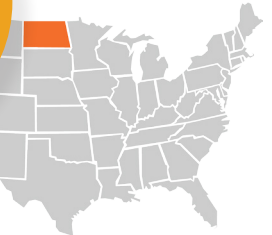




SEED A LEGACY

Pollinator Habitat Program



NORTH DAKOTA MONARCH BUTTERFLY MIX

Species	Scientific Name	Suggested Seeding Rates	PLS lbs per acre	PLS seeds per sq ft	% of Mixture PLS	COC	Bloom Period	Pollinator Value
Big Bluestem	<i>Andropogon gerardii</i>	--	0.300	0.99	2.48%	5	--	--
Canada Wildrye	<i>Elymus canadensis</i>	--	0.450	1.18	2.94%	5	--	--
Little Bluestem	<i>Schizachyrium scoparium</i>	--	0.400	2.21	5.51%	4	--	--
Plains Oval Sedge	<i>Carex brevior</i>	0.01 - 0.05	0.030	0.45	1.11%	3	--	--
Prairie Junegrass	<i>Koeleria pyramidata</i>	--	0.060	3.19	7.95%	6	--	--
Sideoats Grama	<i>Bouteloua curtipendula</i>	--	0.300	1.10	2.73%	5	--	--
Western Wheatgrass	<i>Elymus smithii</i>	--	0.400	1.05	2.61%	3	--	--
Alfalfa, VNS	<i>Medicago spp.</i>	0.05 - 1.5	0.200	1.04	2.60%		2	5
Alsike Clover	<i>Trifolium hybridum</i>	0.01 - 0.1	0.120	1.87	4.67%		2	5
Anise Hyssop	<i>Agastache foeniculum</i>	0.003 - 0.015	0.010	0.33	0.82%	--	3	5
Blackeyed Susan	<i>Rudbeckia hirta</i>	0.01 - 0.1	0.060	2.17	5.41%	3	2	1
Blanketflower	<i>Gaillardia aristata</i>	0.04 - 0.2	0.100	0.43	1.07%	5	1	4
Canada Goldenrod	<i>Solidago canadensis</i>	0.001 - 0.005	0.003	0.49	1.22%	2	2	5
Canada Milkvetch	<i>Astragalus canadensis</i>	0.02 - 0.15	0.080	0.50	1.24%	5	2	4
Canada Tick-trefoil	<i>Desmodium canadense</i>	0.01 - 0.03	0.030	0.06	0.15%	5	2	5
Clasping Coneflower	<i>Rudbeckia amplexicaulis</i> or <i>Dracopis amplexicaulis</i>	0.01 - 0.05	0.025	0.92	2.29%		1	2
Common Evening Primrose	<i>Oenothera biennis</i>	0.005 - 0.04	0.030	0.95	2.36%	1	2	4
Common Milkweed	<i>Asclepias syriaca</i>	0.03 - 0.08	0.060	0.11	0.28%	1	2	5
Common Mullein	<i>Verbascum thapsus</i>	0.001 - 0.008	0.001	0.15	0.37%	1	2	4
Crimson Clover	<i>Trifolium incarnetum</i>	0.1 - 2.0	0.900	3.09	7.71%	--	1	5
Deer Vetch	<i>Lotus unifoliolatus</i>	0.01 - 0.04	0.020	0.03	0.08%	3	3	4
False Sunflower	<i>Heliopsis helianthoides</i>	0.03 - 0.09	0.100	0.24	0.59%	4	2	5
Foxglove Beardstongue	<i>Penstemon digitalis</i>	0.01 - 0.03	0.011	0.10	0.25%	6	1	5
Gray Goldenrod	<i>Solidago nemoralis</i>	0.001 - 0.005	0.003	0.33	0.82%	--	3	4
Heath Aster	<i>Aster ericoides</i>	0.001 - 0.004	0.003	0.35	0.87%	3	3	5
Hoary Vervain	<i>Verbena stricta</i>	0.01 - 0.06	0.030	0.40	1.01%	8	2	5
Illinois Bundleflower	<i>Desmanthus illinoensis</i>	0.05 - 0.25	0.180	0.35	0.88%	5	2	5
Ironweed	<i>Vernonia fasciculata</i>	0.02 - 0.06	0.011	0.10	0.24%	4	2	5
Phacelia	<i>Phacelia tanacetifolia</i>	0.08 - 0.5	0.400	2.25	5.61%	--	1	5
Ladino or White Clover	<i>Trifolium repens</i>	0.1 - 0.5	0.060	0.98	2.44%	--	2	5
Lanceleaf Coreopsis	<i>Coreopsis lanceolata</i>	0.05 - 0.1	0.150	0.76	1.90%	--	2	3
Late or Giant Goldenrod	<i>Solidago gigantea</i>	0.001 - 0.005	0.003	0.52	1.30%	3	3	5
Maximillian Sunflower	<i>Helianthus maximiliani</i>	0.01 - 0.05	0.100	0.45	1.12%	4	3	5
Mexican Hat	<i>Ratibida peduncularis</i>	0.02 - 0.08	0.025	0.42	1.05%	--	2	2
New England Aster	<i>Aster novae-angliae</i>	0.005 - 0.01	0.018	0.44	1.09%	4	3	5
Prairie Sainfoin	<i>Onobrychis vicifolia</i>	0.5 - 2.0	1.500	1.04	2.60%	--	2	5
Purple Coneflower	<i>Echinacea purpurea</i>	0.05 - 0.2	0.200	0.53	1.32%	--	2	4
Purple Prairieclover	<i>Dalea purpurea</i>	0.04 - 0.15	0.100	0.73	1.81%	6	2	5
Rocky Mountain Bee Plant	<i>Cleome serrulata</i>	0.02 - 0.05	0.030	0.04	0.11%	--	2	5

Continued on back

Species	Scientific Name	Suggested Seeding Rates	PLS lbs per acre	PLS seeds per sq ft	% of Mixture PLS	COC	Bloom Period	Pollinator Value
Rough Gayfeather	<i>Liatriis aspera</i>	0.01 - 0.03	0.016	0.10	0.25%	5	3	4
Sawtooth Sunflower	<i>Helianthus grosseserratus</i>	0.005 - 0.04	0.015	0.22	0.54%	4	3	5
Shell-leaf Penstemon	<i>Penstemon grandiflorus</i>	0.01 - 0.04	0.015	0.07	0.18%	5	1	5
Showy Milkweed	<i>Asclepias speciosa</i>	0.01 - 0.06	0.050	0.08	0.20%		2	5
Showy Partridgepea	<i>Chamaecrista fasciculata</i>	0.1 - 0.4	0.300	0.45	1.12%	1	2	5
Showy-wand Goldenrod	<i>Solidago speciosa</i>	0.001 - 0.008	0.010	0.98	2.45%	7	3	5
Smooth Blue Aster	<i>Aster laevis</i>	0.005 - 0.02	0.015	0.35	0.87%	5	3	4
Stiff Goldenrod	<i>Solidago rigida</i>	0.01 - 0.02	0.015	0.23	0.58%	3	3	5
Stiff Sunflower	<i>Helianthus pauciflorus</i>	0.01 - 0.04	0.020	0.34	0.85%	5	2	4
Tall Boneset	<i>Eupatorium altissimum</i>	0.006 - 0.025	0.009	0.17	0.41%	3	3	4
Tall Cinquefoil	<i>Drymocallis arguta</i>	0.003 - 0.008	0.010	0.85	2.11%	6	2	3
Upright Coneflower	<i>Ratibida columnifera</i>	0.02 - 0.08	0.060	1.02	2.53%	3	2	2
Western Yarrow	<i>Achillea millefolium</i>	0.01 - 0.05	0.030	1.96	4.90%	2	1	2
White Prairieclover	<i>Dalea candida</i>	0.05 - 0.2	0.055	0.38	0.96%	6	2	5
Wild Bergamot	<i>Monarda fistulosa</i>	0.01 - 0.03	0.020	0.58	1.46%	3	2	5
Rice Hulls - Filler for low seeding rate mixtures		--	1.000	0.00	0.00%	--	--	--
Grasses Total:			1.940	10.158	25.32%			
Wildflower/Forb/Legume Total:			5.203	29.962	74.68%			
Filler Total:			1.000	0.000	0.00%			
Total Mixture:			8.143	40.120	100.00%			

COC = Coefficient of Conservatism
Native Seed Designation

Species	Scientific Name	Suggested Seeding Rates	PLS lbs per acre	PLS seeds per sq ft	% of Mixture PLS	COC	Bloom Period	Pollinator Value
								<div style="border: 1px solid black; padding: 2px; display: inline-block;"> 4.34 Pollinator Value </div>

Bloom Period	Wildflowers Used in Mixture	% PLS Seeding Rate of Mix
1 = April to May	7	22.01%
2 = June to July	27	41.47%
3 = August to October	13	11.21%