

Central Cordgrass Wet Prairie

Site Characteristics: Stands occur on lowland areas that are flooded in spring and saturated for much of the growing season. The soils are typically deep, fine-textured, poorly drained, and have high organic content. On some sites there is an impermeable subsurface layer that impedes soil drainage. Stands of this wide-ranging alliance are found on level to gently sloping sites with sand, loam, or clay soils. Wet sand prairies may be more acidic and more likely to become dry in summer; however, floristic characteristics that reflect those factors are not known. Stands may occur near lakes or rivers or in depressions. Locations supporting this alliance are sometimes slightly - moderately alkaline areas along ephemeral, intermittent or perennial streams, and overflow areas of large river floodplains. This alliance can also be found in swales, meadows, and on the margins of marshes, ponds or lakes. The water table is typically high, within 1 m of the surface; the sites are typically flooded for part of the winter and spring. Soil water movement is rapid enough to preclude the accumulation of salts in the surface horizon.

Vegetation Characteristics: A dense layer of graminoids dominates this community. Forbs (min 60% cover) and small trees or shrubs are also common. The vegetation is typically 1-2 m tall. Canada Bluejoint and Prairie Cordgrass are the two most abundant species. Several common Sedge species (*Carex spp.*) found in this community include Common Lake Sedge, Water Sedge, Woolly Sedge, and Hairy-leaved Lake Sedge. Other species that occur with less frequency in this community include Big Bluestem, New England Aster, Wild Strawberry, Northern Bedstraw, Saw-tooth Sunflower, Blue Flag Iris, Prairie Blazing Star, Winged Loosestrife, Cowbane, Switchgrass, Virginia Mountain Mint, Smooth Goldenrod, Purple Meadow-rue, and Culver's root.

Range:

Conservation Status: G3 - Vulnerable

Management Considerations: Periodic prolonged flooding and fire prevent woody vegetation from dominating this community. Prairie Cordgrass is an early colonizer of suitable habitat and is tolerant of sediment deposition. Stands of Prairie Cordgrass have high production rates, however the rough-edged leaves make for poor forage quality, and it is not readily eaten by livestock or wildlife. Its tall height and thick growth provide shade and cover for wildlife and certain bird species.

Iowa NRCS Plant Community Description

This community description is a compilation of the Community Association and its 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 CORDGRASS WET PRAIRIE SPECIES LIST

SCIENTIFIC NAME	COMMON NAME	STRATA	FUNCTIONAL GROUP	IA CofC	SEEDS/LB	STATE STATUS
<i>Amorpha fruticosa</i>	Indigo bush, false indigo	Shrub Layer	SUB-SHRUB, LEGUME	5	59200	
<i>Andropogon gerardii</i>	Big bluestem	Herbaceous Layer	P-GRASS, WARM SEASON	4	160000	
<i>Asclepias incarnata</i>	Swamp milkweed	Herbaceous Layer	P-FORB	4	76800	
<i>Asclepias tuberosa</i>	Butterfly weed	Herbaceous Layer	P-FORB	6	68800	
<i>Baptisia alba</i>	White wild indigo	Herbaceous Layer	P-FORB, LEGUME	6	27200	
<i>Calamagrostis canadensis</i>	Bluejoint	Herbaceous Layer, Dominant	P-GRASS, COOL SEASON	5	4480000	
<i>Carex aquatilis</i>	Water sedge	Herbaceous Layer	P-SEDGE, COOL SEASON	7	795776	
<i>Carex atberodes</i>	Hairy-leaved lake sedge	Herbaceous Layer	P-SEDGE, COOL SEASON	8	464000	
<i>Carex lacustris</i>	Common lake sedge	Herbaceous Layer	P-SEDGE, COOL SEASON	7	512000	
<i>Carex pellita</i>	Woolly sedge	Herbaceous Layer	P-SEDGE, COOL SEASON	4	448000	
<i>Carex sartwellii</i>	Running marsh sedge	Herbaceous Layer	P-SEDGE, COOL SEASON	7	1014748	
<i>Carex spp.</i>	True Sedges	Herbaceous Layer	SEDGE, COOL SEASON			
<i>Cephalanthus occidentalis</i>	Buttonbush	Shrub Layer	SHRUB	6	96000	
<i>Cornus spp.</i>	Dogwood	Shrub Layer	SHRUB			
<i>Crotalaria sagittalis</i>	Rattle box	Herbaceous Layer	A-FORB, LEGUME	6	72000	
<i>Dichanthelium clandestinum</i>	Deertongue grass	Herbaceous Layer	P-GRASS, COOL SEASON	4	350000	
<i>Fragaria virginiana</i>	Wild strawberry	Herbaceous Layer	P-FORB	3	927592	
<i>Galium boreale</i>	Northern bedstraw	Herbaceous Layer	P-FORB	7	1120000	
<i>Helianthus grosseserratus</i>	Saw-tooth sunflower	Herbaceous Layer	P-FORB	4	240000	
<i>Helianthus mollis</i>	Downy sunflower	Herbaceous Layer	P-FORB	6	112000	
<i>Heterotheca villosa</i>	Hairy false goldenaster	Herbaceous Layer	P-FORB	5	1120000	SC
<i>Iris shrevei</i>	Blue flag	Herbaceous Layer	P-FORB	6	16000	
<i>Leersia oryzoides</i>	Rice cut-grass	Herbaceous Layer	P-GRASS, COOL SEASON	2	544000	
<i>Liatris pycnostachya</i>	Prairie blazing star	Herbaceous Layer	P-FORB	6	176000	
<i>Lytbrum alatum</i>	Winged loosestrife	Herbaceous Layer	P-FORB	3	48000000	
<i>Oxypolis rigidior</i>	Cowbane	Herbaceous Layer	P-FORB	8	233600	
<i>Panicum virgatum</i>	Switchgrass	Herbaceous Layer	P-GRASS, WARM SEASON	5	224000	

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SCIENTIFIC NAME	COMMON NAME	STRATA	FUNCTIONAL GROUP	IA CofC	SEEDS/LB	STATE STATUS
<i>Poa palustris</i>	Foul meadow grass	Herbaceous Layer	P-GRASS, COOL SEASON	5	2080000	
<i>Pycnanthemum virginianum</i>	Common mountain mint	Herbaceous Layer	P-FORB	4	3520000	
<i>Rudbeckia hirta</i>	Black-eyed Susan	Herbaceous Layer	P-FORB	2	496000	
<i>Rudbeckia subtomentosa</i>	Fragrant coneflower	Herbaceous Layer	P-FORB	4	433600	
<i>Salix spp.</i>	Willow	Shrub Layer				
<i>Schizachyrium scoparium</i>	Little bluestem	Herbaceous Layer	P-GRASS, WARM SEASON	5	240000	
<i>Sium suave</i>	Water parsnip	Herbaceous Layer	P-FORB	8	453592	
<i>Solidago gigantea</i>	Smooth goldenrod	Herbaceous Layer	P-FORB	3	4000000	
<i>Sorghastrum nutans</i>	Indian grass	Herbaceous Layer	P-GRASS, WARM SEASON	4	192000	
<i>Spartina pectinata</i>	Slough grass, cord grass	Herbaceous Layer, Dominant	P-GRASS, WARM SEASON	4	105600	
<i>Spiranthes cernua</i>	Nodding ladies'-tresses	Herbaceous Layer	P-FORB	4		
<i>Stachys palustris</i>	Woundwort	Herbaceous Layer	P-FORB	4	256000	
<i>Symphotrichum ericoides</i>	Heath aster, frost weed	Herbaceous Layer	P-FORB	3	3200000	
<i>Symphotrichum novae-angliae</i>	New England aster	Herbaceous Layer	P-FORB	3	1056000	
<i>Thalictrum dasycarpum</i>	Purple meadow-rue	Herbaceous Layer	P-FORB	4	176000	
<i>Tripsacum dactyloides</i>	Gama grass	Herbaceous Layer	P-GRASS, WARM SEASON	3	5920	
<i>Veronicastrum virginicum</i>	Culver's root	Herbaceous Layer	P-FORB	5	12800000	
<i>Viola sagittata</i>	Arrow-leaved violet	Herbaceous Layer	P-FORB	7		

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CENTRAL CORDGRASS WET PRAIRIE

SCIENTIFIC NAME	COMMON NAME	SEEDS PER LB	SEEDS PER FT ²	% OF MIX	COST PER LB	COST PER FT ²	LBS PER ACRE	CC	FUNCTIONAL GROUP
Agalinis tenuifolia	Slender false foxglove	12,800,000	2.00	5.0%		\$0.0000	0.01	4	A-FORB, HEMIPARASITE
Amorpha fruticosa	Indigo bush, false indigo	59,200	0.30	0.7%		\$0.0000	0.22	5	SUB-SHRUB, LEGUME
Andropogon gerardii	Big bluestem	160,000	0.55	1.4%		\$0.0000	0.15	4	P-GRASS, WARM SEASON
Asclepias incarnata	Swamp milkweed	76,800	0.20	0.5%		\$0.0000	0.11	4	P-FORB
Asclepias tuberosa	Butterfly weed	68,800	0.15	0.4%		\$0.0000	0.09	6	P-FORB
Baptisia alba	White wild indigo	27,200	0.10	0.2%		\$0.0000	0.16	6	P-FORB, LEGUME
Beckmannia syzigachne	American slough grass	800,000	1.50	3.7%		\$0.0000	0.08	8	A-GRASS, COOL SEASON
Bidens cernua	Nodding bur marigold	336,000	1.20	3.0%		\$0.0000	0.16	2	A-FORB
Calamagrostis canadensis	Bluejoint	4,480,000	2.00	5.0%		\$0.0000	0.02	5	P-GRASS, COOL SEASON
Carex atherodes	Hairy-leaved lake sedge	464,000	0.40	1.0%		\$0.0000	0.04	8	P-SEDGE, COOL SEASON
Carex bebbii	Bebb's oval sedge	544,000	1.70	4.2%		\$0.0000	0.14	8	P-SEDGE, COOL SEASON
Carex lacustris	Common lake sedge	512,000	0.35	0.9%		\$0.0000	0.03	7	P-SEDGE, COOL SEASON
Carex pellita	Wooly sedge	448,000	0.25	0.6%		\$0.0000	0.02	4	P-SEDGE, COOL SEASON
Carex scoparia	Lance-fruited oval sedge	1,344,000	1.50	3.7%		\$0.0000	0.05	5	P-SEDGE, COOL SEASON
Carex vulpinoidea	Brown fox sedge	1,600,000	1.50	3.7%		\$0.0000	0.04	3	P-SEDGE, COOL SEASON
Cephalanthus occidentalis	Buttonbush	96,000	0.01	0.0%		\$0.0000	0.00	6	SHRUB
Chelone glabra	White turtlehead	1,472,000	1.20	3.0%		\$0.0000	0.04	8	P-FORB
Eryngium yuccifolium	Rattlesnake master	120,000	0.75	1.9%		\$0.0000	0.27	8	P-FORB
Galium boreale	Northern bedstraw	1,120,000	0.75	1.9%		\$0.0000	0.03	7	P-FORB
Helianthus grosseserratus	Saw-tooth sunflower	240,000	0.20	0.5%		\$0.0000	0.04	4	P-FORB
Helianthus mollis	Downy sunflower	112,000	0.20	0.5%		\$0.0000	0.08	6	P-FORB
Heterotheca villosa	Hairy false goldenaster	1,120,000	1.30	3.2%		\$0.0000	0.05	5	P-FORB
Iris shrevei	American slough grass	16,000	0.10	0.2%		\$0.0000	0.27	6	P-FORB
Juncus arcticus littoralis	Bog rush	3,000,000	1.50	3.7%		\$0.0000	0.02	6	P-SEDGE, COOL SEASON
Juncus tenuis	Path rush	16,000,000	1.50	3.7%		\$0.0000	0.00	0	P-SEDGE, COOL SEASON
Juncus torreyi	Torrey's rush	25,600,000	1.50	3.7%		\$0.0000	0.00	3	P-SEDGE, COOL SEASON
Leersia oryzoides	Rice cut-grass	544,000	1.25	3.1%		\$0.0000	0.10	2	P-GRASS, COOL SEASON
Liatris pycnostachya	Prairie blazing star	176,000	0.40	1.0%		\$0.0000	0.10	6	P-FORB
Lilium philadelphicum andinum	Wood lily	240,000	0.05	0.1%		\$0.0000	0.01	9	P-FORB
Lythrum alatum	Winged loosestrife	48,000,000	1.20	3.0%		\$0.0000	0.00	3	P-FORB
Oxypolis rigidior	Cowbane	233,600	0.30	0.7%		\$0.0000	0.06	8	P-FORB
Panicum virgatum	Switchgrass	224,000	0.60	1.5%		\$0.0000	0.12	5	P-GRASS, WARM SEASON
Pedicularis lanceolata	Swamp lousewort	704,000	1.50	3.7%		\$0.0000	0.09	7	P-FORB, HEMIPARASITE
Poa palustris	Foul meadow grass	2,080,000	2.00	5.0%		\$0.0000	0.04	5	P-GRASS, COOL SEASON
Pycnanthemum virginianum	Common mountain mint	3,520,000	1.30	3.2%		\$0.0000	0.02	4	P-FORB
Rudbeckia hirta	Black-eyed Susan	496,000	1.30	3.2%		\$0.0000	0.11	2	P-FORB
Schizachyrium scoparium	Little bluestem	240,000	0.60	1.5%		\$0.0000	0.11	5	P-GRASS, WARM SEASON
Solidago gigantea	Smooth goldenrod	4,000,000	1.20	3.0%		\$0.0000	0.01	3	P-FORB
Sorghastrum nutans	Indian grass	192,000	0.70	1.7%		\$0.0000	0.16	4	P-GRASS, WARM SEASON
Spartina pectinata	Slough grass, cord grass	105,600	0.45	1.1%		\$0.0000	0.19	4	P-GRASS, WARM SEASON
Stachys palustris	Woundwort	256,000	0.15	0.4%		\$0.0000	0.03	4	P-FORB
Symphotrichum ericoides	Heath aster, frost weed	3,200,000	1.15	2.9%		\$0.0000	0.02	3	P-FORB
Symphotrichum novae-angliae	New England aster	1,056,000	1.20	3.0%		\$0.0000	0.05	3	P-FORB
Thalictrum dasycarpum	Purple meadow-rue	176,000	0.50	1.2%		\$0.0000	0.12	4	P-FORB
Tripsacum dactyloides	Gama grass	5,920	0.15	0.4%		\$0.0000	1.10	3	P-GRASS, WARM SEASON
Veronicastrum virginicum	Culver's root	12,800,000	1.30	3.2%		\$0.0000	0.00	5	P-FORB
				0.0%		#DIV/0!	#DIV/0!		
				0.0%		#DIV/0!	#DIV/0!		
				0.0%		#DIV/0!	#DIV/0!		
				0.0%		#DIV/0!	#DIV/0!		
Graminoid Species	19	Vine Species	0	PLS Seeds/ft²	40.0	Cost/ft²	\$0.00	Floristic Quality Index	33.5
Forbs & Sub-shrubs	26	Tree Species	0	PLS lbs/acre*	4.6	Cost/acre	\$0	Mix Conservatism	4.9
Shrub Species	1	Total Species	46			Cost/lb	\$0.00	Simpson's Evenness	68%
Forb & Sub-shrub Seed/ft²	20.00	Graminoid Seed/ft²	20.00	Shrub Seed/ft²	0.01	Vine Seed/ft²	0.00	Tree Seed/ft²	0.00

* PLS seeding rate must be converted to a bulk seeding rate

CENTRAL CORDGRASS WET PRAIRIE

If cell is in red criteria not met. If cell is in orange 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/ft²	Minimum 20 seeds/ft ² of graminoids not met
Forb & Sub-shrub Seed/ft²	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%
Mid-Successional	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:	0.68

Conservatism Guilds	Species	Seed/ft ² % mix
EARLY SUCCESSIONAL (0-3)	11	32.9%
MID SUCCESSIONAL (4-7)	28	52.4%
LATE SUCCESSIONAL (8-10)	7	14.7%
	46	100.0%

Functional Group	Seed/ft ² % mix	Species
A-FORB	8.0%	2
A-GRASS, COOL SEASON	3.7%	1
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	8.7%	2
H-VINE	0.0%	0
LEGUME	1.0%	2
PARASITIC	0.0%	0
P-FORB	41.2%	23
P-GRASS, COOL SEASON	13.1%	3
P-GRASS, WARM SEASON	7.6%	6
P-SEDGE, COOL SEASON	25.5%	9
P-SEDGE, WARM SEASON	0.0%	0
SHRUB	0.0%	1
SUB-SHRUB	0.7%	1
TREE	0.0%	0
W-VINE	0.0%	0
Number of Functional Groups	10	

Seeding Plan

Page 1 of 2

Name _____
Prepared by _____

Date _____
Tract No. _____
Field No. _____
Contract No. _____

Type of Seeding: **Central Cordgrass Wet Prairie**

Acres

Seeding Mix Summary

Graminoids	Scientific Name	Common Name	Seeds/Ft2	PLS Lbs / Total PLS	
				Acres	lb
1	Andropogon gerardi	Big bluestem	0.55	0.150	0.000
2	Beckmannia syzigachne	American slough grass	1.50	0.082	0.000
3	Calamagrostis canadensis	Bluejoint	2.00	0.019	0.000
4	Carex atherodes	Hairy-leaved lake sedge	0.40	0.038	0.000
5	Carex bebbi	Bebb's oval sedge	1.70	0.136	0.000
6	Carex lacustris	Common lake sedge	0.35	0.030	0.000
7	Carex pellita	Wooly sedge	0.25	0.024	0.000
8	Carex scoparia	Lance-fruited oval sedge	1.50	0.049	0.000
9	Carex vulpinoidea	Brown fox sedge	1.50	0.041	0.000
10	Juncus arcticus littoralis	Bog rush	1.50	0.022	0.000
11	Juncus tenuis	Path rush	1.50	0.004	0.000
12	Juncus torreyi	Torrey's rush	1.50	0.003	0.000
13	Leersia oryzoidea	Rice cut-grass	1.25	0.100	0.000
14	Panicum virgatum	Switchgrass	0.60	0.117	0.000
15	Poa palustris	Foul meadow grass	2.00	0.042	0.000
16	Schizachyrium scoparium	Little bluestem	0.60	0.109	0.000
17	Sorghastrum nutans	Indian grass	0.70	0.159	0.000
18	Spartina pectinata	Slough grass, cord grass	0.45	0.186	0.000
19	Tripsacum dactyloides	Gama grass	0.15	1.104	0.000
20					0.000
21					0.000
SUBTOTAL GRAMINOIDS			20.00	2.41	0.000

Forbs/Legumes	Scientific Name	Common Name	Seeds/Ft2	PLS Lbs / Total PLS	
				Acres	lb
1	Agalinis tenuifolia	Slender false foxglove	2.00	0.007	0.000
2	Amorpha fruticosa	Indigo bush, false indigo	0.30	0.004	0.000
3	Asclepias incarnata	Swamp milkweed	0.20	0.113	0.000
4	Asclepias tuberosa	Butterfly weed	0.15	0.095	0.000
5	Baptisia alba	White wild indigo	0.10	0.160	0.000
6	Bidens cernua	Nodding bur marigold	1.20	0.156	0.000
7	Cephalanthus occidentalis	Buttonbush	0.01	0.005	0.000
8	Chelone glabra	White turtlehead	1.20	0.036	0.000
9	Eryngium yuccifolium	Rattlesnake master	0.75	0.272	0.000
10	Galium boreale	Northern bedstraw	0.75	0.029	0.000
11	Helianthus grosseserratus	Saw-tooth sunflower	0.20	0.036	0.000
12	Helianthus mollis	Downy sunflower	0.20	0.078	0.000
13	Heterotheca villosa	Hairy false goldenaster	1.30	0.051	0.000
14	Iris shrevei	American slough grass	0.10	0.272	0.000
15	Liatris pycnostachya	Prairie blazing star	0.40	0.099	0.000
16	Lilium philadelphicum andinum	Wood lily	0.05	0.009	0.000
17	Lythrum alatum	Winged loosestrife	1.20	0.001	0.000
18	Oxypolis rigidior	Cowbane	0.30	0.056	0.000
19	Pedicularis lanceolata	Swamp lousewort	1.50	0.093	0.000
20	Pycnanthemum virginianum	Common mountain mint	1.30	0.016	0.000
21	Rudbeckia hirta	Black-eyed Susar	1.30	0.114	0.000
22	Solidago gigantea	Smooth goldenrod	1.20	0.013	0.000
23	Stachys palustris	Woundwort	0.15	0.026	0.000
24	Symphotrichum ericoides	Heath aster, frost weed	1.15	0.016	0.000
25	Symphotrichum novae-angliae	New England aster	1.20	0.050	0.000
26	Thalictrum dasycarpum	Purple meadow-rue	0.50	0.124	0.000
27	Veronicastrum virginicum	Culver's root	1.30	0.004	0.000
28					0.000
29					0.000
30					0.000
SUBTOTAL FORBS			20.01	1.93	0.000
TOTAL			40.01	4.346	0.000

SEEDING MIX FLORISITIC QUALITY VALUES

Average Coefficient of Conservatism	4.9
Floristic Quality Index	33.5

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:

Do not apply fertilizer. Frost seeding dates Feb. 1st - March 15th

Spring seeding dates are between April 15th to July 1st.

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.