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 Rericha. 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 1st 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 dispers the seed. Collection window is small for some of these seeds. These species need to be sown fres 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.
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.

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**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.
Allegheny Juneberry

*Amelanchier laevis*

ROSACEAE

Photo: 6-30-19, 7-15-20

Berries. *Amelanchier* species are a challenge to ID: flowers or fruit must be present (sometimes must check both) and they hybridize. This species has longer pedicels (stalks to the fruit/flower), often more than 2.2 cm long. Few to no hairs on the ovary. At flowering time, leaves are reddish-tinged & half-grown; later in the season they become green and hairless. Purple fruit preferred, but animals love to eat them too.

Inland Juneberry

*Amelanchier interior*

ROSACEAE

Photo: 7-16-20, 5-4-20

Berries. This species is furry on the top of the ovary, which can be observed in flower and somewhat evident on the tip of the fruit. Leaves have many teeth, more than twice the number of veins. The longer pedicels are more than 16 mm long. Ripe fruits are purple or purple-black.

Serviceberry Cultivar

*Amelanchier x grandiflora*

ROSACEAE

Photos: 5-5-20, 7-1-20, 10-30-19

Berries. Serviceberry hybrids and cultivars are commonly sold for landscape shrubbery. A popular one is *A. x grandiflora* (autumn brilliance) an *A. laevis* hybrid which may or may not fit the Flora key in all aspects of pubescence, fruit size and fruit stem length. Do not collect *Amelanchier* berries from landscape plants. Source only from remnant native populations for use in restorations.
Black Raspberry

*Rubus occidentalis*

ROSACEAE

Photo: 7-10-18

Berries. These sweet berries are found in many habitats. Prickly stems with a blue/white waxy coating ("glaucous"). Leaves typically in 3s, green above and white below. Immature reddish fruits and finally ripening to dark black berries that are easy to pluck off the plant.

Kittatinny Blackberry

*Rubus bellobatus*

ROSACEAE

Photo: 7-26-18

Berries. Compared to raspberries: blackberry plants have thicker canes, leaves typically in 5s, and the fruit cluster is bigger and longer. This common species is hairless. The fruit is 1.5 – 3 cm long. Easily plucked when ripe.

Highbush Blackberry

*Rubus allegheniensis*

ROSACEAE

Photo: 8-1-18

Berries. This common species has glandular hairs (looks like lollipops under magnification) on the pedicels (the small stems to the flower/fruit). Primary stalks are 7-11mm wide. Fruit are typically 1.5 cm or longer.
**Missouri Wild Gooseberry**

*Ribes missouriense*

GROSSULARIACEAE

Photo: 7-22-19

Berries. Currants & gooseberries are tasty to many critters; don’t wait long to collect these. This species has spines at the nodes plus prickles (skinnier, smaller spines) on the stem, no prickles on fruit, and leaves do not have golden dots. Collect when berries are plump & dark.

**Prickly Wild Gooseberry**

*Ribes cynosbati*

GROSSULARIACEAE

Photo: 8-15-18

Berries. This species is unique with the “medieval mace” berries. Despite the prickly fruits, critters will eat them. Collect promptly when burgundy or darker. Mesic woodlands & seeps.

**Wild Black Currant**

*Ribes americanum*

GROSSULARIACEAE

Photo: 8-10-17

Berries. This *Ribes* species has leaves with golden glandular dots, and stems lack prickles and thorns. Flowers typically about 1 cm long. Var. *mesochorum* (known in IN) has different sepals, and the terminal lobe of the leaf is longer with longer teeth. Collect plump black fruits.
Choke Cherry

*Prunus virginiana*

**ROSACEAE**

Photo: 8-10-17

Berries. This shrub has long clusters of white flowers like its tree sister - black cherry (*P. serotina*). Fruits are dark when ripe and very astringent when raw (hence the name). Prone to black knot, a fungus that grows on the stems of cherries & plums. Birds love the fruit.

Riverbank Grape

*Vitis riparia*

**VITACEAE**

Photo: 8-10-18

Berries. Grape vines are often spotted sprawling over and through trees, like Tarzan vines holding up the buckthorn you are trying to cut! Older vines are covered in peeling brown bark and ooze a gelatinous sap when cut. Fruits are blue-black with a waxy gray-blue color when ripe. Leaves are lobed, and the underside of the leaf is hairy only on the veins or completely hairless. Good food for birds & insects.

Moonseed

*Menispermum canadense*

**MENISPERMACEAE**

Photo: 9-11-19

Berries. Typical leaves look like a cross between a grape & ivy with 3-5 lobes, but can be rounded or egg-shaped. Leaves are “peltate” (petioles - leaf stems - are attached under the leaf. Like an umbrella). This species is dioecious; it needs male & female plants to produce fruit. Vines are woody. Berries are blue-black, like wild grapes, but seeds are crescent moons. Toxic – do not eat!!
Gray Dogwood

*Cornus racemosa*

**CORNACEAE**

Photo: 8-16-18

Berries. This native shrub inspires mixed reactions in land managers. Used by numerous native bees, moths, flies, butterflies, birds, and mammals. Prone to creating thickets, which are essential for the struggling shrubland birds, but can readily take over prairies; finding the right balance is key. White berries on bold red pedicels. Leaves are opposite; gently tear one in half, and it will dangle by stringy veins.

Blue-fruited Dogwood

*Cornus obliqua*

**CORNACEAE**

Photo: 9-22-19

Berries. Can be mistaken for red-twig dogwood (*C. sericea*), but *C. obliqua* is the only red dogwood with blue fruit. 2nd year twigs have a brown pith (the twig core). Twigs are usually red with gray streaks but can be yellowish in winter. Bluer fruits preferred. Wetlands.

Red Sticks aka Red-twig Dogwood

*Cornus sericea*

**CORNACEAE**

Photo: 9-22-19

Berries. Commonly called “red twig” or “red osier.” Ripe berries are white. Seeds are dark, which appears to be a unique trait among *Cornus*. Pith (twig core) is lighter than surrounding wood. Flora also recognizes *C. baileyi*. Examine the hairs on the underside of the leaf for ID.
Yellow Honeysuckle

*Lonicera reticulata*

CAPRIFOLIACEAE

Photo: 9-4-18

Berries. Yes, there are good honeysuckles! Viney. Leaves along the vine are oval paired opposites. The terminal leaves are perfoliate (stem perforates the leaf), providing a backdrop for flowers & fruit. It is rare to find flowering specimens in the wild. Commonly creeping along the ground; flowering plants are more likely on edges (a little more sun), with something to climb, and deer protection.

Amur Honeysuckle

*Lonicera maackii*

CAPRIFOLIACEAE

Photo: 10-30-20

Berries. One of several non-native honeysuckles; bush honeysuckles in our area are almost always non-native. This species has flowers & fruit that are sessile (stalkless) or minute (always shorter than the leaf stalks). Leaves have an elongated tip. Stems are hollow. Red berries linger in winter, indicating even the birds don’t like them. Kill it.

American Hazelnut

*Corylus americana*

BETULACEAE

Photo: 9-12-17

Shattering. The “Nutella shrub” excites groups into collecting. The nut is a wrapped in a pair of oversized bracts, like insane eyelashes. Watch for the nut & bracts to turn brown; collect promptly before the squirrels. If too tight, pliers or nutcracker can help with processing.
Spicebush

*Lindera benzoin*

LAURACEAE

Photo: 9-14-17

Berries. More common in the southeast part of the region. Flowers and crushed leaves are aromatic. Bright red, flattened oval-shaped fruits. Only local species in the genus. Seeds are unusually tender – do not use a blender or other aggressive processing methods.

Nannyberry

*Viburnum lentago*

ADOXACEAE

Photo: 9-12-17

Berries. Mama’s Boy. *Viburnums* are fantastic shrubs to use in restorations since they are rarely eaten by deer. This common species grows in wet to mesic, sun to shade environments. Look for opposite leaves and droopy clusters of dark blue-black fruits on vibrant red pedicels (the fruit/flower stems). Leaf stems have a skinny winged margin. End buds are unusually elongated. One of the larger species, up to 25’ tall.

Black Haw

*Viburnum prunifolium*

ADOXACEAE

Photo: 12-3-17, 7-18-20

Berries. Mama’s Boy. Another *Viburnum* with dark blue-black fruits on drooping reddish pedicels. Bark is similar to hawthorns (haw). Mesic to dry woodlands & savannas, max 15’. Simple petioles, leaf tip can be rounded or pointed (*V. lentago* has winged or wavy petiole; abruptly pinches to a pointed tip). Leaves are usually much smaller than *V. lentago*. 
Southern Arrowwood

*Viburnum dentatum*

ADOXACEAE

Photo: 9-21-20

Berries. This *Viburnum* has prominent veins and coarse teeth on the margins, but it is not lobed. Often 3 or more branches at each node. Young branches have starry hairs, like little bristly starfish. Native to the east, most often found from planting projects but possibly an escapee from cultivation.

European Cranberry Bush

*Viburnum opulus*

ADOXACEAE

Photo: 10-13-20

Berries. The common cranberry bush in our region. Leaves have 3 lobes, fruits are a bold red. Distinguish from the native *V. trilobum* by looking at the glands at the base of the leaf: this species has concave glands, like inner tubes or hemoglobin blood cells. The native species has glands like clubs or columns, never with a concave depression, and is incredibly rare. Nurseries misidentify these species too.

Maple-leaved Arrowwood

*Viburnum acerifolium*

ADOXACEAE

Photo: 11-2-18

Berries. Mama’s Boy. A more conservative *Viburnum*, often in sandy or morainic soils. The species name literally means “maple-leaved.” Fruits are dark blue-black on red pedicles, but these stand upright. Reportedly prone to transplant shock, sowing seeds may be the best option.
Prickly Pasture Rose

*Rosa carolina*
subsp. *subserrulata*

ROSACEAE

Photo: 9-15-18

Berries. *R. carolina* has straight, needle-like prickles, paired at the stem nodes and often densely at the base; var. *subserrulata* also has prickles scattered throughout the stem. Usually 5-7 leaflets. Height usually 70 cm or less. Rose hips aka the fruit should be red-orange.

Downy Illinois Rose

*Rosa setigera*
var. *tomentosa*

ROSACEAE

Photo: 10-6-18

Berries. Mama’s Boy. Leaflets primarily in groups of 3, sometimes 5. Plants can be more than 1 m tall, found in wet to mesic open woodlands, marshes & sedge meadows, wet to dry mesic prairies. This variety has hairs all over the underside of the leaf face. The straight species is less common in the region and has hairs only on the veins or is hairless.

Early Wild Rose

*Rosa blanda*

ROSACEAE

Photo: 10-9-19

Berries. Mama’s Boy. Leaflets 5-7. Marketed as “smooth rose,” this species can be completely thornless, but the lower stems often have slender prickles. Part shade to sunny, dry to wet. Most local *Rosa* species bloom Jun/Jul; this species usually starts in mid-May. Collect plump red hips.
Multiflora Rose
*Rosa multiflora*
ROSACEAE

Photo: 9-26-20

Berries. Worthy of Sleeping Beauty’s castle, with its aggressively sprawling shape and wicked thorns. Many flowers (“multiflora”) become many red fruits (rose hips). Unique with fringed stipules: leafy bracts at the base of the leaf stalk are fringed, like eyelashes. Once promoted for erosion control, living fences, and wildlife; this species has since invaded pretty much every habitat, especially disturbed ones. Kill it.

Climbing Bittersweet
*Celastrus scandens*
CELASTRACEAE

Photo: 9-18-19

Berries. This native bittersweet vine is overshadowed by its aggressive Oriental sister. The easiest way to tell these species apart is that *C. scandens* only has flowers & fruit at the tips of the terminal stems; the invasive *C. orbiculatus* forms tons of berries in the axils (where the leaves meet the stem).

Oriental Bittersweet
*Celastrus orbiculatus*
CELASTRACEAE

Photo: 11-4-19

Berries. Both sisters have round-ish leaves; *C. scandens* leaves are widest in the middle or closer to the stem, or oval shaped (*C. orbiculatus* is wider beyond the middle or completely round). *C. orbiculatus* is a jerk, able to strangle trees or swallow them up like kudzu. Kill it!
Japanese Barberry
Berberis thunbergii
BERBERIDACEAE

Photo: 9-25-20

Common Buckthorn
Rhamnus cathartica
RHAMNACEAE

Photo: 9-27-20
Berries. This bully is abundant, alters soil chemistry & moisture, contains emodin which leaches into ephemeral pools and kills frogs, forms berries that are a laxative to birds, and shades out native species. Fruits are black; 3-year-old plants may form seed. Tips of stems have a small "thorn" sandwiched between 2 dark buds, like a buck’s hoof. Gray bark, peeling with age; orange wood. Kill it.

Glossy Buckthorn
Frangula alnus
RHAMNACEAE

Photo: 10-16-20
Berries. This invasive is contained to wetland habitats: fens, bogs, flatwoods, and old fields with high water tables. Leaves are glossy, especially in comparison to the more common R. cathartica, and leaf edges are entire (no serrations). Veins are prominent parallel lines, feathering out to the margins. Fruits red to black. Stems have prominent lenticels - light colored freckles against the dark bark.
Indigo Bush

*Amorpha fruticosa*

**FABACEAE**

Photo: 9-28-17

Shattering. Blooms just like *A. canescens* (lead plant) with purple flower & bright orange stamens, but this shrub grows to head height. Mini banana-shaped seed pods are quite different from its sister. Collect when brown. Wet to wet-mesic habitats, often near streams and rivers.

Bladdernut

*Staphylea trifolia*

**STAPHYLEACEAE**

Photo: 10-7-17

Shattering. Mama’s Boy. This shrub forms dangling Chinese paper lanterns with 3 fused chambers, which can float downstream. A few glossy taupe seeds in each lantern. Leaflets in 3s. Forms rhizomatous colonies. Rich woodlands, wet to mesic, often growing just above wet places. Collect beige-brown lanterns. Sow promptly, seeds take a long time to germinate.

New Jersey Tea

*Ceanothus americanus*

**RHAMNACEAE**

Photo: 10-8-18

Ballistic. This prairie shrub is naturally dwarf-sized and deer like to prune it even shorter. Capsules go from green, to black, then black crackled with beige (like a burnt marshmallow), before catapulting away. Collect capsules that are crackled or all black. Store in a sealed paper or mesh bag. Seeds are glossy little beans in assorted colors. Needs hot water scarification & cold-moist stratification to germinate.
Ninebark

**Physocarpus opulifolius**

**ROSACEAE**

Photo: 10-9-17

Beaks. The many layers of peeling bark in assorted shades of brown give this shrub a distinct appearance. Loaded with white flowers. Seed capsules are clustered with 3 – 5 chambers, which split open to release tiny shiny seeds.

Winterberry

**Ilex verticillata**

**AQUIFOLIACEAE**

Photo: 10-11-18

Berries. This native holly has dense clusters of red berries. Leaves are deciduous and light green. Flowers are in whorls ("verticillata") around the leaf axils. Likes flatwoods, bogs, swamps. Collect Christmas-red berries.

Poison Ivy

**Toxicodendron radicans**

**ANACARDIACEAE**

Photo: 10-12-19

Berries. YIKES!! Don’t collect that! Leaflets three, leave it be, it’s poison ivy. Other natives have three leaflets but notice the centipede-like clinging aerial roots and creamy white ripe berries to confidently identify poison ivy. Here, a flock of yellow warblers chow down on it on their way south. No photographers were harmed in collecting these images.
Kalm’s St. John’s Wort

*Hypericum kalmianum*

Hypericaceae

Photo: 10-14-19

Beaks. An uncommon short shrub found close to Lake Michigan in wet to dry sand prairies and marly pannes. Yellow flowers loaded with so many stamens, it is like a yellow pompom was placed in the center. Bees love it! Capsules split into 5s. Flower clusters at tips only.

Shrubby St. John’s Wort

*Hypericum prolificum*

Hypericaceae

Photo: 10-14-19

Beaks. Very similar to *H. kalmianum*. Capsules split into 3s. This species flowers & seeds at the top *and* in the upper axils. Bark is slower to peel than its sister. An uncommon shrub found in mesic to dry savannas, prairies, and seeps; usually near bluffs. Short (less than 2 m).

Common Privet

*Ligustrum vulgare*

Oleaceae

Photo: 10-24-20

Berries. Privets are native to Europe & Asia and escape from hedgerows. Leaves are ladder-like and persist into early winter in shades of yellow-green, burgundy, or purple. Fruits are dark blue-black, clustered at the tips of branches. The other non-native privet has hairs of mixed lengths; this species is hairless or even-length hairs.
Wahoo

Euonymus atropurpureus

CELASTRACEAE

Photo: 10-24-20

Berries. The only native upright Euonymus, this species has long petioles (typically 1 cm) and purple flowers. Leaves are hairy on the underside. Stems become ridged but not winged. Euonymus seeds are wrapped up in many layers: capsules are crimson, berries (arils) inside are red, seeds are white.

Winged Euonymus aka Burning Bush

Euonymus alatus

CELASTRACEAE

Photo: 10-30-20

Berries. An escapee from gardens, this species is readily identified by the winged stems. Found in many woodlands, especially in upland disturbed woods. Seed capsules are purple, berries (arils) are red-orange, seeds are white.

European Spindle Tree

Euonymus europaeus

CELASTRACEAE

Photo: 11-2-20

Berries. An escapee from gardens, this species has stems that are ridged but not winged. Leaves are hairless, and have an elongated tip. Seed capsule pink to red, berries (arils) are orange, seeds are white.
Staghorn Sumac

*Rhus typhina*

**ANACARDIACEAE**

Photo: 11-2-20

Berries. Sumacs are another native shrub that inspires mixed reactions. Lovely fall color, but overwhelms grasslands without fire. Forms dense thickets, great for pollinators, birds, and mammals. This species has hairy branches, like velvety antlers, including 2nd-year branches. Fruits are hairy with thin needle-like hairs, many 1.5 mm or longer. Leaves have serrated edges but are not divided.

Smooth Sumac

*Rhus glabra*

**ANACARDIACEAE**

Photo: 12-25-18

Berries. The branches of *R. glabra* are “glabrous” (hairless) and smooth. The fruits are also relatively smooth, hairs are 0.2 mm or shorter and noticed by touch rather than sight.

Northern Sumac

*Rhus x pulvinata*  
(R. glabra x typhina)

**ANACARDIACEAE**

Photo: 12-25-18

Berries. A natural hybrid between smooth & staghorn sumac. This species has fuzzy new branches (same as *R. typhina*) but smooth 2nd year branches (like *R. glabra*). The fruit hairs on *R. glabra* are typically less than 0.5 mm, *R. typhina* hairs are mostly 1.5 mm long; this hybrid has hairs in between.
Shrubby Cinquefoil

*Dasiphora fruticosa*

**ROSACEAE**

Beaks. This dwarf shrub is often only 2-3 feet tall. Sunny yellow flowers like cinquefoils in the *Potentilla* genus, but with woody stems. Leaves are divided, usually 5-7 leaflets. Leaves covered in silky hairs, especially on the underside. Calyx surrounding the seeds is also hairy. This uncommon shrub grows on beach ridges along Lake Michigan, and also in fens.

Buttonbush

*Cephalanthus occidentalis*

**RUBIACEAE**

Crumbly Coneheads. Loves standing water, can form small thickets in shady ponds that birds love. A white pincushion of flowers, which becomes a crumbly globe of seed – both are distinctive. Collect when easily crumbles by hand.