



Grass, Legume and Wildflower Species Recommended for Grassland Conservation in New York State

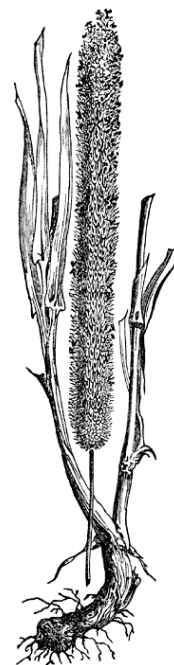
Created for the Greene Land Trust's Community Grassland Stewardship Project



Canada wildrye, Missouri DNR

As discussed in this guidebook, resource managers in New York State recommend cool-season grasses for successful establishment of grasslands for grassland bird conservation in the Northeast. Native warm-season grasses, such as Indiangrass, switchgrass and Little bluestem can be attempted, but are often very difficult to establish. Native cool-season grass species, such as Canada wildrye (photo left), Virginia

wildrye, Fowl bluegrass and Fringed brome grass can be a good option for landowners wishing to encourage native species. Introduced (non-native) cool-season grasses, such as Orchardgrass, Hard fescue and Timothy (drawing right), are also acceptable for grassland bird conservation. Forage legumes, such as red or white clovers and Birdsfoot trefoil can be added to grass seed mixtures as well, if the land it being used for grazing or haying.



Timothy grass, C. L. Flint

The tables below are adapted from several "Plant Materials Technical Notes" available from the New York State Natural Resources Conservation Service. **Table 1.** lists a variety of native, introduced, cool- and warm-season grass species recommended for grassland conservation in New York. It is recommended that seeds be sown utilizing a mixture of three to four species from this list.



Canada Goldenrod, Wisconsin DNR

Several example seed mixtures are shown in **Table 2.** Any seeding rates listed below assume no-till seeding and proper weed control. If a no-till drill is not used, increase the total grass seeding rate by 20%. When seeding native, warm-season grasses, a "native grass drill" is recommended. Examples of native forbs, or wildflowers, recommended for adding to grass seed mixtures are shown in **Table 3.** Including a small mix of native forbs, such as Canada Goldenrod (photo left), in the seed mixture is optional when seeding a grassland for bird conservation. Finally, although introduced (non-native), cool-season grass seeds can be found at any agricultural supply store, **Table 4** lists nurseries that specialize in native grass and wildflower seed.

Table 1. Grass Species Recommended for New York State Grassland Conservation (including legumes)

Grass Seed Species		Soil Drainage Class						
Common name	Scientific name	Excessi vely Well drained soil	Well drain ed soil	Moderatel y well drained soil	Somew hat poorly draine d soil	Poorl y drain ed soil	Native/ Introduced	Warm/ Cool season
Indiangrass	<i>Sorghastrum nutans</i>	X	X				Native	warm
Switchgrass	<i>Panicum virgatum</i>	X	X				Native	warm
Little bluestem	<i>Schizachyrium scoparium</i>	X	X				Native	warm
Canada wildrye	<i>Elymus Canadensis</i> L.	X	X				Native	cool
Big bluestem	<i>Andropogon gerardii</i>		X	X			Native	warm
Eastern gamagrass	<i>Tripsacum dactyloides</i>			X	X		Native	warm
Virginia wildrye	<i>Elumus virginicus</i>			X	X		Native	cool
Deertongue	<i>Panicum clandestinum</i>			X	X		Native	warm
Fowl bluegrass	<i>Poa palustris</i> L.		X	X	X	X	Native	cool
Fringed brome grass	<i>Bromus ciliatus</i> L.		X	X	X	X	Native	cool
Riverbank wildrye	<i>Elymus riparius</i>		X	X	X	X	Native	cool
Bottlebrush	<i>Elymus hystrix</i>		X	X	X		Native	cool
Orchardgrass	<i>Dactylis glomerata</i> L.		X	X			Introduced	cool
Hard Fescue	<i>Festuca trachyphylla</i>		X	X			Introduced	cool
Ladino Clover	<i>Trifolium repens</i>		X	X			Introduced	cool
Red Clover (upright improved varieties)	<i>Trifolium pratense</i> L.		X	X			Introduced	cool
Birdsfoot trefoil (upright varieties, e.e. Pardee, Norcen or Viking)	<i>Lotus corniculatus</i> L.		X	X			Introduced	cool
Timothy	<i>Phleum pratense</i>		X	X	X		Introduced	cool
Red top	<i>Agrostis gigantea</i>		X	X	X	X	Introduced	cool

Table 2. Examples of Recommended Grass Seed Mixtures and Seeding Rates (including legumes)

Seed Mixture	Lbs/ acre	Excessively Well drained soil	Well drained soil	Moderately well drained soil	Somewhat poorly drained soil	Poorly drained soil
Mixtures of native cool-season grasses						
Canada wildrye	5		X	X	X	
Riverbank wildrye	3					
Bottlebrush	2					
Canada wildrye	4		X	X	X	
Virginia wildrye	4					
Riverbank wildrye	4					
Fringed Brome grass	4					
Riverbank wildrye	4				X	X
Virginia wildrye	4					
Fringed brome grass	6					
Fowl bluegrass	0.5					
Mixtures of native warm-season grasses						
Switchgrass	2		X	X	X	X
Deertongue	4					
Eastern gamagrass	5					
Big bluestem	2	X	X			
Indian grass	3					
Little bluestem	3					
Deertongue	2					
Big bluestem	4	X	X	X	X	
Indiangrass	4					
Switchgrass	2					
Big bluestem	3		X	X	X	X
Indiangrass	3					
Deertongue	3					
Switchgrass	2					
Mixtures of introduced cool-season species						
Orchardgrass and	5		X	X		
Hard fescue, PLUS	6					
Ladino Clover, AND	2					
Red Clover, OR	2					
Birdsfoot trefoil	3					
Timothy	3		X	X	X	
Orchardgrass	4					
Bromegrass, PLUS	3					
Ladino clover AND	2					
Red Clover OR	2					
Birdsfoot trefoil	3					
Timothy	3		X	X	X	X
Orchardgrass	4					
Red top, PLUS	0.5					

Ladino clover AND	2					
Red Clover OR	2					
Birdsfoot trefoil	3					
Timothy AND	5		X	X	X	
Orchardgrass, PLUS	5					
Ladino clover AND	2					
Red clover, OR	2					
Birdsfoot trefoil	3					

Table 3. Native Forbes/Wildflowers*
(can be included sparingly in grass seed mixtures)
(select a mixture of five species from list to increase diversity)

Common name	Scientific name	Wetland indicator	Lbs/ac	Soil adaptation
Butterfly milkweed	Asclepias tuberosa	Upland	.0625	MWD-ED
New England aster	Aster novae-angliae	Facw-	.0625	PD-WD
Long leaved aster	Aster umbellatus	Facw	.0313	PD-WD
White heath aster	Aster ericoides	Facu	.0156	MWD-ED
Blue False Indigo	Baptisia australis	Facu	.0625	MWD-ED
Partridgepea (annual)	Chamaecrista fasciculata	Facu	1.000	MWD-ED
Ox-eye sunflower	Heliopsis helianthoides	Upland	.5000	MWD-ED
Purple coneflower	Echinacea purpurea	Upland	.5000	MWD-WD
Joe pyeweed	Eupatorium maculatum	Facw	.0313	PD-MWD
Roundhead lespedeza	Lespedeza capitata	Facu-	.0625	MWD-ED
Spiked gayfeather	Liatris spicata	Facu+	.1250	SPD-WD
Perennial lupine	Lupinus perennis	Facu	.5000	MWD-ED
Wild bergamot	Monarda fistulosa	Upland	.0313	SPD-MWD
Grey headed coneflower	Ratibida pinnata	Upland	.1250	MWD-ED
Blackeyed susan	Rudbeckia hirta	Facu-	.0625	SPD-WD
Canada golden rod	Solidago Canadensis/altissima	Facu	.0156	SPD-ED
Grass leaved golden rod	Euthamia graminifolia	Fac	.0313	SPD-MWD
Boneset	Eupatorium perfoliatum	Facw+	.0313	PD-MWD
Blue vervain	Verbena hastate	Facw+	.0625	PD-MWD
White vervain	Verbena urticifolia	Facu	.0625	SPD-WD
Showy tick trefoil	Desmodium canadense	Fac	.2500	SPD-WD
Golden alexanders	Zizia aurea	Fac	.2500	SPD-WD
Giant sunflower	Helianthus giganteus	facw	.0313	PD-MWD
*Due to the ability of some of these and other plants to colonize the plantings and the cost of the seed, the amount of seed planted is light.				

Table 4. Nurseries Specializing in Native Grasses and/or Wildflowers

Name	Address	Phone	Fax/email/web
Ernst Conservation Seeds	9006 Mercer Pike Meadville, PA 16335	800-873-3321	www.ernstseed.com sales@ernstseed.com (specializing in native and naturalized seed, biomass)
Catskill Native Nursery	607 Samsonville Rd Kerhonkson, NY 12446	845-626-2758	www.catskillnativenursery.com
Behn's Best Perennials	689 Albany Turnpike Old Chatham, NY 12136	518-76-9820	
Oligny's Creative Landscapes	390 Wilton-Gansevoort Rd. Gansevoort, NY 12831	518-745-7604	www.olignys.com
Native Landscapes	Quaker Ridge Plaza 991 Route 22 Pawling, NY 12564	845-855-7050	www.nativelandscaping.net
Project Native	342 North Plain Rd. Housatonic, MA 01236	413-274-3464	www.projectnative.org
Native Seeds, Inc (wildflowers only)	14590 Tridelphia Mill Rd. Dayton, MD 21036	301-596-9818	
Pinelands Nursery	323 Island Road Columbus, NJ 08022	609-291-9486	609-298-8939
Prairie Ridge Nursery	9738 Overland Road Mt. Horeb, WI 53572-2832	608-437-5245	608-437-8982
Prairie Nursery	PO Box 306 Westfield, WI 53964	608-296-3679	608-296-2741
Putney Nursery, Inc. (wildflowers only)	Route 5 Putney, VT 05346	802-387-5577	802-387-4491
Thompson & Morgan, Inc. (wildflowers only)	PO Box 1308 Jackson, NJ 08527-0308	1-800-274-7333	888-466-4769
Wild Earth Native Plant Nursery	49 Mead Avenue Freehold, NJ 07728	908-308-9777	