

Germination Instructions for Seeds

The seeds of many native plants have built-in dormancy mechanisms which protect them from germinating before killing frosts or in times of drought.

In the wild, seeds will lie dormant until the proper conditions for growth occur. But in cultivation, the successful gardener must become familiar with several simple pre-sowing seed treatment methods which will unlock the dormancy mechanism and stimulate quicker, more consistent germination.

The Prairie Moon Nursery has developed the following seed germination codes to help you successfully grow the native plant seeds sold in their catalog. These seed treatment suggestions have been compiled from available literature, their own experience, and feedback from other growers and customers.

These are only suggestions and not the definitive source of germination information. If your experience reveals successful methods other than these, please let us know.

To find the seed treatment method for the species you are interested in growing, look under the Germination Code column on the Plant List and Germination Codes chart the follows this brief description.

Until you are ready to plant or apply pre-sowing treatment, seed should be stored in either a sealed (airtight) container under refrigeration (33-40°F) or in an open container in a cool, dry place. Avoid rapid or frequent temperature changes and protect against rodents. (See further instructions elsewhere in the chapter guidebook.)

Sow seeds shallowly and keep seedlings carefully weeded. Periodic watering is helpful to establish seedlings. If seed does not germinate the first year, don't give up; germination may occur the second year or even later.

A. No pre-treatment necessary other than cold, dry storage (also called dry cold stratification.)

Seed should germinate upon sowing in a warm location.

B. Hot Water Treatment.

Bring water to a boil, remove from stove, pour over seed, soak for 24 hours. Plant or moist cold stratify if needed (code C).

C. Seeds germinate after a period of moist, cold stratification.

Please note: Do not use this method if you are planting a seed mix and cannot keep the site moist. Also, do not stratify if you are fall planting or using a seed drill. Mix seeds with equal amounts or more of damp sand, vermiculite, or other sterile media (moist-but not so wet that water will squeeze out of a handful). Prairie Moon Nursery uses silica sand (purchase at a building supply center) for small quantities. For large quantities you can use coarse grade vermiculite. Place mixture in a labeled, sealed plastic bag and store in refrigerator (33-38 F). Two months of this cold storage before planting is normally required to break the dormancy of these seeds, but one month may work for many species if time is a constraint. Exceptions to length of storage time are noted in

the Cultural Guide in parentheses [Example: C (90) = C for 90 days]. Some seeds may sprout in the storage bag if moist stratified too long. If sprouting occurs, plant immediately. Another method of breaking dormancy for species requiring moist stratification is to sow seeds outdoors in the fall so they may overwinter.

D. Seeds are very small or need light to naturally break dormancy and germinate.

Sow seeds in a container (pot or flat) and water from the bottom as necessary. Seed requiring this treatment should not be covered after sowing, although a light dusting of soil can be applied. If grown in outdoor beds, sow seeds on level soil. Cover with a single layer of burlap or cotton sheet. Do not let soil dry out until seedlings are established. Remove cover after germination. Shading with a window screen set 12" above the soil the first season will help prevent drying.

E. In order to germinate, seeds need a warm, moist period followed by a cold, moist period.

Mix seeds with damp sand (not dripping wet), place in a labeled, sealed plastic bag and store in warm (about 80 F) place for 60-90 days. Then place in refrigerator (33-38 F) for 60-90 days before sowing. Or, sow outdoors and allow one full year for germination.

F. Seeds need a cold, moist period followed by a warm, moist period followed by a 2nd cold, moist period.

Seeds germinate after alternating, cold moist, warm moist, cold moist stratification treatments. Start by following instructions for code C for 60-90 days, then store in warm (70 to 80 degrees F) place for 60-90 days followed by a 2nd cold period. Or sow outdoors and allow 2 years or longer to germinate.

G. Seeds germinate most successfully in cool soil.

Sow seeds in late fall (after hard frost) or early spring.

H. Seeds need scarification.

One way to accomplish this is by rubbing seed between two sheets of medium grit sandpaper. The object is to abrade seed coats - stop if seeds are being crushed. Scarification should be done before moist, cold stratification (Code C) if this treatment is also needed. Seed purchased from Prairie Moon Nursery has been scarified before shipment. Exception: seed, which will be dormant (fall) or frost (winter) seeded outdoors are not scarified to prevent the chance of premature germination and winter kill.

I. Legume, Rhizobium Inoculum.

These species are legumes and although they will show satisfactory growth without inoculation we recommend using an inoculum if the proper type is available. The fixation of atmospheric nitrogen improves the long-term health of native plant communities and is especially important in low fertility soils. Prairie Moon Nursery supplies inoculum (when available) at no charge for legume seed purchased from us.

J. Prairie Nursery removes the hulls from these legume seeds.

This gives you more seeds per pound and greatly improves germination. If you have unhulled seed from another source, treat as in Code H.

K. Parasitic species which needs a host plant.

For container growing. Excellent hosts (for many parasitic species) include low-growing grasses and sedges like Hairy Grama, Blue Grama, Buffalo Grass, Pennsylvania Sedge, Sweet Grass, and June Grass. With a knife make a 2" deep cut at the base of the host plant. Sow seeds in the cut, making sure seed is not more than 1/8" deep. If host is transplanted at sowing time, the cut is not needed because damaged roots will be available for attachments by the parasite. You may also try sowing parasitic and host species seeds together at the same time. To add parasitic species to existing sites, scatter seed on soil surface (rake in if seed is large) in late fall.

L. Plant Fresh Seed or keep moist.

Refrigerate until planting or starting other treatment.

M. Rest fall planted out doors.

N. Special seed treatment required.

Seeds purchased from a reliable native plant nursery will have already received this treatment. Best planted in spring after soil is warm.

O. Seed needs nicking.

Nick seed coat with knife, soak in water overnight. Plant.

P. Fern spore sowing.

Sow fern spores on sterile peat under glass in indirect light. Water with distilled water. Refer to other reference material on growing ferns. Or, direct sow spores on soil surface.

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Please see Nursery Plant List and Germination Codes Chart which follows.

Nursery Plant List and Germination Codes

Common Name	Scientific Name	Germ. Code
Allegheny Serviceberry	Amelanchier laevis	M or C
American Columbo	Frasera caroliniensis	E
American Cranberrybush	Viburnum trilobum	F,Clone
American Slough Grass	Beckmannia syzigachne	A
Amethyst Shooting Star	Dodecatheon amethystinum	D,G&C/M
Angelica	Angelica atropurpurea	F
Anise Hyssop	Agastache foeniculum	C or A,D
Aromatic Aster	Aster oblongifolius	A
Arrowleaf Sweet Coltsfoot	Petasites sagittatus	?
Arrow-leaved Aster	Aster sagittifolius	C,D
Arrowwood Viburnum	Viburnum dentatum	F,Clone
Awl-fruited Oval Sedge	Carex tribuloides	C,D
Awned Graceful Sedge	Carex davisii	C
Barberpole Sedge	Scirpus microcarpus	C or M,D
Bastard Toadflax	Comandra umbellata	?,K
Beach Wormwood	Artemisia caudata	?
Beak Grass	Diarrhena americana	C,G
Bebb's Oval Sedge	Carex bebbii	C
Bent-seeded Hop Sedge	Carex tuckermanii	C
Biennial Gaura	Gaura biennis	C
Big Bluestem	Andropogon gerardii	A
Big-leaved Aster	Aster macrophyllus	C
Bishop's Cap	Mitella diphylla	C
Bittersweet	Celastrus scandens	F,M or C
Black Cohosh	Cimicifuga racemosa	
Black Haw	Viburnum prunifolium	F,Clone
Black-eyed Susan	Rudbeckia hirta	C or A
Bloodroot	Sanguinaria canadensis	L,F
Blue Camas	Camassia quamash	C
Blue Cohosh	Caulophyllum thalictroides	M

Blue Grama	<i>Bouteloua gracilis</i>	A
Blue Joint Grass	<i>Calamagrostis canadensis</i>	A,D
Blue Sage	<i>Salvia azurea</i>	A
Blue Vervain	<i>Verbena hastata</i>	C(30),D
Blue Wild Indigo	<i>Baptisia australis</i>	C(10),H,I
Blue-Ridge Buckbean	<i>Thermopsis caroliniana</i>	A,H,I
Blunt Spike Rush	<i>Eleocharis obtusa</i>	C,D
Bog Panicked Sedge	<i>Carex diandra</i>	C
Boneset	<i>Eupatorium perfoliatum</i>	A,D or C,D
Bottle Gentain	<i>Gentiana andrewsii</i>	C,D
Bottlebrush Grass	<i>Hystrix patula</i>	A
Bradbury's Monarda	<i>Monarda bradburiana</i>	C?
Bristly Buttercup	<i>Ranunculus pensylvanicus</i>	C
Bristly Cattail Sedge	<i>Carex frankii</i>	C
Bristly Sedge	<i>Carex comosa</i>	C
Broad-leaved Woolly Sedge	<i>Carex pellita</i>	C
Brown Fox Sedge	<i>Carex vulpinoidea</i>	C,D
Brown-eyed Susan	<i>Rudbeckia triloba</i>	C or A
Buffalo Grass Cultivar	<i>Buchloe dactyloides</i>	A,N
Bunch Flower	<i>Melanthium virginicum</i>	C
Bur Cucumber	<i>Sicyos angulatus</i>	C
Bur-reed Sedge	<i>Carex sparganioides</i>	C
Bush Cinquefoil	<i>Potentilla fruticosa</i>	C
Bush's Coneflower	<i>Echinacea paradoxa</i>	C
Bush's Poppy Mallow	<i>Callirhoe bushii</i>	B,C(30)
Butterfly Weed	<i>Asclepias tuberosa</i>	C or A
Button Blazing Star	<i>Liatris aspera</i>	C
Buttonbush	<i>Cephalanthus occidentalis</i>	A
Calico Aster	<i>Aster lateriflorus</i>	A
Calico Beardtongue	<i>Penstemon calycosus</i>	C(30),G
Canada Anemone	<i>Anemone canadensis</i>	F
Canada Hawkweed	<i>Hieracium canadense</i>	C,D

Canada Rush	<i>Juncus canadensis</i>	C,D
Canada Wild Rye	<i>Elymus canadensis</i>	A
Canadian Milk Vetch	<i>Astragalus canadensis</i>	C(10),H,I
Cardinal Flower	<i>Lobelia cardinalis</i>	C,D
Carolina Anemone	<i>Anemone caroliniana</i>	C
Celandine Poppy	<i>Stylophorum diphyllum</i>	L
Chairmaker's Rush	<i>Scirpus pungens</i>	
Cinnamon Willow Herb	<i>Epilobium coloratum</i>	C,D
Clammy Weed	<i>Polanisia dodecandra</i>	C or A
Cliff Goldenrod	<i>Solidago sciaphila</i>	C,D
Clustered Poppy Mallow	<i>Callirhoe triangulata</i>	B,C,?
Columbine	<i>Aquilegia canadensis</i>	C
Common Arrowhead	<i>Sagittaria latifolia</i>	C
Common Beggar's Ticks	<i>Bidens frondosa</i>	C
Common Blue Violet	<i>Viola papilionacea</i>	C or M,D
Common Blue-eyed Grass	<i>Sisyrinchium albidum</i>	M or C,G,D
Common Bur Sedge	<i>Carex grayi</i>	C
Common Carrion Flower	<i>Smilax lasioneura</i>	?
Common Cattail Sedge	<i>Carex typhina</i>	C
Common Evening Primrose	<i>Oenothera biennis</i>	A,G,D
Common Fox Sedge	<i>Carex stipata</i>	C
Common Hop Sedge	<i>Carex lupulina</i>	C
Common Ironweed	<i>Vernonia fasciculata</i>	C
Common Lake Sedge	<i>Carex lacustris</i>	C
Common Milkweed	<i>Asclepias syriaca</i>	C or A
Common Oak Sedge	<i>Carex pensylvanica</i>	?,Clone
Common Rush	<i>Juncus effusus</i>	C,D
Common Tussock Sedge	<i>Carex stricta</i>	C
Common Witch Hazel	<i>Hamamelis virginiana</i>	M
Compass Plant	<i>Silphium laciniatum</i>	C
Copper-shouldered Oval Sedge	<i>Carex bicknellii</i>	C
Coralberry	<i>Symphoricarpos orbiculatus</i>	F

Cord Grass	<i>Spartina pectinata</i>	A
Cottonweed	<i>Froelichia floridana</i>	C
Cow Parsnip	<i>Heracleum maximum</i>	M?, F?
Cowbane	<i>Oxypolis rigidior</i>	?
Cream Gentian	<i>Gentiana flavida</i>	C,D
Cream Violet	<i>Viola striata</i>	
Cream Wild Indigo	<i>Baptisia leucophaea</i>	C(10),H,I
Crested Oval Sedge	<i>Carex cristatella</i>	C
Crooked-stemmed Aster	<i>Aster prenanthoides</i>	C,D
Crowfoot Fox Sedge	<i>Carex crus-corvi</i>	C
Culver's Root	<i>Veronicastrum virginicum</i>	A,D
Cup Plant	<i>Silphium perfoliatum</i>	C
Curly-styled Wood Sedge	<i>Carex rosea</i>	C
Cynthia	<i>Krigia biflora</i>	C
Dark-green Bulrush	<i>Scirpus atrovirens</i>	C or M,D
Decurrent False Aster	<i>Boltonia decurrens</i>	C,D
Deflexed Bottle-brush Sedge	<i>Carex retrorsa</i>	C
Ditch Stonecrop	<i>Penthorum sedoides</i>	C,D
Doll's Eyes	<i>Actaea pachypoda</i>	F
Dotted Blazing Star	<i>Liatris punctata</i>	C
Downy Gentian	<i>Gentiana puberulenta</i>	C,D
Downy Serviceberry	<i>Amelanchier arborea</i>	M
Downy Sunflower	<i>Helianthus mollis</i>	C or A
Downy Wood Mint	<i>Blephilia ciliata</i>	C,D
Drummond's Aster	<i>Aster drummondii</i>	A
Dudley's Rush	<i>Juncus dudleyi</i>	C,D
Dutchman's Breeches	<i>Dicentra cucullaria</i>	L
Dwarf Blazing Star	<i>Liatris cylindracea</i>	C
Dwarf Blue Indigo	<i>Baptisia minor</i>	C(10),H,I
Dwarf Bush Honeysuckle	<i>Diervilla lonicera</i>	C(90),D
Dwarf Crested Iris	<i>Iris cristata</i>	L,Clone
Dwarf Prairie Sage	<i>Artemisia ludoviciana</i> var.	A,D,Clone

Early Buttercup	Ranunculus fascicularis	C
Early Figwort	Scrophularia lanceolata	C?,D
Early Goldenrod	Solidago juncea	C,D
Early Meadow Rue	Thalictrum dioicum	C
Early Sunflower	Heliopsis helianthoides	C or A
Early Wild Rose	Rosa blanda	C,H,F,?
Eastern Gamma Grass	Tripsacum dactyloides	C,M or F?
Eastern Prickly Pear	Opuntia humifusa	A
Eastern Sand Cherry	Prunus pumila	L
Eastern White Beardtongue	Penstemon tenuiflorus	C(30),D
Elderberry	Sambucus canadensis	M,Clone
Elm-leaved Goldenrod	Solidago ulmifolia	C,D
False Aster	Boltonia asteroides	C,D
False Boneset	Kuhnia eupatorioides	A
False Bristly Sedge	Carex pseudocyperus	C
False Indigo	Amorpha fruticosa	C(10)
False Rue Anemone	Isopyrum biternatum	C?
Fame Flower	Talinum rugospermum	C,D
Fen Panicked Sedge	Carex prairea	C
Fen Star Sedge	Carex sterilis	C
Field Oval Sedge	Carex molesta	C
Fireweed	Epilobium angustifolium	C,D
Flat-topped Aster	Aster umbellatus	C
Flowering Spurge	Euphorbia corollata	C(30)
Forked Aster	Aster furcatus	C
Fowl Bluegrass	Poa palustris	A,D
Fowl Manna Grass	Glyceria striata	A,D
Foxglove Beardtongue	Penstemon digitalis	C(30),G,D
Fragile Prickly Pear	Opuntia fragilis	A
Fragrant False Indigo	Amorpha nana	C(10)
Fragrant Sumac	Rhus aromatica	B,C
French Grass	Psoralea onobrychis	C(10),H,I

Fringed Brome	<i>Bromus ciliatus</i>	A
Fringed Gentian	<i>Gentiana crinita</i>	C,D
Fringed Loosestrife	<i>Lysimachia ciliata</i>	C
Fringed Sedge	<i>Carex crinita</i>	C
Frost Aster	<i>Aster pilosus</i>	C,D
Garden Phlox	<i>Phlox paniculata</i>	C
Germander	<i>Teucrium canadense</i>	C
Glade Mallow	<i>Napaea dioica</i>	C
Goat's Rue	<i>Tephrosia virginiana</i>	C(10),H
Golden Alexanders	<i>Zizia aurea</i>	M/C(120),G
Goldenseal	<i>Hydrastis canadensis</i>	E
Grass of Parnassus	<i>Parnassia glauca</i>	?,D
Grass-leaved Goldenrod	<i>Solidago graminifolia</i>	C,D
Great Blue Lobelia	<i>Lobelia siphilitica</i>	C,D
Great Bulrush	<i>Scirpus validus</i>	C,D
Great Bur Reed	<i>Sparganium eurycarpum</i>	F?
Great Coneflower	<i>Rudbeckia maxima</i>	A
Great Indian Plantain	<i>Cacalia muhlenbergii</i>	C
Great Spike Rush	<i>Eleocharis palustris</i>	C,D
Great St. John's Wort	<i>Hypericum pyramidatum</i>	C,D
Great Water Dock	<i>Rumex orbiculatus</i>	C
Great Waterleaf	<i>Hydrophyllum appendiculatum</i>	L or E
Green Needle Grass	<i>Stipa viridula</i>	C,G
Grooved Yellow Flax	<i>Linum sulcatum</i>	A or C
Hairy Golden Aster	<i>Chrysopsis villosa</i>	C
Hairy Grama	<i>Bouteloua hirsuta</i>	A
Hairy Lens Grass	<i>Paspalum ciliatifolium</i>	A
Hairy Mountain Mint	<i>Pycnanthemum pilosum</i>	A,D
Hairy Rock Cress	<i>Arabis hirsuta</i>	C,D
Hairy Rose Mallow	<i>Hibiscus lasiocarpus</i>	C
Hairy Wood Chess	<i>Bromus purgans</i>	C or A
Hairy Wood Mint	<i>Blephilia hirsuta</i>	C,D

Hairy-fruited Lake Sedge	Carex trichocarpa	C
Hardstem Bulrush	Scirpus acutus	C or M,D
Harebell	Campanula rotundifolia	C,D or A,D
Heart-leaf Golden Alexanders	Zizia aptera	M/C(120),G
Heart-leaved Aster	Aster cordifolius	C
Heart-leaved Skullcap	Scutellaria ovata versicolor	C
Heath Aster	Aster ericoides	A,D
Hoary Vervain	Verbena stricta	C,D
Hollow Joe Pye Weed	Eupatorium fistulosum	
Honewort	Cryptotaenia canadensis	C
Hybrid Loosestrife	Lysimachia hybrida	A
Illinois Bundle Flower	Desmanthus illinoensis	A,H,I
Illinois Rose	Rosa setigera	C
Illinois Tick Trefoil	Desmodium illinoense	A,J,I
Indian Grass	Sorghastrum nutans	A
Indian Paintbrush	Castilleja coccinea	C,K,D
Indian Tobacco	Lobelia inflata	C,D
Inland Rush	Juncus interior	C,D
Interrupted Fern	Osmunda claytoniana	S,Clone
Ivory Sedge	Carex eburnea	C
Jack-in-the-Pulpit	Arisaema triphyllum	L,F
Jacob's Ladder	Polemonium reptans	C
Joe Pye Weed	Eupatorium maculatum	A,D or C,D
June Grass	Koeleria cristata	A,G/D
Kalm St. John's Wort	Hypericum kalmianum	A,D
Kankakee Mallow	Iliamna remota	C
Kittentails	Wulfenia bullii	M/C(120),D
Knotted Rush	Juncus nodosus	C,D
Lady Fern	Athyrium filix-femina	S
Lance-fruited Oval Sedge	Carex scoparia	C
Large-flowered Beardtongue	Penstemon grandiflorus	C(30),G
Large-flowered Gaura	Gaura longiflora	C

Large-flowered Water Plantain	<i>Alisma triviale</i>	C(30)
Late Boneset	<i>Eupatorium serotinum</i>	
Late Figwort	<i>Scrophularia marilandica</i>	C?,D
Late Horse Gentian	<i>Triosteum perfoliatum</i>	?
Lead Plant	<i>Amorpha canescens</i>	C(10),J
Leafy Satin Grass	<i>Muhlenbergia mexicana</i>	A,D
Lg Yellow Wild Indigo	<i>Baptisia sphaerocarpa</i>	C(10),H,I
Lion's Foot	<i>Prenanthes alba</i>	C
Little Bluestem	<i>Andropogon scoparius</i>	A
Long-awned Bracted Sedge	<i>Carex gravida</i>	C
Long-beaked Sedge	<i>Carex sprengelii</i>	C
Long-headed Coneflower	<i>Ratibida columnifera</i>	C or A
Longleaf Bluets	<i>Houstonia longifolia</i>	A,D
Lopseed	<i>Phryma leptostachya</i>	C
Mad-dog Skullcap	<i>Scutellaria lateriflora</i>	C
Maidenhair Fern	<i>Adiantum pedatum</i>	S,Clone
Marbleseed	<i>Onosmodium molle</i>	B
Marsh Betony	<i>Pedicularis lanceolata</i>	C(30),K
Marsh Blazing Star	<i>Liatris spicata</i>	C
Marsh Cinquefoil	<i>Potentilla palustris</i>	C,D
Marsh Fleabane	<i>Senecio congestus</i>	C
Marsh Marigold	<i>Caltha palustris</i>	E?,L
Marsh Muhly	<i>Muhlenbergia glomerata</i>	A,D
Marsh Phlox	<i>Phlox glaberrima interior</i>	C
Marsh St. John's Wort	<i>Hypericum virginicum</i>	?,D
Maryland Senna	<i>Cassia marilandica</i>	C(10),H,I
Maximillian's Sunflower	<i>Helianthus maximilliani</i>	C or A
May Apple	<i>Podophyllum peltatum</i>	Clone
Meadow Blazing Star	<i>Liatris ligulistylis</i>	C
Meadow Parsnip	<i>Thaspium trifoliatum</i>	M/C(120),G
Meadowsweet	<i>Spiraea alba</i>	C,D
Michigan Lily	<i>Lilium michiganense</i>	E

Midewiwan Sacred Tobacco	<i>Nicotiana rustica</i>	A,D
Midland Shooting Star	<i>Dodecatheon meadia</i>	C(21),D,G
Missouri Evening Primrose	<i>Oenothera macrocarpa</i>	C
Missouri Goldenrod	<i>Solidago missouriensis</i>	C,D
Missouri Ironweed	<i>Vernonia missurica</i>	C
Mistflower	<i>Eupatorium coelestinum</i>	C,D
Monkey Flower	<i>Mimulus ringens</i>	C,D
Mountain Mint	<i>Pycnanthemum virginianum</i>	A,D
Mud Plantain	<i>Alisma subcordatum</i>	C(30)
Narrowleaf Pinweed	<i>Lechea tenuifolia</i>	C
Narrow-leaved Cattail Sedge	<i>Carex squarrosa</i>	C
Narrow-leaved Coneflower	<i>Echinacea angustifolia</i>	C(90)M
Narrow-leaved Obedient Plant	<i>Physostegia angustifolia</i>	C
Narrow-leaved Oval Sedge	<i>Carex tenera</i>	C
Narrow-leaved Woolly Sedge	<i>Carex lasiocarpa</i>	C
Needle & Thread Grass	<i>Stipa comata</i>	C,G
New England Aster	<i>Aster novae-angliae</i>	C
New Jersey Tea	<i>Ceanothus americanus</i>	B or H,C(70)
Nodding Bur Marigold	<i>Bidens cernua</i>	C
Nodding Fescue	<i>Festuca obtusa</i>	C
Nodding Onion	<i>Allium cernuum</i>	C
Northern Blazing Star	<i>Liatris scariosa</i>	C
Northern Blue Flag	<i>Iris versicolor</i>	M or C(120)
Northern Dropseed	<i>Sporobolus heterolepis</i>	A
Northern White Cedar	<i>Thuja occidentalis</i>	M,Clone
Northern Willow Herb	<i>Epilobium glandulosum</i>	C,D
Obedient Plant	<i>Physostegia virginiana</i>	C
Ohio Goldenrod	<i>Solidago ohioensis</i>	C(30),D
Ohio Spiderwort	<i>Tradescantia ohioensis</i>	M/C(120),G
Old Field Goldenrod	<i>Solidago nemoralis</i>	C,D
Orange Coneflower	<i>Rudbeckia fulgida</i>	C
Ostrich Fern	<i>Matteuccia struthiopteris</i>	S,Clone

Pagoda Dogwood	<i>Cornus alternifolia</i>	C,F
Pale Beardtongue	<i>Penstemon pallidus</i>	C(30),G,D
Pale Dock	<i>Rumex altissimus</i>	A
Pale Hoary Vervain	<i>Verbena stricta</i> variation	C,D
Pale Indian Plantain	<i>Cacalia atriplicifolia</i>	C
Pale Purple Coneflower	<i>Echinacea pallida</i>	C(90)M
Pale Sedge	<i>Carex granularis</i>	C
Pale Spiked Lobelia	<i>Lobelia spicata</i>	C,D
Pale-leaved Sunflower	<i>Helianthus strumosus</i>	C or A
Panicled Aster	<i>Aster simplex</i>	A
Panicled Tick Trefoil	<i>Desmodium paniculatum</i>	A,J,I
Partridge Pea	<i>Cassia fasciculata</i>	C(10),H,I
Pasque Flower	<i>Anemone patens wolfgangiana</i>	C
Pasture Rose	<i>Rosa carolina</i>	C,H,F,?
Path Rush	<i>Juncus tenuis</i>	C,D
Pink New England Aster	<i>Aster novae-angliae</i> variation	C
Pink Vervain	<i>Verbena hastata rosea</i>	C(30),D
Pinkweed	<i>Polygonum pennsylvanicum</i>	? C,D
Plains Oval Sedge	<i>Carex brevior</i>	C
Pointed-leaved Tick Trefoil	<i>Desmodium glutinosum</i>	C(10),I
Poke Milkweed	<i>Asclepias exaltata</i>	C or A
Porcupine Grass-Untrimmed	<i>Stipa spartea</i>	C,G
Porcupine Sedge	<i>Carex hystericina</i>	C
Poverty Oat Grass	<i>Danthonia spicata</i>	A
Prairie Alumroot	<i>Heuchera richardsonii</i>	A,D or C,D
Prairie Aster	<i>Aster turbinellus</i>	C or A
Prairie Blazing Star	<i>Liatris pycnostachya</i>	C
Prairie Blue-eyed Grass	<i>Sisyrinchium campestre</i>	M or C,G,D
Prairie Brome	<i>Bromus kalmii</i>	A
Prairie Buttercup	<i>Ranunculus rhomboideus</i>	L,M or C
Prairie Cinquefoil	<i>Potentilla arguta</i>	C,G,D
Prairie Coreopsis	<i>Coreopsis palmata</i>	C

Prairie Dock	<i>Silphium terebinthinaceum</i>	C
Prairie Indian Plantain	<i>Cacalia plantaginea</i>	C
Prairie Larkspur	<i>Delphinium virescens</i>	C
Prairie Loosestrife	<i>Lysimachia quadriflora</i>	C,D
Prairie Milkweed	<i>Asclepias sullivantii</i>	C or A
Prairie Ninebark	<i>Physocarpus opulifolius</i>	C
Prairie Onion	<i>Allium stellatum</i>	C
Prairie Parsley	<i>Polytaenia nuttallii</i>	C(120) or M
Prairie Phlox	<i>Phlox pilosa</i>	C
Prairie Ragwort	<i>Senecio plattensis</i>	C,D
Prairie Sage	<i>Artemisia ludoviciana</i>	A,D or C,D
Prairie Satin Grass	<i>Muhlenbergia cuspidata</i>	A,D
Prairie Smoke	<i>Geum triflorum</i>	C
Prairie Spiderwort	<i>Tradescantia bracteata</i>	M/C(120),G
Prairie Star Sedge	<i>Carex interior</i>	C
Prairie Sundrops	<i>Oenothera pilosella</i>	A
Prairie Turnip	<i>Psoralea esculenta</i>	C(10),H,I
Prairie Violet	<i>Viola pedatifida</i>	C or M,D
Prairie Wild Rose	<i>Rosa arkansana</i>	C,H,F,?
Purple Coneflower	<i>Echinacea purpurea</i>	A
Purple Giant Hyssop	<i>Agastache scrophulariaefolia</i>	C,D
Purple Locoweed	<i>Oxytropis lambertii</i>	A
Purple Love Grass	<i>Eragrostis spectabilis</i>	A,D
Purple Meadow Rue	<i>Thalictrum dasycarpum</i>	C,G
Purple Milkweed	<i>Asclepias purpurascens</i>	C or A
Purple Passion Flower	<i>Passiflora incarnata</i>	C
Purple Poppy Mallow	<i>Callirhoe involucrata</i>	B,C(30)
Purple Prairie Clover	<i>Petalostemum purpureum</i>	A,J,I
Purple-headed Sneezeweed	<i>Helenium flexuosum</i>	A
Purple-sheathed Graceful Sedge	<i>Carex gracillima</i>	C,D
Purpletop	<i>Tridens flavus</i>	C
Pussy Willow	<i>Salix discolor</i> (male)	Clone

Pussytoes	<i>Antennaria plantaginifolia</i>	C,D
Queen of the Prairie	<i>Filipendula rubra</i>	C(90)
Rattlebox	<i>Crotalaria sagittalis</i>	A,I
Rattlesnake Grass	<i>Glyceria canadensis</i>	A,D
Rattlesnake Master	<i>Eryngium yuccifolium</i>	C
Rattlesnake Root	<i>Prenanthes racemosa</i>	C(120) or M
Red Baneberry	<i>Actaea rubra</i>	F
Red Osier Dogwood	<i>Cornus stolonifera</i>	C
Reed Manna Grass	<i>Glyceria grandis</i>	A,D
Reflexed Coneflower	<i>Echinacea atrorubens</i>	C
Rice Button Aster	<i>Aster dumosus</i>	C(30)
Rice Cut Grass	<i>Leersia oryzoides</i>	A
Riddell's Goldenrod	<i>Solidago riddellii</i>	C,D
River Bulrush	<i>Scirpus fluviatilis</i>	C(90) or M
River Oats	<i>Uniola latifolia</i>	C
Riverbank Grape	<i>Vitis riparia</i>	C
Riverbank Wild Rye	<i>Elymus riparius</i>	A
Robin's Plantain	<i>Erigeron pulchellus</i>	C,D
Rock Pink	<i>Talinum calycinum</i>	C,D
Rocky Mountain Bee Plant	<i>Cleome serrulata</i>	C or A?
Rose Mallow	<i>Hibiscus militaris</i>	C
Rosin Weed	<i>Silphium integrifolium</i>	C
Rough Dropseed	<i>Sporobolus asper</i>	A
Rough Sand Sedge	<i>Cyperus schweinitzii</i>	C
Round-headed Bush Clover	<i>Lespedeza capitata</i>	C(10),J,I
Round-lobed Hepatica	<i>Hepatica americana</i>	L,E
Royal Catchfly	<i>Silene regia</i>	C
Rue Anemone	<i>Anemonella thalictroides</i>	L or E
Running Serviceberry	<i>Amelanchier stolonifera</i>	M or C
Sallow Sedge	<i>Carex lurida</i>	C
Sampson's Snakeroot	<i>Psoralea psoralioides</i>	C(10),H,I
Sand Bracted Sedge	<i>Carex muhlenbergii</i>	C

Sand Coreopsis	Coreopsis lanceolata	C or A
Sand Dropseed	Sporobolus cryptandrus	A
Sand Evening Primrose	Oenothera rhombipetala	?,D
Sand Love Grass	Eragrostis trichodes	A,D
Sand Milkweed	Asclepias amplexicaulis	C or A
Sand Reed Grass	Calamovilfa longifolia	A
Saw-tooth Sunflower	Helianthus grosseserratus	C or A
Scaly Blazing Star	Liatris squarrosa	C
Scurfy Pea	Psoralea tenuiflora	C(10),H,I
Seedbox	Ludwigia alternifolia	C
Sensitive Fern	Onoclea sensibilis	S,Clone
Sensitive Plant	Schrankia uncinata	C(10),H
Sessile-leaf Tick Trefoil	Desmodium sessilifolium	A,J,I
Shining Bur Sedge	Carex intumescens	C
Short Green Milkweed	Asclepias viridiflora	C or A
Short-headed Bracted Sedge	Carex cephalophora	C
Short's Aster	Aster shortii	C or A
Short's Sedge	Carex shortiana	C
Showy Beardtongue	Penstemon cobaea	C(30)
Showy Black-eyed Susan	Rudbeckia speciosa sullivantii	C or A
Showy Goldenrod	Solidago speciosa	C,D
Showy Sunflower	Helianthus lateriflorus	C or A
Showy Tick Trefoil	Desmodium canadense	A,J,I
Shrubby St. John's Wort	Hypericum prolificum	A,D
Side-oats Grama	Bouteloua curtipendula	A
Silky Aster	Aster sericeus	C
Silky Dogwood	Cornus amomum obliqua	C
Silky Prairie Clover	Petalostemum villosus	A,J,I
Silky Wild Rye	Elymus villosus	A
Silverrod	Solidago bicolor	C,D
Sky Blue Aster	Aster azureus	A,G
Slender Blue Flag	Iris prismatica	L,M/C(120)

Slender Bush Clover	<i>Lespedeza virginica</i>	C(10),J,I
Slender Gerardia	<i>Agalinis tenuifolia</i>	C,K?,D
Slender Mountain Mint	<i>Pycnanthemum tenuifolium</i>	A,D
Slender Wheat Grass	<i>Agropyron trachycaulum</i>	A
Sm Yellow Wild Indigo	<i>Baptisia tinctoria</i>	C(10),H,I
Small Skullcap	<i>Scutellaria leonardii</i>	C
Small Yellow Fox Sedge	<i>Carex annectens xanthocarpa</i>	C
Smartweed	<i>Polygonum punctatum</i>	? C,D
Smooth Blue Aster	<i>Aster laevis</i>	A
Smooth Petunia	<i>Ruellia strepens</i>	C(70)
Smooth Yellow Violet	<i>Viola pubescens eriocarpa</i>	C or M,D
Sneezeweed	<i>Helenium autumnale</i>	A,D
Snowy Campion	<i>Silene nivea</i>	C
Soapweed	<i>Yucca glauca</i>	A
Solomon's Plume	<i>Smilacina racemosa</i>	L,F,Clone
Solomon's Seal	<i>Polygonatum canaliculatum</i>	L,F
Southern Blue Flag	<i>Iris virginica shrevei</i>	M or C(120)
Southern Wild Hyacinth	<i>Camassia angusta</i>	C
Spider Milkweed	<i>Asclepias viridis</i>	C or A
Spike Rush	<i>Eleocharis acicularis</i>	C,D
Spikenard	<i>Aralia racemosa</i>	C(60),M
Spotted Bee Balm	<i>Monarda punctata</i>	A,D
Spotted Touch-me-not	<i>Impatiens capensis</i>	L,M or F?
Spreading Oval Sedge	<i>Carex normalis</i>	C
Spring Beauty	<i>Claytonia virginica</i>	L
Squirrel-tail Grass	<i>Hordeum jubatum</i>	?
Star Tickseed	<i>Coreopsis pubescens</i>	A or C
Starry Campion	<i>Silene stellata</i>	C
Starry Solomon's Plume	<i>Smilacina stellata</i>	L,F,Clone
Steeplebush	<i>Spiraea tomentosa</i>	C,D
Stiff Aster	<i>Aster linariifolius</i>	A
Stiff Gentian	<i>Gentiana quinquefolia</i>	C,D

Stiff Goldenrod	<i>Solidago rigida</i>	C
Stiff Sandwort	<i>Arenaria stricta</i>	C,D
Stout Blue-eyed Grass	<i>Sisyrinchium angustifolium</i>	C,D
Swamp Aster	<i>Aster puniceus</i>	C
Swamp Candles	<i>Lysimachia terrestris</i>	?, Clone
Swamp Marigold	<i>Bidens aristosa mutica</i>	C
Swamp Milkweed	<i>Asclepias incarnata</i>	C or A
Swamp Rose	<i>Rosa palustris</i>	C,H,F
Swamp Rose Mallow	<i>Hibiscus palustris</i>	C
Swamp Thistle	<i>Cirsium muticum</i>	
Sweet Black-eyed Susan	<i>Rudbeckia subtomentosa</i>	C or A
Sweet Cicely	<i>Osmorhiza claytonii</i>	C
Sweet Everlasting	<i>Gnaphalium obtusifolium</i>	C,D
Sweet Flag	<i>Acorus calamus</i>	C
Sweet Grass	<i>Hierochloe odorata</i>	A or C
Sweet Indian Plantain	<i>Cacalia suaveolens</i>	C
Sweet Joe Pye Weed	<i>Eupatorium purpureum</i>	A or C,G
Switch Grass	<i>Panicum virgatum</i>	A
Tall Bellflower	<i>Campanula americana</i>	C,D or A,D
Tall Boneset	<i>Eupatorium altissimum</i>	C
Tall Coreopsis	<i>Coreopsis tripteris</i>	C
Tall Green Milkweed	<i>Asclepias hirtella</i>	C or A
Tall Larkspur	<i>Delphinium exaltatum</i>	C
Tall Sunflower	<i>Helianthus giganteus</i>	C or A
Tall Thimbleweed	<i>Anemone virginiana</i>	A
Tennessee Coneflower	<i>Echinacea tennesseensis</i>	C
Textile Onion	<i>Allium textile</i>	C
Thimbleweed	<i>Anemone cylindrica</i>	A
Three-square Rush	<i>Scirpus americanus</i>	C,D
Three-way Sedge	<i>Dulichium arundinaceum</i>	C
Torrey's Rush	<i>Juncus torreyi</i>	C,D
Trailing Wild Bean	<i>Strophostyles helvula</i>	A or C,I

Tube Beardtongue	Penstemon tubaeflorus	C(30),D
Tufted Lake Sedge	Carex vesicaria	C
Tufted Loosestrife	Lysimachia thrysiflora	C,D
Turk's Cap Lily	Lilium superbum	E
Turtlehead	Chelone glabra	M or C(120)
Twinleaf	Jeffersonia diphylla	L,F
Upland Mountain Mint	Pycnanthemum virginianum var.	A,D
Upland White Aster	Aster ptarmicoides	A
Upland Wild Timothy	Muhlenbergia racemosa	A,D
Veiny Pea	Lathyrus venosus	?,I
Venus' Looking Glass	Triodanis perfoliata	C
Violet Wood Sorrel	Oxalis violacea	M or C
Virginia Bluebells	Mertensia virginica	C
Virginia Spiderwort	Tradescantia virginiana	M/C(120), G
Virginia Waterleaf	Hydrophyllum virginianum	C
Virginia Wild Rye	Elymus virginicus	A
Virgin's Bower	Clematis virginiana	A or C
Wafer Ash	Ptelea trifoliata	C,F
Wahpe Washtemna	Monarda fistulosa variation	A
Water Arum	Calla palustris	C,L
Water Hemlock	Cicuta maculata	M or C(120)
Water Horehound	Lycopus americanus	A,D
Western Indian Physic	Porteranthus stipulatus	C
Western Obedient Plant	Physostegia parviflora	C
Western Sunflower	Helianthus occidentalis	C or A
White Blue-eyed Grass	Sisyrinchium campestre alba	M or C,G,D
White Ohio Spiderwort	Tradescantia ohioensis alba	M/C(120),G
White Prairie Clover	Petalostemum candidum	A,J,I
White Snakeroot	Eupatorium rugosum	C,D
White Wild Geranium	Geranium maculatum alba	Clone
White Wild Indigo	Baptisia leucantha	C(10),H,I
Whorled Milkweed	Asclepias verticillata	C or A

Whorled Rosin Weed	Silphium trifoliatum	C
Widow's Cross	Sedum pulchellum	A or C,D
Wild Bergamot	Monarda fistulosa	A
Wild Blue Larkspur	Delphinium carolinianum	C
Wild Blue Phlox	Phlox divaricata	C
Wild Cucumber	Echinocystis lobata	C
Wild Garlic	Allium canadense	A
Wild Geranium	Geranium maculatum	C or M
Wild Ginger	Asarum canadense	L
Wild Golden Glow	Rudbeckia laciniata	C or A
Wild Hyacinth	Camassia scilloides	C
Wild Leek	Allium tricoccum	E?
Wild Licorice	Glycyrrhiza lepidota	A,H,I
Wild Lupine	Lupinus perennis	AorC(3),H,I
Wild Mint	Mentha arvensis	A,D
Wild Petunia	Ruellia humilis	C(70)
Wild Quinine	Parthenium integrifolium	C
Wild Senna	Cassia hebecarpa	C(10),H,I
Wild Stonecrop	Sedum ternatum	?,Clone
Wild Strawberry	Fragaria virginiana	A
Wild Sweet William	Phlox maculata	C
Wild Yam	Dioscorea villosa	C
Willow Aster	Aster praealtus	C or A
Winged Loosestrife	Lythrum alatum	C,D
Wingstem	Actinomeris alternifolia	C or A
Wood Betony	Pedicularis canadensis	C(30),K
Wood Gray Sedge	Carex grisea	C
Woodland Knotweed	Polygonum virginiana	C
Woodland Sunflower	Helianthus divaricatus	C or A
Wool Grass	Scirpus cyperinus	C or M,D
Woolly Plantain	Plantago purshii	C(30)
Yellow Avens	Geum aleppicum	C

Yellow Coneflower	Ratibida pinnata	C or A
Yellow Crownbeard	Verbesina helianthoides	C
Yellow Giant Hyssop	Agastache nepetoides	C,D
Yellow Jewelweed	Impatiens pallida	L,M or F?
Yellow Pimpernel	Taenidia integerrima	C or M
Zig Zag Goldenrod	Solidago flexicaulis	C,D