643 TALLGRASS PRAIRIE

Seed Mix Design

		N/A	
LANDOWNER	MN PF 643 Wet		**Tract / Field**
		N/A	0.00
PLANNER	Pheasants Forever		**Acres To Seed** 1.00

DATE 11/3/2026

Copy to Se Plan

Seed tag type Seed Mix Design

Set Seed Tag Type to Seed Mix Design

Scientific Name	GRASS SPECIES	REF #	Input Desired PLS	N/A	N/A	PLANNED % OF GRASS COMPONENT BY SEEDS/SQ. FOOT	Planned PLS/ Acre in lbs.	TOTAL SEEDS/ SQ. FOOT	% OF GRASS MIX BY SEEDS/FT 1/		Background Information: Seeds per Lb.	SEEDS/ SQ. FOOT At 1 lb. Rate	COC Selected	COC Reference 6/
						Planned			Can't Exceed	Planned %				
	WARM SEASON 7/													
Andropogon gerardii	Big bluestem	1	1.25			0 to 25	1.25	5.05	24.6	OK	176000	4.0	0	
Bouteloua gracilis	Blue grama	3				0 to 20	0.00	0.00	0.0	OK	750000	17.2		
Sorghastrum nutans	Indiangrass	7	1.15			0 to 25	1.15	5.10	24.8	OK	193000	4.4	0	
Schizachyrium scoparium	Little bluestem	6	0.9			0 to 30	0.90	5.91	28.8	OK	286000	6.6	0	
Spartina pectinata	Prairie cordgrass	8				0 to 5	0.00	0.00	0.0	OK	183000	4.2		
Sporobolus heterolepis	Prairie dropseed	10				0 to 10	0.00	0.00	0.0	OK	224000	5.1		
Calamovilfa longifolia	Prairie sandreed	4				0 to 30	0.00	0.00	0.0	OK	275000	6.3		
Sporobolus compositus	Rough dropseed	9				0 to 10	0.00	0.00	0.0	OK	480000	11.0		
Bouteloua curtipendula	Side oats grama	2				0 to 30	0.00	0.00	0.0	OK	180000	4.1		
Panicum virgatum	Switchgrass	5	0.12			0 to 5	0.12	1.07	5.2	OK	390000	9.0	0	
Set Ref num to 199	If no species entered this					0	0.00	0.00	0.0	OK	0	0.0		
	If no species entered this					0	0.00	0.00	0.0	OK	0	0.0		
						0	0.00	0.00	0.0	OK	0	0.0		
						0	0.00	0.00	0.0	OK	0	0.0		
Set Ref num to 199	If no species entered this	199				0	0.00	0.00	0.0	OK	0	0.0		
Set Ref num to 199	If no species entered this	199				0	0.00	0.00	0.0	OK	0	0.0		
	COOL SEASON 2/ 7/													
Calamagrostis canadensis	Canada bluejoint	13				0 to 5	0.00	0.00	0.0	OK	4480000	102.8		
Elymus canadensis	Canada wild rye	14				0 to 10	0.00	0.00	0.0	OK	115000	2.6		
Nassella viridula	Green needlegrass	21				0 to 10	0.00	0.00	0.0	OK	180000	4.1		
Koeleria macrantha	Junegrass	20				0 to 5	0.00	0.00	0.0	OK	2315000	53.1		
Bromus kalmii	Kalms brome	12				0 to 10	0.00	0.00	0.0	OK	128000	2.9		
Hesperostipa spartea	Porcupine grass	19				0 to 10	0.00	0.00	0.0	OK	57000	1.3		
Elymus trachcaulus	Slender wheatgrass	15	0.4			0 to 10	0.40	1.42	6.9	OK	155000	3.6	0	
Elymus virginicus	Virginia wild rye	16				0 to 10	0.00	0.00	0.0	OK	96000	2.2		
Pascopyrum smithii	Western wheatgrass	22				0 to 10	0.00	0.00	0.0	OK	112000	2.6		
Bromus ciliatus	Fringed brome	11				0 to 10	0.00	0.00	0.0	OK	160000	3.7		
Glyceria grandis	American mannagrass	17				0 to 10	0.00	0.00	0.0	OK	1280000	29.4		
Glyceria striata	Fowl mannagrass	18	0.01			0 to 10	0.01	0.59	2.9	OK	2561328	58.8	0	
Carex bicknellii	Bicknell's sedge	23				0 to 10	0.00	0.00	0.0	OK	560000	12.9		
Carex vulpinoidea	Common fox sedge	27	0.038			0 to 10	0.04	1.39	6.8	OK	1598652	36.7	0	
Carex scoparia	Pointed broom sedge	25				0 to 10	0.00	0.00	0.0	OK	1346000	30.9		
				0		TOTAL Pounds PLS	3.87	20.54	100.0			AVE COC GRASS	0.0	

1/ ACTUAL SEEDS PER SQUARE FOOT SHALL BE WITHIN THE RANGE SPECIFIED IN PLANNED CONDITION

2/ NO MORE THAN 20% OF THE MIXTURE SHALL BE COMPRISED OF COOL SEASON GRASSES BASED ON SEEDS PER SQUARE FOOT.

												Background Information			
Scientific Name	FORB SPECIES	Ref #	Input Desired PLS	N/A	N/A		Planned PLS/ Acre in ounces.	TOTAL SEEDS/ SQ. FOOT	% OF FORB MIX BY SEEDS/FT 3/			SEEDS/oz	SEEDS/ SQ. FOOT At 1 oz/ac Rate	COC Selected	COC Reference
	DRY														
Lespedeza capitata	Bush clover	57		0			0.00	0.00	0.0	OK		8000	0.18		
Veronicastrum virginicum	Culver's root	103					0.00	0.00	0.0	OK		800000	18.37		
Liatris punctata	Dotted blazing star	30					0.00	0.00	0.0	OK		7000	0.16		
Echinacea angustifolia	Purple Coneflower - Narr	53					0.00	0.00	0.0	OK		7000	0.16		
Drymocallis arguta	Prairie cinquefoil	52					0.00	0.00	0.0	OK		230000	5.28		
Penstemon grandiflorus	Large-flowered penstemo	32					0.00	0.00	0.0	OK		14000	0.32		
Helianthus pauciflorus	Stiff sunflower	55					0.00	0.00	0.0	OK		4000	0.09		
Symphyotrichum sericeum	Silky aster	33					0.00	0.00	0.0	OK		26000	0.60		
	DRY to MESIC														
Asclepias tuberosa	Butterfly weed	42					0.00	0.00	0.0	OK		4300	0.10		
Astragalus canadensis	Canada milkvetch	44				Legume	0.00	0.00	0.0	OK		17000	0.39		
Silphium laciniatum	Compass plant	67					0.00	0.00	0.0	OK		660	0.02		
Oenothera biennis	Evening primrose	117					0.00	0.00	0.0	OK		90000	2.07		
Penstemon digitalis	Foxglove Beardtongue	62					0.00	0.00	0.0	OK		130000	2.98		
Zizia aptera	Heart-leaved alexander	76					0.00	0.00	0.0	OK		12000	0.28		
Symphyotrichum ericoides	Heath aster	121					0.00	0.00	0.0	OK		200000	4.59		
Verbena stricta	Hoary vervain	74					0.00	0.00	0.0	OK		28000	0.64		
Coreopsis lanceolata	Lance-leaved coreopsis	48					0.00	0.00	0.0	OK		20000	0.46		
Amorpha canescens	Leadplant	37				Legume	0.00	0.00	0.0	OK		16000	0.37		
Ratibida columnifera	Long-headed coneflower	64					0.00	0.00	0.0	OK		42000	0.96		
Liatris cylindracea	Ontario blazing star	29					0.00	0.00	0.0	OK		14000	0.32		
Geum triflorum	Prairie smoke	54					0.00	0.00	0.0	OK		27000	0.62		
Liatris aspera	Rough blazing star	58					0.00	0.00	0.0	OK		16000	0.37		
Solidago speciosa	Showy goldenrod	69					0.00	0.00	0.0	OK		95000	2.18		
Symphyotrichum laeve	Smooth aster	70					0.00	0.00	0.0	OK		55000	1.26		
Monarda punctata	Spotted beebalm	60					0.00	0.00	0.0	OK		70000	1.61		
Coreopsis palmata	Stiff stickseed	49					0.00	0.00	0.0	OK		10000	0.23		
Anemone cylindrica	Thimbleweed	38					0.00	0.00	0.0	OK		26000	0.60		
Asclepias verticillata	Whorled milkweed	43					0.00	0.00	0.0	OK		11000	0.25		
Aquilegia canadensis	Wild columbine	39					0.00	0.00	0.0	OK		38000	0.87		
	MESIC to WET														
Ratibida pinnata	Yellow coneflower	**65**	**0.8**				**0.80**	0.55	3.8	OK		30000	0.69		
Desmodium canadense	Canada tick trefoil	79	**0.8**			Legume	**0.80**	0.10	0.7	OK		5500	0.13	0	
Heliopsis helianthoides	Common oxeye	86	**0.8**				**0.80**	0.12	0.8	OK		6300	0.14	0	
Helianthus giganteus	Giant sunflower	84					**0.00**	0.00	0.0	OK		10000	0.23		
Zizia aurea	Golden Alexander	104	**0.4**				**0.40**	0.10	0.7	OK		11000	0.25	0	
Lobelia siphilitica	Great blue lobelia	91	**0.24**				**0.24**	2.75	19.0	OK		500000	11.48	0	
Vernonia fasciculata	Ironweed	102					**0.00**	0.00	0.0	OK		24000	0.55		
Liatris ligulistylis	Meadow blazing star	89					**0.00**	0.00	0.0	OK		11000	0.25		
Pycnanthemum virginianum	Mountain mint	97	**0.05**				**0.05**	0.25	1.7	OK		220000	5.05	0	
Chamaecrista fasiculata	Partridge pea	46	**2.72**			Legume	**2.72**	0.17	1.2	OK		2700	0.06	0	
Eryngium yuccifolium	Rattlesnake master	81					**0.00**	0.00	0.0	OK		7500	0.17		
Helianthus grosseserratus	Sawtooth sunflower	85					**0.00**	0.00	0.0	OK		10000	0.23		
Liatris pycnostachya	Tall blazing star	90					**0.00**	0.00	0.0	OK		11000	0.25		
Monarda fistulosa	Wild bergamot	94	**1**				**1.00**	1.61	11.1	OK		70000	1.61	0	
	WET														
Verbena hastata	Blue vervain	101	**1.28**				**1.28**	2.73	18.9	OK		93000	2.13	0	
Eupatorium perfoliatum	Boneset	105					**0.00**	0.00	0.0	OK		160000	3.67		
Silphium perfoliatum	Cup plant	**110**					**0.00**	0.00	0.0	OK		1400	0.03		
Eutrochium maculatum	Joe pye weed	106	**0.08**				**0.08**	0.17	1.2	OK		95000	2.18	0	
Symphyotrichum novae-angli	New England aster	99					**0.00**	0.00	0.0	OK		66000	1.52		
Symphyotrichum lanceolatum	Panicled aster	111					**0.00**	0.00	0.0	OK		156000	3.58		
Helenium autumnale	Sneezeweed	107	**0.6**				**0.60**	1.79	12.4	OK		130000	2.98	0	
Asclepias incarnata	Swamp milkweed	78	**0.5**				**0.50**	0.06	0.4	OK		4800	0.11	0	

	DRY to WET													
Agastache foeniculum	Anise hyssop	35					**0.00**	0.00	0.0	OK	91000	2.09		
Rudbeckia hirta	Black-eyed susan	120	**1.41**				**1.41**	2.98	20.6	OK	92000	2.11	0	
Asclepias syriaca	Common milkweed	112					**0.00**	0.00	0.0	OK	4000	0.09		
Euthamia graminifolia	Grass-leaved goldenrod	82					**0.00**	0.00	0.0	OK	350000	8.03		
Achillea millefolium	Yarrow	34					**0.00**	0.00	0.0	OK	180000	4.13		
Dalea purpurea	Purple prairie clover	51	**1.5**			Legume	**1.50**	0.62	4.3	OK	18000	0.41	0	
Helianthus maximiliani	Maximilian sunflower	116	**0.4**				**0.40**	0.12	0.8	OK	13000	0.30	0	
Oligoneuron rigidum	Stiff goldenrod	118	**0.08**				**0.08**	0.08	0.5	OK	41000	0.94	0	
Dalea candida	White prairie clover	50	**0.67**			Legume	**0.67**	0.29	2.0	OK	19000	0.44	0	
Achillea millefolium	Yarrow	34					**0.00**	0.00	0.0	OK	180000	4.13		
	Additional Forbs													
Set Ref num to 199	If no species entered this	199					**0.00**	0.00	0.0	OK	0	0.00		
Set Ref num to 199	If no species entered this	199					**0.00**	0.00	0.0	OK	0	0.00		
Set Ref num to 199	If no species entered this	199					**0.00**	0.00	0.0	OK	0	0.00		
Set Ref num to 199	If no species entered this	199					**0.00**	0.00	0.0	OK	0	0.00		
Set Ref num to 199	If no species entered this	199					**0.00**	0.00	0.0	OK	0	0.00		
Set Ref num to 199	If no species entered this	199					**0.00**	0.00	0.0	OK	0	0.00		
Set Ref num to 199	If no species entered this	199					**0.00**	0.00	0.0	OK	0	0.00		
Set Ref num to 199	If no species entered this	199					**0.00**	0.00	0.0	OK	0	0.00		
Set Ref num to 199	If no species entered this	199					**0.00**	0.00	0.0	OK	0	0.00		
				0		**TOTAL OUNCES PLS**	**13.33**	**14.49**	**100.0**			**AVE COC FORB**	0.0	

TOTAL SEEDS/FT 4/	**35.0**	OK
PERCENT GRASS 5/	**58.63**	OK
PERCENT FLOWER	**41.37**	OK

3/ Individual species not to exceed 20% of the forb component by seeds/ft

4/ Minimum 35-40 seeds/square foot

5/ Maximum 60% grasses

6/ Assignment of Coefficients

0 to 3 : Plants with a high range of ecological tolerances/found in a variety of plant communities

4 to 6 : Plants with an intermediate range of ecological tolerances/ associated with a specific plant community

7 to 8 : Plants with a poor range of ecological tolerances/associated with advanced successional stage

9 to 10 : Plants with a high degree of fidelity to a narrow range of pristine habitats

7/ Consult with the appropriate NRCS Area Resource Conservationist or Biologist for prior approval of additior