

Customize Options to Suit Site Conditions

← Pick an Ecoregion

Xeric (dry) Mesic (medium) Hydric (wet)
 Prairie Savanna Wetland Woodland
 Long Term Program Short Term Program

Monarch Preferred Species
 Forage and Biomass (512) Planting

CHOOSE A RATE SPECIFICATION:

lbs/acre PLS (check a mix) Seeds/ft2 PLS (design a mix)

To override default cost, enter your cost in the applicable cell.



United States Department of Agriculture

Natural Resources Conservation Service

Criteria Revision Update 5/26/2020
Species Information Update 8/26/2021

CHOOSE YOUR GRASSES

Common Name <i>*Select Plants</i> Click →	Scientific Name <i>Growth Form</i>	Lbs / acre PLS	Seeds / ft2 PLS	Coefficient of Conservatism	Estimated Cost (\$/lb)	# Seeds / ft ² @ 1 lb. / ac	Pure Stand PLS Rate lbs / ac	% of Mix	Estimated Cost (\$/ac)	Functional Group
		Equivalent rate below								
1 Grama, Sideoats	<i>Bouteloua curtipendula</i> Rhizomatous	0.30	1.31	7	\$9	4.4	8.0	6.5%	\$3	Perennial Warm Season Grass
2 Bluestem, Little	<i>Schizachyrium scoparium</i> Bunch	0.45	2.63	5	\$12	5.9	6.0	13.1%	\$5	Perennial Warm Season Grass
3 Dropseed, Sand	<i>Sporobolus cryptandrus</i> Bunch	0.010	1.15	4	\$15	114.8	0.3	5.7%	\$0.15	Perennial Warm Season Grass
4									\$0.00	
5									\$0.00	
6									\$0.00	
7									\$0.00	
8									\$0.00	
9									\$0.00	
10									\$0.00	
11									\$0.00	
12									\$0.00	
13									\$0.00	
14									\$0.00	
15									\$0.00	
16									\$0.00	
17									\$0.00	
18									\$0.00	
19									\$0.00	
20									\$0.00	
21									\$0.00	
22									\$0.00	
23									\$0.00	
24									\$0.00	
25									\$0.00	
25									\$0.00	
27									\$0.00	
28									\$0.00	
29									\$0.00	
30									\$0.00	

GRAMINOID TOTAL	Species Richness: 3	lbs / acre PLS: 0.76	seeds / ft ² PLS: 5.09	Average CC: 5.3	ESTIMATED GRAMINOID COST (\$/AC): \$8
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CHOOSE YOUR FORBS/LEGUMES

Common Name <i>*Select Plants</i> Click →	Scientific Name <i>*Select Bloom Period below Scientific Name</i>	Lbs / acre PLS	Seeds / ft2 PLS	Coefficient of Conservatism	Estimated Cost (\$/lb)	# Seeds / ft ² @ 1 lb. / ac	Pure Stand PLS Rate lbs / ac	% of Mix	Estimated Cost (\$/ac)	Functional Group	Monarch Preferred
		Equivalent rate below									
1 Milkweed, Common	<i>Asclepias syriaca</i> Mid	0.14	0.21	0	\$120	1.5	23.8	1.0%	\$17	Perennial Forb	X
2 Milkweed, Butterfly	<i>Asclepias tuberosa</i> Mid	0.070	0.11	5	\$300	1.6	22.2	0.5%	\$21	Perennial Forb	X
3 Milkvech, Canadian	<i>Astragalus canadensis</i> Mid	0.010	0.057	7	\$120	5.7	6.1	0.3%	\$1	Perennial Forb, Legume	
4 Wild Indigo, Blue	<i>Baptisia australis</i> Early	0.010	0.0055	0	\$150	0.6	63.5	0.0%	\$2	Perennial Forb, Legume	
5 Doll's Daisy, White	<i>Boltonia asteroides</i> Mid	0.010	0.59	5	\$166	58.8	0.6	2.9%	\$2	Perennial Forb	X
6 Partridge Pea	<i>Chamaecrista fasciculata</i> Late	0.26	0.30	1	\$25	1.1	30.7	1.5%	\$7	Annual Forb, Legume	
7 Zizia, Golden (Alexander's)	<i>Zizia aurea</i> Early	0.070	0.31	6	\$120	4.4	7.9	1.5%	\$8	Perennial Forb	
8 Coreopsis, Lanceleaf tickseed	<i>Coreopsis lanceolata</i> Mid	0.15	1.10	5	\$1,280	7.3	4.8	5.5%	\$192	Perennial Forb	X
9 Prairie Clover, White	<i>Dalea candida</i> Mid	0.050	0.35	9	\$90	7.0	5.0	1.7%	\$5	Perennial Forb, Legume	X
10 Prairie Clover, Purple	<i>Dalea purpurea</i> Mid	0.20	1.25	8	\$45	6.2	5.6	6.2%	\$9	Perennial Forb, Legume	X
11 Bunchflower, Illinois	<i>Desmanthus illinoensis</i> Mid	0.26	0.36	4	\$45	1.4	25.1	1.8%	\$12	Perennial Forb, Legume	
12 Coneflower, Eastern Purple	<i>Echinacea purpurea</i> Mid	0.25	0.61	6	\$45	2.4	14.4	3.0%	\$11	Perennial Forb	X
13 Oxeye, Smooth (False Sunflower)	<i>Helopsis helianthoides</i> Late	0.10	0.24	4	\$60	2.4	14.7	1.2%	\$6	Perennial Forb	X
14 Alumroot	<i>Heuchera richardsonii</i> Early	0.0020	0.51	8	\$900	252.5	0.1	2.5%	\$2	Perennial Forb	

15	Blazing Star, Dense	<i>Liatris spicata</i>	0.010		7	\$150	4.0	8.7	0.2%	\$2	Perennial Forb	X
	Input bloom period ->	Mid		0.040								
16	Bergamot, Wild	<i>Monarda fistulosa</i>	0.040		4	\$150	27.5	1.3	5.5%	\$6	Perennial Forb	X
	Input bloom period ->	Mid		1.10								
17	Goldenrod, Stiff	<i>Oligoneuron rigidum</i>	0.020		4	\$225	15.1	2.3	1.5%	\$5	Perennial Forb	X
	Input bloom period ->	Late		0.30								
18	Beardtongue, Foxglove	<i>Penstemon digitalis</i>	0.015		4	\$150	47.8	0.7	3.6%	\$2	Perennial Forb	
	Input bloom period ->	Early		0.72								
19	Cinquefoil, Tall	<i>Potentilla arguta</i>	0.0070		10	\$120	84.5	0.4	2.9%	\$0.84	Perennial Forb	
	Input bloom period ->	Mid		0.59								
20	Mountainmint, Narrowleaf	<i>Pycnanthemum tenuifolium</i>	0.0070		4	\$450	138.8	0.3	4.8%	\$3	Perennial Forb	X
	Input bloom period ->	Late		0.97								
21	Mountainmint, Virginia (Common)	<i>Pycnanthemum virginianum</i>	0.0010		5	\$450	80.8	0.4	0.4%	\$0.45	Perennial Forb	X
	Input bloom period ->	Late		0.081								
22	Coneflower, Pinnate Prairie (Gray-head)	<i>Ratibida pinnata</i>	0.050		4	\$60	14.3	2.4	3.6%	\$3	Perennial Forb	
	Input bloom period ->	Mid		0.72								
23	Susan, Black-eyed	<i>Rudbeckia hirta</i>	0.063		2	\$45	34.4	1.0	10.8%	\$3	Biennial Forb	X
	Input bloom period ->	Mid		2.17								
24	Susan, Browneyed	<i>Rudbeckia triloba</i>	0.050		3	\$90	12.9	2.7	3.2%	\$5	Biennial Forb	X
	Input bloom period ->	Late		0.64								
25	Goldenrod, Gray (Field)	<i>Solidago nemoralis</i>	0.0050		3	\$600	110.2	0.3	2.7%	\$3	Perennial Forb	X
	Input bloom period ->	Late		0.55								
26	Aster, Smooth Blue	<i>Symphotrichum laeve</i>	0.0040		8	\$300	18.4	1.9	0.4%	\$1	Perennial Forb	X
	Input bloom period ->	Late		0.073								
27	Aster, Calico	<i>Symphotrichum lateriflorum</i>	0.0030		2	\$600	91.8	0.4	1.4%	\$2	Perennial Forb	X
	Input bloom period ->	Late		0.28								
28	Aster, New England	<i>Symphotrichum novae-angliae</i>	0.0040		4	\$300	24.2	1.4	0.5%	\$1	Perennial Forb	X
	Input bloom period ->	Late		0.097								
29	Spiderwort, Bluejacket (Ohio)	<i>Tradescantia ohiensis</i>	0.0010		3	\$300	2.9	11.9	0.0%	\$0.30	Perennial Forb	
	Input bloom period ->	Early		0.0029								
30	Verbena, Hoary	<i>Verbena stricta</i>	0.030		2	\$75	12.3	2.9	1.8%	\$2	Perennial Forb	X
	Input bloom period ->	Mid		0.37								
31	Culver's Root	<i>Veronicastrum virginicum</i>	0.0010		6	\$1,200	275	0.1	1.4%	\$1	Perennial Forb	X
	Input bloom period ->	Mid		0.28								
32										\$0.00		
	Input bloom period ->											
33										\$0.00		
	Input bloom period ->											
34										\$0.00		
	Input bloom period ->											
35										\$0.00		
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36										\$0.00		
	Input bloom period ->											
37										\$0.00		
	Input bloom period ->											
38										\$0.00		
	Input bloom period ->											
39										\$0.00		
	Input bloom period ->											
40										\$0.00		
	Input bloom period ->											
		Species Richness	lbs / acre PLS	seeds / ft ² PLS	Average CC	ESTIMATED FORB COST (\$/AC)		COST (\$/AC)	\$333			
FORBS/LEGUMES TOTAL		31	1.89	14.96	4.6							

CHOOSE YOUR VINE OR Sub-Shrub PLANT SPECIES												
Common Name	Scientific Name	Lbs / acre PLS	Seeds / ft ² PLS	Coefficient of Conservatism	Estimated Cost (\$/lb)	# Seeds / ft ² @ 1 oz. / ac	Pure Stand PLS Rate lbs / ac	% of Mix	Estimated Cost (\$/ac)	Functional Group	Monarch Preferred	
	Flowering Period	Equivalent rate below										
1	Leadplant	<i>Amorpha canescens</i>	0.015	0.094	8	\$225.00	6	6	0.0%	\$3	Sub-Shrub, Legume	X
	Input bloom period ->	Mid										
2										\$0.00		
	Input bloom period ->											
3										\$0.00		
	Input bloom period ->											
4										\$0.00		
	Input bloom period ->											
5										\$0.00		
	Input bloom period ->											
		Species Richness	Lbs / acre PLS	seeds / ft ² PLS	Average CC	ESTIMATED VINE & WOODY COST (\$/AC)		COST (\$/AC)	\$3			
VINE & WOODY PLANT TOTAL		1	0.02	0.09	8.0							

	lbs / acre PLS	seeds / ft ² PLS	Average CC	Species Richness	Floristic Quality Index		ESTIMATED GRAND TOTAL COST (\$/AC)
GRAND TOTAL	2.67	20.1	4.8	35	28.2		\$345

Illinois NRCS 420 Wildlife Habitat Planting: Pollinator and Monarch Full Seeding Requirements			
Requirement	Criteria	Mix	Criteria Met
All mixes			
Spring Blooming Forbs & Shrubs, Minimum	3	3	Meets Criteria
Summer Blooming Forbs & Shrubs, Minimum	3	11	Meets Criteria
Fall Blooming Forbs & Shrubs, Minimum	3	4	Meets Criteria
Tall Grass Species in the Mix (Big Bluestem, Indiangrass, or Switchgrass)	Absent	Absent	Meets Criteria
Requirements for sites on < 5% slope			
Grass Seeds/ft ² , Maximum	5	5.1	Meets Criteria
Forb & Sub-shrub Seeds/ft ² , Minimum	15	15.1	Meets Criteria
Total Seeds/ft ² , Minimum	20	20.1	Meets Criteria
Requirements for sites on >=5% slope			
Grass Seeds/ft ² , Minimum	10	5.1	Does Not Meet Criteria
Forb & Sub-shrub Seeds/ft ² , Minimum	30	15.1	Does Not Meet Criteria
Total Seeds/ft ² , Minimum	40	20.1	Does Not Meet Criteria
Additional Requirement for Monarch Plantings			
Milkweed % PLS seeds/ft ² , Minimum	1.5%	1.6%	Meets Criteria
Monarch preferred Forbs % PLS seeds/ft ² , Minimum	60.0%	76.3%	Meets Criteria

Illinois NRCS 420 Wildlife Habitat Planting: Pollinator and Monarch Interseeding 1/2 Rate			
Requirement	Criteria	Mix	Criteria Met
All mixes			
Spring Blooming Forbs & Shrubs, Minimum	3	3.0	Meets Criteria
Summer Blooming Forbs & Shrubs, Minimum	3	13.0	Meets Criteria
Fall Blooming Forbs & Shrubs, Minimum	3	7.0	Meets Criteria
Tall Grass Species in the Mix (Big Bluestem, Indiangrass, or Switchgrass)	Absent	Absent	Meets Criteria
Grass and Forb Interseeding on < 5% slope			
Grass Seeds/ft ² , Maximum	2.5	5.1	Does Not Meet Criteria
Forb & Sub-shrub Seeds/ft ² , Minimum	7.5	15.1	Meets Criteria
Total Seeds/ft ² , Minimum	10.0	20.1	Meets Criteria
Grass and Forb Interseeding on >= 5% slope			
Grass Seeds/ft ² , Minimum	5	5.1	Does Not Meet Criteria
Forb & Sub-shrub Seeds/ft ² , Minimum	15.0	15.1	Meets Criteria
Total Seeds/ft ² , Minimum	20.0	20.1	Meets Criteria
Additional Requirement for Monarch Plantings			
Milkweed % PLS seeds/ft ² , Minimum	1.5%	1.6%	Meets Criteria
Monarch preferred Forbs % PLS seeds/ft ² , Min	60.0%	76.3%	Meets Criteria
Forb Only Interseeding on < 5% slope			
Forb & Sub-shrub Seeds/ft ² , Minimum	7.5	15.1	Meets Criteria
Forb Only Interseeding on >= 5% slope			
Forb & Sub-shrub Seeds/ft ² , Minimum	15.0	15.1	Meets Criteria