



# BWSR Pilot Seed Mixes

## PILOT SEED MIXES:

These new “Pilot” seed mixes have been developed for a variety of restoration, conservation and stormwater uses. Goals were to meet the needs of common project types and to create direction for emerging topics such as biofuels, buffers, conservation grazing, and pollinators. All of the mixes were developed for specific functions and incorporate pollinator habitat to the extent possible. The mixes will remain as pilot mixes for a couple years until we understand how they are performing before we work to make them official state mixes. In many cases these mixes should be considered starting points for developing site specific mixes.

Note: Oats cover crop is included as a component of these seed mixes with the exception of some wetland mixes where cover species are not necessary. Winter wheat (at a similar rate to oats) may be selected in some cases where germination is needed later in the fall, followed by further green-up the following spring (oats will not come back the follow spring unless it re-establishes from seed).

The seed mixes in this document include:

Beneficial Insects South West	Low Growing Solar Array Mix South West
Biofuels/Biomass Northwest	Low Growing Solar Array Moist Soils South and West
Biofuels/Biomass Southeast	Mesic Short Urban Buffer Northeast
Biofuels/Biomass Southwest	Mesic Short Urban Buffer South West
Compacted Trail General	Mid Diversity Mesic to Dry Buffer South West
Conservation Grazing South West	Mid Diversity Moist Buffer Northeast
Dry Short Urban Buffer General	Mid Diversity Moist Buffer South West
Early Successional Floodplain General	Native Forage Buffer Mix South West
Eroding Bank Stabilization Northeast	Native Grass Waterway General
Eroding Bank Stabilization Northwest South	Pollinator Plot Northwest
Forest Groundcover East	Pollinator Plot Urban Southeast
Honey Bee Plot Native Non-Native General	Pollinator Plots Northeast
Impoundment General	Pollinator Plots Southeast
Inundated Swale South West	Pollinator Plots Southwest
Landfill Pollinator Dry Northeast	Sand Mine Reclamation South West
Landfill Pollinator Dry South West	Shallow Rooted BMP Mix General
Landfill Pollinator Mesic Northeast	Silvopasture Southeast
Landfill Pollinator Mesic South West	Stormwater Pond Pollinator Northeast
Little Bluestem Urban Prairie	Wet Meadow Forb/Sedge/Rush Southwest
Low Diversity Buffer General	Wetland Construction General
Low Growing Solar Array Mix Northeast	Wetland Seedbank Release Northeast

## Beneficial Insects South &amp; West

Function: Pollinator

Intent: Establishment of diverse vegetation for beneficial insects in agricultural areas

Planting Area: S &amp; W

Specialization:

Scientific Name	Common Name	Seeds/ sq ft	Rate (lb/ac)	% Mix (by sqft)	% Mix (by wt)
-----------------	-------------	-----------------	-----------------	--------------------	------------------

**Cover**

Avena sativa	Oats* (See Cover crop note)	11.14	37.91		
--------------	-----------------------------	-------	-------	--	--

Total Guild:		11.14	37.91	12.79%	82.2%
--------------	--	-------	-------	--------	-------

**Forb**

Achillea millefolium	Common Yarrow	2	0.03		
Agastache foeniculum	Blue Giant Hyssop	2.1	0.06		
Allium stellatum	Prairie Wild Onion	0.28	0.07		
Amorpha canescens	Lead Plant	0.37	0.06		
Asclepias syriaca	Common Milkweed	0.2	0.14		
Asclepias tuberosa	Butterfly Milkweed	0.071	0.04		
Asclepias verticillata	Whorled Milkweed	0.1	0.02		
Coreopsis palmata	Bird's Foot Coreopsis	0.15	0.04		
Drymocallis arguta	Tall Cinquefoil	5.3	0.06		
Echinacea angustifolia	Narrow-leaved Purple Conefl	0.115	0.04		
Helenium autumnale	Autumn Sneezeweed	2.98	0.06		
Helianthus maximiliani	Maximilian's Sunflower	0.3	0.06		
Helianthus pauciflorus	Stiff Sunflower	0.074	0.05		
Heliopsis helianthoides	Ox-eye	0.9	0.39		
Liatris aspera	Rough Blazing Star	0.37	0.06		
Liatris ligulistylis	Northern Plains Blazing Star	0.19	0.05		
Monarda fistulosa	Wild Bergamot	1.2	0.05		
Monarda punctata	Horsemint	0.7	0.02		
Oligoneuron rigidum	Stiff Goldenrod	0.94	0.06		
Penstemon digitalis	Foxglove Beardtongue	2.98	0.06		

<i>Penstemon grandiflorus</i>	Large-flowered Beard Tongue	0.4	0.08
<i>Pycnanthemum virginianum</i>	Virginia Mountain Mint	3.81	0.05
<i>Rudbeckia hirta</i>	Black-eyed Susan	0.7	0.02
<i>Sisyrinchium campestre</i>	Field Blue-eyed Grass	0.2	0.01
<i>Solidago speciosa</i>	Showy Goldenrod	1.6	0.05
<i>Symphotrichum ericoides</i>	Heath Aster	1.7	0.02
<i>Symphotrichum laeve</i>	Smooth Aster	1.1	0.05
<i>Symphotrichum novae-angliae</i>	New England Aster	1	0.04
<i>Tradescantia bracteata</i>	Bracted Spiderwort	0.23	0.06
<i>Verbena hastata</i>	Blue Vervain	7	0.20
<i>Zizia aptera</i>	Heart-leaved Alexanders	0.26	0.06
<i>Zizia aurea</i>	Golden Alexanders	0.82	0.20

Total Guild:	40.14	2.30	46.07%	5.0%
--------------	-------	------	--------	------

### Graminoid

<i>Bouteloua curtipendula</i>	Side-oats Grama	3	1.36
<i>Elymus canadensis</i>	Canada Wild Rye	2	1.05
<i>Koeleria macrantha</i>	Junegrass	17	0.23
<i>Schizachyrium scoparium</i>	Little Bluestem	8	1.45
<i>Sporobolus heterolepis</i>	Prairie Dropseed	1.85	0.31

Total Guild:	31.85	4.41	36.55%	9.6%
--------------	-------	------	--------	------

### Legume

<i>Chamaecrista fasciculata</i>	Partridge Pea	1	1.01
<i>Dalea candida</i>	White Prairie Clover	1.5	0.21
<i>Dalea purpurea</i>	Purple Prairie Clover	1.5	0.27

Total Guild:	4	1.50	4.59%	3.2%
--------------	---	------	-------	------

Total Seed Mix:	87.13	46.12
-----------------	-------	-------

Function: Production

Intent: Native prairie biofuel production for Northwest MN

Planting Area: NW

Specialization: NRCS 643 &amp; 512

Scientific Name	Common Name	Seeds/ sq ft	Rate (lb/ac)	% Mix (by sqft)	% Mix (by wt)
<b>Cover</b>					
Avena sativa	Oats* (See Cover crop note)	1.4	4.76		
Total Guild:		1.4	4.76	2.68%	33.7%
<b>Forb</b>					
Allium stellatum	Prairie Wild Onion	0.12	0.03		
Asclepias syriaca	Common Milkweed	0.16	0.11		
Asclepias tuberosa	Butterfly Milkweed	0.04	0.03		
Helianthus maximilianii	Maximilian's Sunflower	0.3	0.06		
Heliopsis helianthoides	Ox-eye	0.14	0.06		
Liatris aspera	Rough Blazing Star	0.18	0.03		
Liatris pycnostachya	Great Blazing Star	0.2	0.05		
Monarda fistulosa	Wild Bergamot	1.2	0.05		
Oligoneuron rigidum	Stiff Goldenrod	0.6	0.04		
Pycnanthemum virginianum	Virginia Mountain Mint	3	0.04		
Ratibida columnifera	Prairie Coneflower	1.2	0.08		
Rudbeckia hirta	Black-eyed Susan	4	0.12		
Sisyrinchium campestre	Field Blue-eyed Grass	0.17	0.01		
Smilacina racemosa	False Solomons Seal	0.01	0.07		
Symphotrichum ericoides	Heath Aster	1.5	0.02		
Symphotrichum laeve	Smooth Aster	0.61	0.03		
Symphotrichum novae-angliae	New England Aster	0.6	0.03		
Verbena hastata	Blue Vervain	4	0.12		
Zizia aurea	Golden Alexanders	0.7	0.17		
Total Guild:		18.73	1.13	35.92%	8.0%

**Graminoid**

Andropogon gerardii	Big Bluestem	6	1.63
Bouteloua curtipendula	Side-oats Grama	1	0.45
Elymus canadensis	Canada Wild Rye	2	1.05
Elymus trachycaulus	Slender Wheatgrass	1.2	0.59
Hesperostipa spartea	Porcupine Grass	0.02	0.08
Panicum virgatum	Switchgrass	8	1.56
Schizachyrium scoparium	Little Bluestem	4	0.73
Sorghastrum nutans	Indian Grass	4	0.91
Spartina pectinata	Prairie Cordgrass	1	0.41

Total Guild:	27.22	7.41	52.20%	52.5%
--------------	-------	------	--------	-------

### Legume

Astragalus canadensis	Canada Milk Vetch	1.2	0.19
Dalea candida	White Prairie Clover	1.5	0.21
Dalea purpurea	Purple Prairie Clover	2	0.36
Desmodium canadense	Canada Tick Trefoil	0.1	0.05

Total Guild:	4.8	0.82	9.20%	5.8%
--------------	-----	------	-------	------

Total Seed Mix:	52.15	14.13
-----------------	-------	-------

### Pilot

## Biofuels/Biomass Southeast

Function: Production

Intent: Native prairie biofuel production for southeast MN

Planting Area: SE

Specialization: NRCS 643 & 512

Scientific Name	Common Name	Seeds/ sq ft	Rate (lb/ac)	% Mix (by sqft)	% Mix (by wt)
-----------------	-------------	-----------------	-----------------	--------------------	------------------

### Cover

Avena sativa	Oats* (See Cover crop note)	1.4	4.76
--------------	-----------------------------	-----	------

Total Guild:	1.4	4.76	2.64%	31.7%
--------------	-----	------	-------	-------

### Forb

Asclepias syriaca	Common Milkweed	0.16	0.11
Asclepias tuberosa	Butterfly Milkweed	0.04	0.03
Asclepias verticillata	Whorled Milkweed	0.08	0.02

<i>Helianthus maximiliani</i>	Maximilian's Sunflower	0.3	0.06
<i>Heliopsis helianthoides</i>	Ox-eye	0.16	0.07
<i>Liatris aspera</i>	Rough Blazing Star	0.12	0.02
<i>Monarda fistulosa</i>	Wild Bergamot	2	0.08
<i>Oligoneuron rigidum</i>	Stiff Goldenrod	1	0.07
<i>Ranunculus fascicularis</i>	Early Buttercup	0.04	0.01
<i>Ratibida pinnata</i>	Gray-headed Coneflower	1	0.09
<i>Rudbeckia hirta</i>	Black-eyed Susan	8	0.24
<i>Sisyrinchium campestre</i>	Field Blue-eyed Grass	0.17	0.01
<i>Symphotrichum ericoides</i>	Heath Aster	1.5	0.02
<i>Symphotrichum laeve</i>	Smooth Aster	1	0.05
<i>Symphotrichum novae-angliae</i>	New England Aster	0.7	0.03
<i>Tradescantia bracteata</i>	Bracted Spiderwort	0.08	0.02
<i>Verbena hastata</i>	Blue Vervain	1.5	0.04
<i>Verbena stricta</i>	Hoary Vervain	0.5	0.05
<i>Zizia aurea</i>	Golden Alexanders	0.29	0.07

Total Guild:	18.64	1.08	35.14%	7.2%
--------------	-------	------	--------	------

### Graminoid

<i>Andropogon gerardii</i>	Big Bluestem	6	1.63
<i>Bouteloua curtipendula</i>	Side-oats Grama	1	0.45
<i>Elymus canadensis</i>	Canada Wild Rye	2.01	1.05
<i>Elymus trachycaulus</i>	Slender Wheatgrass	1.2	0.59
<i>Panicum virgatum</i>	Switchgrass	8	1.56
<i>Schizachyrium scoparium</i>	Little Bluestem	4	0.73
<i>Sorghastrum nutans</i>	Indian Grass	4	0.91
<i>Spartina pectinata</i>	Prairie Cordgrass	1	0.41

Total Guild:	27.21	7.34	51.29%	48.9%
--------------	-------	------	--------	-------

### Legume

<i>Astragalus canadensis</i>	Canada Milk Vetch	1.2	0.19
<i>Chamaecrista fasciculata</i>	Partridge Pea	1	1.01

Dalea candida	White Prairie Clover	1.5	0.21
Dalea purpurea	Purple Prairie Clover	2	0.36
Desmodium canadense	Canada Tick Trefoil	0.1	0.05

Total Guild: 5.8 1.83 10.93% 12.2%

Total Seed Mix: 53.05 15.01

Pilot

## Biofuels/Biomass Southwest

Function: Production

Intent: Native prairie biofuel production for southwest MN

Planting Area: SW

Specialization: NRCS 643 & 512

Scientific Name	Common Name	Seeds/ sa ft	Rate (lb/ac)	% Mix (by sqft)	% Mix (by wt)
-----------------	-------------	-----------------	-----------------	--------------------	------------------

### Cover

Avena sativa	Oats* (See Cover crop note)	1.4	4.76		
--------------	-----------------------------	-----	------	--	--

Total Guild: 1.4 4.76 2.70% 29.9%

### Forb

Asclepias syriaca	Common Milkweed	0.16	0.11		
Asclepias tuberosa	Butterfly Milkweed	0.04	0.03		
Echinacea angustifolia	Narrow-leaved Purple Conefl	0.2	0.08		
Helianthus maximilianii	Maximilian's Sunflower	0.3	0.06		
Heliopsis helianthoides	Ox-eye	0.14	0.06		
Liatris aspera	Rough Blazing Star	0.2	0.03		
Monarda fistulosa	Wild Bergamot	1.4	0.05		
Oligoneuron rigidum	Stiff Goldenrod	1.2	0.08		
Phlox pilosa	Prairie Phlox	0.08	0.01		
Ratibida pinnata	Gray-headed Coneflower	2	0.18		
Rudbeckia hirta	Black-eyed Susan	4	0.12		
Sisyrinchium campestre	Field Blue-eyed Grass	0.17	0.01		
Symphotrichum laeve	Smooth Aster	0.6	0.03		
Verbena stricta	Hoary Vervain	4	0.39		
Zizia aurea	Golden Alexanders	1	0.25		

Total Guild: 15.49 1.49 29.85% 9.4%

**Graminoid**

Andropogon gerardii	Big Bluestem	6	1.63
Bouteloua curtipendula	Side-oats Grama	1	0.45
Elymus canadensis	Canada Wild Rye	2	1.05
Elymus trachycaulus	Slender Wheatgrass	1.2	0.59
Nassella viridula	Green Needle Grass	1.7	0.44
Panicum virgatum	Switchgrass	8	1.56
Pascopyrum smithii	Western Wheatgrass	1.3	0.50
Schizachyrium scoparium	Little Bluestem	4	0.73
Sorghastrum nutans	Indian Grass	4	0.91

Total Guild: 29.2 7.86 56.27% 49.3%

**Legume**

Astragalus canadensis	Canada Milk Vetch	1.2	0.19
Chamaecrista fasciculata	Partridge Pea	1	1.01
Dalea candida	White Prairie Clover	1.5	0.21
Dalea purpurea	Purple Prairie Clover	2	0.36
Desmodium canadense	Canada Tick Trefoil	0.1	0.05

Total Guild: 5.8 1.83 11.18% 11.5%

Total Seed Mix: 51.89 15.94

**Pilot** **Compacted Trail General**

Function: Conservation      Intent: Vegetation establishment on passive recreation trails. A couple species in this mix may be tender in some regions.

Planting Area: Statewide

Specialization:

Scientific Name	Common Name	Seeds/ sq ft	Rate (lb/ac)	% Mix (by sqft)	% Mix (by wt)
-----------------	-------------	-----------------	-----------------	--------------------	------------------

**Cover**

Avena sativa	Oats* (See Cover crop note)	11.13	37.88
--------------	-----------------------------	-------	-------

Total Guild: 11.13 37.88 19.53% 97.3%

**Forb**

Achillea millefolium	Common Yarrow	2	0.03
----------------------	---------------	---	------



Campanula rotundifolia	Harebell	7	0.02
------------------------	----------	---	------

Total Guild:	9	0.05	15.80%	0.1%
--------------	---	------	--------	------

### Graminoid

Bouteloua gracilis	Blue Grama	10	0.68
--------------------	------------	----	------

Festuca subverticillata	Nodding Fescue	1.85	0.25
-------------------------	----------------	------	------

Total Guild:	11.85	0.93	20.80%	2.4%
--------------	-------	------	--------	------

### Sedge

Juncus tenuis	Path Rush	25	0.07
---------------	-----------	----	------

Total Guild:	25	0.07	43.88%	0.2%
--------------	----	------	--------	------

Total Seed Mix:	56.98	38.93
-----------------	-------	-------

Pilot

## Conservation Grazing South & West

Function: Production

Intent: Native prairie conservation grazing for southern and western MN

Planting Area: S & W

Specialization: NRCS 643 & 512

Scientific Name	Common Name	Seeds/ sq ft	Rate (lb/ac)	% Mix (by sqft)	% Mix (by wt)
Avena sativa	Oats* (See Cover crop note)	1.42	4.83		
Total Guild:		1.42	4.83	2.69%	33.8%

### Cover

### Forb

Coreopsis palmata	Bird's Foot Coreopsis	0.15	0.04
-------------------	-----------------------	------	------

Helianthus maximilianii	Maximilian's Sunflower	0.4	0.08
-------------------------	------------------------	-----	------

Liatris aspera	Rough Blazing Star	0.4	0.07
----------------	--------------------	-----	------

Monarda fistulosa	Wild Bergamot	1.4	0.05
-------------------	---------------	-----	------

Potentilla arguta	Prairie Cinquefoil	2.4	0.03
-------------------	--------------------	-----	------

Ratibida pinnata	Gray-headed Coneflower	1	0.09
------------------	------------------------	---	------

Rudbeckia hirta	Black-eyed Susan	10	0.30
-----------------	------------------	----	------

Sisyrinchium campestre	Field Blue-eyed Grass	0.17	0.01
------------------------	-----------------------	------	------

Symphotrichum laeve	Smooth Aster	0.6	0.03
---------------------	--------------	-----	------

Verbena stricta	Hoary Vervain	1.5	0.15
-----------------	---------------	-----	------

Viola pedatifida	Bearded Birdfoot Violet	0.14	0.01
------------------	-------------------------	------	------

Zizia aurea	Golden Alexanders	0.8	0.20
-------------	-------------------	-----	------

Total Guild:	18.96	1.06	35.85%	7.4%
--------------	-------	------	--------	------

### Graminoid

Andropogon gerardii	Big Bluestem	3	0.82
Bouteloua curtipendula	Side-oats Grama	4	1.82
Bromus kalmii	Kalm's Brome	0.9	0.31
Elymus canadensis	Canada Wild Rye	1	0.52
Elymus trachycaulus	Slender Wheatgrass	1	0.50
Elymus virginicus	Virginia Wild Rye	1	0.65
Koeleria macrantha	Junegrass	2	0.03
Panicum virgatum	Switchgrass	2	0.39
Schizachyrium scoparium	Little Bluestem	5	0.91
Sorghastrum nutans	Indian Grass	4	0.91
Sporobolus heterolepis	Prairie Dropseed	4	0.68

Total Guild:	27.9	7.52	52.76%	52.6%
--------------	------	------	--------	-------

### Legume

Astragalus canadensis	Canada Milk Vetch	1.2	0.19
Chamaecrista fasciculata	Partridge Pea	0.1	0.10
Dalea candida	White Prairie Clover	1.3	0.19
Dalea purpurea	Purple Prairie Clover	1.7	0.31
Lespedeza capitata	Round-headed Bush Clover	0.3	0.10

Total Guild:	4.6	0.89	8.70%	6.2%
--------------	-----	------	-------	------

Total Seed Mix:	52.88	14.30
-----------------	-------	-------

### Pilot

## Dry Short Urban Buffer General

Function: Buffers Intent: Showy dry prairie buffer establishment in urban areas

Planting Area: Statewide

Specialization: NRCS 327

Scientific Name	Common Name	Seeds/ sa ft	Rate (lb/ac)	% Mix (by sqft)	% Mix (by wt)
-----------------	-------------	-----------------	-----------------	--------------------	------------------

### Cover

Avena sativa	Oats* (See Cover crop note)	11.13	37.88
--------------	-----------------------------	-------	-------

Total Guild:	11.13	37.88	19.35%	85.6%
--------------	-------	-------	--------	-------

**Forb**

Asclepias syriaca	Common Milkweed	0.16	0.11
Asclepias tuberosa	Butterfly Milkweed	0.1	0.06
Liatris aspera	Rough Blazing Star	0.25	0.04
Oligoneuron rigidum	Stiff Goldenrod	0.83	0.06
Penstemon grandiflorus	Large-flowered Beard Tongue	0.32	0.06
Pycnanthemum virginianum	Virginia Mountain Mint	1	0.01
Rudbeckia hirta	Black-eyed Susan	5.15	0.15
Solidago nemoralis	Gray Goldenrod	2	0.02
Solidago ptarmicoides	Upland White Aster	1.26	0.05
Symphotrichum ericoides	Heath Aster	2.58	0.04
Tradescantia bracteata	Bracted Spiderwort	0.6	0.16
Zizia aptera	Heart-leaved Alexanders	0.2	0.05

Total Guild:	14.45	0.81	25.12%	1.8%
--------------	-------	------	--------	------

**Graminoid**

Bouteloua curtipendula	Side-oats Grama	2	0.91
Bromus kalmii	Kalm's Brome	0.5	0.17
Koeleria macrantha	Junegrass	5.5	0.07
Panicum virgatum	Switchgrass	6	1.17
Schizachyrium scoparium	Little Bluestem	16.53	3.00

Total Guild:	30.53	5.32	53.07%	12.0%
--------------	-------	------	--------	-------

**Legume**

Astragalus canadensis	Canada Milk Vetch	0.4	0.06
Dalea purpurea	Purple Prairie Clover	1.02	0.19

Total Guild:	1.42	0.25	2.47%	0.6%
--------------	------	------	-------	------

Total Seed Mix:	57.53	44.26
-----------------	-------	-------

## Early Successional Floodplain General

Function:	Wetland	Intent:	Cover establishment in floodplains where natural colonization will add to diversity over time
Planting Area:	Statewide		
Specialization:	NRCS 342		

Scientific Name	Common Name	Seeds/ sq ft	Rate (lb/ac)	% Mix (by sqft)	% Mix (by wt)
<b>Cover</b>					
Avena sativa	Oats* (See Cover crop note)	11.14	37.91		
Total Guild:		11.14	37.91	23.99%	84.6%
<b>Forb</b>					
Asclepias incarnata	Marsh Milkweed	0.1	0.06		
Helenium autumnale	Autumn Sneezeweed	2	0.04		
Rudbeckia laciniata	Tall Coneflower	0.1	0.02		
Verbena hastata	Blue Vervain	3	0.09		
Total Guild:		5.2	0.21	11.20%	0.5%
<b>Graminoid</b>					
Elymus riparius	Riverbank Wild Rye	0.1	0.09		
Elymus trachycaulus	Slender Wheatgrass	2	0.99		
Elymus virginicus	Virginia Wild Rye	8	5.19		
Poa palustris	Fowl Bluegrass	20	0.42		
Total Guild:		30.1	6.69	64.81%	14.9%
Total Seed Mix:		46.44	44.81		

## Eroding Bank Stabilization Northeast

Function:	Buffers	Intent:	Stabilized steep eroding slopes with both early and later successional species.
Planting Area:	NE		
Specialization:	NRCS 342		

Scientific Name	Common Name	Seeds/ sq ft	Rate (lb/ac)	% Mix (by sqft)	% Mix (by wt)
<b>Cover</b>					
Avena sativa	Oats* (See Cover crop note)	11.14	37.91		
Total Guild:		11.14	37.91	12.54%	68.7%
<b>Forb</b>					

<i>Achillea millefolium</i>	Common Yarrow	2	0.03
<i>Anaphalis margaritacea</i>	Pearly Everlasting	0.8	0.01
<i>Drymocallis arguta</i>	Tall Cinquefoil	2	0.02
<i>Rudbeckia hirta</i>	Black-eyed Susan	3	0.09
<i>Solidago nemoralis</i>	Gray Goldenrod	3.5	0.03

Total Guild:	11.3	0.18	12.72%	0.3%
--------------	------	------	--------	------

### Graminoid

<i>Andropogon gerardii</i>	Big Bluestem	10	2.72
<i>Bromus ciliatus</i>	Fringed Brome	8	2.18
<i>Calamagrostis canadensis</i>	Bluejoint	5	0.05
<i>Elymus canadensis</i>	Canada Wild Rye	8	4.19
<i>Elymus riparius</i>	Riverbank Wild Rye	0.2	0.19
<i>Elymus trachycaulus</i>	Slender Wheatgrass	12	5.94
<i>Elymus villosus</i>	Downy Wild Rye	2	0.99
<i>Festuca subverticillata</i>	Nodding Fescue	1.1	0.15
<i>Poa palustris</i>	Fowl Bluegrass	19	0.40
<i>Schizachne purpurascens</i>	False Melic	0.5	0.04

Total Guild:	65.8	16.85	74.07%	30.5%
--------------	------	-------	--------	-------

### Legume

<i>Astragalus canadensis</i>	Canada Milk Vetch	0.5	0.08
<i>Vicia americana</i>	American Vetch	0.1	0.13

Total Guild:	0.6	0.21	0.68%	0.4%
--------------	-----	------	-------	------

Total Seed Mix:	88.84	55.15
-----------------	-------	-------

Pilot

## Eroding Bank Stabilization Northwest & South

Function: Conservation

Intent: Stabilized steep eroding slopes with both early and later successional species.

Planting Area: NW & S

Specialization: NRCS 342

Scientific Name	Common Name	Seeds/ sq ft	Rate (lb/ac)	% Mix (by sqft)	% Mix (by wt)
-----------------	-------------	-----------------	-----------------	--------------------	------------------

### Cover

Avena sativa	Oats* (See Cover crop note)	11.14	37.91
--------------	-----------------------------	-------	-------

Total Guild:	11.14	37.91	12.58%	62.8%
--------------	-------	-------	--------	-------

**Forb**

Achillea millefolium	Common Yarrow	0.7	0.01
----------------------	---------------	-----	------

Rudbeckia hirta	Black-eyed Susan	2.49	0.07
-----------------	------------------	------	------

Verbena hastata	Blue Vervain	1.9	0.06
-----------------	--------------	-----	------

Total Guild:	5.09	0.14	5.75%	0.2%
--------------	------	------	-------	------

**Graminoid**

Andropogon gerardii	Big Bluestem	10	2.72
---------------------	--------------	----	------

Bromus ciliatus	Fringed Brome	8	2.18
-----------------	---------------	---	------

Elymus canadensis	Canada Wild Rye	8	4.19
-------------------	-----------------	---	------

Elymus riparius	Riverbank Wild Rye	0.175	0.16
-----------------	--------------------	-------	------

Elymus trachycaulus	Slender Wheatgrass	12	5.94
---------------------	--------------------	----	------

Elymus virginicus	Virginia Wild Rye	6	3.89
-------------------	-------------------	---	------

Panicum virgatum	Switchgrass	4	0.78
------------------	-------------	---	------

Poa palustris	Fowl Bluegrass	16	0.34
---------------	----------------	----	------

Sorghastrum nutans	Indian Grass	7	1.59
--------------------	--------------	---	------

Total Guild:	71.175	21.78	80.38%	36.1%
--------------	--------	-------	--------	-------

**Legume**

Astragalus canadensis	Canada Milk Vetch	0.2	0.03
-----------------------	-------------------	-----	------

Chamaecrista fasciculata	Partridge Pea	0.2	0.20
--------------------------	---------------	-----	------

Dalea purpurea	Purple Prairie Clover	0.5	0.09
----------------	-----------------------	-----	------

Desmodium canadense	Canada Tick Trefoil	0.19	0.09
---------------------	---------------------	------	------

Vicia americana	American Vetch	0.051	0.07
-----------------	----------------	-------	------

Total Guild:	1.141	0.49	1.29%	0.8%
--------------	-------	------	-------	------

Total Seed Mix:	88.546	60.32
-----------------	--------	-------

## Forest Groundcover East

Function: Woodland

Intent: Soil stabilizing in forests following invasive species removal and other disturbance

Planting Area: NE &amp; E

Specialization:

Scientific Name	Common Name	Seeds/ sq ft	Rate (lb/ac)	% Mix (by sqft)	% Mix (by wt)
<b>Cover</b>					
Avena sativa	Oats* (See Cover crop note)	11.14	37.91		
Total Guild:		11.14	37.91	66.43%	96.4%
<b>Forb</b>					
Eurybia macrophylla	Large-leaved Aster	0.2	0.02		
Geranium maculatum	Wild Geranium	0.1	0.05		
Hydrophyllum virginianum	Virginia Waterleaf	0.1	0.10		
Osmorhiza claytonii	Clayton's Sweet Cicely	0.1	0.11		
Rudbeckia laciniata	Tall Coneflower	0.22	0.04		
Smilacina racemosa	False Solomons Seal	0.01	0.07		
Solidago flexicaulis	Zigzag Goldenrod	1.3	0.04		
Total Guild:		2.03	0.43	12.10%	1.1%
<b>Graminoid</b>					
Elymus hystrix	Bottlebrush Grass	0.5	0.18		
Elymus villosus	Downy Wild Rye	1	0.50		
Festuca subverticillata	Nodding Fescue	1.8	0.25		
Total Guild:		3.3	0.92	19.68%	2.3%
<b>Sedge</b>					
Carex sprengeii	Sprengel's Sedge	0.3	0.08		
Total Guild:		0.3	0.08	1.79%	0.2%
Total Seed Mix:		16.77	39.35		

## Honey Bee Plot Native & Non-Native General

Function:	Pollinator	Intent:	Native and Non-native vegetation establishment for honey bee plantings a few acres in size. This mix contains non-native plant species, so BWSR approval required for use on BWSR funded projects.
Planting Area:	Statewide		
Specialization:	NRCS 327		

Scientific Name	Common Name	Seeds/ sq ft	Rate (lb/ac)	% Mix (by sqft)	% Mix (by wt)
<b>Forb</b>					
Agastache foeniculum	Blue Giant Hyssop	0.4	0.01		
Asclepias syriaca	Common Milkweed	0.32	0.22		
Monarda fistulosa	Wild Bergamot	1.6	0.06		
Solidago speciosa	Showy Goldenrod	1	0.03		
Symphotrichum ericoides	Heath Aster	1.8	0.02		
Symphotrichum laeve	Smooth Aster	1.1	0.05		
Verbena stricta	Hoary Vervain	1.9	0.18		
Viola pedatifida	Bearded Birdfoot Violet	0.2	0.02		
Total Guild:		8.32	0.60	24.86%	11.8%

### Graminoid

Bouteloua curtipendula	Side-oats Grama	1	0.45		
Elymus canadensis	Canada Wild Rye	0.5	0.26		
Schizachyrium scoparium	Little Bluestem	1	0.18		
Sorghastrum nutans	Indian Grass	0.5	0.11		
Total Guild:		3	1.01	8.96%	19.8%

### Legume

Chamaecrista fasciculata	Partridge Pea	1	1.01		
Dalea purpurea	Purple Prairie Clover	1.5	0.27		
Medicago sativa	Alfalfa	2.6	0.50		
Trifolium hybridum	Alsike Clover	5	0.32		
Trifolium pratense	Red Clover	6	0.96		
Trifolium repens	White Clover	6	0.37		
Vicia americana	American Vetch	0.05	0.07		
Total Guild:		22.15	3.49	66.18%	68.4%



Pilot

## Impoundment General

Function: Stormwater Intent: Flood tolerant vegetation establishment in floodwater impoundment areas  
 Planting Area: Statewide  
 Specialization:

Scientific Name	Common Name	Seeds/ sq ft	Rate (lb/ac)	% Mix (by sqft)	% Mix (by wt)
-----------------	-------------	-----------------	-----------------	--------------------	------------------

### Cover

Avena sativa	Oats* (See Cover crop note)	11.14	37.91		
--------------	-----------------------------	-------	-------	--	--

Total Guild:		11.14	37.91	7.48%	74.7%
--------------	--	-------	-------	-------	-------

### Forb

Anemone canadensis	Canada Anemone	0.16	0.05		
Asclepias incarnata	Marsh Milkweed	0.18	0.10		
Bidens frondosa	Leafy Beggarticks	0.15	0.08		
Doellingeria umbellata	Flat-topped Aster	1.25	0.05		
Euthamia graminifolia	Grass-leaved Goldenrod	1.65	0.01		
Eutrochium maculatum	Spotted Joe Pye Weed	1.5	0.04		
Helenium autumnale	Autumn Sneezeweed	4.8	0.10		
Physostegia virginiana	Obedient Plant	0.1	0.02		
Rudbeckia laciniata	Tall Coneflower	0.3	0.06		
Solidago gigantea	Giant Goldenrod	2.8	0.03		
Symphyotrichum novae-angliae	New England Aster	1.45	0.06		
Verbena hastata	Blue Vervain	4.45	0.13		
Zizia aurea	Golden Alexanders	0.62	0.15		

Total Guild:		19.41	0.90	13.03%	1.8%
--------------	--	-------	------	--------	------

### Graminoid

Andropogon gerardii	Big Bluestem	7.35	2.00		
Bromus ciliatus	Fringed Brome	8	2.18		
Elymus trachycaulus	Slender Wheatgrass	5	2.48		
Elymus virginicus	Virginia Wild Rye	4	2.59		

Leersia oryzoides	Rice Cut Grass	1.5	0.12
Panicum virgatum	Switchgrass	8	1.56
Poa palustris	Fowl Bluegrass	10	0.21
Spartina pectinata	Prairie Cordgrass	1	0.41

Total Guild: 44.85 11.54 30.11% 22.8%

### Sedge

Carex pellita	Wooly Sedge	0.34	0.03
Carex scoparia	Lance-fruited Oval sedge	2.5	0.08
Scirpus atrovirens	Dark Green Bulrush	31.7	0.19
Scirpus cyperinus	Woolgrass	39	0.06

Total Guild: 73.54 0.36 49.38% 0.7%

Total Seed Mix: 148.94 50.72

### Pilot

## Inundated Swale South & West

Function: Stormwater

Intent: Vegetation establishment for swales with persistent inundation

Planting Area: S & W

Specialization:

Scientific Name	Common Name	Seeds/ sq ft	Rate (lb/ac)	% Mix (by sqft)	% Mix (by wt)
-----------------	-------------	-----------------	-----------------	--------------------	------------------

### Cover

Avena sativa	Oats* (See Cover crop note)	11.14	37.91
--------------	-----------------------------	-------	-------

Total Guild: 11.14 37.91 7.83% 79.1%

### Forb

Asclepias incarnata	Marsh Milkweed	0.43	0.24
Helenium autumnale	Autumn Sneezeweed	1	0.02
Impatiens capensis	Spotted Touch-Me-Not	0.03	0.02
Lobelia siphilitica	Great Lobelia	4	0.02
Verbena hastata	Blue Vervain	5	0.15
Vernonia fasciculata	Bunched Ironweed	0.5	0.06

Total Guild: 10.96 0.51 7.70% 1.1%

### Graminoid

Beckmannia syzigachne	American Slough Grass	30	1.63
-----------------------	-----------------------	----	------

<i>Elymus virginicus</i>	Virginia Wild Rye	10	6.48
<i>Glyceria grandis</i>	Tall Manna Grass	4	0.16
<i>Leersia oryzoides</i>	Rice Cut Grass	2.2	0.18
<i>Poa palustris</i>	Fowl Bluegrass	40	0.84

Total Guild:	86.2	9.29	60.58%	19.4%
--------------	------	------	--------	-------

### Sedge

<i>Scirpus atrovirens</i>	Dark Green Bulrush	34	0.20
---------------------------	--------------------	----	------

Total Guild:	34	0.20	23.89%	0.4%
--------------	----	------	--------	------

Total Seed Mix:	142.3	47.91
-----------------	-------	-------

### Pilot

## Landfill Pollinator Dry Northeast

Function: Pollinator

Intent: Dry prairie mix for landfill plantings

Planting Area: NE

Specialization:

Scientific Name	Common Name	Seeds/ sq ft	Rate (lb/ac)	% Mix (by sqft)	% Mix (by wt)
-----------------	-------------	-----------------	-----------------	--------------------	------------------

### Cover

<i>Avena sativa</i>	Oats* (See Cover crop note)	11.13	37.88
---------------------	-----------------------------	-------	-------

Total Guild:	11.13	37.88	12.95%	80.2%
--------------	-------	-------	--------	-------

### Forb

<i>Agastache foeniculum</i>	Blue Giant Hyssop	2.07	0.06
<i>Asclepias tuberosa</i>	Butterfly Milkweed	0.1	0.06
<i>Helianthus pauciflorus</i>	Stiff Sunflower	0.09	0.06
<i>Monarda fistulosa</i>	Wild Bergamot	1.42	0.06
<i>Oligoneuron rigidum</i>	Stiff Goldenrod	0.83	0.06
<i>Penstemon grandiflorus</i>	Large-flowered Beard Tongue	1	0.19
<i>Rudbeckia hirta</i>	Black-eyed Susan	10.32	0.31
<i>Solidago nemoralis</i>	Gray Goldenrod	3.86	0.04
<i>Symphotrichum ericoides</i>	Heath Aster	2.58	0.04
<i>Symphotrichum laeve</i>	Smooth Aster	1.26	0.06
<i>Verbena stricta</i>	Hoary Vervain	2	0.19

Viola pedatifida	Bearded Birdfoot Violet	0.14	0.01
------------------	-------------------------	------	------

Total Guild:	25.67	1.14	29.86%	2.4%
--------------	-------	------	--------	------

**Graminoid**

Andropogon gerardii	Big Bluestem	2.57	0.70
Bromus kalmii	Kalm's Brome	6	2.04
Elymus canadensis	Canada Wild Rye	1.91	1.00
Koeleria macrantha	Junegrass	16	0.22
Schizachyrium scoparium	Little Bluestem	18	3.27
Sorghastrum nutans	Indian Grass	2.8	0.64

Total Guild:	47.28	7.86	55.00%	16.7%
--------------	-------	------	--------	-------

**Legume**

Dalea candida	White Prairie Clover	0.39	0.06
Dalea purpurea	Purple Prairie Clover	1.5	0.27

Total Guild:	1.89	0.33	2.20%	0.7%
--------------	------	------	-------	------

Total Seed Mix:	85.97	47.20
-----------------	-------	-------

Pilot

**Landfill Pollinator Dry South & West**

Function: Pollinator

Intent: Dry prairie mix for landfill plantings

Planting Area: S & W

Specialization:

Scientific Name	Common Name	Seeds/ sa ft	Rate (lb/ac)	% Mix (by sqft)	% Mix (by wt)
-----------------	-------------	-----------------	-----------------	--------------------	------------------

**Cover**

Avena sativa	Oats* (See Cover crop note)	11.13	37.88
--------------	-----------------------------	-------	-------

Total Guild:	11.13	37.88	12.05%	78.9%
--------------	-------	-------	--------	-------

**Forb**

Agastache foeniculum	Blue Giant Hyssop	2.07	0.06
Asclepias tuberosa	Butterfly Milkweed	0.1	0.06
Asclepias verticillata	Whorled Milkweed	0.1	0.02
Coreopsis palmata	Bird's Foot Coreopsis	0.21	0.06
Helianthus pauciflorus	Stiff Sunflower	0.09	0.06
Liatris aspera	Rough Blazing Star	0.25	0.04

Monarda fistulosa	Wild Bergamot	1.42	0.06
Oligoneuron rigidum	Stiff Goldenrod	0.83	0.06
Penstemon grandiflorus	Large-flowered Beard Tongue	1	0.19
Phlox pilosa	Prairie Phlox	0.08	0.01
Rudbeckia hirta	Black-eyed Susan	10.32	0.31
Solidago nemoralis	Gray Goldenrod	3.86	0.04
Symphyotrichum ericoides	Heath Aster	2.58	0.04
Symphyotrichum laeve	Smooth Aster	1.26	0.06
Verbena stricta	Hoary Vervain	2	0.19
Viola pedatifida	Bearded Birdfoot Violet	0.14	0.01

Total Guild:	26.31	1.27	28.49%	2.7%
--------------	-------	------	--------	------

### Graminoid

Andropogon gerardii	Big Bluestem	2.57	0.70
Bouteloua curtipendula	Side-oats Grama	4	1.82
Bouteloua gracilis	Blue Grama	6	0.41
Bromus kalmii	Kalm's Brome	1	0.34
Elymus canadensis	Canada Wild Rye	1.91	1.00
Koeleria macrantha	Junegrass	16	0.22
Schizachyrium scoparium	Little Bluestem	18	3.27
Sorghastrum nutans	Indian Grass	2.8	0.64
Sporobolus heterolepis	Prairie Dropseed	0.73	0.12

Total Guild:	53.01	8.51	57.41%	17.7%
--------------	-------	------	--------	-------

### Legume

Dalea candida	White Prairie Clover	0.39	0.06
Dalea purpurea	Purple Prairie Clover	1.5	0.27

Total Guild:	1.89	0.33	2.05%	0.7%
--------------	------	------	-------	------

Total Seed Mix:	92.34	47.99
-----------------	-------	-------

Function: Pollinator

Intent: Mesic prairie mix for landfill plantings

Planting Area: NE

Specialization:

Scientific Name	Common Name	Seeds/ sq ft	Rate (lb/ac)	% Mix (by sqft)	% Mix (by wt)
<b>Cover</b>					
Avena sativa	Oats* (See Cover crop note)	11.14	37.91		
Total Guild:		11.14	37.91	13.52%	73.7%
<b>Forb</b>					
Agastache foeniculum	Blue Giant Hyssop	1.82	0.06		
Asclepias syriaca	Common Milkweed	0.16	0.11		
Asclepias tuberosa	Butterfly Milkweed	0.06	0.04		
Geranium maculatum	Wild Geranium	0.02	0.01		
Helianthus pauciflorus	Stiff Sunflower	0.09	0.06		
Heliopsis helianthoides	Ox-eye	0.4	0.17		
Monarda fistulosa	Wild Bergamot	1.61	0.06		
Oligoneuron rigidum	Stiff Goldenrod	0.94	0.06		
Rudbeckia hirta	Black-eyed Susan	10.56	0.31		
Sisyrinchium campestre	Field Blue-eyed Grass	0.17	0.01		
Symphotrichum ericoides	Heath Aster	2.3	0.03		
Symphotrichum laeve	Smooth Aster	1.26	0.06		
Verbena hastata	Blue Vervain	1.5	0.04		
Verbena stricta	Hoary Vervain	0.64	0.06		
Zizia aurea	Golden Alexanders	0.23	0.06		
Total Guild:		21.76	1.15	26.42%	2.2%
<b>Graminoid</b>					
Andropogon gerardii	Big Bluestem	5	1.36		
Bromus kalmii	Kalm's Brome	8	2.72		
Elymus canadensis	Canada Wild Rye	2	1.05		
Elymus trachycaulus	Slender Wheatgrass	2	0.99		

Panicum virgatum	Switchgrass	10	1.94
Schizachyrium scoparium	Little Bluestem	16	2.90
Sorghastrum nutans	Indian Grass	5	1.13

Total Guild:	48	12.10	58.27%	23.5%
--------------	----	-------	--------	-------

### Legume

Dalea candida	White Prairie Clover	0.44	0.06
Dalea purpurea	Purple Prairie Clover	1.03	0.19

Total Guild:	1.47	0.25	1.78%	0.5%
--------------	------	------	-------	------

Total Seed Mix:	82.37	51.42
-----------------	-------	-------

Pilot

## Landfill Pollinator Mesic South & West

Function: Pollinator

Intent: Mesic prairie mix for landfill plantings

Planting Area: S & W

Specialization:

Scientific Name	Common Name	Seeds/ sq ft	Rate (lb/ac)	% Mix (by sqft)	% Mix (by wt)
-----------------	-------------	-----------------	-----------------	--------------------	------------------

### Cover

Avena sativa	Oats* (See Cover crop note)	11.14	37.91
--------------	-----------------------------	-------	-------

Total Guild:	11.14	37.91	13.01%	71.8%
--------------	-------	-------	--------	-------

### Forb

Agastache foeniculum	Blue Giant Hyssop	1.82	0.06
Asclepias syriaca	Common Milkweed	0.16	0.11
Asclepias tuberosa	Butterfly Milkweed	0.06	0.04
Helianthus pauciflorus	Stiff Sunflower	0.09	0.06
Heliopsis helianthoides	Ox-eye	0.4	0.17
Liatris aspera	Rough Blazing Star	0.18	0.03
Monarda fistulosa	Wild Bergamot	1.61	0.06
Oligoneuron rigidum	Stiff Goldenrod	0.94	0.06
Phlox pilosa	Prairie Phlox	0.08	0.01
Rudbeckia hirta	Black-eyed Susan	10.56	0.31
Sisyrinchium campestre	Field Blue-eyed Grass	0.17	0.01

Symphyotrichum ericoides	Heath Aster	2.3	0.03
Symphyotrichum laeve	Smooth Aster	1.26	0.06
Verbena hastata	Blue Vervain	1.5	0.04
Verbena stricta	Hoary Vervain	0.64	0.06
Zizia aurea	Golden Alexanders	0.23	0.06

Total Guild:	22	1.18	25.70%	2.2%
--------------	----	------	--------	------

### Graminoid

Andropogon gerardii	Big Bluestem	5	1.36
Bouteloua curtipendula	Side-oats Grama	3	1.36
Bromus kalmii	Kalm's Brome	8	2.72
Elymus canadensis	Canada Wild Rye	2	1.05
Elymus trachycaulus	Slender Wheatgrass	2	0.99
Panicum virgatum	Switchgrass	10	1.94
Schizachyrium scoparium	Little Bluestem	16	2.90
Sorghastrum nutans	Indian Grass	5	1.13

Total Guild:	51	13.47	59.57%	25.5%
--------------	----	-------	--------	-------

### Legume

Dalea candida	White Prairie Clover	0.44	0.06
Dalea purpurea	Purple Prairie Clover	1.03	0.19

Total Guild:	1.47	0.25	1.72%	0.5%
--------------	------	------	-------	------

Total Seed Mix:	85.61	52.81
-----------------	-------	-------

### Pilot

## Little Bluestem Urban Prairie

Function: Conservation      Intent: Little bluestem dry prairie for urban areas where the planting mix needs to be simple for aesthetic purposes and to decrease maintenance

Planting Area: Statewide

Specialization:

Scientific Name	Common Name	Seeds/ sq ft	Rate (lb/ac)	% Mix (by sqft)	% Mix (by wt)
-----------------	-------------	-----------------	-----------------	--------------------	------------------

### Cover

Avena sativa	Oats* (See Cover crop note)	11.13	37.88
--------------	-----------------------------	-------	-------

Total Guild:	11.13	37.88	16.57%	84.4%
--------------	-------	-------	--------	-------

### Forb



<i>Asclepias tuberosa</i>	Butterfly Milkweed	0.1	0.06
<i>Asclepias verticillata</i>	Whorled Milkweed	0.05	0.01
<i>Liatris aspera</i>	Rough Blazing Star	0.25	0.04
<i>Penstemon grandiflorus</i>	Large-flowered Beard Tongue	0.32	0.06
<i>Rudbeckia hirta</i>	Black-eyed Susan	10.32	0.31
<i>Solidago nemoralis</i>	Gray Goldenrod	2	0.02
<i>Solidago ptarmicoides</i>	Upland White Aster	1.26	0.05
<i>Symphyotrichum ericoides</i>	Heath Aster	2.58	0.04
<i>Symphyotrichum laeve</i>	Smooth Aster	0.8	0.04
<i>Tradescantia bracteata</i>	Bracted Spiderwort	0.6	0.16
<i>Verbena stricta</i>	Hoary Vervain	1.2	0.12
<i>Zizia aptera</i>	Heart-leaved Alexanders	0.2	0.05

Total Guild:	19.68	0.96	29.30%	2.1%
--------------	-------	------	--------	------

### Graminoid

<i>Bouteloua curtipendula</i>	Side-oats Grama	2	0.91
<i>Bouteloua gracilis</i>	Blue Grama	6	0.41
<i>Bromus kalmii</i>	Kalm's Brome	4	1.36
<i>Koeleria macrantha</i>	Junegrass	6	0.08
<i>Schizachyrium scoparium</i>	Little Bluestem	16.53	3.00

Total Guild:	34.53	5.76	51.41%	12.8%
--------------	-------	------	--------	-------

### Legume

<i>Astragalus canadensis</i>	Canada Milk Vetch	0.4	0.06
<i>Dalea candida</i>	White Prairie Clover	0.4	0.06
<i>Dalea purpurea</i>	Purple Prairie Clover	1.02	0.19

Total Guild:	1.82	0.31	2.71%	0.7%
--------------	------	------	-------	------

Total Seed Mix:	67.16	44.90
-----------------	-------	-------

## Low Diversity Buffer General

Function: Buffers  
 Intent: Low diversity native grass buffer mix for chemicals may impact pollinators  
 Planting Area: Statewide  
 Specialization: NRCS 393

Scientific Name	Common Name	Seeds/ sq ft	Rate (lb/ac)	% Mix (by sqft)	% Mix (by wt)
<b>Graminoid</b>					
Andropogon gerardii	Big Bluestem	18	4.90		
Elymus canadensis	Canada Wild Rye	3	1.57		
Panicum virgatum	Switchgrass	16	3.11		
Sorghastrum nutans	Indian Grass	18	4.08		
Total Guild:		55	13.67	#####	100.0%
Total Seed Mix:		55	13.67		

## Low Growing Solar Array Mix Northeast

Function: Pollinator  
 Intent: Low growing native vegetation establishment for under solar panels in Northeastern MN  
 Planting Area: NE  
 Specialization:

Scientific Name	Common Name	Seeds/ sq ft	Rate (lb/ac)	% Mix (by sqft)	% Mix (by wt)
<b>Cover</b>					
Avena sativa	Oats* (See Cover crop note)	11.13	37.88		
Total Guild:		11.13	37.88	19.27%	88.4%

### Forb

Achillea millefolium	Common Yarrow	0.66	0.01		
Allium stellatum	Prairie Wild Onion	0.73	0.18		
Anemone canadensis	Canada Anemone	0.18	0.06		
Aquilegia canadensis	Columbine	0.44	0.03		
Asclepias tuberosa	Butterfly Milkweed	0.1	0.06		
Euthamia graminifolia	Grass-leaved Goldenrod	1.4	0.01		
Galium boreale	Northern Bedstraw	0.28	0.01		
Geranium maculatum	Wild Geranium	0.02	0.01		

<i>Liatris aspera</i>	Rough Blazing Star	0.25	0.04
<i>Penstemon grandiflorus</i>	Large-flowered Beard Tongue	0.5	0.10
<i>Potentilla arguta</i>	Prairie Cinquefoil	0.1	0.00
<i>Pycnanthemum virginianum</i>	Virginia Mountain Mint	0.82	0.01
<i>Rudbeckia hirta</i>	Black-eyed Susan	1.58	0.05
<i>Sisyrinchium campestre</i>	Field Blue-eyed Grass	0.52	0.03
<i>Smilacina racemosa</i>	False Solomons Seal	0.01	0.07
<i>Solidago nemoralis</i>	Gray Goldenrod	1.2	0.01
<i>Solidago ptarmicoides</i>	Upland White Aster	1	0.04
<i>Symphotrichum ericoides</i>	Heath Aster	0.8	0.01
<i>Symphotrichum laeve</i>	Smooth Aster	0.63	0.03
<i>Symphotrichum lateriflorum</i>	Calico Aster	1	0.01
<i>Zizia aptera</i>	Heart-leaved Alexanders	0.55	0.12

Total Guild:	12.77	0.91	22.11%	2.1%
--------------	-------	------	--------	------

### Graminoid

<i>Bromus kalmii</i>	Kalm's Brome	3	1.02
<i>Danthonia spicata</i>	Poverty Grass	6	0.65
<i>Festuca rubra</i>	Red Fescue	12	1.42
<i>Koeleria macrantha</i>	Junegrass	4.59	0.06

Total Guild:	25.59	3.16	44.30%	7.4%
--------------	-------	------	--------	------

### Legume

<i>Astragalus canadensis</i>	Canada Milk Vetch	0.4	0.06
<i>Dalea candida</i>	White Prairie Clover	1.7	0.24
<i>Dalea purpurea</i>	Purple Prairie Clover	1.02	0.19

Total Guild:	3.12	0.49	5.40%	1.1%
--------------	------	------	-------	------

### Sedge

<i>Carex bicknellii</i>	Bicknell's Sedge	0.95	0.15
<i>Carex brevior</i>	Short Sedge	2.1	0.20
<i>Carex scoparia</i>	Lance-fruited Oval sedge	2.1	0.07

Total Guild:	5.15	0.42	8.92%	1.0%
--------------	------	------	-------	------

Pilot

## Low Growing Solar Array Mix South & West

Function: Pollinator Intent: Low growing native vegetation establishment for under solar panels in south and west MN  
 Planting Area: S & W  
 Specialization:

Scientific Name	Common Name	Seeds/ sq ft	Rate (lb/ac)	% Mix (by sqft)	% Mix (by wt)
<b>Cover</b>					
Avena sativa	Oats* (See Cover crop note)	6	20.42		
Total Guild:		6	20.42	12.85%	77.9%

### Forb

Achillea millefolium	Common Yarrow	0.41	0.01		
Allium stellatum	Prairie Wild Onion	0.51	0.13		
Anemone canadensis	Canada Anemone	0.18	0.06		
Anemone cylindrica	Long-headed Thimbleweed	0.6	0.06		
Asclepias syriaca	Common Milkweed	0.46	0.31		
Asclepias verticillata	Whorled Milkweed	0.32	0.08		
Astragalus crassicaulus	Ground Plum	0.36	0.19		
Echinacea angustifolia	Narrow-leaved Purple Coneflower	0.64	0.25		
Euthamia graminifolia	Grass-leaved Goldenrod	0.8	0.01		
Galium boreale	Northern Bedstraw	0.4	0.02		
Liatris aspera	Rough Blazing Star	0.28	0.05		
Lobelia spicata	Rough-spiked Lobelia	1.03	0.00		
Monarda fistulosa	Wild Bergamot	0.8	0.03		
Penstemon grandiflorus	Large-flowered Beard Tongue	0.48	0.09		
Phlox pilosa	Prairie Phlox	0.11	0.02		
Potentilla arguta	Prairie Cinquefoil	0.53	0.01		
Pycnanthemum virginianum	Virginia Mountain Mint	0.76	0.01		
Ratibida columnifera	Prairie Coneflower	0.96	0.06		
Rudbeckia hirta	Black-eyed Susan	1.58	0.05		

Sisyrinchium campestre	Field Blue-eyed Grass	0.52	0.03
Solidago rigida	Stiff Goldenrod	0.47	0.03
Solidago speciosa	Showy Goldenrod	0.55	0.02
Symphotrichum ericoides	Heath Aster	0.46	0.01
Symphotrichum laeve	Smooth Aster	0.63	0.03
Zizia aptera	Heart-leaved Alexanders	0.55	0.12

Total Guild: 14.39 1.66 30.83% 6.3%

### Graminoid

Bouteloua curtipendula	Side-oats Grama	3.31	1.50
Bouteloua gracilis	Blue Grama	4.59	0.31
Koeleria macrantha	Junegrass	4.59	0.06
Schizachyrium scoparium	Little Bluestem	4.13	0.75
Sporobolus heterolepis	Prairie Dropseed	2.94	0.50

Total Guild: 19.56 3.13 41.90% 11.9%

### Legume

Astragalus canadensis	Canada Milk Vetch	0.78	0.12
Dalea candida	White Prairie Clover	1.74	0.25
Dalea purpurea	Purple Prairie Clover	2.07	0.38

Total Guild: 4.59 0.75 9.83% 2.9%

### Sedge

Carex bicknellii	Bicknell's Sedge	0.78	0.12
Carex brevior	Short Sedge	0.67	0.06
Carex pensylvanica	Pennsylvania Sedge	0.69	0.06

Total Guild: 2.14 0.25 4.58% 1.0%

Total Seed Mix: 46.68 26.21

Pilot

## Low Growing Solar Array Moist Soils South and West

Function: Pollinator

Intent: Low growing native vegetation establishment for under solar panels in south and west MN

Planting Area: S & W

Specialization:

Scientific Name	Common Name	Seeds/ sq ft	Rate (lb/ac)	% Mix (by sqft)	% Mix (by wt)
-----------------	-------------	-----------------	-----------------	--------------------	------------------

**Cover**

Avena sativa	Oats* (See Cover crop note)	11.13	37.88
--------------	-----------------------------	-------	-------

Total Guild:	11.13	37.88	10.11%	93.3%
--------------	-------	-------	--------	-------

**Forb**

Allium stellatum	Prairie Wild Onion	0.73	0.18
Anemone canadensis	Canada Anemone	0.18	0.06
Asclepias incarnata	Marsh Milkweed	0.43	0.24
Euthamia graminifolia	Grass-leaved Goldenrod	1.4	0.01
Galium boreale	Northern Bedstraw	0.26	0.01
Lobelia siphilitica	Great Lobelia	2.9	0.02
Phlox pilosa	Prairie Phlox	0.08	0.01
Potentilla arguta	Prairie Cinquefoil	0.1	0.00
Pycnanthemum virginianum	Virginia Mountain Mint	0.85	0.01
Ratibida columnifera	Prairie Coneflower	1.58	0.10
Rudbeckia hirta	Black-eyed Susan	1.58	0.05
Sisyrinchium campestre	Field Blue-eyed Grass	0.52	0.03
Symphyotrichum laeve	Smooth Aster	0.63	0.03
Symphyotrichum puniceum	Red-stemmed Aster	5	0.17
Zizia aurea	Golden Alexanders	1	0.25

Total Guild:	17.24	1.18	15.66%	2.9%
--------------	-------	------	--------	------

**Graminoid**

Calamagrostis canadensis	Bluejoint	5	0.05
Glyceria striata	Fowl Manna Grass	3.3	0.10
Leersia oryzoides	Rice Cut Grass	3.1	0.25
Poa palustris	Fowl Bluegrass	20	0.42

Total Guild:	31.4	0.82	28.53%	2.0%
--------------	------	------	--------	------

**Legume**

Astragalus canadensis	Canada Milk Vetch	0.4	0.06
Dalea candida	White Prairie Clover	1.7	0.24

Total Guild:	2.1	0.31	1.91%	0.8%
--------------	-----	------	-------	------

**Sedge**

Carex scoparia	Lance-fruited Oval sedge	2.1	0.07
Carex stipata	Common Fox Sedge	2.1	0.17
Carex vulpinoidea	Brown Fox Sedge	4	0.11
Scirpus cyperinus	Woolgrass	40	0.06

Total Guild: 48.2 0.41 43.79% 1.0%

Total Seed Mix: 110.07 40.58

Pilot

## Mesic Short Urban Buffer Northeast

Function: Buffers

Intent: Stabilized steep eroding slopes with both early and later successional species.

Planting Area: NE

Specialization: NRCS 327

Scientific Name	Common Name	Seeds/ sq ft	Rate (lb/ac)	% Mix (by sqft)	% Mix (by wt)
-----------------	-------------	-----------------	-----------------	--------------------	------------------

### Cover

Avena sativa	Oats* (See Cover crop note)	11.13	37.88		
--------------	-----------------------------	-------	-------	--	--

Total Guild: 11.13 37.88 16.48% 83.0%

### Forb

Achillea millefolium	Common Yarrow	1	0.02		
Anaphalis margaritacea	Pearly Everlasting	0.8	0.01		
Asclepias syriaca	Common Milkweed	0.16	0.11		
Asclepias tuberosa	Butterfly Milkweed	0.071	0.04		
Geranium maculatum	Wild Geranium	0.02	0.01		
Helianthus pauciflorus	Stiff Sunflower	0.07	0.05		
Pycnanthemum virginianum	Virginia Mountain Mint	0.9	0.01		
Rudbeckia hirta	Black-eyed Susan	10.32	0.31		
Smilacina racemosa	False Solomons Seal	0.01	0.07		
Solidago nemoralis	Gray Goldenrod	3.5	0.03		
Symphotrichum ericoides	Heath Aster	2	0.03		
Symphotrichum laeve	Smooth Aster	1.26	0.06		
Verbena stricta	Hoary Vervain	1.29	0.13		
Zizia aurea	Golden Alexanders	0.8	0.20		

Total Guild: 22.201 1.07 32.87% 2.3%

**Graminoid**

Bouteloua curtipendula	Side-oats Grama	3.4	1.54
Bouteloua gracilis	Blue Grama	8	0.54
Bromus kalmii	Kalm's Brome	2	0.68
Elymus riparius	Riverbank Wild Rye	0.22	0.21
Schizachyrium scoparium	Little Bluestem	18	3.27
Sporobolus heterolepis	Prairie Dropseed	1.1	0.19

Total Guild: 32.72 6.43 48.44% 14.1%

**Legume**

Dalea candida	White Prairie Clover	0.39	0.06
Dalea purpurea	Purple Prairie Clover	1.1	0.20

Total Guild: 1.49 0.26 2.21% 0.6%

Total Seed Mix: 67.541 45.63

**Pilot**

**Mesic Short Urban Buffer South & West**

Function: Buffers

Intent: Showy prairie buffer establishment in urban areas

Planting Area: S & W

Specialization: NRCS 327

Scientific Name	Common Name	Seeds/ sq ft	Rate (lb/ac)	% Mix (by sqft)	% Mix (by wt)
-----------------	-------------	-----------------	-----------------	--------------------	------------------

**Cover**

Avena sativa	Oats* (See Cover crop note)	11.13	37.88
--------------	-----------------------------	-------	-------

Total Guild: 11.13 37.88 16.91% 82.4%

**Forb**

Achillea millefolium	Common Yarrow	1	0.02
Asclepias tuberosa	Butterfly Milkweed	0.071	0.04
Asclepias verticillata	Whorled Milkweed	0.1	0.02
Coreopsis palmata	Bird's Foot Coreopsis	0.15	0.04
Helianthus pauciflorus	Stiff Sunflower	0.07	0.05
Liatris aspera	Rough Blazing Star	0.25	0.04
Phlox pilosa	Prairie Phlox	0.08	0.01



Rudbeckia hirta	Black-eyed Susan	9	0.27
Sisyrinchium campestre	Field Blue-eyed Grass	0.17	0.01
Solidago speciosa	Showy Goldenrod	2	0.06
Symphotrichum ericoides	Heath Aster	2	0.03
Symphotrichum laeve	Smooth Aster	1.26	0.06
Tradescantia ohiensis	Ohio Spiderwort	0.1	0.03
Verbena stricta	Hoary Vervain	1.29	0.13
Viola pedatifida	Bearded Birdfoot Violet	0.14	0.01
Zizia aurea	Golden Alexanders	0.8	0.20

Total Guild: 18.481 1.02 28.08% 2.2%

### Graminoid

Bouteloua curtipendula	Side-oats Grama	3.4	1.54
Bouteloua gracilis	Blue Grama	8	0.54
Bromus kalmii	Kalm's Brome	2	0.68
Elymus riparius	Riverbank Wild Rye	0.22	0.21
Schizachyrium scoparium	Little Bluestem	20	3.63
Sporobolus heterolepis	Prairie Dropseed	1.1	0.19

Total Guild: 34.72 6.79 52.75% 14.8%

### Legume

Dalea candida	White Prairie Clover	0.39	0.06
Dalea purpurea	Purple Prairie Clover	1.1	0.20

Total Guild: 1.49 0.26 2.26% 0.6%

Total Seed Mix: 65.821 45.95

Pilot

## Mid Diversity Mesic to Dry Buffer South & West

Function: Buffers

Intent: Mid diversity mesic prairie buffer establishment

Planting Area: S & W

Specialization:

Scientific Name	Common Name	Seeds/ sq ft	Rate (lb/ac)	% Mix (by sqft)	% Mix (by wt)
-----------------	-------------	-----------------	-----------------	--------------------	------------------

### Cover

Avena sativa	Oats* (See Cover crop note)	11.14	37.91
--------------	-----------------------------	-------	-------

Total Guild:	11.14	37.91	20.88%	82.1%
--------------	-------	-------	--------	-------

**Forb**

Asclepias tuberosa	Butterfly Milkweed	0.05	0.03
Liatris aspera	Rough Blazing Star	0.18	0.03
Monarda fistulosa	Wild Bergamot	1.61	0.06
Oligoneuron rigidum	Stiff Goldenrod	1	0.07
Phlox pilosa	Prairie Phlox	0.065	0.01
Rudbeckia hirta	Black-eyed Susan	6	0.18
Symphotrichum ericoides	Heath Aster	1.5	0.02
Verbena stricta	Hoary Vervain	1.45	0.14
Zizia aurea	Golden Alexanders	0.23	0.06

Total Guild:	12.085	0.60	22.65%	1.3%
--------------	--------	------	--------	------

**Graminoid**

Andropogon gerardii	Big Bluestem	6	1.63
Bouteloua curtipendula	Side-oats Grama	3	1.36
Elymus canadensis	Canada Wild Rye	0.5	0.26
Elymus trachycaulus	Slender Wheatgrass	1.2	0.59
Panicum virgatum	Switchgrass	6	1.17
Schizachyrium scoparium	Little Bluestem	7	1.27
Sorghastrum nutans	Indian Grass	5	1.13

Total Guild:	28.7	7.42	53.80%	16.1%
--------------	------	------	--------	-------

**Legume**

Astragalus canadensis	Canada Milk Vetch	0.39	0.06
Dalea purpurea	Purple Prairie Clover	1.03	0.19

Total Guild:	1.42	0.25	2.66%	0.5%
--------------	------	------	-------	------

Total Seed Mix:	53.345	46.18
-----------------	--------	-------

## Mid Diversity Moist Buffer Northeast

Function: Buffers

Intent: Mid diversity native buffer establishment in moist areas in northeast MN

Planting Area: NE

Specialization:

Scientific Name	Common Name	Seeds/ sq ft	Rate (lb/ac)	% Mix (by sqft)	% Mix (by wt)
<b>Cover</b>					
Avena sativa	Oats* (See Cover crop note)	11.14	37.91		
Total Guild:		11.14	37.91	7.17%	84.5%
<b>Forb</b>					
Asclepias incarnata	Marsh Milkweed	0.18	0.10		
Doellingeria umbellata	Flat-topped Aster	1.25	0.05		
Euthamia graminifolia	Grass-leaved Goldenrod	2.2	0.02		
Eutrochium maculatum	Spotted Joe Pye Weed	2	0.06		
Mimulus ringens	Blue Monkey Flower	16.5	0.02		
Sisyrinchium campestre	Field Blue-eyed Grass	0.17	0.01		
Solidago gigantea	Giant Goldenrod	2	0.02		
Symphotrichum lanceolatum	Eastern Panicked Aster	2	0.03		
Verbena hastata	Blue Vervain	4	0.12		
Total Guild:		30.3	0.43	19.49%	1.0%
<b>Graminoid</b>					
Andropogon gerardii	Big Bluestem	8.2	2.23		
Bromus ciliatus	Fringed Brome	6	1.63		
Calamagrostis canadensis	Bluejoint	2.8	0.03		
Elymus virginicus	Virginia Wild Rye	3	1.94		
Glyceria grandis	Tall Manna Grass	2	0.08		
Poa palustris	Fowl Bluegrass	15	0.31		
Total Guild:		37	6.23	23.80%	13.9%
<b>Sedge</b>					
Carex scoparia	Lance-fruited Oval sedge	1	0.03		
Scirpus atrovirens	Dark Green Bulrush	36	0.21		
Scirpus cyperinus	Woolgrass	40	0.06		



Poa palustris	Fowl Bluegrass	14	0.29
---------------	----------------	----	------

Total Guild:	33.8	5.46	32.57%	32.2%
--------------	------	------	--------	-------

### Sedge

Carex stipata	Common Fox Sedge	0.8	0.06
---------------	------------------	-----	------

Carex vulpinoidea	Brown Fox Sedge	3	0.08
-------------------	-----------------	---	------

Scirpus atrovirens	Dark Green Bulrush	35	0.21
--------------------	--------------------	----	------

Total Guild:	38.8	0.35	37.38%	2.1%
--------------	------	------	--------	------

Total Seed Mix:	103.79	16.96
-----------------	--------	-------

### Pilot

## Native Forage Buffer Mix South & West

Function: Buffers

Intent: Native buffer seed mix that can be hayed once or twice a year

Planting Area: S & W

Specialization: NRCS 393

Scientific Name	Common Name	Seeds/ sq ft	Rate (lb/ac)	% Mix (by sqft)	% Mix (by wt)
-----------------	-------------	-----------------	-----------------	--------------------	------------------

### Cover

Avena sativa	Oats* (See Cover crop note)	11.14	37.91
--------------	-----------------------------	-------	-------

Total Guild:	11.14	37.91	21.85%	74.6%
--------------	-------	-------	--------	-------

### Forb

Helianthus maximilianii	Maximilian's Sunflower	0.3	0.06
-------------------------	------------------------	-----	------

Ratibida pinnata	Gray-headed Coneflower	2.15	0.20
------------------	------------------------	------	------

Total Guild:	2.45	0.26	4.81%	0.5%
--------------	------	------	-------	------

### Graminoid

Andropogon gerardii	Big Bluestem	8	2.18
---------------------	--------------	---	------

Bromus ciliatus	Fringed Brome	2	0.54
-----------------	---------------	---	------

Bromus kalmii	Kalm's Brome	1	0.34
---------------	--------------	---	------

Elymus canadensis	Canada Wild Rye	3	1.57
-------------------	-----------------	---	------

Elymus trachycaulus	Slender Wheatgrass	4	1.98
---------------------	--------------------	---	------

Elymus virginicus	Virginia Wild Rye	3	1.94
-------------------	-------------------	---	------

Panicum virgatum	Switchgrass	7	1.36
------------------	-------------	---	------

Sorghastrum nutans	Indian Grass	6	1.36
--------------------	--------------	---	------

Total Guild:	34	11.28	66.69%	22.2%
--------------	----	-------	--------	-------

## Legume

Chamaecrista fasciculata	Partridge Pea	0.99	1.00
Dalea candida	White Prairie Clover	1.3	0.19
Dalea purpurea	Purple Prairie Clover	1.1	0.20

Total Guild:	3.39	1.38	6.65%	2.7%
Total Seed Mix:	50.98	50.83		

## Pilot

## Native Grass Waterway General

Function:	Stormwater	Intent:	Native vegetation establishment for grass waterway establishment
Planting Area:	Statewide		
Specialization:	NRCS 342		

Scientific Name	Common Name	Seeds/ sa ft	Rate (lb/ac)	% Mix (by sqft)	% Mix (by wt)
-----------------	-------------	-----------------	-----------------	--------------------	------------------

## Cover

Avena sativa	Oats* (See Cover crop note)	11.14	37.91
--------------	-----------------------------	-------	-------

Total Guild:	11.14	37.91	21.33%	83.9%
--------------	-------	-------	--------	-------

## Forb

Monarda fistulosa	Wild Bergamot	1.61	0.06
Oligoneuron rigidum	Stiff Goldenrod	0.94	0.06
Rudbeckia hirta	Black-eyed Susan	10.56	0.31
Symphyotrichum lanceolatum	Eastern Panicked Aster	2.3	0.04
Zizia aurea	Golden Alexanders	0.23	0.06

Total Guild:	15.64	0.53	29.94%	1.2%
--------------	-------	------	--------	------

## Graminoid

Andropogon gerardii	Big Bluestem	7	1.91
Bromus kalmii	Kalm's Brome	1	0.34
Elymus canadensis	Canada Wild Rye	0.5	0.26
Elymus trachycaulus	Slender Wheatgrass	2.53	1.25
Panicum virgatum	Switchgrass	6	1.17
Sorghastrum nutans	Indian Grass	7	1.59

Total Guild:	24.03	6.52	46.01%	14.4%
--------------	-------	------	--------	-------

## Legume

Astragalus canadensis	Canada Milk Vetch	0.39	0.06
Dalea purpurea	Purple Prairie Clover	1.03	0.19

Total Guild: 1.42 0.25 2.72% 0.6%

Total Seed Mix: 52.23 45.21

Pilot

## Pollinator Plot Northwest

Function: Pollinator Intent: Diverse pollinator habitat establishment for conservation plantings a few acres in size in northwest  
 Planting Area: NW  
 Specialization: NRCS CP 42

Scientific Name	Common Name	Seeds/ sq ft	Rate (lb/ac)	% Mix (by sqft)	% Mix (by wt)
<b>Cover</b>					
Avena sativa	Oats* (See Cover crop note)	11.13	37.88		
		Total Guild:	11.13	37.88	25.03% 89.3%

**Forb**

Agastache foeniculum	Blue Giant Hyssop	0.35	0.01
Allium stellatum	Prairie Wild Onion	0.041	0.01
Amorpha canescens	Lead Plant	0.37	0.06
Asclepias syriaca	Common Milkweed	0.32	0.22
Asclepias tuberosa	Butterfly Milkweed	0.1	0.06
Echinacea angustifolia	Narrow-leaved Purple Conefl	0.16	0.06
Helianthus maximiliani	Maximilian's Sunflower	0.3	0.06
Helianthus pauciflorus	Stiff Sunflower	0.09	0.06
Heliopsis helianthoides	Ox-eye	0.14	0.06
Liatris aspera	Rough Blazing Star	0.37	0.06
Monarda fistulosa	Wild Bergamot	1.61	0.06
Oligoneuron rigidum	Stiff Goldenrod	0.94	0.06
Phlox pilosa	Prairie Phlox	0.08	0.01
Pycnanthemum virginianum	Virginia Mountain Mint	0.82	0.01
Rudbeckia hirta	Black-eyed Susan	4	0.12
Sisyrinchium campestre	Field Blue-eyed Grass	0.17	0.01

Solidago nemoralis	Gray Goldenrod	2.18	0.02
Symphotrichum ericoides	Heath Aster	1.6	0.02
Symphotrichum laeve	Smooth Aster	1.26	0.06
Verbena hastata	Blue Vervain	6	0.18
Viola pedatifida	Bearded Birdfoot Violet	0.14	0.01
Zizia aurea	Golden Alexanders	0.25	0.06

Total Guild: 21.291 1.30 47.89% 3.1%

### Graminoid

Andropogon gerardii	Big Bluestem	2.3	0.63
Bouteloua curtipendula	Side-oats Grama	1.8	0.82
Elymus canadensis	Canada Wild Rye	0.8	0.42
Hesperostipa spartea	Porcupine Grass	0.02	0.08
Schizachyrium scoparium	Little Bluestem	3	0.54
Sporobolus heterolepis	Prairie Dropseed	3.6	0.61

Total Guild: 11.52 3.10 25.91% 7.3%

### Legume

Astragalus canadensis	Canada Milk Vetch	0.39	0.06
Desmodium canadense	Canada Tick Trefoil	0.13	0.06

Total Guild: 0.52 0.13 1.17% 0.3%

Total Seed Mix: 44.461 42.41

## Pilot Pollinator Plot Urban Southeast

Function: Pollinator Intent: Diverse pollinator habitat establishment for conservation plantings a few acres in size in urban areas  
 Planting Area: SE  
 Specialization: NRCS 327 Jobsheet #16

Scientific Name	Common Name	Seeds/ sq ft	Rate (lb/ac)	% Mix (by sqft)	% Mix (by wt)
-----------------	-------------	-----------------	-----------------	--------------------	------------------

### Cover

Avena sativa	Oats* (See Cover crop note)	11.13	37.88
--------------	-----------------------------	-------	-------

Total Guild: 11.13 37.88 17.81% 87.2%

### Forb

Agastache foeniculum	Blue Giant Hyssop	0.4	0.01
----------------------	-------------------	-----	------



<i>Allium stellatum</i>	Prairie Wild Onion	0.2	0.05
<i>Amorpha canescens</i>	Lead Plant	0.37	0.06
<i>Asclepias syriaca</i>	Common Milkweed	0.2	0.14
<i>Asclepias tuberosa</i>	Butterfly Milkweed	0.1	0.06
<i>Coreopsis palmata</i>	Bird's Foot Coreopsis	0.2	0.05
<i>Echinacea angustifolia</i>	Narrow-leaved Purple Conefl	0.16	0.06
<i>Helenium autumnale</i>	Autumn Sneezeweed	2.98	0.06
<i>Helianthus maximiliani</i>	Maximilian's Sunflower	0.3	0.06
<i>Helianthus pauciflorus</i>	Stiff Sunflower	0.09	0.06
<i>Heliopsis helianthoides</i>	Ox-eye	0.14	0.06
<i>Liatris aspera</i>	Rough Blazing Star	0.37	0.06
<i>Liatris ligulistylis</i>	Northern Plains Blazing Star	0.2	0.05
<i>Monarda fistulosa</i>	Wild Bergamot	1.61	0.06
<i>Monarda punctata</i>	Horsemint	1	0.03
<i>Oligoneuron rigidum</i>	Stiff Goldenrod	0.94	0.06
<i>Penstemon digitalis</i>	Foxglove Beardtongue	2.98	0.06
<i>Penstemon grandiflorus</i>	Large-flowered Beard Tongue	0.3	0.06
<i>Phlox pilosa</i>	Prairie Phlox	0.05	0.01
<i>Pycnanthemum virginianum</i>	Virginia Mountain Mint	0.9	0.01
<i>Rudbeckia hirta</i>	Black-eyed Susan	4	0.12
<i>Rudbeckia triloba</i>	Brown-eyed Susan	2	0.16
<i>Sisyrinchium campestre</i>	Field Blue-eyed Grass	0.17	0.01
<i>Solidago speciosa</i>	Showy Goldenrod	2.18	0.06
<i>Symphotrichum ericoides</i>	Heath Aster	1.8	0.02
<i>Symphotrichum laeve</i>	Smooth Aster	1.26	0.06
<i>Symphotrichum novae-angliae</i>	New England Aster	1	0.04
<i>Tradescantia bracteata</i>	Bracted Spiderwort	0.23	0.06
<i>Verbena stricta</i>	Hoary Vervain	1.45	0.14
<i>Veronicastrum virginicum</i>	Culver's Root	7	0.02

Viola pedatifida	Bearded Birdfoot Violet	0.14	0.01
Zizia aurea	Golden Alexanders	0.25	0.06

Total Guild:	34.97	1.88	55.95%	4.3%
--------------	-------	------	--------	------

### Graminoid

Bouteloua curtipendula	Side-oats Grama	2.25	1.02
Elymus canadensis	Canada Wild Rye	2	1.05
Koeleria macrantha	Junegrass	3.5	0.05
Schizachyrium scoparium	Little Bluestem	5.5	1.00
Sporobolus heterolepis	Prairie Dropseed	1.85	0.31

Total Guild:	15.1	3.43	24.16%	7.9%
--------------	------	------	--------	------

### Legume

Astragalus canadensis	Canada Milk Vetch	0.39	0.06
Chamaecrista fasciculata	Partridge Pea	0.06	0.06
Dalea candida	White Prairie Clover	0.44	0.06
Dalea purpurea	Purple Prairie Clover	0.41	0.07

Total Guild:	1.3	0.26	2.08%	0.6%
--------------	-----	------	-------	------

Total Seed Mix:	62.5	43.45
-----------------	------	-------

## Pilot

## Pollinator Plots Northeast

Function: Pollinator

Intent: Diverse pollinator mix for conservation plantings a few acres in size in northeast MN

Planting Area: NE

Specialization: NRCS 327 Jobsheet #16

Scientific Name	Common Name	Seeds/ sq ft	Rate (lb/ac)	% Mix (by sqft)	% Mix (by wt)
-----------------	-------------	-----------------	-----------------	--------------------	------------------

### Cover

Avena sativa	Oats* (See Cover crop note)	11.13	37.88
--------------	-----------------------------	-------	-------

Total Guild:	11.13	37.88	11.60%	87.1%
--------------	-------	-------	--------	-------

### Forb

Achillea millefolium	Common Yarrow	8	0.12
Agastache foeniculum	Blue Giant Hyssop	2	0.06
Allium stellatum	Prairie Wild Onion	0.2	0.05
Anaphalis margaritacea	Pearly Everlasting	0.82	0.01

<i>Asclepias syriaca</i>	Common Milkweed	0.32	0.22
<i>Asclepias tuberosa</i>	Butterfly Milkweed	0.1	0.06
<i>Doellingeria umbellata</i>	Flat-topped Aster	1	0.04
<i>Drymocallis arguta</i>	Tall Cinquefoil	7	0.08
<i>Eutrochium maculatum</i>	Spotted Joe Pye Weed	2	0.06
<i>Geranium maculatum</i>	Wild Geranium	0.02	0.01
<i>Helenium autumnale</i>	Autumn Sneezeweed	2.98	0.06
<i>Helianthus giganteus</i>	Giant Sunflower	0.09	0.02
<i>Mimulus ringens</i>	Blue Monkey Flower	16	0.02
<i>Oligoneuron rigidum</i>	Stiff Goldenrod	4	0.27
<i>Rosa blanda</i>	Smooth Wild Rose	0.06	0.06
<i>Rudbeckia hirta</i>	Black-eyed Susan	6	0.18
<i>Sisyrinchium campestre</i>	Field Blue-eyed Grass	0.17	0.01
<i>Smilacina racemosa</i>	False Solomons Seal	0.01	0.07
<i>Solidago nemoralis</i>	Gray Goldenrod	6	0.05
<i>Solidago ptarmicoides</i>	Upland White Aster	1	0.04
<i>Symphotrichum ciliolatum</i>	Lindley's Aster	1	0.03
<i>Symphotrichum laeve</i>	Smooth Aster	2.4	0.12
<i>Verbena hastata</i>	Blue Vervain	6	0.18
<i>Verbena stricta</i>	Hoary Vervain	1	0.10
<i>Zizia aurea</i>	Golden Alexanders	0.05	0.01

Total Guild:	68.22	1.94	71.13%	4.5%
--------------	-------	------	--------	------

### Graminoid

<i>Andropogon gerardii</i>	Big Bluestem	3.8	1.03
<i>Bromus ciliatus</i>	Fringed Brome	4.4	1.20
<i>Danthonia spicata</i>	Poverty Grass	2	0.22
<i>Elymus hystrix</i>	Bottlebrush Grass	0.45	0.16
<i>Schizachyrium scoparium</i>	Little Bluestem	5.5	1.00

Total Guild:	16.15	3.61	16.84%	8.3%
--------------	-------	------	--------	------

### Legume

Dalea purpurea

Purple Prairie Clover

0.41

0.07

Total Guild:

0.41

0.07

0.43%

0.2%

Total Seed Mix:

95.91

43.50

Pilot

## Pollinator Plots Southeast

Function: Pollinator

Intent: Diverse pollinator habitat establishment for conservation plantings a few acres in size in southeast MN

Planting Area: SE

Specialization: NRCS 327 Jobsheet #16

Scientific Name	Common Name	Seeds/ sq ft	Rate (lb/ac)	% Mix (by sqft)	% Mix (by wt)
-----------------	-------------	-----------------	-----------------	--------------------	------------------

### Cover

Avena sativa

Oats\* (See Cover crop note)

11.13

37.88

Total Guild:

11.13

37.88

18.27%

86.8%

### Forb

Amorpha canescens

Lead Plant

0.37

0.06

Asclepias syriaca

Common Milkweed

0.32

0.22

Asclepias tuberosa

Butterfly Milkweed

0.072

0.05

Baptisia alba

0.02

0.03

Coreopsis palmata

Bird's Foot Coreopsis

0.11

0.03

Geranium maculatum

Wild Geranium

0.02

0.01

Helenium autumnale

Autumn Sneezeweed

2.98

0.06

Helianthus maximiliani

Maximilian's Sunflower

0.3

0.06

Helianthus pauciflorus

Stiff Sunflower

0.057

0.04

Heliopsis helianthoides

Ox-eye

0.14

0.06

Liatris aspera

Rough Blazing Star

0.3

0.05

Liatris ligulistylis

Northern Plains Blazing Star

0.19

0.05

Monarda fistulosa

Wild Bergamot

1.61

0.06

Monarda punctata

Horsemint

1

0.03

Oligoneuron rigidum

Stiff Goldenrod

0.94

0.06

Penstemon digitalis

Foxglove Beardtongue

2.98

0.06

Penstemon grandiflorus

Large-flowered Beard Tongue

0.4

0.08

<i>Pycnanthemum virginianum</i>	Virginia Mountain Mint	1	0.01
<i>Ranunculus fascicularis</i>	Early Buttercup	0.04	0.01
<i>Rudbeckia hirta</i>	Black-eyed Susan	2.11	0.06
<i>Rudbeckia triloba</i>	Brown-eyed Susan	2	0.16
<i>Sisyrinchium campestre</i>	Field Blue-eyed Grass	0.17	0.01
<i>Solidago speciosa</i>	Showy Goldenrod	1.5	0.04
<i>Symphotrichum ericoides</i>	Heath Aster	2	0.03
<i>Symphotrichum laeve</i>	Smooth Aster	1.26	0.06
<i>Symphotrichum novae-angliae</i>	New England Aster	1	0.04
<i>Tradescantia bracteata</i>	Bracted Spiderwort	0.15	0.04
<i>Verbena stricta</i>	Hoary Vervain	1	0.10
<i>Veronicastrum virginicum</i>	Culver's Root	4.8	0.02
<i>Viola pedatifida</i>	Bearded Birdfoot Violet	0.14	0.01
<i>Zizia aurea</i>	Golden Alexanders	0.25	0.06

Total Guild:	29.229	1.68	47.97%	3.9%
--------------	--------	------	--------	------

### Graminoid

<i>Andropogon gerardii</i>	Big Bluestem	2.3	0.63
<i>Bouteloua curtipendula</i>	Side-oats Grama	2.3	1.04
<i>Elymus canadensis</i>	Canada Wild Rye	1.2	0.63
<i>Koeleria macrantha</i>	Junegrass	6	0.08
<i>Schizachyrium scoparium</i>	Little Bluestem	5.5	1.00
<i>Sporobolus heterolepis</i>	Prairie Dropseed	1.8	0.31

Total Guild:	19.1	3.68	31.35%	8.4%
--------------	------	------	--------	------

### Legume

<i>Astragalus canadensis</i>	Canada Milk Vetch	0.39	0.06
<i>Chamaecrista fasciculata</i>	Partridge Pea	0.06	0.06
<i>Chamaecrista fasciculata</i>	Partridge Pea	0.02	0.02
<i>Dalea candida</i>	White Prairie Clover	0.44	0.06
<i>Dalea purpurea</i>	Purple Prairie Clover	0.41	0.07
<i>Desmodium canadense</i>	Canada Tick Trefoil	0.13	0.06

Lupinus perennis

Wild Lupine

0.018

0.04

Total Guild:

1.468

0.39

2.41%

0.9%

Total Seed Mix:

60.927

43.63

Pilot

## Pollinator Plots Southwest

Function: Pollinator

Intent: Diverse pollinator habitat establishment for conservation plantings a few acres in size in southwest MN

Planting Area: SW

Specialization: NRCS 327 Jobsheet #16

Scientific Name	Common Name	Seeds/ sq ft	Rate (lb/ac)	% Mix (by sqft)	% Mix (by wt)
-----------------	-------------	-----------------	-----------------	--------------------	------------------

### Cover

Avena sativa

Oats\* (See Cover crop note)

11.13

37.88

Total Guild:

11.13

37.88

17.81%

86.6%

### Forb

Agastache foeniculum

Blue Giant Hyssop

1

0.03

Allium stellatum

Prairie Wild Onion

0.25

0.06

Amorpha canescens

Lead Plant

0.6

0.10

Asclepias syriaca

Common Milkweed

0.32

0.22

Asclepias tuberosa

Butterfly Milkweed

0.072

0.05

Coreopsis palmata

Bird's Foot Coreopsis

0.15

0.04

Echinacea angustifolia

Narrow-leaved Purple Conefl

0.16

0.06

Helenium autumnale

Autumn Sneezeweed

2.98

0.06

Helianthus maximiliani

Maximilian's Sunflower

0.3

0.06

Helianthus pauciflorus

Stiff Sunflower

0.09

0.06

Heliopsis helianthoides

Ox-eye

0.14

0.06

Liatris aspera

Rough Blazing Star

0.37

0.06

Monarda fistulosa

Wild Bergamot

1.61

0.06

Oligoneuron rigidum

Stiff Goldenrod

0.94

0.06

Penstemon digitalis

Foxglove Beardtongue

2.98

0.06

Penstemon grandiflorus

Large-flowered Beard Tongue

0.2

0.04

Phlox pilosa

Prairie Phlox

0.065

0.01

<i>Pycnanthemum virginianum</i>	Virginia Mountain Mint	3	0.04
<i>Rudbeckia hirta</i>	Black-eyed Susan	4	0.12
<i>Sisyrinchium campestre</i>	Field Blue-eyed Grass	0.17	0.01
<i>Solidago speciosa</i>	Showy Goldenrod	2.18	0.06
<i>Symphotrichum ericoides</i>	Heath Aster	1.8	0.02
<i>Symphotrichum laeve</i>	Smooth Aster	1.26	0.06
<i>Symphotrichum novae-angliae</i>	New England Aster	1.52	0.06
<i>Tradescantia bracteata</i>	Bracted Spiderwort	0.15	0.04
<i>Verbena stricta</i>	Hoary Vervain	1	0.10
<i>Veronicastrum virginicum</i>	Culver's Root	7	0.02
<i>Viola pedatifida</i>	Bearded Birdfoot Violet	0.14	0.01
<i>Zizia aurea</i>	Golden Alexanders	0.25	0.06

Total Guild:	34.697	1.72	55.51%	3.9%
--------------	--------	------	--------	------

### Graminoid

<i>Andropogon gerardii</i>	Big Bluestem	2.3	0.63
<i>Bouteloua curtipendula</i>	Side-oats Grama	1.8	0.82
<i>Elymus canadensis</i>	Canada Wild Rye	2	1.05
<i>Koeleria macrantha</i>	Junegrass	1.8	0.02
<i>Schizachyrium scoparium</i>	Little Bluestem	5.5	1.00
<i>Sporobolus heterolepis</i>	Prairie Dropseed	1.85	0.31

Total Guild:	15.25	3.83	24.40%	8.7%
--------------	-------	------	--------	------

### Legume

<i>Astragalus canadensis</i>	Canada Milk Vetch	0.39	0.06
<i>Chamaecrista fasciculata</i>	Partridge Pea	0.06	0.06
<i>Dalea candida</i>	White Prairie Clover	0.44	0.06
<i>Dalea purpurea</i>	Purple Prairie Clover	0.41	0.07
<i>Desmodium canadense</i>	Canada Tick Trefoil	0.13	0.06

Total Guild:	1.43	0.32	2.29%	0.7%
--------------	------	------	-------	------

Total Seed Mix:	62.507	43.75
-----------------	--------	-------

Function: Grassland

Intent: Dry prairie establishment on disturbed sites with sandy soils

Planting Area: S &amp; W

Specialization:

Scientific Name	Common Name	Seeds/ sq ft	Rate (lb/ac)	% Mix (by sqft)	% Mix (by wt)
<b>Cover</b>					
Avena sativa	Oats* (See Cover crop note)	11.13	37.88		
Total Guild:		11.13	37.88	14.71%	79.4%

**Forb**

Asclepias tuberosa	Butterfly Milkweed	0.1	0.06		
Asclepias verticillata	Whorled Milkweed	0.1	0.02		
Coreopsis palmata	Bird's Foot Coreopsis	0.21	0.06		
Geum triflorum	Prairie Smoke	0.1	0.01		
Liatris aspera	Rough Blazing Star	0.25	0.04		
Monarda punctata	Horsemint	1.42	0.04		
Oligoneuron rigidum	Stiff Goldenrod	0.83	0.06		
Penstemon grandiflorus	Large-flowered Beard Tongue	0.32	0.06		
Rudbeckia hirta	Black-eyed Susan	10.32	0.31		
Solidago speciosa	Showy Goldenrod	2	0.06		
Symphotrichum ericoides	Heath Aster	2.58	0.04		
Symphotrichum oolentangiense	Skyblue Aster	1.26	0.04		
Viola pedatifida	Bearded Birdfoot Violet	0.14	0.01		
Zizia aptera	Heart-leaved Alexanders	0.2	0.05		
Total Guild:		19.83	0.86	26.21%	1.8%

**Graminoid**

Bouteloua curtipendula	Side-oats Grama	4	1.82		
Bromus kalmii	Kalm's Brome	4	1.36		
Koeleria macrantha	Junegrass	6	0.08		
Panicum virgatum	Switchgrass	8	1.56		
Schizachyrium scoparium	Little Bluestem	18	3.27		



Sporobolus cryptandrus	Sand Dropseed	1.8	0.02
Sporobolus heterolepis	Prairie Dropseed	1	0.17

Total Guild:	42.8	8.28	56.56%	17.3%
--------------	------	------	--------	-------

### Legume

Astragalus canadensis	Canada Milk Vetch	0.4	0.06
Chamaecrista fasciculata	Partridge Pea	0.39	0.39
Dalea purpurea	Purple Prairie Clover	1.1	0.20
Lupinus perennis	Wild Lupine	0.018	0.04

Total Guild:	1.908	0.70	2.52%	1.5%
--------------	-------	------	-------	------

Total Seed Mix:	75.668	47.71
-----------------	--------	-------

### Pilot

## Shallow Rooted BMP Mix General

Function: Buffers

Intent: Establish prairie vegetation over perforated drain tile where deep rooted species could plug tile

Planting Area: Statewide

Specialization: NRCS 327

Scientific Name	Common Name	Seeds/ sq ft	Rate (lb/ac)	% Mix (by sqft)	% Mix (by wt)
-----------------	-------------	-----------------	-----------------	--------------------	------------------

### Cover

Avena sativa	Oats* (See Cover crop note)	9	30.63
--------------	-----------------------------	---	-------

Total Guild:	9	30.63	12.48%	62.1%
--------------	---	-------	--------	-------

### Forb

Monarda fistulosa	Wild Bergamot	2.6	0.10
Solidago canadensis	Canada Goldenrod	4	0.04

Total Guild:	6.6	0.14	9.15%	0.3%
--------------	-----	------	-------	------

### Graminoid

Bouteloua gracilis	Blue Grama	18	1.23
Bromus ciliatus	Fringed Brome	8	2.18
Bromus kalmii	Kalm's Brome	3	1.02
Elymus canadensis	Canada Wild Rye	6	3.14
Elymus trachycaulus	Slender Wheatgrass	13	6.44
Elymus virginicus	Virginia Wild Rye	7	4.54

Total Guild:	55	18.54	76.28%	37.6%
--------------	----	-------	--------	-------

## Sedge

Carex vulpinoidea	Brown Fox Sedge	1.5	0.04
-------------------	-----------------	-----	------

Total Guild:	1.5	0.04	2.08%	0.1%
--------------	-----	------	-------	------

Total Seed Mix:	72.1	49.35
-----------------	------	-------

## Pilot

## Silvopasture Southeast

Function: Production

Intent: Vegetation establishment in silvopasture areas

Planting Area: SE

Specialization: NRCS 512

Scientific Name	Common Name	Seeds/ sq ft	Rate (lb/ac)	% Mix (by sqft)	% Mix (by wt)
-----------------	-------------	-----------------	-----------------	--------------------	------------------

### Cover

Avena sativa	Oats* (See Cover crop note)	1.42	4.83
--------------	-----------------------------	------	------

Total Guild:	1.42	4.83	3.58%	30.3%
--------------	------	------	-------	-------

### Graminoid

Bromus kalmii	Kalm's Brome	1.8	0.61
---------------	--------------	-----	------

Elymus canadensis	Canada Wild Rye	3	1.57
-------------------	-----------------	---	------

Elymus trachycaulus	Slender Wheatgrass	4	1.98
---------------------	--------------------	---	------

Elymus virginicus	Virginia Wild Rye	3	1.94
-------------------	-------------------	---	------

Festuca rubra	Red Fescue	10	1.18
---------------	------------	----	------

Panicum virgatum	Switchgrass	8	1.56
------------------	-------------	---	------

Total Guild:	29.8	8.85	75.21%	55.5%
--------------	------	------	--------	-------

### Legume

Astragalus canadensis	Canada Milk Vetch	1.5	0.24
-----------------------	-------------------	-----	------

Chamaecrista fasciculata	Partridge Pea	1	1.01
--------------------------	---------------	---	------

Dalea candida	White Prairie Clover	3	0.43
---------------	----------------------	---	------

Dalea purpurea	Purple Prairie Clover	2.5	0.45
----------------	-----------------------	-----	------

Lespedeza capitata	Round-headed Bush Clover	0.4	0.14
--------------------	--------------------------	-----	------

Total Guild:	8.4	2.27	21.20%	14.2%
--------------	-----	------	--------	-------

Total Seed Mix:	39.62	15.95
-----------------	-------	-------

# Stormwater Pond Pollinator Northeast

Function: Stormwater

Intent: Stormwater pond vegetation establishment for pollinator habitat establishment

Planting Area: NE

Specialization:

Scientific Name	Common Name	Seeds/ sq ft	Rate (lb/ac)	% Mix (by sqft)	% Mix (by wt)
<b>Cover</b>					
Avena sativa	Oats* (See Cover crop note)	11.14	37.91		
Total Guild:		11.14	37.91	8.74%	79.7%

<b>Forb</b>					
Agastache foeniculum	Blue Giant Hyssop	3	0.09		
Asclepias incarnata	Marsh Milkweed	0.22	0.12		
Asclepias syriaca	Common Milkweed	0.32	0.22		
Asclepias tuberosa	Butterfly Milkweed	0.09	0.06		
Eupatorium perfoliatum	Common Boneset	4	0.07		
Eutrochium maculatum	Spotted Joe Pye Weed	2	0.06		
Gentiana andrewsii	Bottle Gentian	5	0.05		
Helenium autumnale	Autumn Sneezeweed	6.5	0.14		
Lobelia siphilitica	Great Lobelia	6	0.03		
Mimulus ringens	Blue Monkey Flower	20	0.02		
Monarda fistulosa	Wild Bergamot	5	0.19		
Oligoneuron rigidum	Stiff Goldenrod	3.1	0.21		
Pycnanthemum virginianum	Virginia Mountain Mint	3	0.04		
Rudbeckia hirta	Black-eyed Susan	4	0.12		
Sisyrinchium campestre	Field Blue-eyed Grass	0.17	0.01		
Symphotrichum novae-angliae	New England Aster	2	0.08		
Verbena hastata	Blue Vervain	5.8	0.17		
Zizia aurea	Golden Alexanders	0.05	0.01		
Total Guild:		70.25	1.69	55.15%	3.6%

<b>Graminoid</b>					
Andropogon gerardii	Big Bluestem	5	1.36		

Beckmannia syzigachne	American Slough Grass	10	0.54
Bromus ciliatus	Fringed Brome	3	0.82
Elymus canadensis	Canada Wild Rye	1.5	0.79
Elymus trachycaulus	Slender Wheatgrass	2	0.99
Elymus virginicus	Virginia Wild Rye	1.5	0.97
Panicum virgatum	Switchgrass	4	0.78
Poa palustris	Fowl Bluegrass	12	0.25
Sorghastrum nutans	Indian Grass	4	0.91

Total Guild:	43	7.41	33.75%	15.6%
--------------	----	------	--------	-------

### Legume

Dalea purpurea	Purple Prairie Clover	3	0.54
----------------	-----------------------	---	------

Total Guild:	3	0.54	2.35%	1.1%
--------------	---	------	-------	------

Total Seed Mix:	127.39	47.55
-----------------	--------	-------

### Pilot

## Wet Meadow Forb/Sedge/Rush Southwest

Function: Wetland

Intent: Wet meadow establishment where reed canary grass is a risk and grass specific herbicides will be used

Planting Area: SW

Specialization:

Scientific Name	Common Name	Seeds/ sq ft	Rate (lb/ac)	% Mix (by sqft)	% Mix (by wt)
-----------------	-------------	-----------------	-----------------	--------------------	------------------

### Cover

Avena sativa	Oats* (See Cover crop note)	3.12	10.62
--------------	-----------------------------	------	-------

Total Guild:	3.12	10.62	1.68%	75.8%
--------------	------	-------	-------	-------

### Forb

Asclepias incarnata	Marsh Milkweed	0.43	0.24
Eupatorium perfoliatum	Common Boneset	1.3	0.02
Euthamia graminifolia	Grass-leaved Goldenrod	2.6	0.02
Eutrochium maculatum	Spotted Joe Pye Weed	0.75	0.02
Helenium autumnale	Autumn Sneezeweed	1	0.02
Helianthus grosseserratus	Sawtooth Sunflower	0.2	0.04
Lobelia siphilitica	Great Lobelia	3.2	0.02

Mimulus ringens	Blue Monkey Flower	9	0.01
Pycnanthemum virginianum	Virginia Mountain Mint	5.1	0.06
Solidago gigantea	Giant Goldenrod	2	0.02
Symphotrichum lanceolatum	Eastern Panicked Aster	1.5	0.03
Thalictrum dasycarpum	Tall Meadow-Rue	0.11	0.03
Verbena hastata	Blue Vervain	5	0.15
Vernonia fasciculata	Bunched Ironweed	0.3	0.03
Veronicastrum virginicum	Culver's Root	4.8	0.02
Zizia aurea	Golden Alexanders	1	0.25

Total Guild:	38.29	0.98	20.61%	7.0%
--------------	-------	------	--------	------

### Graminoid

Elymus virginicus	Virginia Wild Rye	1.55	1.00
Leersia oryzoides	Rice Cut Grass	3.1	0.25
Poa palustris	Fowl Bluegrass	16.5	0.35

Total Guild:	21.15	1.60	11.39%	11.4%
--------------	-------	------	--------	-------

### Sedge

Carex pellita	Wooly Sedge	0.5	0.05
Carex scoparia	Lance-fruited Oval sedge	1.6	0.05
Carex stipata	Common Fox Sedge	2.6	0.21
Carex stricta	Tussock Sedge	0.5	0.03
Carex vulpinoidea	Brown Fox Sedge	5	0.14
Juncus tenuis	Path Rush	15	0.04
Scirpus atrovirens	Dark Green Bulrush	35	0.21
Scirpus cyperinus	Woolgrass	63	0.10

Total Guild:	123.2	0.82	66.32%	5.8%
--------------	-------	------	--------	------

Total Seed Mix:	185.76	14.01
-----------------	--------	-------

# Wetland Construction General

Function: Wetland	Intent: Establishment of native vegetation on embankments and other constructed areas as part of wetland restoration projects
Planting Area: Statewide	
Specialization: NRCS 342	

Scientific Name	Common Name	Seeds/ sq ft	Rate (lb/ac)	% Mix (by sqft)	% Mix (by wt)
<b>Cover</b>					
Avena sativa	Oats* (See Cover crop note)	11.14	37.91		
Total Guild:		11.14	37.91	14.85%	73.3%

<b>Forb</b>					
Asclepias syriaca	Common Milkweed	0.16	0.11		
Monarda fistulosa	Wild Bergamot	0.39	0.02		
Rudbeckia hirta	Black-eyed Susan	3	0.09		
Verbena hastata	Blue Vervain	0.8	0.02		
Total Guild:		4.35	0.24	5.80%	0.5%

<b>Graminoid</b>					
Andropogon gerardii	Big Bluestem	5.5095	1.50		
Beckmannia syzigachne	American Slough Grass	6.06	0.33		
Bouteloua curtipendula	Side-oats Grama	1.6088	0.73		
Bromus ciliatus	Fringed Brome	3.7832	1.03		
Elymus canadensis	Canada Wild Rye	3.82	2.00		
Elymus trachycaulus	Slender Wheatgrass	5.0505	2.50		
Elymus virginicus	Virginia Wild Rye	3.0854	2.00		
Panicum virgatum	Switchgrass	7.7135	1.50		
Poa palustris	Fowl Bluegrass	15.28	0.32		
Sorghastrum nutans	Indian Grass	6.6115	1.50		
Total Guild:		58.5224	13.41	78.02%	25.9%

<b>Legume</b>					
Dalea purpurea	Purple Prairie Clover	1	0.18		
Total Guild:		1	0.18	1.33%	0.4%
Total Seed Mix:		75.0124	51.74		

