

STATE SEED MIXES

Standard seed mixtures used by Mn/DOT, BWSR, and some divisions of the DNR have been revised and consolidated into one list of State Seed Mixes. Standards for the mixes have also been combined, with both BWSR and Mn/DOT requiring that mixes be sold as pure live seed (PLS), Source Identified (Yellow Tag) when available, and specific labeling requirements.

Standards for local origin seed will vary depending on program requirements. Native Vegetation Establishment and Enhancement guidelines have been developed for BWSR funded programs and can be found at: http://www.bwsr.state.mn.us/native_vegetation/index.html

Note: Cover crops are included as a component of State Seed Mixes with the exception of some wetland mixes where cover species are not necessary. For State Seed Mixes, oats and winter wheat should be selected based on the time of year that the mix is being used. Oats should be included in mixes if a mix is used between October 15 th and August 1st. Winter wheat should be used for seeding between August 1st and October 15 th. The seeding rate is the same for oats and winter wheat.

List of State Seed Mixes

21-111 Oats Cover Crop

Common Name	Scientific Name	Rate (kg/ha)	Rate (lb/ac)	% of Mix (% by wt)	Seeds/sq ft
Oats	<i>Avena sativa</i>	112.08	100.00	100.00%	44.54
	Totals:	112.08	100.00	100.00%	44.54
Purpose:	Temporary cover crop for spring and summer plantings				
Planting Area:	Statewide				

21-112 Winter Wheat Cover Crop

Common Name	Scientific Name	Rate (kg/ha)	Rate (lb/ac)	% of Mix (% by wt)	Seeds/sq ft
Winter Wheat	<i>Triticum aestivum</i>	112.09	100.00	100.00%	26.08
	Totals:	112.09	100.00	100.00%	26.08
Purpose:	Temporary cover crop for fall plantings				
Planting Area:	Statewide				

21-113 Soil Building Cover Crop

Common Name	Scientific Name	Rate (kg/ha)	Rate (lb/ac)	% of Mix (% by wt)	Seeds/sq ft
Field Pea	<i>Pisum sativum</i>	56.04	50.00	45.46%	3.44
	Total Forbs	56.04	50.00	45.46%	3.44
Oats	<i>Avena sativa</i>	67.25	60.00	54.54%	26.72
	Total Cover Crop	67.25	60.00	54.54%	26.72
	Totals:	123.29	110.00	100.00%	30.16
Purpose:	Temporary cover crop with soil building function.				
Planting Area:	Statewide				

32-241

Native Construction

Common Name	Scientific Name	Rate (kg/ha)	Rate (lb/ac)	% of Mix (% by wt)	Seeds/sq ft
big bluestem	<i>Andropogon gerardii</i>	1.40	1.25	3.30%	4.60
side-oats grama	<i>Bouteloua curtipendula</i>	1.12	1.00	2.64%	2.21
fringed brome	<i>Bromus ciliatus</i>	1.57	1.40	3.69%	5.67
nodding wild rye	<i>Elymus canadensis</i>	2.24	2.00	5.26%	3.82
slender wheatgrass	<i>Elymus trachycaulus</i>	2.80	2.50	6.57%	6.33
Virginia wild rye	<i>Elymus virginicus</i>	2.24	2.00	5.26%	3.09
switchgrass	<i>Panicum virgatum</i>	0.84	0.75	1.97%	3.85
fowl bluegrass	<i>Poa palustris</i>	0.67	0.60	1.57%	28.50
Indian grass	<i>Sorghastrum nutans</i>	1.12	1.00	2.63%	4.40
	Total Grasses	14.01	12.50	32.89%	62.47
Canada tick trefoil	<i>Desmodium canadense</i>	0.08	0.07	0.20%	0.15
partridge pea	<i>Chamaecrista fasciculata</i>	0.30	0.27	0.72%	0.27
wild bergamot	<i>Monarda fistulosa</i>	0.02	0.02	0.04%	0.39
black-eyed susan	<i>Rudbeckia hirta</i>	0.10	0.09	0.23%	3.00
hoary vervain	<i>Verbena stricta</i>	0.06	0.05	0.13%	0.50
	Total Forbs	0.56	0.50	1.32%	4.31
Oats or winter wheat (see note at beginning of list for recommended dates)		28.02	25.00	65.79%	11.14
	Total Cover Crop	28.02	25.00	65.79%	11.14
	Totals:	42.59	38.00	100.00%	77.91
Purpose:	Mid-term soil stabilization using native species. Also suitable for sides of agricultural drainage ditches or low-diversity mesic prairie planting.				
Planting Area:	Tallgrass Aspen Parklands, Prairie Parkland, and Eastern Broadleaf Forest Provinces. Mn/DOT Districts 2(west), 3B, 4, Metro, 6, 7 & 8.				

33-261

Stormwater South & West

Common Name	Scientific Name	Rate (kg/ha)	Rate (lb/ac)	% of Mix (% by wt)	Seeds/sq ft
big bluestem	<i>Andropogon gerardii</i>	2.24	2.00	5.72%	7.35
fringed brome	<i>Bromus ciliatus</i>	2.24	2.00	5.73%	8.10
bluejoint	<i>Calamagrostis canadensis</i>	0.07	0.06	0.18%	6.40
slender wheatgrass	<i>Elymus trachycaulus</i>	1.12	1.00	2.85%	2.53
Virginia wild rye	<i>Elymus virginicus</i>	1.68	1.50	4.28%	2.31
switchgrass	<i>Panicum virgatum</i>	0.43	0.38	1.07%	1.93
fowl bluegrass	<i>Poa palustris</i>	1.19	1.06	3.03%	50.70
Indian grass	<i>Sorghastrum nutans</i>	0.13	0.12	0.36%	0.55
prairie cordgrass	<i>Spartina pectinata</i>	0.43	0.38	1.07%	0.91
	Total Grasses	9.53	8.50	24.29%	80.78
awl-fruited sedge	<i>Carex stipata</i>	0.28	0.25	0.71%	3.10
dark green bulrush	<i>Scirpus atrovirens</i>	0.21	0.19	0.54%	31.70
woolgrass	<i>Scirpus cyperinus</i>	0.07	0.06	0.18%	39.00
	Total Sedges and Rushes	0.56	0.50	1.43%	73.80
Canada anemone	<i>Anemone canadensis</i>	0.08	0.07	0.19%	0.20
marsh milkweed	<i>Asclepias incarnata</i>	0.12	0.11	0.32%	0.20
leafy beggarticks	<i>Bidens frondosa</i>	0.12	0.11	0.31%	0.20
flat-topped aster	<i>Doellingeria umbellata</i>	0.07	0.06	0.17%	1.50
spotted Joe pye weed	<i>Eutrochium maculatum</i>	0.07	0.06	0.18%	2.19
autumn sneezeweed	<i>Helenium autumnale</i>	0.15	0.13	0.36%	5.97
obedient plant	<i>Physostegia virginiana</i>	0.08	0.07	0.21%	0.30
tall coneflower	<i>Rudbeckia laciniata</i>	0.08	0.07	0.21%	0.37
New England aster	<i>Symphotrichum novae-angliae</i>	0.08	0.07	0.19%	1.56
blue vervain	<i>Verbena hastata</i>	0.06	0.05	0.15%	1.85
golden alexanders	<i>Zizia aurea</i>	0.22	0.20	0.56%	0.79
	Total Forbs	1.12	1.00	2.85%	15.13
Oats or winter wheat (see note at beginning of list for recommended dates)		28.02	25.00	71.43%	11.14
	Total Cover Crop	28.02	25.00	71.43%	11.14
	Totals:	39.23	35.00	100.00%	180.85
Purpose:	Stormwater pond edges, temporarily flooded dry ponds, and temporarily flooded ditch bottoms.				
Planting Area:	Tallgrass Aspen Parklands, Prairie Parkland, and Eastern Broadleaf Forest Provinces. Mn/DOT Districts 2(west), 3B, 4, Metro, 6, 7 & 8.				

33-262

Dry Swale / Pond

Common Name	Scientific Name	Rate (kg/ha)	Rate (lb/ac)	% of Mix (% by wt)	Seeds/sq ft
big bluestem	<i>Andropogon gerardii</i>	1.68	1.50	3.40%	5.50
American slough grass	<i>Beckmannia syzigachne</i>	1.68	1.50	3.42%	27.60
fringed brome	<i>Bromus ciliatus</i>	1.68	1.50	3.40%	6.05
nodding wild rye	<i>Elymus canadensis</i>	4.48	4.00	9.09%	7.64
slender wheatgrass	<i>Elymus trachycaulus</i>	4.48	4.00	9.10%	10.15
Virginia wild rye	<i>Elymus virginicus</i>	2.80	2.50	5.67%	3.85
switchgrass	<i>Panicum virgatum</i>	0.45	0.40	0.91%	2.05
fowl bluegrass	<i>Poa palustris</i>	1.79	1.60	3.64%	76.50
Indian grass	<i>Sorghastrum nutans</i>	1.68	1.50	3.40%	6.60
	Total Grasses	20.74	18.50	42.03%	145.94
marsh milkweed	<i>Asclepias incarnata</i>	0.07	0.06	0.13%	0.10
purple prairie clover	<i>Dalea purpurea</i>	0.10	0.09	0.21%	0.50
Canada tick trefoil	<i>Desmodium canadense</i>	0.10	0.09	0.21%	0.19
ox-eye	<i>Heliopsis helianthoides</i>	0.10	0.09	0.20%	0.20
black-eyed susan	<i>Rudbeckia hirta</i>	0.08	0.07	0.17%	2.49
blue vervain	<i>Verbena hastata</i>	0.11	0.10	0.23%	3.50
	Total Forbs	0.56	0.50	1.15%	6.98
Oats or winter wheat (see note at beginning of list for recommended dates)		28.02	25.00	56.82%	11.14
	Total Cover Crop	28.02	25.00	56.82%	11.14
	Totals:	49.32	44.00	100.00%	164.06
Purpose:	Temporarily flooded swales in agricultural settings.				
Planting Area:	Tallgrass Aspen Parklands, Prairie Parkland, and Eastern Broadleaf Forest Provinces. Mn/DOT Districts 2(west), 3B, 4, Metro, 6, 7 & 8.				

33-361

Stormwater Northeast

Common Name	Scientific Name	Rate (kg/ha)	Rate (lb/ac)	% of Mix (% by wt)	Seeds/sq ft
fringed brome	<i>Bromus ciliatus</i>	4.09	3.65	10.43%	14.75
bluejoint	<i>Calamagrostis canadensis</i>	0.06	0.05	0.13%	4.80
nodding wild rye	<i>Elymus canadensis</i>	2.24	2.00	5.71%	3.82
Virginia wild rye	<i>Elymus virginicus</i>	2.24	2.00	5.73%	3.09
tall manna grass	<i>Glyceria grandis</i>	0.18	0.16	0.44%	4.00
fowl bluegrass	<i>Poa palustris</i>	0.72	0.64	1.82%	30.40
	Total Grasses	9.53	8.50	24.26%	60.86
porcupine sedge	<i>Carex hystericina</i>	0.10	0.09	0.26%	1.00
pointed broom sedge	<i>Carex scoparia</i>	0.04	0.04	0.12%	1.30
dark green bulrush	<i>Scirpus atrovirens</i>	0.30	0.27	0.76%	45.00
woolgrass	<i>Scirpus cyperinus</i>	0.11	0.10	0.27%	60.00
	Total Sedges and Rushes	0.56	0.50	0.27%	107.30
Canada anemone	<i>Anemone canadensis</i>	0.11	0.10	0.29%	0.30
marsh milkweed	<i>Asclepias incarnata</i>	0.50	0.45	1.30%	0.80
flat-topped aster	<i>Doellingeria umbellata</i>	0.11	0.10	0.29%	2.50
common boneset	<i>Eupatorium perfoliatum</i>	0.06	0.05	0.15%	3.00
grass-leaved goldenrod	<i>Euthamia graminifolia</i>	0.04	0.04	0.11%	5.00
spotted Joe pye weed	<i>Eutrochium maculatum</i>	0.17	0.15	0.42%	5.10
blue monkey flower	<i>Mimulus ringens</i>	0.02	0.02	0.07%	20.00
giant goldenrod	<i>Solidago gigantea</i>	0.02	0.02	0.06%	2.00
eastern panicled aster	<i>Symphotrichum lanceolatum</i>	0.02	0.02	0.05%	1.00
tall meadow-rue	<i>Thalictrum dasycarpum</i>	0.06	0.05	0.16%	0.40
	Total Forbs	1.12	1.00	2.90%	40.10
Oats or winter wheat (see note at beginning of list for recommended dates)		28.02	25.00	71.43%	11.14
	Total Cover Crop	28.02	25.00	71.43%	11.14
	Totals:	39.23	35.00	100.00%	219.40
Purpose:	Stormwater pond edges, temporarily flooded dry ponds, and temporarily flooded ditch bottoms.				
Planting Area:	Laurentian Mixed Forest Province. Mn/DOT Districts 1, 2(east) and 3A.				

34-171

Wetland Rehabilitation

Common Name	Scientific Name	Rate (kg/ha)	Rate (lb/ac)	% of Mix (% by wt)	Seeds/sq ft
Virginia wild rye	<i>Elymus virginicus</i>	3.36	3.00	56.61%	4.63
fowl bluegrass	<i>Poa palustris</i>	1.12	1.00	18.89%	47.80
	Total Grasses	4.48	4.00	75.50%	52.43
fox sedge	<i>Carex vulpinoidea</i>	0.22	0.20	3.85%	7.50
path rush	<i>Juncus tenuis</i>	0.18	0.16	3.03%	59.00
dark green bulrush	<i>Scirpus atrovirens</i>	0.40	0.36	6.70%	60.00
woolgrass	<i>Scirpus cyperinus</i>	0.09	0.08	1.51%	50.00
	Total Sedges and Rushes	0.90	0.80	15.09%	176.50
nodding bur marigold	<i>Bidens cernua</i>	0.15	0.13	2.45%	1.00
Water Horehound	<i>Lycopus americanus</i>	0.37	0.33	6.29%	23.15
blue monkey flower	<i>Mimulus ringens</i>	0.04	0.04	0.67%	30.00
	Total Forbs	0.56	0.50	9.41%	54.15
	Totals:	5.94	5.30	100.00%	283.08
Purpose:	Interseeding into establishing wetlands after weed control spraying. Also suitable for two to five year short term soil stabilization for areas with saturated soils.				
Planting Area:	Statewide				

34-181

Emergent Wetland

Common Name	Scientific Name	Rate (kg/ha)	Rate (lb/ac)	% of Mix (% by wt)	Seeds/sq ft
American slough grass	<i>Beckmannia syzigachne</i>	0.78	0.70	14.07%	12.92
tall manna grass	<i>Glyceria grandis</i>	0.28	0.25	4.98%	6.40
rice cut grass	<i>Leersia oryzoides</i>	0.34	0.30	5.93%	3.70
	Total Grasses	1.40	1.25	24.98%	23.02
river bulrush	<i>Bolboschoenus fluviatilis</i>	0.85	0.76	15.20%	1.20
bristly sedge	<i>Carex comosa</i>	0.20	0.18	3.63%	2.00
lake sedge	<i>Carex lacustris</i>	0.07	0.06	1.19%	0.24
tussock sedge	<i>Carex stricta</i>	0.04	0.04	0.77%	0.75
least spikerush	<i>Eleocharis acicularis</i>	0.11	0.10	1.94%	2.50
marsh spikerush	<i>Eleocharis palustris</i>	0.11	0.10	2.03%	1.90
Torrey's rush	<i>Juncus torreyi</i>	0.04	0.04	0.85%	25.00
Three-square bulrush	<i>Schoenoplectus pungens</i>	0.26	0.23	4.54%	1.00
soft stem bulrush	<i>Schoenoplectus tabernaemontani</i>	0.49	0.44	8.78%	5.00
woolgrass	<i>Scirpus cyperinus</i>	0.06	0.05	1.02%	32.00
	Total Sedges and Rushes	2.24	2.00	39.95%	71.59
Sweet flag	<i>Acorus americanus</i>	0.31	0.28	5.53%	0.67
common water plantain	<i>Alisma triviale</i>	0.45	0.40	8.00%	9.70
marsh milkweed	<i>Asclepias incarnata</i>	0.31	0.28	5.67%	0.50
broad-leaved arrowhead	<i>Sagittaria latifolia</i>	0.34	0.30	6.07%	6.80
giant bur reed	<i>Sparganium eurycarpum</i>	0.55	0.49	9.80%	0.09
	Total Forbs	1.96	1.75	35.07%	17.76
	Totals:	5.60	5.00	100.00%	112.37
Purpose:	Emergent wetland restoration for use in wetland mitigation, shoreline restoration, wet stormwater ponds where emergent vegetation is desired.				
Planting Area:	Statewide				

34-261

Riparian South & West

Common Name	Scientific Name	Rate (kg/ha)	Rate (lb/ac)	% of Mix (% by wt)	Seeds/sq ft
American slough grass	<i>Beckmannia syzigachne</i>	1.52	1.36	4.30%	24.90
riverbank wild rye	<i>Elymus riparius</i>	0.56	0.50	1.58%	0.53
Virginia wild rye	<i>Elymus virginicus</i>	1.96	1.75	5.56%	2.70
tall manna grass	<i>Glyceria grandis</i>	0.28	0.25	0.80%	6.50
fowl manna grass	<i>Glyceria striata</i>	0.10	0.09	0.29%	3.00
rice cut grass	<i>Leersia oryzoides</i>	0.18	0.16	0.51%	2.00
fowl bluegrass	<i>Poa palustris</i>	0.94	0.84	2.66%	40.00
prairie cordgrass	<i>Spartina pectinata</i>	0.34	0.30	0.96%	0.74
	Total Grasses	5.88	5.25	16.66%	80.37
tussock sedge	<i>Carex stricta</i>	0.04	0.04	0.13%	0.80
pointed broom sedge	<i>Carex scoparia</i>	0.07	0.06	0.21%	2.00
fox sedge	<i>Carex vulpinoidea</i>	0.22	0.20	0.65%	7.50
path rush	<i>Juncus tenuis</i>	0.03	0.03	0.09%	10.00
dark green bulrush	<i>Scirpus atrovirens</i>	0.13	0.12	0.38%	20.00
woolgrass	<i>Scirpus cyperinus</i>	0.06	0.05	0.15%	30.00
	Total Sedges and Rushes	0.56	0.50	1.61%	70.30
marsh milkweed	<i>Asclepias incarnata</i>	0.13	0.12	0.38%	0.21
common boneset	<i>Eupatorium perfoliatum</i>	0.03	0.03	0.11%	2.00
spotted Joe pye weed	<i>Eutrochium maculatum</i>	0.07	0.06	0.18%	2.00
autumn sneezeweed	<i>Helenium autumnale</i>	0.06	0.05	0.17%	2.50
giant sunflower	<i>Helianthus giganteus</i>	0.08	0.07	0.22%	0.25
spotted touch-me-not	<i>Impatiens capensis</i>	0.06	0.05	0.17%	0.08
great lobelia	<i>Lobelia siphilitica</i>	0.03	0.03	0.09%	5.00
blue monkey flower	<i>Mimulus ringens</i>	0.01	0.01	0.02%	5.07
Virginia mountain mint	<i>Pycnanthemum virginianum</i>	0.06	0.05	0.16%	4.00
tall coneflower	<i>Rudbeckia laciniata</i>	0.06	0.05	0.15%	0.25
giant goldenrod	<i>Solidago gigantea</i>	0.02	0.02	0.07%	2.00
blue vervain	<i>Verbena hastata</i>	0.17	0.15	0.46%	5.00
bunched ironweed	<i>Vernonia fasciculata</i>	0.07	0.06	0.18%	0.50
	Total Forbs	0.84	0.75	2.36%	28.86
Oats or winter wheat (see note at beginning of list for recommended dates)		28.02	25.00	79.37%	11.14
	Total Cover Crop	28.02	25.00	79.37%	11.14
	Totals:	35.31	31.50	100.00%	190.66
Purpose:	Native riparian and floodplain plantings for wetland mitigation, ecological restoration, or general permanent cover after culvert or bridge work. Tolerates partial shade.				
Planting Area:	Tallgrass Aspen Parklands, Prairie Parkland, and Eastern Broadleaf Forest Provinces. Mn/DOT Districts 2(west), 3B, 4, Metro, 6, 7 & 8.				

34-262

Wet Prairie

Common Name	Scientific Name	Rate (kg/ha)	Rate (lb/ac)	% of Mix (% by wt)	Seeds/sq ft
big bluestem	<i>Andropogon gerardii</i>	1.12	1.00	6.89%	3.67
fringed brome	<i>Bromus ciliatus</i>	1.68	1.50	10.38%	6.08
bluejoint	<i>Calamagrostis canadensis</i>	0.04	0.04	0.27%	4.00
Virginia wild rye	<i>Elymus virginicus</i>	1.96	1.75	12.07%	2.70
tall manna grass	<i>Glyceria grandis</i>	0.17	0.15	1.02%	3.80
fowl manna grass	<i>Glyceria striata</i>	0.12	0.11	0.73%	3.50
switchgrass	<i>Panicum virgatum</i>	0.84	0.75	5.16%	3.85
fowl bluegrass	<i>Poa palustris</i>	0.22	0.20	1.39%	9.60
Indian grass	<i>Sorghastrum nutans</i>	0.56	0.50	3.44%	2.20
prairie cordgrass	<i>Spartina pectinata</i>	0.56	0.50	3.41%	1.20
	Total Grasses	7.29	6.50	44.76%	40.60
wooly sedge	<i>Carex pellita</i>	0.06	0.05	0.32%	0.47
tussock sedge	<i>Carex stricta</i>	0.02	0.02	0.17%	0.48
fox sedge	<i>Carex vulpinoidea</i>	0.11	0.10	0.66%	3.50
dark green bulrush	<i>Scirpus atrovirens</i>	0.11	0.10	0.72%	17.74
woolgrass	<i>Scirpus cyperinus</i>	0.03	0.03	0.18%	16.00
	Total Sedges and Rushes	0.34	0.30	2.05%	38.19
Canada anemone	<i>Anemone canadensis</i>	0.03	0.03	0.21%	0.09
marsh milkweed	<i>Asclepias incarnata</i>	0.09	0.08	0.55%	0.14
Canada tick trefoil	<i>Desmodium canadense</i>	0.56	0.50	3.41%	1.00
flat-topped aster	<i>Doellingeria umbellata</i>	0.06	0.05	0.34%	1.20
common boneset	<i>Eupatorium perfoliatum</i>	0.03	0.03	0.23%	2.00
grass-leaved goldenrod	<i>Euthamia graminifolia</i>	0.02	0.02	0.11%	2.00
spotted Joe pye weed	<i>Eutrochium maculatum</i>	0.04	0.04	0.30%	1.50
autumn sneezeweed	<i>Helenium autumnale</i>	0.06	0.05	0.35%	2.39
sawtooth sunflower	<i>Helianthus grosseserratus</i>	0.06	0.05	0.38%	0.30
great blazing star	<i>Liatris pycnostachya</i>	0.02	0.02	0.17%	0.10
great lobelia	<i>Lobelia siphilitica</i>	0.01	0.01	0.05%	1.40
blue monkey flower	<i>Mimulus ringens</i>	0.01	0.01	0.05%	6.40
Virginia mountain mint	<i>Pycnanthemum virginianum</i>	0.09	0.08	0.55%	6.50
red-stemmed aster	<i>Symphotrichum puniceum</i>	0.09	0.08	0.56%	2.40
blue vervain	<i>Verbena hastata</i>	0.17	0.15	1.06%	5.25
bunched ironweed	<i>Vernonia fasciculata</i>	0.03	0.03	0.23%	0.30
Culver's root	<i>Veronicastrum virginicum</i>	0.02	0.02	0.14%	6.00
golden alexanders	<i>Zizia aurea</i>	0.28	0.25	1.76%	1.03
	Total Forbs	1.68	1.50	10.45%	40.00
Oats or winter wheat (see note at beginning of list for recommended dates)		6.95	6.20	42.74%	2.76
	Total Cover Crop	6.95	6.20	42.74%	2.76
	Totals:	16.25	14.50	100.00%	121.55
Purpose:	Wet prairie reconstruction for wetland mitigation or ecological restoration.				
Planting Area:	Tallgrass Aspen Parklands, Prairie Parkland, and Eastern Broadleaf Forest Provinces. Mn/DOT Districts 2(west), 3B, 4, Metro, 6, 7 & 8.				

34-271

Wet Meadow South & West

Common Name	Scientific Name	Rate (kg/ha)	Rate (lb/ac)	% of Mix (% by wt)	Seeds/sq ft
fringed brome	<i>Bromus ciliatus</i>	1.23	1.10	9.18%	4.45
bluejoint	<i>Calamagrostis canadensis</i>	0.06	0.05	0.41%	5.00
Virginia wild rye	<i>Elymus virginicus</i>	1.12	1.00	8.37%	1.55
rice cut grass	<i>Leersia oryzoides</i>	0.28	0.25	2.07%	3.10
tall manna grass	<i>Glyceria grandis</i>	0.17	0.15	1.26%	3.90
fowl manna grass	<i>Glyceria striata</i>	0.11	0.10	0.83%	3.30
fowl bluegrass	<i>Poa palustris</i>	0.39	0.35	2.88%	16.50
	Total Grasses	3.36	3.00	25.00%	37.80
bristly sedge	<i>Carex comosa</i>	0.24	0.21	1.78%	2.36
pointed broom sedge	<i>Carex scoparia</i>	0.06	0.05	0.43%	1.60
awl-fruited sedge	<i>Carex stipata</i>	0.19	0.17	1.40%	2.10
tussock sedge	<i>Carex stricta</i>	0.03	0.03	0.21%	0.50
fox sedge	<i>Carex vulpinoidea</i>	0.16	0.14	1.13%	5.00
path rush	<i>Juncus tenuis</i>	0.04	0.04	0.34%	15.00
dark green bulrush	<i>Scirpus atrovirens</i>	0.20	0.18	1.48%	30.00
woolgrass	<i>Scirpus cyperinus</i>	0.09	0.08	0.67%	50.00
	Total Sedges and Rushes	1.01	0.90	7.44%	106.56
marsh milkweed	<i>Asclepias incarnata</i>	0.27	0.24	2.03%	0.43
common boneset	<i>Eupatorium perfoliatum</i>	0.02	0.02	0.18%	1.30
grass-leaved goldenrod	<i>Euthamia graminifolia</i>	0.01	0.01	0.06%	1.00
spotted Joe pye weed	<i>Eutrochium maculatum</i>	0.02	0.02	0.18%	0.75
autumn sneezeweed	<i>Helenium autumnale</i>	0.03	0.03	0.23%	1.30
sawtooth sunflower	<i>Helianthus grosseserratus</i>	0.04	0.04	0.30%	0.20
great lobelia	<i>Lobelia siphilitica</i>	0.02	0.02	0.13%	2.90
blue monkey flower	<i>Mimulus ringens</i>	0.01	0.01	0.07%	6.80
Virginia mountain mint	<i>Pycnanthemum virginianum</i>	0.07	0.06	0.53%	5.10
giant goldenrod	<i>Solidago gigantea</i>	0.02	0.02	0.14%	1.50
eastern panicled aster	<i>Symphotrichum lanceolatum</i>	0.03	0.03	0.22%	1.50
red-stemmed aster	<i>Symphotrichum puniceum</i>	0.19	0.17	1.42%	5.00
tall meadow-rue	<i>Thalictrum dasycarpum</i>	0.01	0.01	0.12%	0.11
blue vervain	<i>Verbena hastata</i>	0.15	0.13	1.12%	4.61
bunched ironweed	<i>Vernonia fasciculata</i>	0.03	0.03	0.28%	0.30
Culver's root	<i>Veronicastrum virginicum</i>	0.01	0.01	0.12%	4.20
golden alexanders	<i>Zizia aurea</i>	0.28	0.25	2.06%	1.00
	Total Forbs	1.23	1.10	9.19%	38.00
Oats or winter wheat (see note at beginning of list for recommended dates)		7.85	7.00	58.37%	3.12
	Total Cover Crop	7.85	7.00	58.37%	3.12
	Totals:	13.45	12.00	100.00%	185.48
Purpose:	Wet meadow / Sedge meadow reconstruction for wetland mitigation or ecological restoration projects				
Planting Area:	Tallgrass Aspen Parklands, Prairie Parkland, and Eastern Broadleaf Forest Provinces. Mn/DOT Districts 2(west), 3B, 4, Metro, 6, 7 & 8.				

34-361

Riparian Northeast

Common Name	Scientific Name	Rate (kg/ha)	Rate (lb/ac)	% of Mix (% by wt)	Seeds/sq ft
American slough grass	<i>Beckmannia syzigachne</i>	1.68	1.50	4.78%	27.64
bluejoint	<i>Calamagrostis canadensis</i>	0.07	0.06	0.19%	6.00
riverbank wild rye	<i>Elymus riparius</i>	0.56	0.50	1.57%	0.53
Virginia wild rye	<i>Elymus virginicus</i>	2.24	2.00	6.33%	3.08
tall manna grass	<i>Glyceria grandis</i>	0.28	0.25	0.80%	6.50
fowl manna grass	<i>Glyceria striata</i>	0.10	0.09	0.29%	3.00
rice cut grass	<i>Leersia oryzoides</i>	0.17	0.15	0.49%	1.93
fowl bluegrass	<i>Poa palustris</i>	0.78	0.70	2.23%	33.50
	Total Grasses	5.88	5.25	16.68%	82.18
tussock sedge	<i>Carex stricta</i>	0.04	0.04	0.13%	0.80
pointed broom sedge	<i>Carex scoparia</i>	0.07	0.06	0.21%	2.00
fox sedge	<i>Carex vulpinoidea</i>	0.22	0.20	0.65%	7.50
path rush	<i>Juncus tenuis</i>	0.03	0.03	0.09%	10.00
dark green bulrush	<i>Scirpus atrovirens</i>	0.13	0.12	0.38%	20.00
woolgrass	<i>Scirpus cyperinus</i>	0.06	0.05	0.15%	30.00
	Total Sedges and Rushes	0.56	0.50	1.61%	70.30
marsh milkweed	<i>Asclepias incarnata</i>	0.13	0.12	0.38%	0.21
flat-topped aster	<i>Doellingeria umbellata</i>	0.04	0.04	0.13%	1.00
common boneset	<i>Eupatorium perfoliatum</i>	0.06	0.05	0.16%	3.00
grass-leaved goldenrod	<i>Euthamia graminifolia</i>	0.08	0.07	0.22%	9.00
spotted Joe pye weed	<i>Eutrochium maculatum</i>	0.12	0.11	0.34%	3.70
giant sunflower	<i>Helianthus giganteus</i>	0.08	0.07	0.22%	0.25
spotted touch-me-not	<i>Impatiens capensis</i>	0.03	0.03	0.11%	0.05
blue monkey flower	<i>Mimulus ringens</i>	0.02	0.02	0.05%	13.00
giant goldenrod	<i>Solidago gigantea</i>	0.02	0.02	0.05%	1.50
blue vervain	<i>Verbena hastata</i>	0.25	0.22	0.68%	7.35
	Total Forbs	0.84	0.75	2.34%	39.06
Oats or winter wheat (see note at beginning of list for recommended dates)		28.02	25.00	79.37%	11.14
	Total Cover Crop	28.02	25.00	79.37%	11.14
	Totals:	35.31	31.50	100.00%	202.67
Purpose:	Native riparian and floodplain plantings for wetland mitigation, ecological restoration, or general permanent cover after culvert or bridge work. Tolerates partial shade.				
Planting Area:	Laurentian Mixed Forest Province. Mn/DOT Districts 1, 2(east) and 3A.				

34-371

Wet Meadow Northeast

Common Name	Scientific Name	Rate (kg/ha)	Rate (lb/ac)	% of Mix (% by wt)	Seeds/sq ft
fringed brome	<i>Bromus ciliatus</i>	2.24	2.00	16.04%	8.10
bluejoint	<i>Calamagrostis canadensis</i>	0.11	0.10	0.78%	10.00
Virginia wild rye	<i>Elymus virginicus</i>	1.68	1.50	11.99%	2.31
tall manna grass	<i>Glyceria grandis</i>	0.28	0.25	1.96%	6.30
fowl bluegrass	<i>Poa palustris</i>	0.73	0.65	5.19%	31.00
	Total Grasses	5.04	4.50	35.96%	57.71
tussock sedge	<i>Carex stricta</i>	0.04	0.04	0.35%	0.85
pointed broom sedge	<i>Carex scoparia</i>	0.06	0.05	0.39%	1.50
dark green bulrush	<i>Scirpus atrovirens</i>	0.22	0.20	1.56%	33.00
woolgrass	<i>Scirpus cyperinus</i>	0.07	0.06	0.51%	40.00
	Total Sedges and Rushes	0.39	0.35	2.81%	75.35
Canada anemone	<i>Anemone canadensis</i>	0.11	0.10	0.82%	0.30
marsh milkweed	<i>Asclepias incarnata</i>	0.27	0.24	1.95%	0.43
flat-topped aster	<i>Doellingeria umbellata</i>	0.11	0.10	0.81%	2.50
common boneset	<i>Eupatorium perfoliatum</i>	0.10	0.09	0.68%	5.00
grass-leaved goldenrod	<i>Euthamia graminifolia</i>	0.04	0.04	0.31%	5.00
spotted Joe pye weed	<i>Eutrochium maculatum</i>	0.16	0.14	1.15%	5.00
blue monkey flower	<i>Mimulus ringens</i>	0.03	0.03	0.24%	25.00
giant goldenrod	<i>Solidago gigantea</i>	0.03	0.03	0.20%	2.30
eastern panicled aster	<i>Symphotrichum lanceolatum</i>	0.03	0.03	0.28%	2.00
	Total Forbs	0.90	0.80	6.44%	47.53
Oats or winter wheat (see note at beginning of list for recommended dates)		7.68	6.85	54.79%	3.05
	Total Cover Crop	7.68	6.85	54.79%	3.05
	Totals:	14.01	12.50	100.00%	183.64
Purpose:	Wet meadow / Sedge meadow reconstruction for wetland mitigation or ecological restoration.				
Planting Area:	Laurentian Mixed Forest Province. Mn/DOT Districts 1, 2(east) and 3A.				

35-221

Dry Prairie General

Common Name	Scientific Name	Rate (kg/ha)	Rate (lb/ac)	% of Mix (% by wt)	Seeds/sq ft
big bluestem	<i>Andropogon gerardii</i>	0.78	0.70	1.92%	2.57
side-oats grama	<i>Bouteloua curtipendula</i>	3.36	3.00	8.22%	6.61
blue grama	<i>Bouteloua gracilis</i>	0.56	0.50	1.37%	7.35
kalm's brome	<i>Bromus kalmii</i>	0.82	0.73	2.00%	2.14
nodding wild rye	<i>Elymus canadensis</i>	1.12	1.00	2.74%	1.91
junegrass	<i>Koeleria macrantha</i>	0.28	0.25	0.69%	18.37
little bluestem	<i>Schizachyrium scoparium</i>	3.36	3.00	8.22%	16.53
Indian grass	<i>Sorghastrum nutans</i>	0.78	0.70	1.92%	3.09
prairie dropseed	<i>Sporobolus heterolepis</i>	0.13	0.12	0.34%	0.73
	Total Grasses	11.21	10.00	27.42%	59.30
blue giant hyssop	<i>Agastache foeniculum</i>	0.07	0.06	0.17%	2.07
lead plant	<i>Amorpha canescens</i>	0.10	0.09	0.26%	0.42
butterfly milkweed	<i>Asclepias tuberosa</i>	0.07	0.06	0.17%	0.10
Canada milk vetch	<i>Astragalus canadensis</i>	0.07	0.06	0.18%	0.40
bird's foot coreopsis	<i>Coreopsis palmata</i>	0.07	0.06	0.16%	0.21
white prairie clover	<i>Dalea candida</i>	0.07	0.06	0.15%	0.39
purple prairie clover	<i>Dalea purpurea</i>	0.21	0.19	0.51%	1.02
Canada tick trefoil	<i>Desmodium canadense</i>	0.07	0.06	0.18%	0.13
stiff sunflower	<i>Helianthus pauciflorus</i>	0.07	0.06	0.17%	0.09
rough blazing star	<i>Liatris aspera</i>	0.04	0.04	0.12%	0.25
wild bergamot	<i>Monarda fistulosa</i>	0.07	0.06	0.15%	1.42
stiff goldenrod	<i>Oligoneuron rigidum</i>	0.07	0.06	0.15%	0.83
large-flowered beard tongue	<i>Penstemon grandiflorus</i>	0.07	0.06	0.17%	0.32
black-eyed susan	<i>Rudbeckia hirta</i>	0.35	0.31	0.84%	10.32
gray goldenrod	<i>Solidago nemoralis</i>	0.04	0.04	0.10%	3.86
heath aster	<i>Symphyotrichum ericoides</i>	0.04	0.04	0.10%	2.58
smooth aster	<i>Symphyotrichum laeve</i>	0.07	0.06	0.17%	1.26
hoary vervain	<i>Verbena stricta</i>	0.15	0.13	0.34%	1.29
	Total Forbs	1.68	1.50	4.09%	26.96
Oats or winter wheat (see note at beginning of list for recommended dates)		28.02	25.00	68.49%	11.13
	Total Cover Crop	28.02	25.00	68.49%	11.13
	Totals:	40.91	36.50	100.00%	97.39
Purpose:	General dry prairie mix for native roadsides, ecological restoration, or conservation program plantings.				
Planting Area:	Tallgrass Aspen Parklands, Prairie Parkland, and Eastern Broadleaf Forest Provinces. Mn/DOT Districts 2(west), 3B, 4, Metro, 6, 7 & 8.				

35-241

Mesic Prairie General

Common Name	Scientific Name	Rate (kg/ha)	Rate (lb/ac)	% of Mix (% by wt)	Seeds/sq ft
big bluestem	<i>Andropogon gerardii</i>	2.24	2.00	5.48%	7.35
side-oats grama	<i>Bouteloua curtipendula</i>	1.79	1.60	4.39%	3.53
kalm's brome	<i>Bromus kalmii</i>	0.56	0.50	1.37%	1.47
nodding wild rye	<i>Elymus canadensis</i>	1.31	1.17	3.20%	2.23
slender wheatgrass	<i>Elymus trachycaulus</i>	1.12	1.00	2.73%	2.53
switchgrass	<i>Panicum virgatum</i>	0.07	0.06	0.17%	0.32
little bluestem	<i>Schizachyrium scoparium</i>	1.79	1.60	4.39%	8.82
Indian grass	<i>Sorghastrum nutans</i>	2.24	2.00	5.48%	8.82
prairie dropseed	<i>Sporobolus heterolepis</i>	0.08	0.07	0.18%	0.39
	Total Grasses	11.21	10.00	27.39%	35.46
blue giant hyssop	<i>Agastache foeniculum</i>	0.07	0.06	0.15%	1.82
lead plant	<i>Amorpha canescens</i>	0.07	0.06	0.15%	0.25
common milkweed	<i>Asclepias syriaca</i>	0.04	0.04	0.10%	0.06
butterfly milkweed	<i>Asclepias tuberosa</i>	0.04	0.04	0.10%	0.06
Canada milk vetch	<i>Astragalus canadensis</i>	0.07	0.06	0.17%	0.39
white prairie clover	<i>Dalea candida</i>	0.07	0.06	0.17%	0.44
purple prairie clover	<i>Dalea purpurea</i>	0.21	0.19	0.51%	1.03
Canada tick trefoil	<i>Desmodium canadense</i>	0.07	0.06	0.18%	0.13
stiff sunflower	<i>Helianthus pauciflorus</i>	0.07	0.06	0.17%	0.09
ox-eye	<i>Heliopsis helianthoides</i>	0.15	0.13	0.34%	0.29
rough blazing star	<i>Liatris aspera</i>	0.03	0.03	0.08%	0.18
great blazing star	<i>Liatris pycnostachya</i>	0.03	0.03	0.09%	0.13
wild bergamot	<i>Monarda fistulosa</i>	0.07	0.06	0.17%	1.61
stiff goldenrod	<i>Oligoneuron rigidum</i>	0.07	0.06	0.17%	0.94
black-eyed susan	<i>Rudbeckia hirta</i>	0.35	0.31	0.86%	10.56
heath aster	<i>Symphyotrichum ericoides</i>	0.03	0.03	0.09%	2.30
smooth aster	<i>Symphyotrichum laeve</i>	0.07	0.06	0.17%	1.26
blue vervain	<i>Verbena hastata</i>	0.04	0.04	0.12%	1.50
hoary vervain	<i>Verbena stricta</i>	0.07	0.06	0.17%	0.64
golden alexanders	<i>Zizia aurea</i>	0.07	0.06	0.15%	0.23
	Total Forbs	1.68	1.50	4.11%	23.89
Oats or winter wheat (see note at beginning of list for recommended dates)		28.02	25.00	68.50%	11.14
	Total Cover Crop	28.02	25.00	68.50%	11.14
	Totals:	40.91	36.50	100.00%	70.49
Purpose:	General mesic prairie mix for native roadsides, ecological restoration, or conservation program plantings.				
Planting Area:	Tallgrass Aspen Parklands, Prairie Parkland, and Eastern Broadleaf Forest Provinces. Mn/DOT Districts 2(west), 3B, 4, Metro, 6, 7 & 8.				

35-421

Dry Prairie Northwest

Common Name	Scientific Name	Rate (kg/ha)	Rate (lb/ac)	% of Mix (% by wt)	Seeds/sq ft
side-oats grama	<i>Bouteloua curtipendula</i>	1.35	1.20	10.89%	2.64
blue grama	<i>Bouteloua gracilis</i>	0.84	0.75	6.81%	11.00
kalm's brome	<i>Bromus kalmii</i>	1.01	0.90	8.17%	2.64
nodding wild rye	<i>Elymus canadensis</i>	1.12	1.00	9.09%	1.91
slender wheatgrass	<i>Elymus trachycaulus</i>	1.12	1.00	9.11%	2.54
porcupine grass	<i>Hesperostipa spartea</i>	0.50	0.45	4.09%	0.11
junegrass	<i>Koeleria macrantha</i>	0.28	0.25	2.23%	18.00
little bluestem	<i>Schizachyrium scoparium</i>	1.68	1.50	13.63%	8.26
sand dropseed	<i>Sporobolus cryptandrus</i>	0.22	0.20	1.86%	15.00
	Total Grasses	8.13	7.25	65.88%	62.10
Prairie Wild Onion	<i>Allium stellatum</i>	0.03	0.03	0.27%	0.12
Canada milk vetch	<i>Astragalus canadensis</i>	0.08	0.07	0.61%	0.42
white prairie clover	<i>Dalea candida</i>	0.07	0.06	0.55%	0.42
purple prairie clover	<i>Dalea purpurea</i>	0.12	0.11	0.99%	0.60
Canada tick trefoil	<i>Desmodium canadense</i>	0.06	0.05	0.45%	0.10
stiff sunflower	<i>Helianthus pauciflorus</i>	0.03	0.03	0.31%	0.05
ox-eye	<i>Heliopsis helianthoides</i>	0.07	0.06	0.55%	0.14
rough blazing star	<i>Liatris aspera</i>	0.03	0.03	0.23%	0.15
dotted blazing star	<i>Liatris punctata</i>	0.02	0.02	0.18%	0.05
wild bergamot	<i>Monarda fistulosa</i>	0.03	0.03	0.27%	0.77
stiff goldenrod	<i>Oligoneuron rigidum</i>	0.03	0.03	0.27%	0.45
prairie coneflower	<i>Ratibida columnifera</i>	0.07	0.06	0.55%	0.93
black-eyed susan	<i>Rudbeckia hirta</i>	0.07	0.06	0.55%	2.03
gray goldenrod	<i>Solidago nemoralis</i>	0.02	0.02	0.17%	2.00
heath aster	<i>Symphyotrichum ericoides</i>	0.01	0.01	0.14%	1.10
smooth aster	<i>Symphyotrichum laeve</i>	0.03	0.03	0.27%	0.61
heart-leaved alexanders	<i>Zizia aptera</i>	0.06	0.05	0.50%	0.24
	Total Forbs	0.84	0.75	6.86%	10.18
Oats or winter wheat (see note at beginning of list for recommended dates)		3.36	3.00	27.26%	1.34
	Total Cover Crop	3.36	3.00	27.26%	1.34
	Totals:	12.33	11.00	100.00%	73.62
Purpose:	Regional dry prairie reconstruction for wetland mitigation, ecological restoration, or conservation program plantings.				
Planting Area:	Tallgrass Aspen Parklands Province, Red River Prairie Section, Hardwood Hills subsection of the MN & NE IA Morainal Section, far western portions of the Laurentian Mixed Forest Province. Mn/DOT Districts 2(west) & 4(north).				

35-441

Mesic Prairie Northwest

Common Name	Scientific Name	Rate (kg/ha)	Rate (lb/ac)	% of Mix (% by wt)	Seeds/sq ft
big bluestem	<i>Andropogon gerardii</i>	1.12	1.00	9.08%	3.67
side-oats grama	<i>Bouteloua curtipendula</i>	1.35	1.20	10.89%	2.64
nodding wild rye	<i>Elymus canadensis</i>	1.12	1.00	9.09%	1.91
slender wheatgrass	<i>Elymus trachycaulus</i>	1.12	1.00	9.11%	2.54
porcupine grass	<i>Hesperostipa spartea</i>	0.47	0.42	3.82%	0.11
switchgrass	<i>Panicum virgatum</i>	0.20	0.18	1.59%	0.90
little bluestem	<i>Schizachyrium scoparium</i>	1.68	1.50	13.66%	8.28
Indian grass	<i>Sorghastrum nutans</i>	1.35	1.20	10.91%	5.29
	Total Grasses	8.41	7.50	68.15%	25.33
Prairie Wild Onion	<i>Allium stellatum</i>	0.03	0.03	0.27%	0.12
Canada milk vetch	<i>Astragalus canadensis</i>	0.07	0.06	0.54%	0.37
white prairie clover	<i>Dalea candida</i>	0.07	0.06	0.55%	0.42
purple prairie clover	<i>Dalea purpurea</i>	0.10	0.09	0.83%	0.50
Canada tick trefoil	<i>Desmodium canadense</i>	0.09	0.08	0.77%	0.17
ox-eye	<i>Heliopsis helianthoides</i>	0.07	0.06	0.55%	0.14
rough blazing star	<i>Liatris aspera</i>	0.03	0.03	0.28%	0.18
great blazing star	<i>Liatris pycnostachya</i>	0.07	0.06	0.54%	0.24
wild bergamot	<i>Monarda fistulosa</i>	0.03	0.03	0.27%	0.77
stiff goldenrod	<i>Oligoneuron rigidum</i>	0.03	0.03	0.27%	0.45
Virginia mountain mint	<i>pycnanthemum virginianum</i>	0.04	0.04	0.34%	3.00
prairie coneflower	<i>Ratibida columnifera</i>	0.07	0.06	0.55%	0.93
black-eyed susan	<i>Rudbeckia hirta</i>	0.08	0.07	0.59%	2.20
heath aster	<i>Symphyotrichum ericoides</i>	0.01	0.01	0.14%	1.10
smooth aster	<i>Symphyotrichum laeve</i>	0.03	0.03	0.27%	0.61
blue vervain	<i>Verbena hastata</i>	0.10	0.09	0.77%	2.91
golden alexanders	<i>Zizia aurea</i>	0.19	0.17	1.56%	0.70
	Total Forbs	1.12	1.00	9.09%	14.81
Oats or winter wheat (see note at beginning of list for recommended dates)		2.80	2.50	22.76%	1.12
	Total Cover Crop	2.80	2.50	22.76%	1.12
	Totals:	12.33	11.00	100.00%	41.25
Purpose:	Regional mesic prairie reconstruction for wetland mitigation, ecological restoration, or conservation program plantings.				
Planting Area:	Tallgrass Aspen Parklands Province, Red River Prairie Section, Hardwood Hills subsection of the MN & NE IA Morainal Section, may extend into the far western portions of the Laurentian Mixed Forest Province. Mn/DOT Districts 2(west) & 4(north).				

35-521

Dry Prairie Southwest

Common Name	Scientific Name	Rate (kg/ha)	Rate (lb/ac)	% of Mix (% by wt)	Seeds/sq ft
side-oats grama	<i>Bouteloua curtipendula</i>	1.57	1.40	11.16%	3.08
blue grama	<i>Bouteloua gracilis</i>	1.06	0.95	7.57%	13.90
nodding wild rye	<i>Elymus canadensis</i>	1.35	1.20	9.63%	2.30
slender wheatgrass	<i>Elymus trachycaulus</i>	1.12	1.00	7.99%	2.53
porcupine grass	<i>Hesperostipa spartea</i>	0.84	0.75	6.02%	0.19
junegrass	<i>Koeleria macrantha</i>	0.34	0.30	2.40%	22.00
little bluestem	<i>Schizachyrium scoparium</i>	1.68	1.50	11.96%	8.24
sand dropseed	<i>Sporobolus cryptandrus</i>	0.17	0.15	1.20%	11.00
	Total Grasses	8.13	7.25	57.93%	63.23
whorled milkweed	<i>Asclepias verticillata</i>	0.01	0.01	0.10%	0.05
Canada milk vetch	<i>Astragalus canadensis</i>	0.07	0.06	0.51%	0.40
white prairie clover	<i>Dalea candida</i>	0.07	0.06	0.46%	0.40
purple prairie clover	<i>Dalea purpurea</i>	0.11	0.10	0.80%	0.55
Canada tick trefoil	<i>Desmodium canadense</i>	0.04	0.04	0.36%	0.09
narrow-leaved purple coneflower	<i>Echinacea angustifolia</i>	0.09	0.08	0.62%	0.20
ox-eye	<i>Heliopsis helianthoides</i>	0.04	0.04	0.35%	0.10
round-headed bush clover	<i>Lespedeza capitata</i>	0.03	0.03	0.27%	0.10
rough blazing star	<i>Liatris aspera</i>	0.02	0.02	0.18%	0.13
dotted blazing star	<i>Liatris punctata</i>	0.02	0.02	0.16%	0.05
wild bergamot	<i>Monarda fistulosa</i>	0.03	0.03	0.24%	0.76
stiff goldenrod	<i>Oligoneuron rigidum</i>	0.08	0.07	0.53%	1.00
black-eyed susan	<i>Rudbeckia hirta</i>	0.08	0.07	0.52%	2.20
heath aster	<i>Symphyotrichum ericoides</i>	0.01	0.01	0.10%	0.90
smooth aster	<i>Symphyotrichum laeve</i>	0.03	0.03	0.24%	0.60
bracted spiderwort	<i>Tradescantia bracteata</i>	0.02	0.02	0.13%	0.06
hoary vervain	<i>Verbena stricta</i>	0.11	0.10	0.78%	1.00
golden alexanders	<i>Zizia aurea</i>	0.24	0.21	1.68%	0.85
	Total Forbs	1.12	1.00	8.03%	9.44
Oats or winter wheat (see note at beginning of list for recommended dates)		4.76	4.25	34.04%	1.90
	Total Cover Crop	4.76	4.25	34.04%	1.90
	Totals:	14.01	12.50	100.00%	74.57
Purpose:	Regional dry prairie reconstruction for wetland mitigation, ecological restoration, or conservation program plantings.				
Planting Area:	North-Central Glaciated Plains Section. Mn/DOT Districts 3A(southwest) 3B, 4(south), 7 & 8.				

35-541

Mesic Prairie Southwest

Common Name	Scientific Name	Rate (kg/ha)	Rate (lb/ac)	% of Mix (% by wt)	Seeds/sq ft
big bluestem	<i>Andropogon gerardii</i>	1.01	0.90	7.49%	3.30
side-oats grama	<i>Bouteloua curtipendula</i>	1.01	0.90	7.49%	1.98
nodding wild rye	<i>Elymus canadensis</i>	1.01	0.90	7.46%	1.71
slender wheatgrass	<i>Elymus trachycaulus</i>	1.01	0.90	7.46%	2.27
green needle grass	<i>Nassella viridula</i>	0.49	0.44	3.67%	1.70
switchgrass	<i>Panicum virgatum</i>	0.18	0.16	1.30%	0.80
western wheatgrass	<i>Pascopyrum smithii</i>	0.56	0.50	4.15%	1.30
little bluestem	<i>Schizachyrium scoparium</i>	1.68	1.50	12.50%	8.27
Indian grass	<i>Sorghastrum nutans</i>	1.68	1.50	12.54%	6.63
	Total Grasses	8.63	7.70	64.06%	27.96
Canada milk vetch	<i>Astragalus canadensis</i>	0.07	0.06	0.53%	0.40
partridge pea	<i>Chamaecrista fasciculata</i>	0.11	0.10	0.84%	0.10
white prairie clover	<i>Dalea candida</i>	0.03	0.03	0.24%	0.20
purple prairie clover	<i>Dalea purpurea</i>	0.08	0.07	0.61%	0.40
Canada tick trefoil	<i>Desmodium canadense</i>	0.06	0.05	0.45%	0.11
narrow-leaved purple coneflower	<i>Echinacea angustifolia</i>	0.09	0.08	0.65%	0.20
ox-eye	<i>Heliopsis helianthoides</i>	0.07	0.06	0.50%	0.14
rough blazing star	<i>Liatris aspera</i>	0.03	0.03	0.28%	0.20
great blazing star	<i>Liatris pycnostachya</i>	0.02	0.02	0.21%	0.10
wild bergamot	<i>Monarda fistulosa</i>	0.04	0.04	0.29%	0.90
stiff goldenrod	<i>Oligoneuron rigidum</i>	0.03	0.03	0.28%	0.50
gray-headed coneflower	<i>Ratibida pinnata</i>	0.08	0.07	0.61%	0.80
black-eyed susan	<i>Rudbeckia hirta</i>	0.07	0.06	0.49%	2.00
smooth aster	<i>Symphyotrichum laeve</i>	0.03	0.03	0.25%	0.60
blue vervain	<i>Verbena hastata</i>	0.08	0.07	0.61%	2.50
hoary vervain	<i>Verbena stricta</i>	0.06	0.05	0.41%	0.50
golden alexanders	<i>Zizia aurea</i>	0.28	0.25	2.06%	1.00
	Total Forbs	1.23	1.10	9.31%	10.65
Oats or winter wheat (see note at beginning of list for recommended dates)		3.59	3.20	26.63%	1.42
	Total Cover Crop	3.59	3.20	26.63%	1.42
	Totals:	13.45	12.00	100.00%	40.03
Purpose:	Regional mesic prairie reconstruction for wetland mitigation, ecological restoration, or conservation program plantings.				
Planting Area:	North-Central Glaciated Plains Section. Mn/DOT Districts 3A(southwest) 3B, 4(south), 7 & 8.				

35-621

Dry Prairie Southeast

Common Name	Scientific Name	Rate (kg/ha)	Rate (lb/ac)	% of Mix (% by wt)	Seeds/sq ft
side-oats grama	<i>Bouteloua curtipendula</i>	1.27	1.13	10.23%	2.48
blue grama	<i>Bouteloua gracilis</i>	0.76	0.68	6.19%	10.00
kalm's brome	<i>Bromus kalmii</i>	0.35	0.31	2.78%	0.90
nodding wild rye	<i>Elymus canadensis</i>	1.68	1.50	13.61%	2.86
slender wheatgrass	<i>Elymus trachycaulus</i>	1.32	1.18	10.76%	3.00
junegrass	<i>Koeleria macrantha</i>	0.46	0.41	3.71%	30.00
little bluestem	<i>Schizachyrium scoparium</i>	1.69	1.51	13.70%	8.30
sand dropseed	<i>Sporobolus cryptandrus</i>	0.25	0.22	1.98%	16.00
prairie dropseed	<i>Sporobolus heterolepis</i>	0.29	0.26	2.32%	1.50
	Total Grasses	8.07	7.20	65.28%	75.04
butterfly milkweed	<i>Asclepias tuberosa</i>	0.07	0.06	0.52%	0.09
whorled milkweed	<i>Asclepias verticillata</i>	0.01	0.01	0.11%	0.05
bird's foot coreopsis	<i>Coreopsis palmata</i>	0.06	0.05	0.50%	0.20
white prairie clover	<i>Dalea candida</i>	0.10	0.09	0.78%	0.60
purple prairie clover	<i>Dalea purpurea</i>	0.17	0.15	1.32%	0.80
ox-eye	<i>Heliopsis helianthoides</i>	0.07	0.06	0.51%	0.13
round-headed bush clover	<i>Lespedeza capitata</i>	0.03	0.03	0.31%	0.10
rough blazing star	<i>Liatris aspera</i>	0.02	0.02	0.17%	0.11
dotted blazing star	<i>Liatris punctata</i>	0.02	0.02	0.23%	0.06
wild bergamot	<i>Monarda fistulosa</i>	0.03	0.03	0.30%	0.85
horsemint	<i>Monarda punctata</i>	0.02	0.02	0.22%	0.80
stiff goldenrod	<i>Oligoneuron rigidum</i>	0.07	0.06	0.59%	0.98
large-flowered beard tongue	<i>Penstemon grandiflorus</i>	0.04	0.04	0.35%	0.20
black-eyed susan	<i>Rudbeckia hirta</i>	0.10	0.09	0.86%	3.20
gray goldenrod	<i>Solidago nemoralis</i>	0.01	0.01	0.14%	1.65
skyblue aster	<i>Symphyotrichum oolentangiense</i>	0.01	0.01	0.06%	0.20
silky aster	<i>Symphyotrichum sericeum</i>	0.02	0.02	0.19%	0.20
bracted spiderwort	<i>Tradescantia bracteata</i>	0.01	0.01	0.12%	0.05
heart-leaved alexanders	<i>Zizia aptera</i>	0.02	0.02	0.21%	0.10
	Total Forbs	0.90	0.80	7.49%	10.37
Oats or winter wheat (see note at beginning of list for recommended dates)		3.36	3.00	27.23%	1.33
	Total Cover Crop	3.36	3.00	27.23%	1.33
	Totals:	12.33	11.00	100.00%	86.75
Purpose:	Regional dry prairie reconstruction for wetland mitigation, ecological restoration, or conservation program plantings.				
Planting Area:	Eastern Broadleaf Forest Province excluding Hardwood Hills subsection. Mn/DOT Districts Metro & 6.				

35-641

Mesic Prairie Southeast

Common Name	Scientific Name	Rate (kg/ha)	Rate (lb/ac)	% of Mix (% by wt)	Seeds/sq ft
big bluestem	<i>Andropogon gerardii</i>	1.01	0.90	7.49%	3.30
side-oats grama	<i>Bouteloua curtipendula</i>	1.54	1.37	11.38%	3.01
nodding wild rye	<i>Elymus canadensis</i>	1.18	1.05	8.77%	2.01
slender wheatgrass	<i>Elymus trachycaulus</i>	1.01	0.90	7.50%	2.28
switchgrass	<i>Panicum virgatum</i>	0.24	0.21	1.78%	1.10
little bluestem	<i>Schizachyrium scoparium</i>	1.42	1.27	10.59%	7.00
Indian grass	<i>Sorghastrum nutans</i>	2.24	2.00	16.68%	8.82
	Total Grasses	8.63	7.70	64.19%	27.52
butterfly milkweed	<i>Asclepias tuberosa</i>	0.07	0.06	0.53%	0.10
whorled milkweed	<i>Asclepias verticillata</i>	0.01	0.01	0.10%	0.05
Canada milk vetch	<i>Astragalus canadensis</i>	0.18	0.16	1.33%	1.00
partridge pea	<i>Chamaecrista fasciculata</i>	0.67	0.60	5.00%	0.60
white prairie clover	<i>Dalea candida</i>	0.01	0.01	0.07%	0.06
purple prairie clover	<i>Dalea purpurea</i>	0.10	0.09	0.76%	0.50
Canada tick trefoil	<i>Desmodium canadense</i>	0.17	0.15	1.24%	0.30
ox-eye	<i>Heliopsis helianthoides</i>	0.06	0.05	0.43%	0.12
rough blazing star	<i>Liatris aspera</i>	0.03	0.03	0.21%	0.15
great blazing star	<i>Liatris pycnostachya</i>	0.03	0.03	0.29%	0.14
wild bergamot	<i>Monarda fistulosa</i>	0.01	0.01	0.06%	0.18
stiff goldenrod	<i>Oligoneuron rigidum</i>	0.02	0.02	0.17%	0.31
gray-headed coneflower	<i>Ratibida pinnata</i>	0.02	0.02	0.15%	0.20
black-eyed susan	<i>Rudbeckia hirta</i>	0.06	0.05	0.38%	1.54
heath aster	<i>Symphyotrichum ericoides</i>	0.01	0.01	0.05%	0.40
smooth aster	<i>Symphyotrichum laeve</i>	0.06	0.05	0.41%	1.00
bracted spiderwort	<i>Tradescantia bracteata</i>	0.04	0.04	0.34%	0.15
blue vervain	<i>Verbena hastata</i>	0.04	0.04	0.37%	1.50
hoary vervain	<i>Verbena stricta</i>	0.11	0.10	0.85%	1.05
golden alexanders	<i>Zizia aurea</i>	0.08	0.07	0.60%	0.29
	Total Forbs	1.79	1.60	13.34%	9.64
Oats or winter wheat (see note at beginning of list for recommended dates)		3.03	2.70	22.47%	1.20
	Total Cover Crop	3.03	2.70	22.47%	1.20
	Totals:	13.45	12.00	100.00%	38.36
Purpose:	Regional mesic prairie reconstruction for wetland mitigation, ecological restoration, or conservation program plantings.				
Planting Area:	Eastern Broadleaf Forest Province excluding Hardwood Hills subsection. Mn/DOT Districts Metro & 6.				

36-211

Woodland Edge South & West

Common Name	Scientific Name	Rate (kg/ha)	Rate (lb/ac)	% of Mix (% by wt)	Seeds/sq ft
big bluestem	<i>Andropogon gerardii</i>	1.12	1.00	2.90%	3.68
side-oats grama	<i>Bouteloua curtipendula</i>	1.12	1.00	2.89%	2.20
kalm's brome	<i>Bromus kalmii</i>	1.68	1.50	4.34%	4.40
nodding wild rye	<i>Elymus canadensis</i>	1.40	1.25	3.61%	2.38
bottlebrush grass	<i>Elymus hystrix</i>	0.36	0.32	0.91%	0.88
slender wheatgrass	<i>Elymus trachycaulus</i>	1.40	1.25	3.64%	3.18
switchgrass	<i>Panicum virgatum</i>	0.07	0.06	0.17%	0.30
little bluestem	<i>Schizachyrium scoparium</i>	0.69	0.62	1.79%	3.40
Indian grass	<i>Sorghastrum nutans</i>	1.12	1.00	2.89%	4.40
	Total Grasses	8.97	8.00	23.14%	24.82
common yarrow	<i>Achillea millefolium</i>	0.03	0.03	0.09%	2.00
blue giant hyssop	<i>Agastache foeniculum</i>	0.11	0.10	0.28%	3.20
white snakeroot	<i>Ageratina altissima</i>	0.03	0.03	0.09%	1.70
white prairie clover	<i>Dalea candida</i>	0.19	0.17	0.50%	1.20
Canada tick trefoil	<i>Desmodium canadense</i>	0.16	0.14	0.42%	0.29
ox-eye	<i>Heliopsis helianthoides</i>	0.15	0.13	0.38%	0.30
wild bergamot	<i>Monarda fistulosa</i>	0.07	0.06	0.18%	1.60
stiff goldenrod	<i>Oligoneuron rigidum</i>	0.07	0.06	0.17%	0.90
Clayton's sweet cicely	<i>Osmorhiza claytonii</i>	0.07	0.06	0.17%	0.06
smooth wild rose	<i>Rosa blanda</i>	0.07	0.06	0.17%	0.06
black-eyed susan	<i>Rudbeckia hirta</i>	0.20	0.18	0.52%	6.10
Lance-leaved Figwort	<i>Scrophularia lanceolata</i>	0.06	0.05	0.14%	3.20
zigzag goldenrod	<i>Solidago flexicaulis</i>	0.02	0.02	0.05%	0.50
showy goldenrod	<i>Solidago speciosa</i>	0.07	0.06	0.18%	1.80
smooth aster	<i>Symphotrichum laeve</i>	0.07	0.06	0.19%	1.30
American vetch	<i>Vicia americana</i>	0.20	0.18	0.52%	0.14
golden alexanders	<i>Zizia aurea</i>	0.12	0.11	0.33%	0.46
	Total Forbs	1.68	1.50	4.38%	24.80
Oats or winter wheat (see note at beginning of list for recommended dates)		28.02	25.00	72.48%	11.14
	Total Cover Crop	28.02	25.00	72.48%	11.14
	Totals:	38.67	34.50	100.00%	60.75
Purpose:	Partly shaded grassland planting for native roadsides, reclamation, etc.				
Planting Area:	Tallgrass Aspen Parklands, Prairie Parkland, and Eastern Broadleaf Forest Provinces. Mn/DOT Districts 2(west), 3B, 4, Metro, 6, 7 & 8.				

36-311

Woodland Edge Northeast

Common Name	Scientific Name	Rate (kg/ha)	Rate (lb/ac)	% of Mix (% by wt)	Seeds/sq ft
fringed brome	<i>Bromus ciliatus</i>	2.24	2.00	5.98%	8.10
bluejoint	<i>Calamagrostis canadensis</i>	0.15	0.13	0.37%	12.90
poverty grass	<i>Danthonia spicata</i>	0.56	0.50	1.50%	4.60
nodding wild rye	<i>Elymus canadensis</i>	1.40	1.25	3.72%	2.38
slender wheatgrass	<i>Elymus trachycaulus</i>	2.24	2.00	5.96%	5.06
fowl bluegrass	<i>Poa palustris</i>	0.98	0.87	2.59%	41.50
False Melic	<i>Schizachne purpurascens</i>	0.28	0.25	0.75%	2.90
	Total Grasses	7.85	7.00	20.87%	77.44
common yarrow	<i>Achillea millefolium</i>	0.03	0.03	0.09%	2.00
pearly everlasting	<i>Anaphalis margaritacea</i>	0.02	0.02	0.05%	1.30
flat-topped aster	<i>Doellingeria umbellata</i>	0.04	0.04	0.12%	1.00
tall cinquefoil	<i>Drymocallis arguta</i>	0.07	0.06	0.19%	5.30
large-leaved aster	<i>Eurybia macrophylla</i>	0.02	0.02	0.05%	0.18
stiff goldenrod	<i>Oligoneuron rigidum</i>	0.16	0.14	0.42%	2.10
smooth wild rose	<i>Rosa blanda</i>	0.18	0.16	0.47%	0.15
black-eyed susan	<i>Rudbeckia hirta</i>	0.29	0.26	0.77%	8.70
gray goldenrod	<i>Solidago nemoralis</i>	0.07	0.06	0.18%	6.80
upland white aster	<i>Solidago ptarmicoides</i>	0.04	0.04	0.13%	1.00
Lindley's Aster	<i>Symphyotrichum ciliolatum</i>	0.03	0.03	0.10%	1.00
smooth aster	<i>Symphyotrichum laeve</i>	0.16	0.14	0.43%	2.90
American vetch	<i>Vicia americana</i>	0.56	0.50	1.50%	0.38
	Total Forbs	1.68	1.50	4.50%	32.81
Oats or winter wheat (see note at beginning of list for recommended dates)		28.02	25.00	74.63%	11.14
	Total Cover Crop	28.02	25.00	74.63%	11.14
	Totals:	37.55	33.50	100.00%	121.39
Purpose:	Partly shaded grassland planting for native roadsides, reclamation, etc in north-central and northeast MN				
Planting Area:	Laurentian Mixed Forest Province excluding Chippewa Plains, Pine Moraines & Outwash Plains, and Mille Lacs Uplands subsections. Mn/DOT Districts 1 & 2(east).				

36-411

Woodland Edge Northwest

Common Name	Scientific Name	Rate (kg/ha)	Rate (lb/ac)	% of Mix (% by wt)	Seeds/sq ft
big bluestem	<i>Andropogon gerardii</i>	0.56	0.50	1.42%	1.85
side-oats grama	<i>Bouteloua curtipendula</i>	1.12	1.00	2.81%	2.20
fringed brome	<i>Bromus ciliatus</i>	0.84	0.75	2.12%	3.04
kalm's brome	<i>Bromus kalmii</i>	2.24	2.00	5.64%	5.88
bluejoint	<i>Calamagrostis canadensis</i>	0.07	0.06	0.18%	6.40
poverty grass	<i>Danthonia spicata</i>	0.43	0.38	1.06%	3.46
nodding wild rye	<i>Elymus canadensis</i>	1.12	1.00	2.81%	1.91
slender wheatgrass	<i>Elymus trachycaulus</i>	1.12	1.00	2.81%	2.53
Virginia wild rye	<i>Elymus virginicus</i>	1.96	1.75	4.93%	2.70
little bluestem	<i>Schizachyrium scoparium</i>	0.07	0.06	0.18%	0.35
Indian grass	<i>Sorghastrum nutans</i>	0.56	0.50	1.40%	2.19
	Total Grasses	10.09	9.00	25.36%	32.50
common yarrow	<i>Achillea millefolium</i>	0.03	0.03	0.09%	2.00
blue giant hyssop	<i>Agastache foeniculum</i>	0.13	0.12	0.35%	4.10
lead plant	<i>Amorpha canescens</i>	0.03	0.03	0.09%	0.15
Tall Thimbleweed	<i>Anemone virginiana</i>	0.03	0.03	0.08%	0.30
columbine	<i>Aquilegia canadensis</i>	0.03	0.03	0.08%	0.40
prairie sage	<i>Artemisia ludoviciana</i>	0.03	0.03	0.09%	2.90
white prairie clover	<i>Dalea candida</i>	0.07	0.06	0.16%	0.40
purple prairie clover	<i>Dalea purpurea</i>	0.20	0.18	0.51%	1.00
flat-topped aster	<i>Doellingeria umbellata</i>	0.03	0.03	0.09%	0.80
ox-eye	<i>Heliopsis helianthoides</i>	0.04	0.04	0.12%	0.10
stiff goldenrod	<i>Oligoneuron rigidum</i>	0.07	0.06	0.17%	0.91
smooth wild rose	<i>Rosa blanda</i>	0.11	0.10	0.28%	0.10
black-eyed susan	<i>Rudbeckia hirta</i>	0.35	0.31	0.86%	10.35
upland white aster	<i>Solidago ptarmicoides</i>	0.07	0.06	0.16%	1.30
tall meadow-rue	<i>Thalictrum dasycarpum</i>	0.15	0.13	0.35%	0.92
American vetch	<i>Vicia americana</i>	0.15	0.13	0.37%	0.10
golden alexanders	<i>Zizia aurea</i>	0.15	0.13	0.36%	0.51
	Total Forbs	1.68	1.50	4.21%	26.33
Oats or winter wheat (see note at beginning of list for recommended dates)		28.02	25.00	70.43%	11.14
	Total Cover Crop	28.02	25.00	70.43%	11.14
	Totals:	39.79	35.50	100.00%	69.96
Purpose:	Partly shaded grassland planting for native roadsides, reclamation, etc.				
Planting Area:	Tallgrass Aspen Parklands Province. Mn/DOT District 2(west).				

36-711

Woodland Edge Central

Common Name	Scientific Name	Rate (kg/ha)	Rate (lb/ac)	% of Mix (% by wt)	Seeds/sq ft
big bluestem	<i>Andropogon gerardii</i>	0.56	0.50	1.42%	1.85
side-oats grama	<i>Bouteloua curtipendula</i>	1.12	1.00	2.81%	2.20
fringed brome	<i>Bromus ciliatus</i>	0.56	0.50	1.39%	2.00
kalm's brome	<i>Bromus kalmii</i>	1.68	1.50	4.22%	4.40
poverty grass	<i>Danthonia spicata</i>	0.41	0.37	1.04%	3.40
nodding wild rye	<i>Elymus canadensis</i>	0.84	0.75	2.11%	1.43
slender wheatgrass	<i>Elymus trachycaulus</i>	1.12	1.00	2.81%	2.53
Virginia wild rye	<i>Elymus virginicus</i>	1.96	1.75	4.93%	2.70
little bluestem	<i>Schizachyrium scoparium</i>	1.27	1.13	3.17%	6.20
Indian grass	<i>Sorghastrum nutans</i>	0.56	0.50	1.41%	2.20
	Total Grasses	10.09	9.00	25.31%	28.91
common yarrow	<i>Achillea millefolium</i>	0.03	0.03	0.09%	2.00
blue giant hyssop	<i>Agastache foeniculum</i>	0.07	0.06	0.18%	2.10
lead plant	<i>Amorpha canescens</i>	0.06	0.05	0.13%	0.21
pearly everlasting	<i>Anaphalis margaritacea</i>	0.02	0.02	0.05%	1.30
Canada milk vetch	<i>Astragalus canadensis</i>	0.28	0.25	0.71%	1.58
white prairie clover	<i>Dalea candida</i>	0.07	0.06	0.16%	0.40
purple prairie clover	<i>Dalea purpurea</i>	0.20	0.18	0.51%	1.00
ox-eye	<i>Heliopsis helianthoides</i>	0.15	0.13	0.37%	0.30
round-headed bush clover	<i>Lespedeza capitata</i>	0.08	0.07	0.19%	0.20
wild bergamot	<i>Monarda fistulosa</i>	0.07	0.06	0.18%	1.60
Clayton's sweet cicely	<i>Osmorhiza claytonii</i>	0.07	0.06	0.17%	0.06
smooth wild rose	<i>Rosa blanda</i>	0.10	0.09	0.27%	0.09
black-eyed susan	<i>Rudbeckia hirta</i>	0.22	0.20	0.57%	6.80
showy goldenrod	<i>Solidago speciosa</i>	0.07	0.06	0.17%	1.80
smooth aster	<i>Symphyotrichum laeve</i>	0.07	0.06	0.18%	1.30
skyblue aster	<i>Symphyotrichum oolentangiense</i>	0.07	0.06	0.17%	1.80
golden alexanders	<i>Zizia aurea</i>	0.07	0.06	0.16%	0.23
	Total Forbs	1.68	1.50	4.26%	22.77
Oats or winter wheat (see note at beginning of list for recommended dates)		28.02	25.00	70.43%	11.14
	Total Cover Crop	28.02	25.00	70.43%	11.14
	Totals:	39.79	35.50	100.00%	62.81
Purpose:	Partly shaded grassland planting for native roadsides, reclamation, etc.				
Planting Area:	Chippewa Plains, Pine Moraines & Outwash Plains, and Mille Lacs Uplands subsections. Mn/DOT Districts 2(southeast) & 3A.				