



NANPS 2019 Seed Exchange Germination Requirements

<i>species</i>	<i>common name</i>	<i>code</i>	<i>species</i>	<i>common name</i>	<i>code</i>
Grasses & Sedges			Perennial Flowers		
<i>Andropogon gerardii</i>	big bluestem	A	<i>Lespedeza capitata</i>	round-headed bush clover	B, I, K
<i>Bouteloua curtipendula</i>	side-oats gramma	A	<i>Liatris ligulistylus</i>	meadow blazing star	B
<i>Elymus hystrix</i>	bottlebrush grass	B	<i>Liatris spicata</i>	dense blazing star	A or B
<i>Panicum virgatum</i>	switch grass	A	<i>Lobelia cardinalis</i>	cardinal flower	A, H
<i>Schizachyrium scoparium</i>	little bluestem	A	<i>Lobelia inflata</i>	Indian tobacco	A
<i>Sorghastrum nutans</i>	Indian grass	B	<i>Lobelia siphilitica</i>	great blue lobelia	A, H
Perennial Flowers			<i>Lupinus perennis</i>	wild lupine	A, I
<i>Actaea racemosa</i>	black cohosh	D	<i>Monarda fistulosa</i>	wild bergamot	B
<i>Agastache foeniculum</i>	blue giant hyssop	A	<i>Monarda punctata</i>	dotted horsemint	B
<i>Agastache nepetoides</i>	yellow giant hyssop	A	<i>Oenothera biennis</i>	evening primrose	A
<i>Ageratina altissima</i>	white snakeroot	B	<i>Oligoneuron rigidum</i>	stiff goldenrod	B
<i>Allium cernuum</i>	nodding wild onion	A	<i>Penstemon digitalis</i>	foxglove beardtongue	B, H
<i>Anaphalis margaritacea</i>	pearly everlasting	A	<i>Penthorum sedoides</i>	ditch stonecrop	B, H
<i>Anemone cylindrica</i>	thimbleweed	B	<i>Physostegia virginiana</i>	obedient plant	A or B
<i>Antennaria Parlinii ssp fallax</i>	pussytoes	B	<i>Plantago rugelii</i>	blackseed plantain	B
<i>Aquilegia canadensis</i>	wild columbine	B	<i>Pycnanthemum virginianum</i>	Virginia mountain-mint	B
<i>Aralia nudicaulis</i>	wild sarsaparilla	B	<i>Ratibida pinnata</i>	grey-headed coneflower	A or B
<i>Asclepias exaltata</i>	poke milkweed	B, H	<i>Rudbeckia hirta</i>	black-eyed Susan	A or B
<i>Asclepias incarnata</i>	swamp milkweed	B, H	<i>Rudbeckia triloba</i>	brown-eyed Susan	A or B
<i>Asclepias sullivantii</i>	Sullivant's milkweed	B, H	<i>Ruellia humilis</i>	wild petunia	
<i>Asclepias syriaca</i>	common milkweed	B, H	<i>Silphium perfoliatum</i>	cup plant	B
<i>Asclepias tuberosa</i>	butterfly milkweed	B, H	<i>Sisyrinchium montanum</i>	strict blue-eyed grass	A or C
<i>Baptisia australis</i>	wild false indigo	B, I	<i>Solidago caesia</i>	blue-stemmed goldenrod	B
<i>Cirsium discolor</i>	field thistle	B	<i>Solidago flexicaulis</i>	zigzag goldenrod	B
<i>Coreopsis lanceolata</i>	lance-leaf coreopsis	A or B	<i>Solidago juncea</i>	early goldenrod	B
<i>Coreopsis tripteris</i>	tall coreopsis	A or B	<i>Solidago nemoralis</i>	gray goldenrod	B
<i>Desmodium canadense</i>	showy tick-trefoil	A, I, K	<i>Solidago ohioensis</i>	Ohio goldenrod	B
<i>Doellingeria umbellata</i>	flat-topped white aster	B	<i>Solidago riddellii</i>	Riddell's goldenrod	B
<i>Echinacea pallida</i>	pale-purple coneflower	B	<i>Solidago speciosa</i>	showy goldenrod	B, H
<i>Eryngium yuccifolium</i>	rattlesnake master	B	<i>Symphyotrichum cordifolium</i>	heart-leaf aster	B
<i>Eupatorium altissimum</i>	tall boneset	B	<i>Symphyotrichum ericoides</i>	heath aster	B
<i>Eurybia divaricata</i>	white wood aster	B	<i>Symphyotrichum laeve</i>	smooth aster	B
<i>Eurybia macrophylla</i>	Big-leaf aster	B	<i>Symphyotrichum novae-angliae</i>	New England aster	B
<i>Eutrochium maculatum</i>	spotted Joe Pye weed	B	<i>Symphyotrichum oolentangiense</i>	sky-blue aster	B
<i>Eutrochium dubium</i>	eastern Joe Pye weed	B	<i>Tradescantia ohiensis</i>	Ohio spiderwort	B
<i>Eutrochium purpureum</i>	sweet Joe Pye weed	B	<i>Verbena hastata</i>	blue vervain	B, H
<i>Helenium autumnale</i>	common sneezeweed	A	<i>Verbena stricta</i>	hoary vervain	B, H
<i>Heliopsis helianthoides</i>	false sunflower	A	<i>Verbena urticifolia</i>	white vervain	B, H
<i>Hibiscus moscheutos</i>	swamp rose-mallow	B, I	<i>Verbesina alternifolia</i>	wingstem	B
<i>Hypericum ascyron</i>	great St. John's-wort	B, H	<i>Vernonia fasciculata</i>	ironweed	B
<i>Iliamna remota</i>	Kankakee mallow	B			
<i>Iris versicolor</i>	blue flag	B, H			



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Perennial Flowers					
<i>Vernonia missurica</i>	Missouri ironweed	B			
<i>Vernonia noveboracensis</i>	New York ironweed	B			
<i>Veronicastrum virginicum</i>	Culver's root	B, H*			
<i>Zizia aurea</i>	golden Alexanders	B			
Shrubs					
<i>Cephalanthus occidentalis</i>	buttonbush	A, H			
<i>Hypericum kalmianum</i>	Kalm's St. John's-wort	A, H			
<i>Physocarpus opulifolius</i>	common ninebark	B, H			
<i>Spiraea alba</i>	meadowsweet	A or B, H			
<i>Staphylea trifolia</i>	American bladdernut	B or C			
Trees					
<i>Catalpa speciosa</i>	northern catalpa	B			
<i>Celtis occidentalis</i>	hackberry	B, G, I			
<i>Cercis canadensis</i>	redbud	B, I			
<i>Sorbus americana</i>	American mountain ash	D			
Vines					
<i>Clematis virginiana</i>	virgin's bower	B*			
<i>Echinocystis lobata</i>	wild cucumber vine	B			
<i>Smilax herbacea</i>	smooth carrionflower	B, I			

Germination Codes

- * seed is hydrophillic, intolerant of dry storage.
- A seed will germinate within 4 weeks if sown at 20°C
- B seed will germinate upon being shifted to 20°C after a period of moist, cold stratification at 5°C.
- C seed germinates only after multiple cycles of warm and cold, typically 5°-20°-5°-20°C.
- D seed needs a period of warm, moist stratification followed by cold stratification and will germinate after being shifted back to warm, for example 20°-5°-20°C.
- G seed will not germinate in presence of chemical inhibitors.
- H seed requires light to germinate.
- I seed requires scarification because of an impermeable seed coat.
- J seed needs high humidity to germinate
- K seed germinates better with inoculant
- M moss germination: seed germinates best in the presence of both light and high atmospheric moisture as would be found on a damp mossy substrate in the wild.
- W wetland species: soil should be consistently wet