flowers & square stems. The native one grows upright. Ultra common, this species doesn't need to be collected & sown.

Chicago Leek

*Allium burdickii*

ALLIACEAE

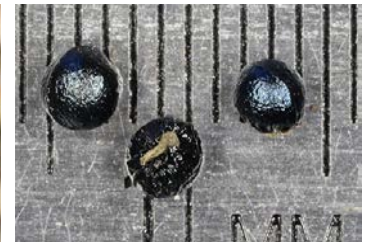


Photo: 8-5-18

Shattering. Black pearls hiding in the understory. Formerly a variety of *A. tricoccum*, this species of leek has green petioles, smaller clusters of flowers & seed, and typically starts to ripen first. Poor from seed, leeks spread locally by bulbs. Poaching is a problem.

Heart-leaved Skullcap

*Scutellaria ovata*

LAMIACEAE



Photo: 8-9-18

Shakers. Skullcaps hold their seeds in "scoop shovels" that are covered by a cap. When ripe, the cap falls off and seeds easily shake loose. Look for open scoops, then snip the entire stalk. Hand collecting leaves a weird residue that is easily washed off, no known skin issues. This uncommon species appears to be a short-lived perennial. It moves around and sometimes creates fairy rings. Two years to germinate.



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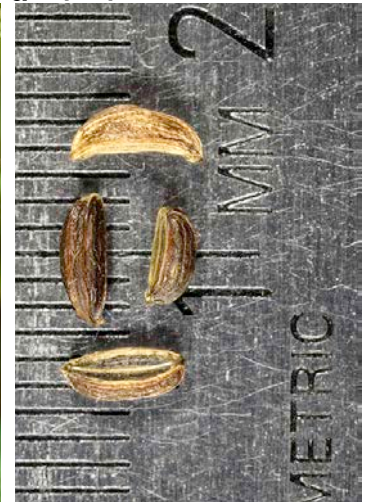
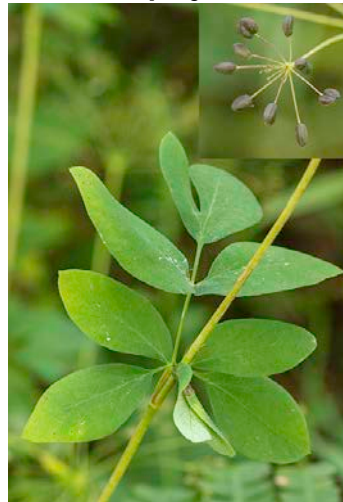
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#### Yellow Pimpernel

*Taenidia integerrima*

APIACEAE

Photo: 8-16-18



Shattering. Mama's Boy. Like Alexanders and other parsley-relatives, this species has an umbel (flat umbrella) of flowers and seeds. Collect seed when they easily strip free by hand. Smells like celery. A true savanna species, occasionally in prairies.

#### White Avens

*Geum canadense*

ROSACEAE

Photo: 8-23-18



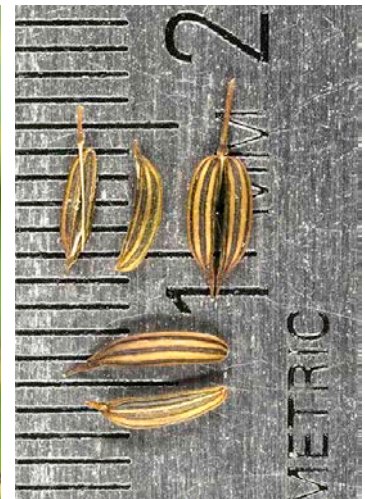
Hitchhikers. A common white-flowered forb, found in woodlands, savannas, and pastures. This pioneering species easily moves around with its hitchhiker seeds and colonizes new areas. Not a species to target for collection, but often asked about when it appears on socks.

#### Honewort

*Cryptotaenia canadensis*

APIACEAE

Photo: 8-24-17



Shattering. A woodland parsley relative, this name comes from the historic treatment of swelling (hone) by the plant (wort). Collect when easy to strip off the stem. Host plant for swallowtail caterpillars.



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Blue Cohosh

*Caulophyllum  
thalictroides*

BERBERIDACEAE

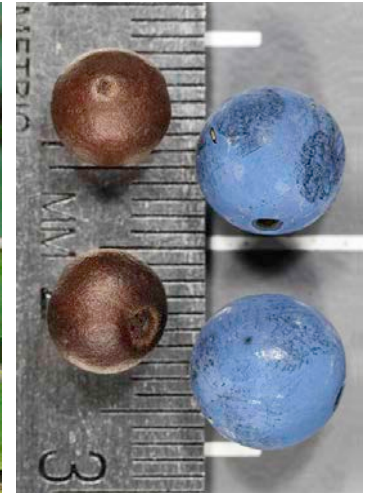
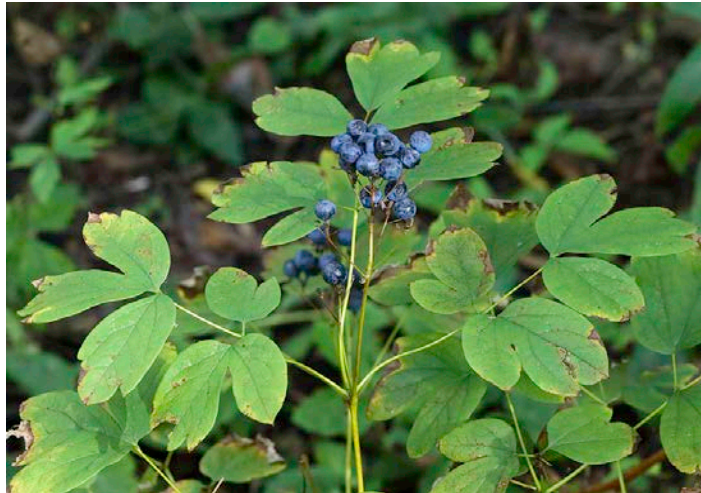


Photo: 8-25-18

Berries. Looks like a blueberry, but it is actually a hard nut with a dry papery blue shell. Leaves are shaped like *Thalictrum* (“thalictroides”). Reportedly takes 5 years to germinate from seeds (yes, 5!) but may germinate faster when sown fresh. Individuals dug up during a plant rescue went dormant for 2 years from transplant shock. A conservative species of mesic woodlands & savannas.

Enchanter’s  
Nightshade

*Circaea canadensis*

ONAGRACEAE

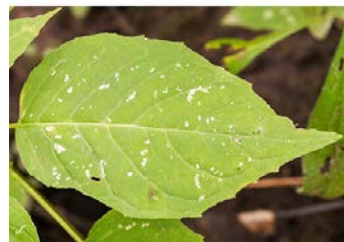


Photo: 8-25-18

Hitchhikers. This species is abundant throughout our region’s woodlands and is only worth (intentionally) collecting for new restorations. Collect when it sticks to your socks.

White Baneberry

aka

Doll’s Eyes

*Actaea pachypoda*

RANUNCULACEAE



Photo: 8-31-18

Berries. An awesomely creepy plant, the common name is very appropriate. Collect when berries are white-ish. As with any plant called a “bane,” this is not one you want to eat.





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Golden Alexanders

*Zizia aurea*

APIACEAE



Photo: 8-25-17

Shattering. This common parsley-relative has bright yellow flowers that turn to green seeds and finally ripen to brown. Collect when easy to strip by hand. Most often mesic to wet-mesic prairies, but can be in open woodlands, savannas, prairies, and fens, from wet to dry.

Smooth Bank Cress

*Boechera laevigata*

BRASSICACEAE



Photo: 8-26-18

Ballistic. This easily overlooked native biennial loves rocky shady habitats. The small flowers become thin “silicles” (skinny pods, like garlic mustard’s, but those point upward). Look for open silicles, collect some unopened pods (<10%).

Wood Mint

*Blephilia hirsuta*

LAMIACEAE

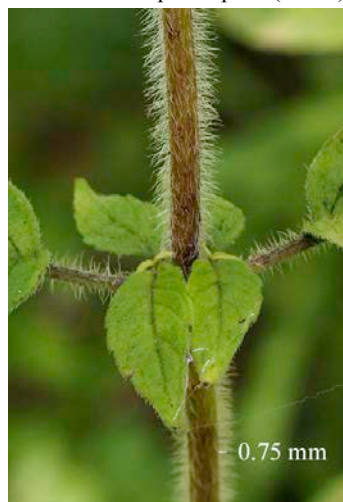


Photo: 8-28-19

Shakers. Like *Monarda* and many other mints, seeds are held in “tubes” (the calyx). Tip into your hand, seeds will fall out if ripe. Differs from Ohio horse mint (*B. ciliata*) with longer petioles & longer stem hairs, minty odor when the leaves are crushed, prefers a little shade.





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### Tall Agrimony

*Agrimonia gryposepala*

ROSACEAE



Photo: 8-30-18

Hitchhikers. All agrimony species are priceless aka unavailable on the commercial market. This is the most common of them. Little yellow flowers turn into green burs, about ¼" in diameter. Easy to spot due to the seed size, easy to collect, good for early woodland restorations.

### Beaked Agrimony

*Agrimonia rostellata*

ROSACEAE

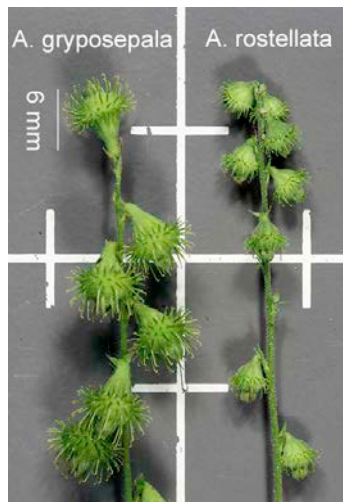


Photo: 8-30-18

Hitchhikers. This species favors mesic/upland woodlands and has smaller fruits than the common *A. gryposepala*. Collect when it sticks to your clothes, easily strips by hand. Agrimony are relatively friendly hitchhikers – very easy to clean off of your pants.

### Starry Campion

*Silene stellata*

CARYOPHYLLACEAE



Photo: 8-28-18

Beaks. This lovely plant can be found in healthy savannas, open woods, and sometimes wet-mesic prairies. The flower is a white fringed star. Capsules form inside the paper calyx; collect beige capsules.



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#### Pale Indian Plantain

*Arnoglossum  
atriplicifolium*

ASTERACEAE



Photo: 8-31-18

Fluffy. This towering plant is regionally uncommon (C = 8) but locally abundant. Underside of leaves are \*pale\* and lobed. Snip when fluffy, pappus (fluff) is bleach white and seeds are plump and blackish. Readily self-seeds.