

PRAIRIE STEWARDS
Seed Collection
Tallgrass Prairie National Preserve
April 2020

Summer of 2019 Prairie Steward Volunteers began native prairie seed collection at Tallgrass Prairie National Preserve (TAPR) for the purpose of prairie reconstruction at TAPR. Prairie seed is expensive and most species are unavailable commercially. More importantly, gathering seed locally retains the regional genotypes. Plus, seed gathered at TAPR ensures that only plant species occurring on the property will be used and no non-native species introduced.

A *Seed Collection Chart* follows with spring flowering plants and approximate seed dates to facilitate seed collection. A chart of plants collected in 2019 by Prairie Stewards Volunteers is also attached to this report. The volunteers collected a lot of seed and had a lot of fun last year.

The CoC column of the chart refers to Coefficients of Conservatism. These are numerical indicators of species' fidelity to native plant communities. Coefficients express two basic ecological tenets: plants differ in their tolerance of the type, frequency, and amplitude of anthropogenic disturbance; and plants vary in their fidelity to remnant natural plant communities. Low coefficient values of 0, 1, or 2 denote species often found in highly disturbed habitats. High coefficient values denote species that tolerate only limited disturbance and usually are found in natural plant communities. Non-native species are not assigned coefficients and none are listed on the seed chart.

The Type Growth (TG) column identifies (F)orb, (G)rasses and grasslike plants, (V)ining plants, and (W)oody species.

The last section contains *Seed Photos*. The key to measure at the bottom of each photo is 1/16 inch per notch. The photos are taken of seeds as they disarticulate or fall from the plant. The way plants drop seeds varies by species. Some seeds do not easily separate from the old flower parts or the fruit. Terminology for various disarticulation arrangements can be complex, for example, spikelet, floret, caryopsis, cypsela, achene, or nutlet. For purposes here all will simply be called seeds. When the photos are printed as prepared on standard letter size paper the seeds will be shown actual size. They are easy to view enlarged on a digital screen.

All information is not complete at this time, but more dates, photos, and plants will be added or updated annually as more data is gathered.

Contact person: Michele Kessler
Prairie Stewards Volunteer Coordinator
Cell 785-979-1611

Tallgrass Prairie National Preserve Seed Collection Chart Scientific Name	Iralee Barnard 2020 Common Name	When Seed is Ready... Weeks	M A Y J U N J U L A U G												Years Collected	Bloom Date by Month	C O G	T O G			
			1	2	3	4	1	2	3	4	1	2	3	4					1	2	3	4
Erythronium mesochoreum	midland fawn lily		●	●															3 Mar-Apr	7	F
Anemone caroliniana	Carolina anemone		...	●	●														4 Apr-May	5	F
Lomatium foeniculaceum	carrot-leaf wild celery		....	●	●														4 Apr-May	6	F
Nothocalais cuspidata	wavy-leaf false dandelion		....	●	●	●													4 Apr-May	7	F
Hypoxis hirsuta	yellow star grass		.....	●	●	●	●												4 Apr-May	5	F
Packera plattensis	prairie groundsel		.....	●	●	●	●												4 Apr-May	5	F
Sisyrinchium campestre	blue-eyed grass		.....	●	●	●	●												4 Apr-May	6	F
Viola pedatifida	prairie violet		.....	●	●	●	●	●											4 Apr-May	6	F
Ceanothus herbaceus	New Jersey tea		.....	.....	.....	.....	.....	.....	.....										4 Apr-May	8	W
Glandularia canadensis	rose verbena		.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....					4 Apr-May	3	F
Delphinium carolinianum	prairie larkspur		.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....					5 May-Jun	6	F
Pediomelum esculentum	breadroot scurfpea		.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....					5 May-Jun	7	F
Pyrrhopappus grandiflorus	tuberous false dandelion		.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....					5 May-Jun	4	F
Tradescantia bracteata	bracted spiderwort		.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....					4 Apr-May	4	F
Callirhoe alcaeoides	pale poppy mallow		.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....				2019	4 Apr-Jun	6	F
Koeleria macrantha	Junegrass		.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....					5 May-Jun	6	G
Tradescantia ohioensis	Ohio spiderwort		.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....					5 May-Jun	5	F
Pediomelum tenuiflorum	wild alfalfa		.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....					6 Jun-Jul	3	F
Polytaenia nuttallii	Nuttall's prairie parsley		.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....					5 May-Jun	6	F
Linum sulcatum	grooved flax		.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2019	5 May-Aug	6	F
Allium canadense	meadow wild onion		.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....				2019	5 May-Jun	5	F
Baptisia bracteata	plains wild indigo		.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....				2019	4 Apr-Jun	6	F
Hieracium longipilum	hairy hawkweed		.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....					7 Jul-Aug	5	F
Lithospermum incisum	narrow-leaf puccoon		.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....				2019	4 Apr-Jun	5	F

This is a work in progress. It is intended as a help in selecting and locating seeds of various plant species. All of the plants listed here are found at Tallgrass Prairie National Preserve (TAPR). Few woody plants or wetland plants were selected.

This chart will be updated every year of seed collecting to better reflect details about each plant as more information is acquired. Please report dates and locations of collected seeds on your seed bags. Your name and anything else you would like to note about collecting is welcome.

Seeds Collected in 2019






Tallgrass Prairie National Preserve Seed Collection Chart		Iralee Barnard 2020	Bloom Date by Month	C o c	T G				
Scientific Name	Common Name								
Baptisia bracteata	plains wild indigo		4 Apr-Jun	6	F				
Callirhoe alcaeoides	pale poppy mallow		4 Apr-Jun	6	F				
Lithospermum incisum	narrow-leaf puccoon		4 Apr-Jun	5	F				
Achillea millefolium	yarrow		5 May-Aug	1	F				
Linum sulcatum	grooved flax		5 May-Aug	6	F				
Elymus virginicus	Virginia wild rye		5 May-Jul	5	G				
Oenothera macrocarpa	Missouri evening primrose		5 May-Jul	5	F				
Onosmodium molle	marbleseed		5 May-Jul	4	F				
Allium canadense	meadow wild onion		5 May-Jun	5	F				
Asclepias viridis	spider milkweed		5 May-Jun	1	F				
Baptisia australis	blue wild indigo		5 May-Jun	6	F				
Penstemon cobaea	cobaea penstemon		5 May-Jun	5	F				
Ruellia humilis	fingeleaf ruellia		5 May-Sep	3	F				
Asclepias syriaca	common milkweed		6 Jun-Aug	1	F				
Clematis pitcheri	Pitcher's clematis		6 Jun-Aug	4	V				
Dalea aurea	golden prairie clover		6 Jun-Aug	5	F				
Dalea multiflora	round-headed prairie clover		6 Jun-Aug	7	F				
Dalea purpurea	purple prairie clover		6 Jun-Aug	7	F				
Desmanthus illinoensis	Illinois bundleflower		6 Jun-Aug	2	F				
Mentzelia oligosperma	stickleaf mentzelia		6 Jun-Aug	4	F				
Mimosa quadrivalis	cat claw sensitive briar		6 Jun-Aug	6	F				
Ratibida columnifera	upright prairie coneflower		6 Jun-Aug	4	F				
Silphium laciniatum	compass plant		6 Jun-Aug	4	F				
Verbena stricta	hoary vervain		6 Jun-Aug	1	F				
Amorpha canescens	leadplant		6 Jun-Jul	7	W				
Arnoglossum plantagineum	tuberous Indian plantain		6 Jun-Jul	6	F				
Asclepias sullivantii	smooth milkweed		6 Jun-Jul	5	F				
Asclepias tuberosa	butterfly milkweed		6 Jun-Jul	6	F				
Dalea candida	white prairie clover		6 Jun-Jul	7	F				
Desmodium illinoense	Illinois tickclover		6 Jun-Jul	5	F				
Echinacea angustifolia	narrow-leaf purple coneflower		6 Jun-Jul	6	F				
Elymus canadensis	Canada wild rye		6 Jun-Jul	5	G				
Bouteloua hirsuta	hairy grama		6 Jun-Sep	6	G				
Senna marilandica	Maryland senna		7 Jul-Aug	3	F				
Stenosiphon linifolius	flax-leaf stenosisiphon		7 Jul-Aug	6	F				
Chamaecrista fasciculata	partridge pea		7 Jul-Oct	2	F				
Schizachyrium scoparium	little bluestem		7 Jul-Oct	5	G				
Andropogon gerardii	big bluestem		7 Jul-Sep	4	G				
Bouteloua curtipendula	sideoats grama		7 Jul-Sep	5	G				
Silphium integrifolium	showy rosinweed		7 Jul-Sep	3	F				
Vernonia baldwinii	western ironweed		7 Jul-Sep	2	F				
Brickellia eupatorioides	false boneset		8 Aug-Oct	2	F				
Liatris aspera	rough gayfeather		8 Aug-Oct	6	F				
Paspalum floridanum	Florida paspalum		8 Aug-Oct	8	G				







Tallgrass Prairie National Preserve Seed Collection Chart		Iralee Barnard 2020	Bloom Date by Month	C o C	T G F
Scientific Name	Common Name				
<i>Sorghastrum nutans</i>	Indian grass		8 Aug-Oct	5	G
<i>Sporobolus compositus</i>	rough dropseed		8 Aug-Oct	3	G
<i>Agalinis aspera</i>	rough gerardia		8 Aug-Sep	7	F
<i>Eragrostis spectabilis</i>	purple lovegrass		8 Aug-Sep	3	G
<i>Helianthus maximiliani</i>	maximilan sunflower		8 Aug-Sep	3	F
<i>Lespedeza capitata</i>	round-headed lespedeza		8 Aug-Sep	6	F
<i>Liatis punctata</i>	dotted gayfeather		8 Aug-Sep	5	F
<i>Hedyotis nigricans</i>	narrow-leaf bluet		9 Sep-Oct	5	F
<i>Spiranthes cernua</i>	nodding lady's tresses		9 Sep-Oct	5	F
<i>Spiranthes lacera</i>	slender lady's tresses		9 Sep-Oct	6	F
<i>Symphyotrichum ericoides</i>	white heath aster		9 Sep-Oct	5	F
<i>Symphyotrichum oblongifolium</i>	aromatic aster		9 Sep-Oct	5	F
<i>Symphyotrichum sericeum</i>	silky aster		9 Sep-Oct	8	F















When printed the seeds are shown actual size.







These images show the seeds as they appear when they disarticulate from the plant. Other flower parts maybe be still attached to the seed.







Prairie Stewards Seed Chart Tallgrass Prairie National Preserve	
Iralee Barnard January 2020	
Scientific name	Seed image
Common name	Actual size
Achillea millefolium Yarrow	
Agalinis aspera rough gerardia	
Amorpha canescens leadplant	
Andropogon gerardii big bluestem	
Arnoglossum plantagineum tuberous Indian plantain	







	<p>Asclepias tuberosa</p> <p>butterfly milkweed</p>	
	<p>Baptisia australis</p> <p>blue wild indigo</p>	
	<p>Bouteloua curtipendula</p> <p>sideoats grama</p>	
	<p>Bouteloua hirsuta</p> <p>hairy grama</p>	
	<p>Brickellia eupatorioides</p> <p>false boneset</p>	
	<p>Callirhoe alcaeoides</p> <p>pale poppy mallow</p>	




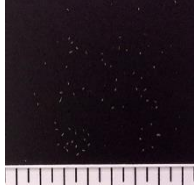


	<p><i>Chamaecrista fasciculata</i></p> <p>partridge pea</p>	
	<p><i>Clematis pitcher</i></p> <p>Pitcher's Clematis</p>	
	<p><i>Dalea multiflora</i></p> <p>round-headed prairie clover</p>	
	<p><i>Dalea purpurea</i></p> <p>purple prairie clover</p>	
	<p><i>Desmanthus illinoensis</i></p> <p>Illinois bundleflower</p>	
	<p><i>Echinacea angustifolia</i></p> <p>narrow-leaf purple coneflower</p>	



	<p><i>Elymus canadensis</i></p> <p>Canada wild rye</p>	
	<p><i>Eragrostis spectabilis</i></p> <p>purple lovegrass</p>	
	<p><i>Eupatorium altissimum</i></p> <p>tall eupatorium</p>	
	<p><i>Houstonia nigricans</i></p> <p>narrow-leaf bluet</p>	
	<p><i>Helianthus maximiliani</i></p> <p>maximilan sunflower</p>	
	<p><i>Helianthus pauciflorus</i></p> <p>stiff sunflower</p>	

	<p>Lespedeza capitata</p> <p>round-headed lespedeza</p>	
	<p>Liatris punctata</p> <p>dotted gayfeather</p>	
	<p>Mentzelia oligosperma</p> <p>stickleaf mentzelia</p>	
	<p>Mimosa quadrivalis</p> <p>cat claw sensitive briar</p>	
	<p>Oenothera macrocarpa</p> <p>Missouri evening primrose</p>	
	<p>Onosmodium molle</p> <p>marbleseed</p>	

	<p>Panicum virgatum</p> <p>switchgrass</p>	
	<p>Paspalum floridanum</p> <p>Florida paspalum</p>	
	<p>Pediomelum esculentum</p> <p>breadroot scrufpea</p>	
	<p>Penstemon cobaea</p> <p>cobaea penstemon</p>	
	<p>Polytaenia nuttallii</p> <p>Nuttall's prairie parsley</p>	
	<p>Ratibida columnifera</p> <p>upright prairie coneflower</p>	

	<p>Ruellia humilis</p> <p>fringeleaf ruellia</p>	
	<p>Salvia azurea</p> <p>blue sage</p>	
	<p>Schizachyrium scoparium</p> <p>little bluestem</p>	
	<p>Senna marilandica</p> <p>Maryland Senna</p>	
	<p>Silphium integrifolium</p> <p>showy rosinweed</p>	
	<p>Silphium laciniatum</p> <p>compass plant</p>	

	<p>Solidago missouriensis</p> <p>Missouri goldenrod</p>	
	<p>Sorghastrum nutans</p> <p>Indian grass</p>	
	<p>Spartina pectinata</p> <p>prairie cordgrass</p>	
	<p>Spiranthes cernua</p> <p>nodding ladies' tresses</p>	
	<p>Sporobolus heterolepis</p> <p>prairie dropseed</p>	
	<p>Stenosiphon linifolius</p> <p>flax-leaf stenosiphon</p>	

	<p>Symphotrichum oblongifolium</p> <p>aromatic aster</p>	
	<p>Symphotrichum sericeum</p> <p>silky aster</p>	
	<p>Teucrium canadense</p> <p>American germander</p>	