

			0	TOTAL Pounds PLS	5.20	28.83	100.0	AVE COC GRASS	0.0
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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/	% of mix by WEIGHT	SEEDS/oz	SEEDS/ SQ. FOOT At 1 oz/ac Rate	COC Selected
DRY												
Lespedeza capitata	Bush clover	57				0.00	0.00	0.0	OK	0.0	8000	0.18
Veronicastrum virginicum	Culver's root	103				0.00	0.00	0.0	OK	0.0	800000	18.37
Liatris punctata	Dotted blazing star	30				0.00	0.00	0.0	OK	0.0	7000	0.16
Echinacea angustifolia	Purple Coneflower - Narrow	53				0.00	0.00	0.0	OK	0.0	7000	0.16
Drymocallis arguta	Prairie cinquefoil	52	0.1			0.10	0.53	8.5	OK	1.7	230000	5.28
Penstemon grandiflorus	Large-flowered penstemon (S)	32				0.00	0.00	0.0	OK	0.0	14000	0.32
Helianthus pauciflorus	Stiff sunflower	55				0.00	0.00	0.0	OK	0.0	4000	0.09
Symphotrichum sericeum	Silky aster	33				0.00	0.00	0.0	OK	0.0	26000	0.60
DRY to MESIC												
Asclepias tuberosa	Butterfly weed	42				0.00	0.00	0.0	OK	0.0	4300	0.10
Astragalus canadensis	Canada milkvetch	44	0.48		Legume	0.48	0.19	3.0	OK	8.2	17000	0.39
Silphium laciniatum	Compass plant	67				0.00	0.00	0.0	OK	0.0	660	0.02
Oenothera biennis	Evening primrose	117				0.00	0.00	0.0	OK	0.0	90000	2.07
Penstemon digitalis	Foxglove Beardtongue	62				0.00	0.00	0.0	OK	0.0	130000	2.98
Zizia aptera	Heart-leaved alexander	76				0.00	0.00	0.0	OK	0.0	12000	0.28
Symphotrichum ericoides	Heath aster	121				0.00	0.00	0.0	OK	0.0	200000	4.59
Verbena stricta	Hoary vervain	74	0.24			0.24	0.15	2.5	OK	4.1	28000	0.64
Coreopsis lanceolata	Lance-leaved coreopsis	48				0.00	0.00	0.0	OK	0.0	20000	0.46
Amorpha canescens	Leadplant	37	0.16		Legume	0.16	0.06	0.9	OK	2.7	16000	0.37
Ratibida columnifera	Long-headed coneflower	64				0.00	0.00	0.0	OK	0.0	42000	0.96
Liatris cylindracea	Ontario blazing star	29				0.00	0.00	0.0	OK	0.0	14000	0.32
Geum triflorum	Prairie smoke	54				0.00	0.00	0.0	OK	0.0	27000	0.62
Liatris aspera	Rough blazing star	58				0.00	0.00	0.0	OK	0.0	16000	0.37
Solidago speciosa	Showy goldenrod	69				0.00	0.00	0.0	OK	0.0	95000	2.18
Symphotrichum laeve	Smooth aster	70				0.00	0.00	0.0	OK	0.0	55000	1.26
Monarda punctata	Spotted beebalm	60				0.00	0.00	0.0	OK	0.0	70000	1.61
Coreopsis palmata	Stiff stickseed	49				0.00	0.00	0.0	OK	0.0	10000	0.23
Anemone cylindrica	Thimbleweed	38				0.00	0.00	0.0	OK	0.0	26000	0.60
Asclepias verticillata	Whorled milkweed	43				0.00	0.00	0.0	OK	0.0	11000	0.25
Aquilegia canadensis	Wild columbine	39				0.00	0.00	0.0	OK	0.0	38000	0.87
MESIC to WET												
Ratibida pinnata	Yellow coneflower	65				0.00	0.00	0.0	OK	0.0	30000	0.69
Desmodium canadense	Canada tick trefoil	79			Legume	0.00	0.00	0.0	OK	0.0	5500	0.13
Heliopsis helianthoides	Common oxeye	86	1			1.00	0.14	2.3	OK	17.2	6300	0.14
Helianthus giganteus	Giant sunflower	84				0.00	0.00	0.0	OK	0.0	10000	0.23
Zizia aurea	Golden Alexander	104	0.5			0.50	0.13	2.0	OK	8.6	11000	0.25
Lobelia siphilitica	Great blue lobelia	91				0.00	0.00	0.0	OK	0.0	500000	11.48
Vernonia fasciculata	Ironweed	102				0.00	0.00	0.0	OK	0.0	24000	0.55
Liatris ligulistylis	Meadow blazing star	89				0.00	0.00	0.0	OK	0.0	11000	0.25
Pycnanthemum virginianum	Mountain mint	97				0.00	0.00	0.0	OK	0.0	220000	5.05
Chamaecrista fasciculata	Partridge pea	46			Legume	0.00	0.00	0.0	OK	0.0	2700	0.06
Eryngium yuccifolium	Rattlesnake master	81				0.00	0.00	0.0	OK	0.0	7500	0.17
Helianthus grosseserratus	Sawtooth sunflower	85				0.00	0.00	0.0	OK	0.0	10000	0.23
Liatris pycnostachya	Tall blazing star	90				0.00	0.00	0.0	OK	0.0	11000	0.25
WET												
Verbena hastata	Blue vervain	101	0.65			0.65	1.39	22.3	OK	11.1	93000	2.13
Eupatorium perfoliatum	Boneset	105				0.00	0.00	0.0	OK	0.0	160000	3.67
Silphium perfoliatum	Cup plant	110				0.00	0.00	0.0	OK	0.0	1400	0.03
Eutrochium maculatum	Joe pye weed	106				0.00	0.00	0.0	OK	0.0	95000	2.18
Symphotrichum novae-ang	New England aster	99				0.00	0.00	0.0	OK	0.0	66000	1.52
Symphotrichum lanceolatu	Panicled aster	111				0.00	0.00	0.0	OK	0.0	156000	3.58
Helenium autumnale	Sneezeweed	107				0.00	0.00	0.0	OK	0.0	130000	2.98

Asclepias incarnata	Swamp milkweed	78			0.00	0.00	0.0	OK	0.0	4800	0.11	
DRY to WET												
Agastache foeniculum	Anise hyssop	35			0.00	0.00	0.0	OK	0.0	91000	2.09	
Rudbeckia hirta	Black-eyed susan	120	1		1.00	2.11	33.9	OK	17.2	92000	2.11	0
Asclepias syriaca	Common milkweed	112	0.4		0.40	0.04	0.6	OK	6.9	4000	0.09	0
Euthamia graminifolia	Grass-leaved goldenrod	82			0.00	0.00	0.0	OK	0.0	350000	8.03	
Achillea millefolium	Yarrow	34			0.00	0.00	0.0	OK	0.0	180000	4.13	
Dalea purpurea	Purple prairie clover	51	0.5	Legume	0.50	0.21	3.3	OK	8.6	18000	0.41	0
Helianthus maximiliani	Maximilian sunflower	116			0.00	0.00	0.0	OK	0.0	13000	0.30	
Oligoneuron rigidum	Stiff goldenrod	118			0.00	0.00	0.0	OK	0.0	41000	0.94	
Dalea candida	White prairie clover	50			0.00	0.00	0.0	OK	0.0	19000	0.44	
Monarda fistulosa	Wild bergamot	94	0.8	Legume	0.80	1.29	20.6	OK	13.7	70000	1.61	0
ADDITIONAL APPROVED FORBS 7/												
Set Ref num to 199	If no species entered this row	199			0.00	0.00	0.0	OK	0.0	0	0.00	
Set Ref num to 199	If no species entered this row	199			0.00	0.00	0.0	OK	0.0	0	0.00	
Set Ref num to 199	If no species entered this row	199			0.00	0.00	0.0	OK	0.0	0	0.00	
Set Ref num to 199	If no species entered this row	199			0.00	0.00	0.0	OK	0.0	0	0.00	
Set Ref num to 199	If no species entered this row	199			0.00	0.00	0.0	OK	0.0	0	0.00	
Set Ref num to 199	If no species entered this row	199			0.00	0.00	0.0	OK	0.0	0	0.00	
Set Ref num to 199	If no species entered this row	199			0.00	0.00	0.0	OK	0.0	0	0.00	
Set Ref num to 199	If no species entered this row	199			0.00	0.00	0.0	OK	0.0	0	0.00	
Set Ref num to 199	If no species entered this row	199			0.00	0.00	0.0	OK	0.0	0	0.00	
Set Ref num to 199	If no species entered this row	199			0.00	0.00	0.0	OK	0.0	0	0.00	
Set Ref num to 199	If no species entered this row	199			0.00	0.00	0.0	OK	0.0	0	0.00	
Set Ref num to 199	If no species entered this row	199			0.00	0.00	0.0	OK	0.0	0	0.00	
TOTAL OUNCES PLS		0			5.83	6.23	100.0		100.0		AVE COC FORB	0.0

TOTAL SEEDS/FT 4/	35.1
PERCENT GRASS 5/	82.24
PERCENT FLOWER	17.76

OK
OK
OK

3/ Individual species not to exceed 50% of the forb component by seeds/ft

4/ Minimum 35-40 seeds/square foot

5/ Maximum 90% 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 additional species.



Copy to Checkout_
Certification

Seed Mix Design
Seeding Checkout

Seed Mix Design
Tag shows purity only as % of mix (purity, germ)
Tag has a PLS Lbs column

COC Reference 6/	Pounds PLS	Max % of Grass Mix
	0.80	31
	0.35	21
	0.40	31
	0.50	31
	0.00	6
	0.00	11
	0.00	31
	0.25	11
	1.00	31
	0.35	11
	0.00	1
	0.00	1
	0.00	1
	0.00	1
	0.00	1
	0.00	1
		0
	0.00	6
	0.00	11
	0.00	11
	0.00	6
	0.00	11
	0.00	11
	0.80	11
	0.75	11
	0.00	11
	0.00	11
	0.00	11
	0.00	11
	0.00	11
	0.00	11
	0.00	1
	0.00	1
	0.00	1
	0.00	1
	0.00	1
	0.00	1
	0.00	1
	0.00	1
	0.00	1
	0.00	1
	0.00	1

less than 10% of grass total calc

Big B	3.2
Indian	1.8
BB add	
Indian ac	
switch ac	
Switch	3.1

#N/A
Big bluestem
Blue grama
Indiangrass
Little bluestem
Prairie cordgrass
Prairie dropseed
Prairie sandreed
Rough dropseed
Side oats grama
Switchgrass
If no species entered th
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If no species entered th
#N/A
Canada bluejoint
Canada wild rye
Green needlegrass
Junegrass
Kalms brome
Porcupine grass
Slender wheatgrass
Virginia wild rye
Western wheatgrass
Fringed brome
American mannagrass
Fowl mannagrass
Bicknell's sedge
Common fox sedge
Pointed broom sedge
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3 combined total seeds/ sq foot = 8.1

Total seeds / sq foot for entire mix = 35.1

Big Blue, Indian, and switch combined % 23.211

COC Reference	Bloom Period	Ounces
	Early = April-June	PLS
	Mid = June-August	
	Late = August-Oct.	
	Mid	0.00
	Mid	0.00
	Mid	0.00
	Mid	0.00
	Mid	0.10
	Early	0.00
	Late	0.00
	Late	0.00
	Mid	0.00
	Mid	0.48
	Mid	0.00
	Mid	0.00
	Early	0.00
	Early	0.00
	Late	0.00
	Mid	0.24
	Early	0.00
	Mid	0.16
	Mid	0.00
	Late	0.00
	Early	0.00
	Late	0.00
	Late	0.00
	Late	0.00
	Mid	0.00
	Mid	0.00
	Early	0.00
	Mid	0.00
	Early	0.00
	Mid	0.00
	Mid	0.00
	Mid	1.00
	Late	0.00
	Early	0.50
	Late	0.00
	Late	0.00
	Late	0.00
	Mid	0.00
	Mid	0.00
	Mid	0.00
	Late	0.00
	Late	0.00
	Mid	0.00
	Late	0.00
	Mid	0.00
	Mid	0.00
	Late	0.00
	Late	0.00
	Late	0.00

#N/A
Common Name
#N/A
#N/A
#N/A
#N/A
Bush clover
Culver's root
Dotted blazing star
Purple Coneflower - Na
Prairie cinquefoil
Large-flowered penstemon
Stiff sunflower
Silky aster
#N/A
Butterfly weed
Canada milkvetch
Compass plant
Evening primrose
Foxglove Beardtongue
Heart-leaved alexander
Heath aster
Hoary vervain
Lance-leaved coreopsis
Leadplant
Long-headed coneflower
Ontario blazing star
Prairie smoke
Rough blazing star
Showy goldenrod
Smooth aster
Spotted beebalm
Stiff stickseed
Thimbleweed
Whorled milkweed
Wild columbine
#N/A
Yellow coneflower
Canada tick trefoil
Common oxeye
Giant sunflower
Golden Alexander
Great blue lobelia
Ironweed
Meadow blazing star
Mountain mint
Partridge pea
Rattlesnake master
Sawtooth sunflower
Tall blazing star
#N/A
Blue vervain
Boneset
Cup plant
Joe pye weed
New England aster
Panicled aster
Sneezeweed

	Mid	0.00
	Mid	0.00
	Mid	1.00
	Mid	0.40
	Mid	0.00
	Mid	0.00
	Mid	0.50
	Late	0.00
	Late	0.00
	Mid	0.00
	Mid	0.80
	0	0.00
	0	0.00
	0	0.00
	0	0.00
	0	0.00
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	0	0.00
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	0	0.00
	0	0.00
	0	0.00

Swamp milkweed
#N/A
Anise hyssop
Black-eyed susan
Common milkweed
Grass-leaved goldenro
Yarrow
Purple prairie clover
Maximilian sunflower
Stiff goldenrod
White prairie clover
Wild bergamot
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Cells below are the ones the data is pulled from during copy to seeding plan

TOTAL SEEDS/FT	4/	35.1
PERCENT GRASS	5/	82.2
PERCENT FLOWER		17.8
Big Blue, Indian, Switch		0%

#N/A
#N/A
#N/A
#N/A
#N/A
#N/A
#N/A

0
0
0
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0
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0

#N/A	0
Botanical name	0
#N/A	0
#N/A	0
#N/A	0
#N/A	0
Lespedeza capitata	0
Veronicastrum virginicum	0
Liatris punctata	0
Echinacea angustifolia	0
Drymocallis arguta	0
Penstemon grandiflorus	0
Helianthus pauciflorus	0
Symphotrichum sericeum	0
#N/A	0
Asclepias tuberosa	0
Astragalus canadensis	0
Silphium laciniatum	0
Oenothera biennis	0
Penstemon digitalis	0
Zizia aptera	0
Symphotrichum ericoides	0
Verbena stricta	0
Coreopsis lanceolata	0
Amorpha canescens	0
Ratibida columnifera	0
Liatris cylindracea	0
Geum triflorum	0
Liatris aspera	0
Solidago speciosa	0
Symphotrichum laeve	0
Monarda punctata	0
Coreopsis palmata	0
Anemone cylindrica	0
Asclepias verticillata	0
Aquilegia canadensis	0
#N/A	0
Ratibida pinnata	0
Desmodium canadense	0
Heliopsis helianthoides	0
Helianthus giganteus	0
Zizia aurea	0
Lobelia siphilitica	0
Vernonia fasciculata	0
Liatris ligulistylis	0
Pycnanthemum virginianum	0
Chamaecrista fasciculata	0
Eryngium yuccifolium	0
Helianthus grosseserratus	0
Liatris pycnostachya	0
#N/A	0
Verbena hastata	0
Eupatorium perfoliatum	0
Silphium perfoliatum	0
Eutrochium maculatum	0
Symphotrichum novae-angliae	0
Symphotrichum lanceolatum	0
Helenium autumnale	0

Asclepias incarnata	0
#N/A	0
Agastache foeniculum	0
Rudbeckia hirta	0
Asclepias syriaca	0
Euthamia graminifolia	0
Achillea millefolium	0
Dalea purpurea	0
Helianthus maximiliani	0
Oligoneuron rigidum	0
Dalea candida	0
Monarda fistulosa	0
#N/A	0
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Species added sum counter =