Central Wet-Mesic Tallgrass Prairie

Site Characteristics: Stands typically occur in narrow draws of headwaters of small streams, depressions of terraces (sometimes uplands), and on shallow depressions within floodplains of larger streams and rivers. Some stands occur on sandy outwash plains, lakeplains, and shallow swales. The sites are typically level to gently sloping. The soils are sands, loamy sands, silt loams and sandy loams. Some are found on clay loams or silty clays. The loamy soils are somewhat poorly drained and deep (100 cm or more). They have deep, acidic, dark A horizons which are high in organic matter. There is faint evidence of gleying immediately beneath the A horizon. The parent material is typically alluvium, although in headwater draws, loess, glacial till, or deeply weathered rock are likely to be the parent material. Standing surface water may be present for short periods in the winter and spring or after heavy rains. Stands are found on soils that are imperfectly or somewhat imperfectly drained. The soils often have a slowly permeable layer within the profile, a high water table, additions of moisture through seepage, or a combination of several of these conditions.

Vegetation Characteristics: This community is an extensive grassland with a tree canopy of less than 10% occurring as scattered individuals or clumps. There is a single layer of dominant graminoids intermixed with abundant forbs (min. 60% cover). Big Bluestem and Prairie Cordgrass are dominant species exceeding 2 m in height in this wet-mesic community. Switchgrass is usually somewhat shorter but still greater than 1 m tall. Other typical plants found in this community are Inland Rush, Gama Grass, Saw-tooth Sunflower, Common cinquefoil, Rattlesnake Master, Bicknell's Sedge, and Canada Bluejoint. Little Bluestem can be found on sites subject to seasonal drought. Species diversity does not tend to be as high as in more mesic grassland communities.

Range:

Conservation Status: G2 – Imperiled (S1)

Management Considerations: This community has nearly been eliminated because of conversion to cropland. Fire plays a role in the maintenance of this wet-mesic prairie, with an average fire frequency of every two to five years. Woody species can become more abundant in the absence of fire.

	CENTRAL WET-MESIC TALLGRASS PRAIRIE						
SCIENTIFIC NAME	COMMON NAME	STRATA	FUNCTIONAL GROUP	IA CofC	SEEDS PER LB	STATE STATUS	
Andropogon gerardii	Big bluestem	Herbaceous Layer, Dominant	P-GRASS, WARM SEASON	4	160000		
Calamagrostis canadensis	Bluejoint	Herbaceous Layer	P-GRASS, COOL SEASON	5	4480000		
Carex bicknellii	Bicknell's sedge	Herbaceous Layer	P-SEDGE, COOL SEASON	10	272000		
Carex spp.	True Sedges	Herbaceous Layer	SEDGE, COOL SEASON				
Elymus canadensis	Canada wild rye	Herbaceous Layer	P-GRASS, COOL SEASON	5	83200		
Eryngium yuccifolium	Rattlesnake master	Herbaceous Layer	P-FORB	8	120000		
Helianthus grosseserratus	Saw-tooth sunflower	Herbaceous Layer	P-FORB	4	240000		
Hypericum mutilum	Dwarf St. John's wort	Herbaceous Layer	P-FORB	7			
Juncus interior	Inland rush	Herbaceous Layer	P-SEDGE, COOL SEASON	2	44800000		
Liatris pycnostachya	Prairie blazing star	Herbaceous Layer	P-FORB	6	176000		
Lysimachia quadriflora	Narrow-leaved loosestrife	Herbaceous Layer	P-FORB	7	1440000		
Oenothera pilosella	Prairie sundrops	Herbaceous Layer	P-FORB	7	4256000		
Packera paupercula	Prairie ragwort	Herbaceous Layer	P-FORB	5			
Panicum virgatum	Switchgrass	Herbaceous Layer	P-GRASS, WARM SEASON	5	224000		
Pascopyrum smithii	Western wheatgrass	Herbaceous Layer	P-GRASS, COOL SEASON	2	115008		
Penstemon digitalis	Foxglove penstemon	Herbaceous Layer	P-FORB	4	2080000		
Physostegia virginiana	False dragonhead	Herbaceous Layer	P-FORB	6	176000		
Potentilla simplex	Common cinquefoil	Herbaceous Layer	P-FORB	3			
Pycnanthemum virginianum	Common mountain mint	Herbaceous Layer	P-FORB	4	3520000		
Ratibida columnifera	Long-headed coneflower	Herbaceous Layer	P-FORB	4	320000		
Ratibida pinnata	Gray-headed coneflower	Herbaceous Layer	P-FORB	4	672000		
Schizachyrium scoparium	Little bluestem	Herbaceous Layer	P-GRASS, WARM SEASON	5	240000		
Sorghastrum nutans	Indian grass	Herbaceous Layer	P-GRASS, WARM SEASON	4	192000		
Spartina pectinata	Slough grass, cord grass	Herbaceous Layer, Dominant	P-GRASS, WARM SEASON	4	105600		
Thalictrum dasycarpum	Purple meadow-rue	Herbaceous Layer	P-FORB	4	176000		
Tripsacum dactyloides	Gama grass	Herbaceous Layer	P-GRASS, WARM SEASON	3	5920		
Veronicastrum virginicum	Culver's root	Herbaceous Layer	P-FORB	5	12800000		

Iowa NRCS Plant Community Description

This community description is a compilation of the Community Association and it's over-riding Community Alliance description as provided by NatureServe (www.natureserve.org/explorer). Where necessary, community descriptions were adapted as recommended by Iowa plant community experts.

3/12/2009

CENTRAL WET-MESIC TALLGRASS PRAIRIE							
SCIENTIFIC NAME	COMMON NAME	STRATA	FUNCTIONAL GROUP		SEEDS PER LB		
Zizia aurea	Golden Alexander's	Herbaceous Layer	P-FORB	6	176000		

Iowa NRCS Plant Community Description

CENTRAL WET-MESIC TALLGRASS PRAIRIE

Agalinis tenuifolia Slenderleaf false for Andropogon gerardii Bidens cernua Nodding bur marigum Calamagrostis canadensis Bluejoint Bebb's oval sedge Carex bicknellii Bicknell's sedge Carex vulpinoidea Brown fox sedge Chamaecrista fasciculata Partridge pea Chelone glabra White turtlehead Echinacea pallida Pale coneflower Elymus canadensis Canada wild rye Eryngium yuccifolium Rattlesnake master Eupatorium maculatum Spotted Joe-pye-w Galium boreale Helenium autumnale Sneezeweed Helenium austumnale Sneezeweed Helenium asseyon Giant St. John's wc Hyporicum ascryon Giant St. John's wc Hypoxis hirsuta Yellow stargrass Juncus interior Inland rush Liatris pycnostachya Prairie blazing star Lobelia cardinalis Cardinal flower Panicum virgatum Switchgrass Pascopyrum smithii Western wheatgras Pascopyrum smithii Western wheatgras Penstemon digitalis Foxglove penstema Physostegia virginiana False dragonhead Pycnanthemum virginianum Common mountain Ratibida pinnata Gray-headed conef Symphyotrichum novae-angliae New England aster Thalictrum dasycarpum Finalctrum dasycarpum Purple meadow-rus False Gragon Beatwo False dragonhead Spartina pectinata Slough grass, cor Symphyotrichum novae-angliae New England aster Thalictrum dasycarpum Finalctrum dasycarpum Purple meadow-rus Fripsacum dactyloides Gama grass Veronicastrum virginicum Culver's root Zizia aurea Golden Alexander's	oold er veed er oort sesstrife	12,800,000 160,000 336,000 4,480,000 544,000 272,000 1,600,000 43,200 1,472,000 83,200 120,000 1,520,000 1,120,000 2,080,000 240,000 3,040,000 1,280,000 44,800,000 176,000 6,400,000	0.98 1.75 0.98 2.00 2.00 1.00 1.75 0.98 0.50 2.00 0.75 0.98 0.70 0.91 0.20 0.98 0.15 2.00 0.40	2.5% 4.4% 5.0% 5.0% 2.5% 4.4% 2.5% 4.4% 2.5% 1.3% 5.0% 1.9% 2.5% 1.8% 2.3% 0.5% 2.5% 2.5% 6.4% 5.0%	LB	\$0,0000 \$0,0000 \$0,0000 \$0,0000 \$0,0000 \$0,0000 \$0,0000 \$0,0000 \$0,0000 \$0,0000 \$0,0000 \$0,0000 \$0,0000 \$0,0000 \$0,0000 \$0,0000 \$0,0000 \$0,0000 \$0,0000	0.00 0.48 0.13 0.02 0.16 0.16 0.05 0.99 0.03 0.26 1.05 0.27	4 2 5 8 10 3 1 8 7 5 10 5	FUNCTIONAL GROUP A-FORB, HEMIPARASITE P-GRASS, WARM SEASON A-FORB P-GRASS, COOL SEASON P-SEDGE, COOL SEASON P-SEDGE, COOL SEASON P-SEDGE, COOL SEASON P-SEDGE, COOL SEASON A-FORB, LEGUME P-FORB P-FORB P-GRASS, COOL SEASON P-FORB P-FORB
Andropogon gerardii Bidens cernua Calamagrostis canadensis Carex bebbii Carex bebbii Carex bebbii Bidens cernua Bidejoint Bebb's oval sedge Carex vulpinoidea Brown fox sedge Chamaecrista fasciculata Chelone glabra Echinacea pallida Pale coneflower Elymus canadensis Canada wild rye Eryngium yuccifolium Rattlesnake mastet Eupatorium maculatum Spotted Joe-pye-w Galium boreale Helianthus grosseserratus Helenium autumnale Helianthus grosseserratus Hypoxis hirsuta Juncus interior Liatris pycnostachya Lobelia cardinalis Cysimachia quadriflora Olenothera pilosella Oligoneuron riddellii Pascopyrum smithii Pedicularis lanceolata Parici sundrops Penstemon digitalis Phox maculata Wild sweet William Physostegia virginiana Ratibida pinnata Sorghastrum nutans Spartina pectinata Syarplo mountain Ratibida pinnata Sorghastrum Narrow-leaved cone Compon mountain Ratibida pinnata Rospyrum sonprium Sorghastrum Common mountain Ratibida pinnata Rospyrium scoparium Senecio congestus Marsh fleabane Sorghastrum nutans Spartina pectinata Slough grass, cor Symphyotrichum novae-angliae Thalictrum dasycarpum Purple meadow-rue Tripsacum dactyloides Gama grass Veronicastrum virginicum Culver's root	oold er veed er oort sesstrife	160,000 336,000 4,480,000 544,000 272,000 1,600,000 43,200 1,472,000 83,200 120,000 1,520,000 1,120,000 2,080,000 240,000 1,280,000 1,280,000 44,800,000 176,000	1.75 0.98 2.00 2.00 1.00 1.75 0.98 0.98 0.50 2.00 0.75 0.98 0.70 0.91 0.20 0.98 0.15 2.00	4.4% 2.5% 5.0% 5.0% 2.5% 4.4% 2.5% 2.5% 1.3% 5.0% 1.9% 2.5% 1.8% 2.3% 0.5% 0.5% 0.4%		\$0.0000 \$0.0000 \$0.0000 \$0.0000 \$0.0000 \$0.0000 \$0.0000 \$0.0000 \$0.0000 \$0.0000 \$0.0000 \$0.0000 \$0.0000	0.48 0.13 0.02 0.16 0.16 0.05 0.99 0.03 0.26 1.05 0.27 0.03	4 2 5 8 10 3 1 8 7 5 10 5	P-GRASS, WARM SEASON A-FORB P-GRASS, COOL SEASON P-SEDGE, COOL SEASON P-SEDGE, COOL SEASON P-SEDGE, COOL SEASON A-FORB, LEGUME P-FORB P-FORB P-GRASS, COOL SEASON P-FORB P-FORB
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Echinacea pallida Pale coneflower Elymus canadensis Canada wild rye Eryngium yuccifolium Rattlesnake master Eupatorium maculatum Spotted Joe-pye-w Galium boreale Northern bedstraw Helenium autumnale Sneezeweed Helianthus grosseserratus Saw-tooth sunflowe Hypericum ascryon Giant St. John's word Hypoxis hirsuta Yellow stargrass Juncus interior Inland rush Liatris pycnostachya Prairie blazing star Lobelia cardinalis Cardinal flower Lysimachia quadriflora Narrow-leaved loos Oenothera pilosella Prairie sundrops Oligoneuron riddellii Riddell's goldenrod Panicum virgatum Switchgrass Pascopyrum smithii Western wheatgras Pedicularis lanceolata Swamp lousewort Penstemon digitalis Foxglove penstemo Phlox maculata Wild sweet William Physostegia virginiana False dragonhead Pycnanthemum virginianum Common mountain Ratibida pinnata Gray-headed conel Rosa palustris Swamp rose Schizachyrium scoparium Little bluestem Senecio congestus Marsh fleabane Sorghastrum nutans Indian grass Spartina pectinata Symphyotrichum novae-angliae New England aster Thalictrum dasycarpum Purple meadow-rue Tradescantia ohiensis Common spiderwo Tripsacum dactyloides Gama grass Veronicastrum virginicum Culver's root	er ont	83,200 83,200 120,000 1,520,000 1,120,000 2,080,000 240,000 3,040,000 1,280,000 44,800,000	0.50 2.00 0.75 0.98 0.70 0.91 0.20 0.98 0.15 2.00	1.3% 5.0% 1.9% 2.5% 1.8% 0.5% 2.5% 0.4%		\$0.0000 \$0.0000 \$0.0000 \$0.0000 \$0.0000	0.26 1.05 0.27 0.03 0.03	7 5 10 5	P-FORB P-GRASS, COOL SEASON P-FORB P-FORB
Elymus canadensis Eryngium yuccifolium Rattlesnake master Eupatorium maculatum Spotted Joe-pye-w. Galium boreale Helenium autumnale Helenium autumnale Helianthus grosseserratus Saw-tooth sunflowe Hypericum ascryon Hypoxis hirsuta Juncus interior Liatris pycnostachya Liatris pycnostachya Lysimachia quadriflora Oenothera pilosella Oligoneuron riddellii Panicum virgatum Pascopyrum smithii Pedicularis lanceolata Penstemon digitalis Posglove pensteme Phlox maculata Pycnanthemum virginianum Ratibida pinnata Rosa palustris Sorghastrum nutans Spartina pectinata Syung laras Sund grass, cor Symphyotrichum novae-angliae Trajes autum ospidervo Gaint St. John's wo Jellow stargrass Lyellow stargrass Jellow stargrass Lindan grass Cardinal flower Larrie blazing star Cardinal flower Larrie blazing star Lobelia cardinalis Cardinal flower Larrie blazing star Lobelia cardinalis Ratrow-leaved loos Cardinal flower Narrow-leaved loos Switchgrass Prairie sundrops Switchgrass Pascopyrum smithii Western wheatgras Swamp lousewort Penstemon digitalis Foxglove pensteme Wild sweet William Physostegia virginiana False dragonhead Pycnanthemum virginianum Common mountain Ratibida pinnata Gray-headed conel Rosa palustris Swamp rose Schizachyrium scoparium Little bluestem Senecio congestus Marsh fleabane Sorghastrum nutans Indian grass Spartina pectinata Slough grass, cor Symphyotrichum novae-angliae Thalictrum dasycarpum Purple meadow-rue Tradescantia ohiensis Common spiderwo Tripsacum dactyloides Gama grass Veronicastrum virginicum	er ont	83,200 120,000 1,520,000 1,120,000 2,080,000 240,000 3,040,000 1,280,000 44,800,000	2.00 0.75 0.98 0.70 0.91 0.20 0.98 0.15 2.00	5.0% 1.9% 2.5% 1.8% 2.3% 0.5% 2.5% 0.4%		\$0.0000 \$0.0000 \$0.0000 \$0.0000	1.05 0.27 0.03 0.03	5 10 5	P-GRASS, COOL SEASON P-FORB P-FORB
Eryngium yuccifolium Eupatorium maculatum Spotted Joe-pye-w Galium boreale Helenium autumnale Helenium autumnale Helenium autumnale Helianthus grosseserratus Saw-tooth sunflowe Hypericum ascryon Hypoxis hirsuta Juncus interior Liatris pycnostachya Liatris pycnostachya Lysimachia quadriflora Oenothera pilosella Oligoneuron riddellii Riddell's goldenrod Panicum virgatum Pascopyrum smithii Western wheatgras Pedicularis lanceolata Swamp lousewort Penstemon digitalis Phlox maculata Phyconathemum virginianum Ratibida pinnata Rosa palustris Sorghastrum nutans Spartina pectinata Symphyotrichum novae-angliae Tripsacum dactyloides Camina Rasse Veronicastrum virginicum Ratipore Narrow-leaved loos Rosa palustris Summ prose Schizachyrium scoparium Switchgrass Spartina pectinata Slough grass, cor Symphyotrichum novae-angliae Thalictrum dasycarpum Purple meadow-rue Tripsacum dactyloides Gama grass Veronicastrum virginicum Culver's root	er ont	120,000 1,520,000 1,120,000 2,080,000 240,000 3,040,000 1,280,000 44,800,000 176,000	0.75 0.98 0.70 0.91 0.20 0.98 0.15 2.00	1.9% 2.5% 1.8% 2.3% 0.5% 2.5% 0.4%		\$0.0000 \$0.0000 \$0.0000	0.27 0.03 0.03	10	P-FORB P-FORB
Eupatorium maculatum Galium boreale Helenium autumnale Helenium autumnale Helenium autumnale Helianthus grosseserratus Saw-tooth sunflowe Hypericum ascryon Giant St. John's wo Hypoxis hirsuta Juncus interior Liatris pycnostachya Liatris pycnostachya Lysimachia quadriflora Denothera pilosella Prairie sundrops Oligoneuron riddellii Riddell's goldenrod Panicum virgatum Switchgrass Pascopyrum smithii Western wheatgras Pedicularis lanceolata Swamp lousewort Penstemon digitalis Phox maculata Wild sweet William Physostegia virginiana Pycnanthemum virginianum Common mountain Ratibida pinnata Gray-headed conel Rosa palustris Sorghastrum nutans Siough grass, cor Symphyotrichum novae-angliae Thalictrum dasycarpum Tripsacum dactyloides Gama grass Veronicastrum virginicum Culver's root	er ont	1,520,000 1,120,000 2,080,000 240,000 3,040,000 1,280,000 44,800,000 176,000	0.98 0.70 0.91 0.20 0.98 0.15 2.00	2.5% 1.8% 2.3% 0.5% 2.5% 0.4%		\$0.0000 \$0.0000	0.03 0.03	5	P-FORB
Galium boreale Helenium autumnale Hypexieum ascryon Hyppoxis hirsuta Yellow stargrass Juncus interior Liatris pycnostachya Liatris pycnostachya Liatris pycnostachya Lobelia cardinalis Cardinal flower Lysimachia quadriflora Narrow-leaved loos Oenothera pilosella Prairie sundrops Oligoneuron riddellii Riddell's goldenrod Panicum virgatum Switchgrass Pascopyrum smithii Western wheatgras Pedicularis lanceolata Swamp lousewort Penstemon digitalis Foxglove penstemo Phlox maculata Wild sweet William Physostegia virginiana Pycnanthemum virginianum Ratibida pinnata Gray-headed conel Rosa palustris Sehizachyrium scoparium Little bluestem Senecio congestus Sorghastrum nutans Indian grass Spartina pectinata Slough grass, cor Symphyotrichum novae-angliae New England aster Thalictrum dasycarpum Purple meadow-rue Tradescamtia ohiensis Common spiderwo Tripsacum dactyloides Gama grass Veronicastrum virginicum Culver's root	er ort sestrife	1,120,000 2,080,000 240,000 3,040,000 1,280,000 44,800,000 176,000	0.70 0.91 0.20 0.98 0.15 2.00	1.8% 2.3% 0.5% 2.5% 0.4%		\$0.0000	0.03		
Helenium autumnale Heleinium autumnale Helianthus grosseserratus Saw-tooth sunflowe Hypericum ascryon Hypoxis hirsuta Juncus interior Liatris pycnostachya Lobelia cardinalis Lysimachia quadriflora Oenothera pilosella Oligoneuron riddellii Panicum virgatum Pascopyrum smithii Pedicularis lanceolata Physostegia virginiana Physostegia virginiana Physostegia virginianum Ratibida pinnata Rosa palustris Sorghastrum nutans Spartina pectinata Symphyotrichum novae-angliae Tradescantia ohiensis Tripsacum digtris yellower sout	er ort sestrife	2,080,000 240,000 3,040,000 1,280,000 44,800,000 176,000	0.91 0.20 0.98 0.15 2.00	2.3% 0.5% 2.5% 0.4%				7 1	
Helianthus grosseserratus Hypericum ascryon Hypericum ascryon Hypoxis hirsuta Juncus interior Liatris pycnostachya Lobelia cardinalis Cardinal flower Lysimachia quadriflora Oenothera pilosella Prairie sundrops Oligoneuron riddellii Riddell's goldenrod Panicum virgatum Pascopyrum smithii Western wheatgras Pedicularis lanceolata Phlox maculata Physostegia virginiana Physostegia virginiana Ratibida pinnata Rosa palustris Sorghastrum nutans Sorghastrum purple meadow-rue Sorghastrum nutans Spartina pectinata Syamp lousewort Little bluestem Sorghastrum novae-angliae Thalictrum dasycarpum Purple meadow-rue Tradescantia ohiensis Common spiderwo Culver's root	ort sestrife	240,000 3,040,000 1,280,000 44,800,000 176,000	0.20 0.98 0.15 2.00	0.5% 2.5% 0.4%		\$0.0000			P-FORB
Hypericum ascryon Hypoxis hirsuta Hinland rush Liatris pycnostachya Lobelia cardinalis Cardinal flower Lysimachia quadriflora Narrow-leaved loos Oenothera pilosella Prairie sundrops Oligoneuron riddellii Riddell's goldenrod Panicum virgatum Switchgrass Pascopyrum smithii Western wheatgras Pedicularis lanceolata Swamp lousewort Penstemon digitalis Foxglove penstemo Phlox maculata Wild sweet William Physostegia virginiana False dragonhead Pycnanthemum virginianum Ratibida pinnata Gray-headed conet Rosa palustris Swamp rose Schizachyrium scoparium Senecio congestus Marsh fleabane Sorghastrum nutans Indian grass Spartina pectinata Slough grass, cor Symphyotrichum novae-angliae Thalictrum dasycarpum Purple meadow-rue Tradescantia ohiensis Common spiderwo Tripsacum dactyloides Gama grass Veronicastrum virginicum Culver's root	ort sestrife	3,040,000 1,280,000 44,800,000 176,000	0.98 0.15 2.00	2.5% 0.4%			0.02		P-FORB
Hypoxis hirsuta Juncus interior Liatris pycnostachya Lobelia cardinalis Lysimachia quadriflora Cardinal flower Lysimachia quadriflora Oenothera pilosella Prairie sundrops Oligoneuron riddellii Panicum virgatum Pascopyrum smithii Western wheatgras Pedicularis lanceolata Penstemon digitalis Phox maculata Physostegia virginiana Pycnanthemum virginianum Ratibida pinnata Rosa palustris Seneico congestus Sorghastrum nutans Symphyotrichum novae-angliae Thalictrum dasycarpum Tradescamtia Oliginioum Pupie meadow-rue Tradescamtia ohiensis Common spiderwo Culver's root	sestrife	1,280,000 44,800,000 176,000	0.15 2.00	0.4%		\$0.0000	0.04		P-FORB
Juncus interior Inland rush Liatris pycnostachya Prairie blazing star Lobelia cardinalis Cardinal flower Lysimachia quadriflora Narrow-leaved loos Oenothera pilosella Prairie sundrops Oligoneuron riddellii Riddell's goldenrod Panicum virgatum Switchgrass Pascopyrum smithii Western wheatgras Pedicularis lanceolata Swamp lousewort Penstemon digitalis Foxglove penstemo Phlox maculata Wild sweet William Physostegia virginiana False dragonhead Pycnanthemum virginianum Common mountain Ratibida pinnata Gray-headed conel Rosa palustris Swamp rose Schizachyrium scoparium Little bluestem Senecio congestus Marsh fleabane Sorghastrum nutans Indian grass Spartina pectinata Slough grass, cor Symphyotrichum novae-angliae New England aster Thalictrum dasycarpum Purple meadow-rue Tradescantia ohiensis Common spiderwo Tripsacum dactyloides Gama grass Veronicastrum virginicum Culver's root	sestrife	44,800,000 176,000	2.00	_		\$0.0000	0.01		P-FORB
Liatris pycnostachya Lobelia cardinalis Cardinal flower Lysimachia quadriflora Oenothera pilosella Oligoneuron riddellii Panicum virgatum Pascopyrum smithii Pedicularis lanceolata Phlox maculata Physostegia virginiana Pycnanthemum virginianum Ratibida pinnata Rosa palustris Sorghastrum nutans Spartina pectinata Symphyotrichum novae-angliae Tradescamtia ohiensis Cardinal flower Prairie blazing star Narrow-leaved loos Prairie sundrops Riddell's goldenrod Riddell's goldenrod Riddell's goldenrod Riddell's goldenrod Riddell's goldenrod Rosa yellousewort Rosa palustris Swamp rose Schizachyrium scoparium Sonecio congestus Sorghastrum nutans Spartina pectinata Slough grass, cor Symphyotrichum novae-angliae Thalictrum dasycarpum Purple meadow-rue Tripsacum dactyloides Gama grass Veronicastrum virginicum Culver's root	sestrife	176,000		5.0%		\$0.0000	0.01		P-FORB
Lobelia cardinalis Lysimachia quadriflora Narrow-leaved loos Oenothera pilosella Prairie sundrops Oligoneuron riddellii Palicum virgatum Pascopyrum smithii Pedicularis lanceolata Phlox maculata Physostegia virginiana Physostegia virginiana Ratibida pinnata Rosa palustris Sorghastrum nutans Spartina pectinata Syamp lousewort Penstemon digitalis Foxglove penstemo Phlox maculata Pylox maculata Physostegia virginiana Palse dragonhead Pycnanthemum virginianum Common mountain Ratibida pinnata Gray-headed conel Rosa palustris Swamp rose Schizachyrium scoparium Little bluestem Senecio congestus Marsh fleabane Sorghastrum nutans Indian grass Spartina pectinata Slough grass, cor Symphyotrichum novae-angliae Thalictrum dasycarpum Purple meadow-rue Tradescantia ohiensis Common spiderwo Tripsacum dactyloides Gama grass Veronicastrum virginicum Culver's root	sestrife		0.40	_		\$0.0000	0.00		P-SEDGE, COOL SEASON
Lysimachia quadriflora Oenothera pilosella Oligoneuron riddellii Riddell's goldenrod Panicum virgatum Pascopyrum smithii Pedicularis lanceolata Penstemon digitalis Phlox maculata Physostegia virginiana Pycnanthemum virginianum Ratibida pinnata Rosa palustris Sencio congestus Sorghastrum nutans Spartina pectinata Syamp lousewort Penstemon digitalis Foxglove penstemo Wild sweet William Physostegia virginiana Pycnanthemum virginianum Common mountain Ratibida pinnata Gray-headed conet Rosa palustris Swamp rose Schizachyrium scoparium Little bluestem Senecio congestus Marsh fleabane Sorghastrum nutans Indian grass Spartina pectinata Slough grass, cor Symphyotrichum novae-angliae Thalictrum dasycarpum Purple meadow-rue Tradescantia ohiensis Common spiderwo Tripsacum dactyloides Gama grass Veronicastrum virginicum Culver's root		6,400,000		1.0%		\$0.0000	0.10		P-FORB
Oenothera pilosella Prairie sundrops Oligoneuron riddellii Riddell's goldenrod Panicum virgatum Switchgrass Pascopyrum smithii Western wheatgras Pedicularis lanceolata Swamp lousewort Penstemon digitalis Foxglove penstemo Phlox maculata Wild sweet William Physostegia virginiana False dragonhead Pycnanthemum virginianum Common mountain Ratibida pinnata Gray-headed conel Rosa palustris Swamp rose Schizachyrium scoparium Little bluestem Senecio congestus Marsh fleabane Sorghastrum nutans Indian grass Spartina pectinata Slough grass, cor Symphyotrichum novae-angliae New England aster Thalictrum dasycarpum Purple meadow-rue Tradescantia ohiensis Common spiderwo Tripsacum dactyloides Gama grass Veronicastrum virginicum Culver's root			0.98	2.5%		\$0.0000	0.01	5	P-FORB
Oligoneuron riddellii Riddell's goldenrod Panicum virgatum Switchgrass Pascopyrum smithii Western wheatgras Pedicularis lanceolata Swamp lousewort Penstemon digitalis Foxglove penstemor Penstemon digitalis Foxglove penstemor Phlox maculata Wild sweet William Physostegia virginiana False dragonhead Pycnanthemum virginianum Common mountain Rosa palustris Swamp rose Schizachyrium scoparium Little bluestem Senecio congestus Marsh fleabane Sorghastrum nutans Indian grass Spartina pectinata Slough grass, cor Symphyotrichum novae-angliae New England aster Thalictrum dasycarpum Purple meadow-rue Tradescantia ohiensis Common spiderwo Veronicastrum virginicum Culver's root	1	1,440,000	0.50	1.3%		\$0.0000	0.02		P-FORB
Panicum virgatum Pascopyrum smithii Pedicularis lanceolata Penstemon digitalis Phlox maculata Physostegia virginiana Pycnanthemum virginianum Ratibida pinnata Rosa palustris Schizachyrium scoparium Senecio congestus Sorghastrum nutans Spartina pectinata Slough grass, cor Symphyotrichum novae-angliae Tradescantia ohiensis Tripsacum dactyloides Veronicastrum virginicum Switchgrass Switchgrass Switchgrass Swamp rose Little bluestem Marsh fleabane Sorghastrum nutans Slough grass, cor Symphyotrichum novae-angliae Thalictrum dasycarpum Purple meadow-rue Tradescantia ohiensis Common spiderwo Tripsacum dactyloides Gama grass Veronicastrum virginicum Culver's root	1	4,256,000	0.15	0.4%		\$0.0000	0.00		P-FORB
Pascopyrum smithii Western wheatgras Pedicularis lanceolata Swamp lousewort Penstemon digitalis Foxglove pensteme Phlox maculata Wild sweet William Physostegia virginiana False dragonhead Pycnanthemum virginianum Common mountain Ratibida pinnata Gray-headed conet Rosa palustris Swamp rose Schizachyrium scoparium Little bluestem Senecio congestus Marsh fleabane Sorghastrum nutans Indian grass Spartina pectinata Slough grass, cor Symphyotrichum novae-angliae New England aster Thalictrum dasycarpum Purple meadow-rue Tradescantia ohiensis Common spiderwo Tripsacum dactyloides Gama grass Veronicastrum virginicum Culver's root		1,488,000	1.00	2.5%		\$0.0000	0.03		P-FORB
Pedicularis lanceolata Penstemon digitalis Phlox maculata Phlox maculata Physostegia virginiana Pycnanthemum virginianum Ratibida pinnata Rosa palustris Schizachyrium scoparium Senecio congestus Sorghastrum nutans Spartina pectinata Symphyotrichum novae-angliae Thalictrum dasycarpum Puple meadow-rue Tradescantia ohiensis Tripsacum dactyloides Veronicastrum virginicum Swamp rose Swamp fleabane Indian grass Slough grass, cor Symphyotrichum novae-angliae New England aster Thalictrum dasycarpum Puple meadow-rue Tradescantia ohiensis Common spiderwo Tripsacum dactyloides Gama grass Veronicastrum virginicum Culver's root		224,000	1.50	3.8%		\$0.0000	0.29	5	P-GRASS, WARM SEASON
Penstemon digitalis Phox maculata Physostegia virginiana Physostegia virginiana Physostegia virginiana Pycnanthemum virginianum Ratibida pinnata Rosa palustris Schizachyrium scoparium Senecio congestus Sorghastrum nutans Sorghastrum nutans Indian grass Spartina pectinata Slough grass, cor Symphyotrichum novae-angliae Thalictrum dasycarpum Purple meadow-rue Tradescantia ohiensis Common spiderwo Tripsacum dactyloides Veronicastrum virginicum Villa sweet William William virginicum False dragonhead Gray-headed conel Gray-headed cone	SS	115,008	1.50	3.8%		\$0.0000	0.57		P-GRASS, COOL SEASON
Phlox maculata Wild sweet William Physostegia virginiana Pycnanthemum virginianum Ratibida pinnata Rosa palustris Schizachyrium scoparium Senecio congestus Sorghastrum nutans Spartina pectinata Symphyotrichum novae-angliae Thalictrum dasycarpum Tradescantia ohiensis Tripsacum dactyloides Veronicastrum virginicum Wild sweet William Gray-headed conet Swamp rose Marsh fleabane Indian grass Slough grass, cor Symphyotrichum novae-angliae Purple meadow-rue Tradescantia ohiensis Common spiderwo Tripsacum dactyloides Gama grass Veronicastrum virginicum Culver's root		704,000	0.98	2.5%		\$0.0000	0.06		P-FORB, HEMIPARASITE
Physostegia virginiana False dragonhead Pycnanthemum virginianum Common mountain Ratibida pinnata Gray-headed conel Rosa palustris Swamp rose Schizachyrium scoparium Little bluestem Senecio congestus Marsh fleabane Sorghastrum nutans Indian grass Spartina pectinata Slough grass, cor Symphyotrichum novae-angliae New England aster Thalictrum dasycarpum Purple meadow-rue Tradescantia ohiensis Common spiderwo Tripsacum dactyloides Gama grass Veronicastrum virginicum Culver's root	on	2,080,000	0.98	2.5%		\$0.0000	0.02	4	P-FORB
Pycnanthemum virginianum Ratibida pinnata Gray-headed conet Rosa palustris Swamp rose Schizachyrium scoparium Little bluestem Senecio congestus Marsh fleabane Sorghastrum nutans Indian grass Spartina pectinata Slough grass, cor Symphyotrichum novae-angliae Thalictrum dasycarpum Purple meadow-rue Tradescantia ohiensis Common spiderwo Tripsacum dactyloides Veronicastrum virginicum Common spiderwo Culver's root	1	176,000	0.15	0.4%		\$0.0000	0.04	7	P-FORB
Ratibida pinnata Gray-headed conet Rosa palustris Swamp rose Schizachyrium scoparium Little bluestem Senecio congestus Marsh fleabane Sorghastrum nutans Indian grass Spartina pectinata Slough grass, cor Symphyotrichum novae-angliae New England aster Thalictrum dasycarpum Purple meadow-rue Tradescantia ohiensis Common spiderwo Tripsacum dactyloides Gama grass Veronicastrum virginicum Culver's root		176,000	0.30	0.8%		\$0.0000	0.07	6	P-FORB
Rosa palustris Schizachyrium scoparium Little bluestem Senecio congestus Marsh fleabane Sorghastrum nutans Indian grass Spartina pectinata Slough grass, cor Symphyotrichum novae-angliae New England aster Thalictrum dasycarpum Purple meadow-rue Tradescantia ohiensis Common spiderwo Tripsacum dactyloides Gama grass Veronicastrum virginicum Culver's root	n mint	3,520,000	0.86	2.2%		\$0.0000	0.01	4	P-FORB
Schizachyrium scoparium Senecio congestus Marsh fleabane Sorghastrum nutans Spartina pectinata Symphyotrichum novae-angliae Thalictrum dasycarpum Tradescantia ohiensis Common spiderwo Tripsacum dactyloides Veronicastrum virginicum Little bluestem Marsh fleabane Slough grass, cor Symphyotrichum novae-angliae Purple meadow-rue Tradescantia ohiensis Common spiderwo Culver's root	flower	672,000	0.86	2.2%		\$0.0000	0.06	4	P-FORB
Senecio congestus Sorghastrum nutans Spartina pectinata Symphyotrichum novae-angliae Thalictrum dasycarpum Tradescantia ohiensis Tripsacum dactyloides Veronicastrum virginicum Marsh fleabane Slough grass, cor New England aster Purple meadow-rue Common spiderwo Gama grass Veronicastrum virginicum Culver's root		25,600	0.05	0.1%		\$0.0000	0.09	7	SUB-SHRUB
Senecio congestus Sorghastrum nutans Spartina pectinata Symphyotrichum novae-angliae Thalictrum dasycarpum Tradescantia ohiensis Tripsacum dactyloides Veronicastrum virginicum Marsh fleabane Slough grass, cor New England aster Purple meadow-rue Common spiderwo Gama grass Veronicastrum virginicum Culver's root		240,000	1.50	3.8%		\$0.0000	0.27	5	P-GRASS, WARM SEASON
Spartina pectinata Slough grass, cor Symphyotrichum novae-angliae New England aster Thalictrum dasycarpum Purple meadow-rue Tradescantia ohiensis Common spiderwo Tripsacum dactyloides Gama grass Veronicastrum virginicum Culver's root		160,000	0.25	0.6%		\$0.0000	0.07	10	A-FORB
Symphyotrichum novae-angliae New England aster Thalictrum dasycarpum Purple meadow-rue Tradescantia ohiensis Common spiderwo Tripsacum dactyloides Gama grass Veronicastrum virginicum Culver's root		192,000	2.00	5.0%		\$0.0000	0.45	4	P-GRASS, WARM SEASON
Thalictrum dasycarpum Purple meadow-rue Tradescantia ohiensis Common spiderwo Tripsacum dactyloides Gama grass Veronicastrum virginicum Culver's root	rd grass	105,600	0.80	2.0%		\$0.0000	0.33	4	P-GRASS, WARM SEASON
Tradescantia ohiensis Common spiderwo Tripsacum dactyloides Gama grass Veronicastrum virginicum Culver's root	r	1,056,000	0.98	2.5%		\$0.0000	0.04	3	P-FORB
Tripsacum dactyloides Gama grass Veronicastrum virginicum Culver's root	e	176,000	0.50	1.3%		\$0.0000	0.12	4	P-FORB
Veronicastrum virginicum Culver's root	ort	128,000	0.30	0.8%		\$0.0000	0.10	4	P-FORB
Veronicastrum virginicum Culver's root		5,920	0.20	0.5%		\$0.0000	1.47	3	P-GRASS, WARM SEASON
-		12,800,000	0.97	2.4%		\$0.0000	0.00		P-FORB
	 S	176,000	0.70	1.8%		\$0.0000	0.17		P-FORB
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Graminoid Species	13	Vine Species	0	PLS Seeds/ft ²	40.0	Cost/ft2	\$0.00	Floristic Quality Index	34.9
Forbs & Sub-shrubs		Tree Species	0	PLS lbs/acre*	8.1	Cost/acre	\$0	Mix Conservatism	5.3
Shrub Species	30	Total Species	43			Cost/lb	\$0.00	Simpson's Evenness	73%
Forb & Sub-shrub Seed/ft ²	30	Graminoid	20.00	Shrub Seed/ft ²	0.00	Vine Seed/ft ²	0.00	Tree Seed/ft ²	0.00

CENTRAL WET-MESIC TALLGRASS PRAIRIE

If cell is in red criteria not met. If cell is	in <mark>orange</mark> recommendation not met.
Percent of Mix	Exceeded the 20% of mix maximum for seeds/ft2
Number of Graminoid Species	Minimum of 10 graminoid species not met
Number of Forbs & Sub-shrubs	Minimum of 20 forb and sub-shrub species not met
Total Number of Species	Minimum of 30 species not met
PLS Seeds/ft2	Minimum of 40 seeds/ft ² not met
Graminoid Seed/ft ²	Minimum 20 seeds/ft ² of graminoids not met
Forb & Sub-shrub Seed/ft ²	Minimum 20 seeds/ft ² of forbs and sub-shrubs not met
Floristic Quality Index (FQI)	Floristic quality index is below the required 20.0 minimum.
Mix Conservatism (CC)	Coefficient of Conservatism is below the required 3.0 minimum.
Simpson's Evenness	Evenness (balance) of the mix is below the recommended 70%
Conservatism Guilds:	
Early Successional	Does not fall within the recommended range of 15-33%
	Does not fall within the recommended range of 45-65%
Late Successional	Does not fall within the recommended range of 15-33%

Evenness Calculation	
Sum of Squares	0.03
Simpson's Evenness:	0.73

Conservatism Guilds	Species	Seed/ft ² % mix
EARLY SUCCESSIONAL (0-3)	7	21.0%
MID SUCCESSIONAL (4-7)	30	64.1%
LATE SUCCESSIONAL (8-10)	6	15.0%
	43	100.0%

Functional Group	Seed/ft ² % mix	Species
A-FORB	8.0%	4
A-GRASS, COOL SEASON	0.0%	0
A-GRASS, WARM SEASON	0.0%	0
A-SEDGE, COOL SEASON	0.0%	0
A-SEDGE, WARM SEASON	0.0%	0
B-FORB	0.0%	0
FERN	0.0%	0
HEMIPARASITE	4.9%	2
H-VINE	0.0%	0
LEGUME	2.5%	1
PARASITIC	0.0%	0
P-FORB	41.9%	25
P-GRASS, COOL SEASON	13.8%	3
P-GRASS, WARM SEASON	19.4%	6
P-SEDGE, COOL SEASON	16.9%	4
P-SEDGE, WARM SEASON	0.0%	0
SHRUB	0.0%	0
SUB-SHRUB	0.1%	1
TREE	0.0%	0
W-VINE	0.0%	0
Number of Functional Groups	8	

Seeding Plan

			Page 1 of 2	2
Name			Date	
Prepared by			Tract No.	
			Field No.	
Type of Seeding:	Central Wet-Mesic Tallgrass Prairie	Acres	Contract No.	

	S	eeding Mix Summary			
					Total PLS
Graminoids	Scientific Name	Common Name	Seeds/Ft2	Acre	lb
1	Andropogon gerardii	Big bluestem	1.75	0.476	0.000
2	Calamagrostis canadensis	Bluejoint	2.00	0.019	0.000
3	Carex bebbi	Bebb's oval sedg€	2.00	0.160	0.000
4	Carex bicknelli	Bicknell's sedge	1.00	0.160	0.000
5	Carex vulpinoidea	Brown fox sedge	1.75	0.048	0.000
6	Elymus canadensis	Canada wild rye	2.00	1.047	0.000
7	Juncus interior	Inland rush	2.00	0.002	0.000
8	Panicum virgatum	Switchgrass	1.50	0.292	0.000
9	Pascopyrum smithii	Western wheatgrass	1.50	0.568	0.000
10	Schizachyrium scoparium	Little bluestem	1.50	0.272	0.000
11	Sorghastrum nutans	Indian grass	2.00	0.454	0.000
12	Spartina pectinata	Slough grass, cord grass	0.80	0.330	0.000
13	Tripsacum dactyloides	Gama grass	0.20	1.472	0.000
14		· ·			0.000
15					0.000
16					0.000
17					0.000
18					0.000
19					0.000
20					0.000
21					0.000
		SUBTOTAL GRAMINOIDS	20.00	5.30	0.000
				PLS Lbs /	Total PLS
Forbs/Legumes	Scientific Name	Common Name	Seeds/Ft2	Acre	lb
1	Agalinis tenuifolia	Slenderleaf false foxglov	0.98	0.003	0.000
2	Bidens cernua	Nodding bur marigold	0.98	0.127	0.000
3	Chamaecrista fasciculata	Partridge pea	0.98	0.988	0.000
4	Chelone glabra	White turtlehead	0.98	0.029	0.000
5	Echinacea pallida	Pale coneflower	0.50	0.262	0.000
6	Eryngium yuccifolium	Rattlesnake master	0.75	0.272	0.000
7	Eupatorium maculatum	Spotted Joe-pye-weec	0.98	0.028	0.000
8	Galium boreale	Northern bedstraw	0.70	0.027	0.000
9	Helenium autumnale	Sneezeweec	0.91	0.019	0.000
10	Helianthus grosseserratus	Saw-tooth sunflower	0.20	0.036	0.000
11	Hypericum ascryon	Giant St. John's wort	0.98	0.014	0.000

<u> </u>		SUBTOTAL FORBS	20.00	2.82	0.000
30	Zizia aurea	Golden Alexander's	0.70	0.173	0.000
29	Veronicastrum virginicum	Culver's root	0.97	0.003	0.000
28	Tradescantia ohiensis	Common spiderwort	0.30	0.102	0.000
27	Thalictrum dasycarpum	Purple meadow-rue	0.50	0.124	0.000
26	Symphyotrichum novae-angliae	New England aster	0.98	0.040	0.000
25	Senecio congestus	Marsh fleabane	0.25	0.068	0.000
24	Rosa palustris	Swamp rose	0.05	0.085	0.000
23	Ratibida pinnata	Gray-headed coneflowe	0.86	0.056	0.000
22	Pycnanthemum virginianum	Common mountain mint	0.86	0.011	0.000
21	Physostegia virginiana	False dragonhead	0.30	0.074	0.000
20	Phlox maculata	Wild sweet William	0.15	0.037	0.000
19	Penstemon digitalis	Foxglove penstemor	0.98	0.021	0.000
18	Pedicularis lanceolata	Swamp lousewort	0.98	0.061	0.000
17	Oligoneuron riddellii	Riddell's goldenroc	1.00	0.029	0.000
16	Oenothera pilosella	Prairie sundrops	0.15	0.002	0.000
15	Lysimachia quadriflora	Narrow-leaved loosestrife	0.50	0.015	0.000
14	Lobelia cardinalis	Cardinal flower	0.98	0.007	0.000
13	Liatris pycnostachya	Prairie blazing star	0.40	0.099	0.000
12	Hypoxis hirsuta	Yellow stargrass	0.15	0.005	0.000
11	Hypericum ascryon	Giant St. John's wort	0.98	0.014	0.000
10	Helianthus grosseserratus	Saw-tooth sunflower	0.20	0.036	0.000
9	Helenium autumnale	Sneezeweec	0.91	0.019	0.000
8	Galium boreale	Northern bedstraw	0.70	0.027	0.000
7	Eupatorium maculatum	Spotted Joe-pye-weed	0.98	0.028	0.000
6	Eryngium yuccifolium	Rattlesnake master	0.75	0.272	0.000
5	Echinacea pallida	Pale coneflower	0.50	0.262	0.000
4	Chelone glabra	White turtlehead	0.98	0.029	0.000
3	Chamaecrista fasciculata	Partridge pea	0.98	0.988	0.000
2	Bidens cernua	Nodding bur marigold	0.98	0.127	0.000
1	Agalinis tenuifolia	Slenderleaf false foxglov	0.98	0.003	0.000

TOTAL

40.00

8.118

0.000

SEEDING MIX FLORISITIC QUALITY VALUES

Average Coeffecient of Conservatism	5.3
Floristic Quality Index	34.9

Fertilizer & Lime	General Soil Test	Total Needed lbs
Lime (ECCE) (Actual Lime)	2000	0
Nitrogen	30	0
Phosphate (P205)	30	0
Potash (K20)	40	0

Additional Seeding Criteria: Spring seeding dates are between April 15th to July 1st. D		Do not apply fertilizer. Frost seeding dates Feb. 1st - March 15th. Dormant Seeding dates are between November 15th to freeze up.	
Seeding was completed by	(Date)	according to the above requirements.	
(Producer's Signature)			(Date)
Field Office		Certified by	(NRCS Representative)

When seeding is completed, return seeding plan to the Natural Resources Conservation Services.

For state cost-share projects, attach receipts for seed, fertilizer, lime and mulch.

For Federal cost-share, return receipts to Farm Service Agency.