

R076XY012KS — Limy Upland 31-38 PZ: Historic Climax Plant Community

Plant Community Photos



Historic Climax Plant Community

Plant Community Description

The interpretive plant community for this site is the Historic Climax Plant Community (HCPC). This plant community represents the original plant community that existed prior to European settlement. The site is characterized as a grassland with a minor scattering of shrubs. It is dominated by tall warm season grasses including big bluestem, switchgrass and Indiangrass. The major midgrass is little bluestem. Combined, these grasses will account for 70 to 80 percent of vegetation produced annually. Other prevalent grasses are sideoats grama, western wheatgrass and blue grama. Scattered throughout are minor amounts of numerous mid and shortgrasses.

The site supports a wide variety of legume species which are interspersed throughout the grass sward. The most abundant are slimflower scurfpea, Nuttall's sensitive-briar, Maxmilian sunflower, prairie bundleflower and blue wild indigo. Other important forbs include compassplant, wholeleaf rosinweed, dotted blazing star, pitcher sage, upright prairie coneflower, and Cuman ragweed.

Leadplant and Jersey tea are low growing shrubs that occur over the site. Unlike most shrubs, these plants are both quite tolerant to fire. Occasional clumps of coralberry and fragrant sumac may be found on the steeper sloped exposures or in areas of rock outcrops.

This is a stable plant community when adequately managed. A prescribed grazing program that incorporates periods of deferment during the growing season benefits the tallgrasses and even the more palatable forb species. Moderately sloping areas are readily grazed while steeply sloped ones are less intensively grazed. Excessive grazing and livestock trailing can quickly impact soil stability on this site and lead to sheet and gully erosion.

Plant Community Tables

Annual Production (Lbs/Acre)			
Plant Type	Low	Representative Value	High
Grass/Grasslike	3,100	4,300	5,650
Forb	350	500	625
Shrub/Vine	150	200	225
Tree	0	0	0
Totals	3,600	5,000	6,500

Plant Species Composition (Lbs/Acre)				
Grass/Grasslike				
Group	Plant Common Name	Plant Scientific Name	Annual Production Pounds Per Acre	
			Low	High
1: Grass/Grasslike			1900	3550
	big bluestem	Andropogon gerardii	1400	2600
	switchgrass	Panicum virgatum	150	350
	Indiangrass	Sorghastrum nutans	200	500
	eastern gamagrass	Tripsacum dactyloides	0	100
2: Grass/Grasslike			700	1200
	little bluestem	Schizachyrium scoparium	700	1200
3: Grass/Grasslike			400	700
	prairie threeawn	Aristida oligantha	0	20
	purple threeawn	Aristida purpurea	0	20
	sideoats grama	Bouteloua curtipendula	100	400
	blue grama	Bouteloua gracilis	40	100
	hairy grama	Bouteloua hirsuta	10	60
	buffalograss	Bouteloua dactyloides	10	50
	tumble windmill grass	Chloris verticillata	0	20
	Carolina crabgrass	Digitaria cognata	0	20
	prairie cupgrass	Eriochloa contracta	0	20
	gummy lovegrass	Eragrostis curtipedunculata	0	20
	plains lovegrass	Eragrostis intermedia	0	30
	purple lovegrass	Eragrostis spectabilis	0	30
	plains muhly	Muhlenbergia cuspidata	0	20
	rock muhly	Muhlenbergia sobolifera	0	20
	witchgrass	Panicum capillare	0	20
	fall panicgrass	Panicum dichotomiflorum	0	20
	vine mesquite	Panicum obtusum	0	20
	tumblegrass	Schedonnardus paniculatus	0	20
	composite dropseed	Sporobolus compositus var. compositus	20	40
	sand dropseed	Sporobolus cryptandrus	0	30
	purpletop tridens	Tridens flavus	0	30

Plant Species Composition (Lbs/Acre)				
Grass/Grasslike				
Group	Plant Common Name	Plant Scientific Name	Annual Production Pounds Per Acre	
			Low	High
4: Grass/Grasslike			100	200
	field brome	Bromus arvensis	0	0
	smooth brome	Bromus inermis	0	0
	cheatgrass	Bromus tectorum	0	0
	Scribner's rosette grass	Dichanthelium oligosanthes var. scribnerianum	10	40
	fall rosette grass	Dichanthelium wilcoxianum	0	20
	Canada wildrye	Elymus canadensis	10	40
	squirreltail	Elymus elymoides ssp. elymoides	0	20
	porcupinegrass	Hesperostipa spartea	0	30
	foxtail barley	Hordeum jubatum	0	20
	little barley	Hordeum pusillum	0	20
	Torrey's rush	Juncus torreyi	0	20
	prairie Junegrass	Koeleria macrantha	0	20
	tall fescue	Schedonorus arundinaceus	0	0
	western wheatgrass	Pascopyrum smithii	20	60
	Kentucky bluegrass	Poa pratensis	10	30

Plant Species Composition (Lbs/Acre)				
Forb				
Group	Plant Common Name	Plant Scientific Name	Annual Production Pounds Per Acre	
			Low	High
5: Forb			125	225
	prairie acacia	Acacia angustissima	0	30
	groundplum milkvetch	Astragalus crassicus	0	20
	blue wild indigo	Baptisia australis var. minor	10	40
	golden prairie clover	Dalea aurea	0	20
	white prairie clover	Dalea candida	0	20
	nineanther prairie clover	Dalea enneandra	0	20
	purple prairie clover	Dalea purpurea var. purpurea	10	30
	Illinois bundleflower	Desmanthus illinoensis	10	30
	Illinois ticktrefoil	Desmodium illinoense	0	20
	sessileleaf ticktrefoil	Desmodium sessilifolium	0	30
	roundhead lespedeza	Lespedeza capitata	0	30
	sericea lespedeza	Lespedeza cuneata	0	0
	sweetclover	Melilotus officinalis	0	0
	Nuttall's sensitive-briar	Mimosa nuttallii	20	50
	purple locoweed	Oxytropis lambertii var. lambertii	0	20
	large Indian breadroot	Pediomelum esculentum	0	20
	silky sophora	Sophora nuttalliana	0	30
6: Forb			150	250
	Maximilian sunflower	Helianthus maximiliani	20	60
	stiff sunflower	Helianthus pauciflorus ssp. pauciflorus	10	30
	pitcher sage	Salvia azurea var. grandiflora	10	40
	wholeleaf rosinweed	Silphium integrifolium	30	80
	compassplant	Silphium laciniatum	30	80

Plant Species Composition (Lbs/Acre)				
Forb				
Group	Plant Common Name	Plant Scientific Name	Annual Production Pounds Per Acre	
			Low	High
7: Forb			75	150
	common yarrow	Achillea millefolium	0	30
	annual ragweed	Ambrosia artemisiifolia	0	10
	prairie broomweed	Amphiachyris dracunculoides	0	20
	field pussytoes	Antennaria neglecta	0	20
	white sagebrush	Artemisia ludoviciana	0	30
	common milkweed	Asclepias syriaca	0	20
	butterfly milkweed	Asclepias tuberosa	0	40
	whorled milkweed	Asclepias verticillata	0	20
	green antelopehorn	Asclepias viridis	0	30
	false boneset	Brickellia eupatorioides	0	20
	purple poppymallow	Callirhoe involucrata	0	30
	yellow sundrops	Calylophus serrulatus	0	20
	downy paintedcup	Castilleja sessiliflora	0	20
	wavyleaf thistle	Cirsium undulatum	0	30
	golden tickseed	Coreopsis tinctoria	0	20
	Carolina larkspur	Delphinium carolinianum ssp. virescens	0	10
	blacksamson echinacea	Echinacea angustifolia var. angustifolia	10	60
	pale purple coneflower	Echinacea pallida	10	80
	buckwheat	Eriogonum	0	20
	Leavenworth's eryngo	Eryngium leavenworthii	0	30
	prairie fleabane	Erigeron strigosus	0	30
	Texas goldentop	Euthamia gymnospermoides	0	20
	snow on the mountain	Euphorbia marginata	0	30
	shaggy dwarf morning-glory	Evolvulus nuttallianus	0	20
	scarlet beeblossom	Gaura coccinea	0	30
	velvetweed	Gaura parviflora	0	10
	firewheel	Gaillardia pulchella	0	20
	Carolina geranium	Geranium carolinianum	0	20
	curlycup gumweed	Grindelia squarrosa	0	20
	diamondflowers	Stenaria nigricans var. nigricans	0	20
	prairie sunflower	Helianthus petiolaris	0	20
	hairy false goldenaster	Heterotheca villosa var. villosa	0	20

Plant Species Composition (Lbs/Acre)				
Forb				
Group	Plant Common Name	Plant Scientific Name	Annual Production Pounds Per Acre	
			Low	High
	Carolina woollywhite	Hymenopappus scabiosaeus var. corymbosus	0	20
	tall blazing star	Liatris aspera	0	40
	Berlandier's yellow flax	Linum berlandieri	0	10
	meadow flax	Linum pratense	0	10
	dotted blazing star	Liatris punctata	10	40
	rush skeletonplant	Lygodesmia juncea	0	20
	chickenthiel	Mentzelia oligosperma	0	10
	beebalm	Monarda	0	20
	cutleaf evening primrose	Oenothera laciniata	0	20
	stiff goldenrod	Oligoneuron rigidum	0	30
	common yellow oxalis	Oxalis stricta	0	10
	prairie groundsel	Packera plattensis	0	20
	cobaea beardtongue	Penstemon cobaea	0	30
	white wand beardtongue	Penstemon tubaeiflorus	0	10
	woolly plantain	Plantago patagonica	0	20
	upright prairie coneflower	Ratibida columnifera	0	30
	blackeyed Susan	Rudbeckia hirta	0	30
	fringeleaf wild petunia	Ruellia humilis	0	30
	small skullcap	Scutellaria parvula	0	20
	prairie blue-eyed grass	Sisyrinchium campestre	0	20
	Canada goldenrod	Solidago altissima	0	30
	Missouri goldenrod	Solidago missouriensis	10	40
	scarlet globemallow	Sphaeralcea coccinea	0	30
	false gaura	Stenosiphon linifolius	0	30
	white heath aster	Symphyotrichum ericoides	10	30
	Fendler's aster	Symphyotrichum fendleri	0	20
	aromatic aster	Symphyotrichum oblongifolium	0	30
	greenthread	Thelesperma	0	20
	yellow salsify	Tragopogon dubius	0	10
	prairie spiderwort	Tradescantia occidentalis	0	20
	clasping Venus' looking-glass	Triodanis perfoliata	0	20
	branched noseburn	Tragia ramosa	0	20
	California nettle	Urtica dioica ssp. gracilis	0	20
	interior ironweed	Vernonia baldwinii ssp. interior	10	40
	hoary verbena	Verbena stricta	0	20

Plant Species Composition (Lbs/Acre)				
Forb				
Group	Plant Common Name	Plant Scientific Name	Annual Production Pounds Per Acre	
			Low	High
	common blue violet	Viola sororia	0	20

Plant Species Composition (Lbs/Acre)				
Shrub/Vine				
Group	Plant Common Name	Plant Scientific Name	Annual Production Pounds Per Acre	
			Low	High
8: Shrub/Vine			150	225
	leadplant	Amorpha canescens	30	100
	Jersey tea	Ceanothus herbaceus	20	50
	roughleaf dogwood	Cornus drummondii	0	30
	Missouri foxtail cactus	Escobaria missouriensis	0	20
	pricklypear	Opuntia	0	20
	fragrant sumac	Rhus aromatica var. serotina	0	40
	winged sumac	Rhus copallinum	0	40
	smooth sumac	Rhus glabra	0	40
	golden currant	Ribes aureum	0	30
	prairie rose	Rosa arkansana	0	40
	coralberry	Symphoricarpos orbiculatus	0	50

Plant Species Composition (Lbs/Acre)				
Tree				
Group	Plant Common Name	Plant Scientific Name	Annual Production Pounds Per Acre	
			Low	High
9: Tree			0	0
	eastern redcedar	Juniperus virginiana	0	0

Plant Growth Curve											
Growth Curve Name Limy Upland											
Growth Curve Description Growth of warm season grasses on this site typically begins during the period of May 1 to May 15 and continues until mid September. Cool season grasses, sedges and rushes generally have two primary growth periods, one in the fall (September and October) and again in the spring (April, May and June). Some growth may occur in winter months during periods of unseasonably warm temperatures (Indian summers). As a general rule, 75 percent of total production is completed by mid-July. This varies only slightly from year to year depending on temperature and precipitation patterns.											
Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
0%	1%	3%	7%	23%	33%	17%	8%	5%	2%	1%	0%