



## NANPS 2017 Seed Exchange Germination Requirements

<i>species</i>	<i>common name</i>	<i>code</i>	<i>species</i>	<i>common name</i>	<i>code</i>
<b>Grasses &amp; Sedges</b>			<b>Perennial Flowers</b>		
<i>Andropogon gerardii</i>	big bluestem	A	<i>Iris versicolor</i>	blue flag	B, H
<i>Bouteloua curtipendula</i>	side-oats gramma	A	<i>Iris virginica</i>	pale blue flag iris	B
<i>Carex rosea</i>	stellate sedge	B, H	<i>Lespedeza capitata</i>	round-headed bush clover	B, I, K
<i>Chasmanthium latifolium</i>	northern sea oats	A	<i>Lespedeza hirta</i>	Hairy Bushclover	B, I, K
<i>Elymus canadensis</i>	canada wild rye	B	<i>Lespedeza intermedia</i>	Wand-like bushclover	B, I, K
<i>Elymus hystrix</i>	bottlebrush grass	B	<i>Liatris ligulistylus</i>	meadow blazing star	B
<i>Panicum virgatum</i>	switch grass	A	<i>Liatris spicata</i>	dense blazing star	A or B
<i>Schizachyrium scoparium</i>	little bluestem	A	<i>Lobelia cardinalis</i>	cardinal flower	A, H
<i>Sorghastrum nutans</i>	Indian grass	B	<i>Lupinus perennis</i>	wild lupine	A, I
<b>Perennial Flowers</b>			<i>Monarda fistulosa</i>	wild bergamot	B
<i>Actaea racemosa</i>	black cohosh	D	<i>Monarda punctata</i>	dotted horsemint	B
<i>Agastache foeniculum</i>	blue giant hyssop	A	<i>Oenothera biennis</i>	evening primrose	A
<i>Agastache nepetoides</i>	yellow giant hyssop	A	<i>Oligoneuron rigida</i>	stiff goldenrod	B
<i>Ageratina altissima</i>	white snakeroot	B	<i>Penstemon digitalis</i>	foxglove beardtongue	B, H
<i>Allium cernuum</i>	nodding wild onion	A	<i>Physostegia virginiana</i>	obedient plant	A or B
<i>Anaphalis margaritacea</i>	pearly everlasting	A	<i>Pycnanthemum tenuifolium</i>	slender mountain mint	A
<i>Anemone cylindrica</i>	thimbleweed	B	<i>Pycnanthemum virginianum</i>	Virginia mountain-mint	B
<i>Anemone virginiana</i>	tall thimbleweed	B	<i>Ratibida pinnata</i>	grey-headed coneflower	A or B
<i>Aquilegia canadensis</i>	wild columbine	B	<i>Rudbeckia laciniata</i>	green-headed coneflower	A or B
<i>Aralia racemosa</i>	spikenard	B, G, I	<i>Rudbeckia triloba</i>	brown-eyed Susan	A or B
<i>Asclepias incarnata</i>	swamp milkweed	B, H	<i>Senna hebecarpa</i>	Wild senna	B
<i>Asclepias syriaca</i>	common milkweed	B, H	<i>Silene regia</i>	Royal catchfly	B
<i>Asclepias tuberosa</i>	butterfly milkweed	B, H	<i>Silphium perfoliatum</i>	cup plant	B
<i>Campanula americana</i>	tall bellflower	A, H	<i>Silphium terebinthinaceum</i>	prairie dock	B
<i>Coreopsis lanceolata</i>	lance-leaf coreopsis	A or B	<i>Solidago caesia</i>	blue-stemmed goldenrod	B
<i>Coreopsis tripteris</i>	tall coreopsis	A or B	<i>Solidago canadensis</i>	Canada Goldenrod	
<i>Desmodium canadense</i>	showy tick-trefoil	A, I, K	<i>Solidago flexicaulis</i>	zigzag goldenrod	B
<i>Doellingeria umbellata</i>	flat-topped white aster	B	<i>Solidago nemoralis</i>	gray goldenrod	B
<i>Echinacea pallida</i>	pale-purple coneflower	B	<i>Solidago riddellii</i>	Riddell's goldenrod	B
<i>Eryngium yuccifolium</i>	rattlesnake master	B	<i>Solidago sempervirens</i>	seaside goldenrod	A
<i>Eupatorium altissimum</i>	tall boneset	B	<i>Symphyotrichum cordifolium</i>	heart-leaf aster	B
<i>Eupatorium perfoliatum</i>	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>Symphyotrichum turbinellum</i>	prairie aster	B
<i>Eutrochium purpureum</i>	sweet Joe Pye weed	B	<i>Thalictrum pubescens</i>	tall meadow rue	B
<i>Filipendula rubra</i>	Queen of the Prairie	D	<i>Verbena hastata</i>	blue vervain	B, H
<i>Gentiana andrewsii</i>	bottle gentian	B, H	<i>Verbena stricta</i>	hoary vervain	B, H
<i>Helenium autumnale</i>	common sneezeweed	A			
<i>Helianthus giganteus</i>	tall sunflower	A			
<i>Hypericum ascyron</i>	great St. John's-wort	B, H			
<i>Iris setosa</i>	beachhead iris	B			



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<b>Perennial Flowers</b>					
<i>Verbesina alternifolia</i>	wingstem	B			
<i>Vernonia gigantea</i>	tall ironweed	B			
<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>Yucca filamentosa</i>	Adam's needle	A			
<i>Zizia aurea</i>	golden Alexanders	B			
<b>Shrubs</b>					
<i>Cephalanthus occidentalis</i>	buttonbush	A, H			
<i>Hypericum kalmianum</i>	Kalm's St. John's-wort	A, H			
<i>Opuntia humifusa</i>	prickly-pear cactus	B, I			
<i>Physocarpus opulifolius</i>	common ninebark	B, H			
<i>Rosa virginiana</i>	Virginia rose	I			
<i>Rubus odoratus</i>	flowering raspberry	B, G			
<i>Spiraea alba</i>	meadowsweet	A or B, H			
<b>Trees</b>					
<i>Aesculus glabra</i>	Ohio buckeye	B*			
<i>Gymnocladus dioicus</i>	Kentucky coffee tree	A, I			
<b>Vines</b>					
<i>Clematis virginiana</i>	virgin's bower	B*			
<i>Dioscorea villosa</i>	wild yam	A or B			
<i>Echinocystis lobata</i>	wild cucumber vine	B			
<i>Ipomoea pandurata</i>	wild sweet potato	A, I			

### Germination Codes

- \* seed is hydrophilic, 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