



Plant Recommendations for Monarch Butterflies

Southern Plains: *Kansas, Oklahoma and Texas*

NRCS is working with agricultural producers to combat the decline of monarch butterflies by planting milkweed and other nectar-rich wildflowers on private lands. The agency collaborated with the Xerces Society to reach out to biologists across the country to recommend the best plant species for conservation practices based on literature and personal observations. Biologists were represented from the Oklahoma State University, Austin Butterfly Forum and Texas Discovery Gardens at Fair Park.

For the monarch-friendly conservation plantings the NRCS is helping landowners to implement, agency biologists recommend that 50 to 75 percent of plants come from this list with at least 3 percent of the plantings consisting of milkweed species. Milkweed is the only larval food source for the monarch butterfly. In the Southern Plains, milkweed species vary by soil type. The deep clay soils in the blackland prairie

support **green milkweed** (*Asclepias viridis*) while **antelope horns milkweed** (*Asclepias asperula*) is more common on thinner limestone and caliche soils. **Side-cluster milkweed** (*Asclepias oenotheroides*) thrives in disturbed areas with thin soil and low vegetation across the region.

Plant species which were reported to be of superlative use to the monarch were rated as "Very High" value, as were plants mentioned in multiple sources as providing nectar to monarchs. Other plant species which were also cited as attractive to monarchs but with less frequency were given the rating of "High" value.

Southern Plains Region: TX, OK, KS				Bloom (x), Monarch Presence (orange)										Commercially available	
Monarch Value	Species name	Common name	Growth Habit	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Seeds	Live Plants	
Very High	<i>Solidago nemoralis</i>	gray goldenrod	forb/herb				x	x	x	x	x		x	x	
Very High	<i>Conoclinium coelestinum</i>	blue mistflower	forb/herb					x	x	x	x	x	x	x	
Very High	<i>Helianthus maximiliani</i>	Maximilian sunflower	forb/herb						x	x	x	x	x	x	
Very High	<i>Liatris punctata</i>	dotted blazing star	forb/herb						x	x	x		x	x	
Very High	<i>Verbesina encelioides</i>	golden crownbeard	forb/herb		x	x	x	x	x	x	x		x		
Very High	<i>Verbesina virginica</i>	white crownbeard	forb/herb						x	x	x	x	x		
High	<i>Glandularia bipinnatifida</i>	Dakota mock vervain	forb/herb	x	x	x	x	x	x	x	x		x	x	
High	<i>Conoclinium betonicifolium</i>	betonyleaf thoroughwort	forb/herb	x	x	x	x	x	x					x	
High	<i>Lantana urticoides</i>	West Indian shrub verbena	shrub		x	x	x	x	x	x	x		x	x	
High	<i>Helenium amarum</i>	sneezeweed	forb/herb		x	x	x	x	x	x			x	x	
High	<i>Asclepias tuberosa</i>	butterfly milkweed	forb/herb			x	x	x	x	x			x	x	
High	<i>Eryngium yuccifolium</i>	button eryngo	forb/herb			x	x	x	x				x	x	
High	<i>Echinacea angustifolia</i>	blacksamson echinacea	forb/herb			x	x	x					x	x	
High	<i>Cephalanthus occidentalis</i>	common buttonbush	shrub/tree				x	x	x	x			x	x	
High	<i>Dalea purpurea</i>	purple prairie clover	forb/herb				x	x	x	x			x	x	
High	<i>Vernonia baldwinii</i>	Baldwin's ironweed	forb/herb					x	x	x	x	x	x		
High	<i>Salvia azurea</i> var. <i>azurea</i>	azure blue sage	forb/herb					x	x	x	x		x	x	
High	<i>Helianthus annuus</i>	common sunflower	forb/herb					x	x	x	x		x	x	
High	<i>Silphium laciniatum</i>	compassplant	forb/herb					x	x	x			x	x	
High	<i>Symphotrichum ericoides</i> var. <i>ericoides</i>	white heath aster	forb/herb							x	x	x	x	x	
High	<i>Salvia azurea</i>	azure blue sage	forb/herb							x	x	x	x	x	

Unavailable/Difficult to Find

Very High	<i>Asclepias viridis</i> *	green antelopehorn	forb/herb		x	x	x	x	x	x			x	x
Very High	<i>Bidens aristosa</i>	bearded beggarticks	forb/herb					x	x				x	
Very High	<i>Baccharis neglecta</i>	Rooseveltweed	shrub						x	x	x			
Very High	<i>Grindelia papposa</i>	Spanish gold	forb/herb						x	x				
Very High	<i>Eupatorium serotinum</i>	lateflowering thoroughwort	forb/herb							x	x	x	x	
Very High	<i>Ageratina havanensis</i>	Havana snakeroot	shrub								x	x		x
High	<i>Conoclinium greggii</i>	palmleaf thoroughwort	forb/herb	x	x	x	x	x	x	x	x	x		x
High	<i>Verbena halei</i>	Texas vervain	forb/herb/subshrub	x	x	x	x							
High	<i>Packera obovata</i>	roundleaf ragwort	forb/herb	x	x	x	x							x

Note on the background shading: **white** – very high value and readily available as both seeds and plants except for the plant listed under the unavailable/difficult to find
light green – very high value and less available
medium green – high value and readily available as both seeds and plants

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Monarch Value	Species name	Common name	Growth Habit	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Seeds	Live Plants	
High	<i>Polygonum pensylvanicum</i>	Pennsylvania smartweed	forb/herb	x	x	x							x		
High	<i>Castilleja indivisa</i>	entireleaf Indian paintbrush	forb/herb	x	x	x							x		
High	<i>Funastrum cynanchoides</i>	finged twinevine	forb/herb/vine		x	x	x	x	x					x	
High	<i>Centaurea americana</i>	American star-thistle	forb/herb			x	x						x		
High	<i>Dalea multiflora</i>	roundhead prairie clover	forb/herb/subshrub				x	x					x		
High	<i>Onosmodium bejariense</i>	soft-hair marbleseed	forb/herb				x	x							
High	<i>Silphium radula</i>	roughstem rosinweed	forb/herb				x	x	x						
High	<i>Cunila origanoides</i>	common dittany	forb/herb/subshrub					x	x	x			x	x	
High	<i>Eryngium leavenworthii</i>	Leavenworth's eryngo	forb/herb					x	x	x					
High	<i>Oligoneuron nitidum</i>	shiny goldenrod	forb/herb					x	x	x				x	
High	<i>Helianthus grosseserratus</i>	sawtooth sunflower	forb/herb						x	x	x	x	x		
High	<i>Liatris elegans</i>	pinkscale blazing star	forb/herb						x	x	x		x		
High	<i>Solidago petiolaris</i>	downy ragged goldenrod	forb/herb						x	x	x		x		
High	<i>Symphyotrichum anomalum</i>	manyray aster	forb/herb						x	x	x				
High	<i>Symphyotrichum praealtum</i>	willowleaf aster	forb/herb							x	x				
High	<i>Solidago rugosa</i>	wrinkleleaf goldenrod	forb/herb							x				x	

USDA, NRCS. 2015. The PLANTS Database (<http://plants.usda.gov>, 1 June 2015). National Plant Data Team, Greensboro, NC 27401-4901 USA.

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