



Glade, Prairie, and Savanna Herbaceous Establishment

Missouri Job Sheet

JS-MO643 Glade, Prairie, and Savanna Herbaceous Establishment

Natural Resources Conservation Service (NRCS)
November 2015

Missouri Conservation Practice 643

Landowner/Producer:		Farm #:
Field/Stand(s):	Acres:	Tract #:
Planned By:		County:
Contact Information:		Date:

DEFINITION

Restoring and conserving rare or declining native vegetated communities and associated wildlife species

PURPOSES (check all that apply)

- Establish glade community
- Establish prairie community
- Establish savanna community
- Overseed remnant glade
- Overseed remnant prairie
- Overseed remnant savanna
- Increase native local ecotype plant community diversity
- Provide habitat for rare and declining wildlife species

CONDITION WHERE PRACTICE APPLIES

Savanna restoration will only be applied on fields with ecological site map units designated as "savanna" that have map units containing a major component tied to a savanna ecological site comprising over 50% of the field. Savannas occurred primarily in upland landscapes with limited occurrence in bottomland. Savannas in Missouri contain widely spaced, open grown oak trees (10 to 30% canopy coverage) with an herbaceous, prairie-like understory.

Prairie restoration will only be applied on fields with ecological site map units designated as "prairie" that have map units containing a major component tied to a prairie ecological site comprising over 50% of the field. Prairie communities are largely devoid of trees (less than 10%) with an abundance of forbs (wildflowers), grasses and sedges.



A successful planting is often the result of proper site preparation, the use of locally adapted seed, proper seeding methods and maintenance after planting.



Glade restoration will only be applied on fields with ecological site map units designated as “glade” that have map units containing a major component tied to a glade ecological site comprising over 50% of the field. Glade communities primarily occur south of the Missouri River on south and west facing slopes. Drought tolerant forbs and grasses are common on glades. A few trees, such as eastern red cedar, also occur on glades.

SPECIFICATIONS

Any vegetation that would hinder planting or provide excessive competition to the seeding should be removed with the appropriate treatment. See Brush Management Job Sheet (JS-MO314).

Site preparation is planned as follows (check all that applies):

- Removal of existing woody vegetation
- Chemical control of herbaceous vegetation
- Mechanical means such as plowing, disking or roto-tilling
- Prescribed burning based on a current approved prescribed burn plan
- Other:

In some cases existing woody vegetation will need to be removed to restore the desired plant community. A combination of practices may be used to reach your objectives. After removal of woody vegetation less than 10% canopy should remain for prairie, less than 30% for glade, and 10 to 30% for savanna. Cut stumps, other than cedar or pine, shall be treated with an approved herbicide to prevent resprouting.

Field	Acres	Planned Treatment	Species Removed	Percent Canopy Remaining	Time of Treatment

Prescribed burning, disking, haying, mowing or grazing shall be used to remove old, dead herbaceous vegetation to prepare the site for an herbicide application or for overseeding into remnant plant communities. Prescribed burning can also be used to remove cut woody vegetation after it has had time to dry.

Field	Acres	Planned Treatment	Time of Treatment

If a chemical application is needed, use the following products at label rates. One to three herbicide applications may be necessary to remove undesirable herbaceous vegetation from an existing remnant community or future planting site. Crop fields being converted to prairie or savanna should still receive at least one chemical application to eradicate winter annuals and persistent perennial weeds. Crop fields being converted should be sprayed in October - November or late February to early March before seeds begin to germinate. Old fields with perennial weeds such as tall fescue, smooth brome, or tall goldenrod may require two entire growing seasons and multiple herbicide applications to correctly prepare the site.

Avoid tilling the ground prior to planting as this will only increase weed competition and potential soil erosion.

Field	Acres	Herbicide	Time of First Treatment	Time of Second Treatment	Time of Third Treatment



REMNANT NATIVE VEGETATION

Existing desirable trees, shrubs and herbaceous vegetation should be maintained based on the planned community. The amount of desirable vegetation may limit site preparation activities. If desirable native forbs, grasses and sedges are intermixed with undesirable herbaceous vegetation consider the following techniques to control unwanted vegetation: 1) use selective herbicides to reduce the chance of killing native vegetation; 2) apply herbicides when native vegetation is dormant; 3) use other control methods such as prescribed burning; or 4) use a combination of different techniques. Tillage should be avoided if remnant vegetation is present on the site.

The following fields contain existing desirable native vegetation that should be maintained. Refer to other planned treatments for management recommendations for these fields.

Field	Acres	Woody Species	Herbaceous Species

PLANTING DATES

Once the site has been prepared for seeding, whether for overseeding a remnant or establishing a new plant community, a dormant seeding is the required method of establishment for native forbs, grasses and sedges. Many forb species require 30-90 days of cold, moist stratification before germinating, and a dormant seeding is the easiest way to achieve the necessary stratification. The best months for a dormant seeding are December and January.

The site will be planted:

- Dormant seeding (November 16 – March 15 for Northern Missouri)
- Dormant seeding (December 1 – February 29 for Southern Missouri)

PLANTING METHODS

Planting methods will vary from site to site, depending upon the conditions of the site. Broadcasting seed by hand may be the most practical way of planting restored glades or savannas and areas less than 3 acres. For hand seeding, mix the seed with an inert carrier such as cat litter, pelletized lime, dried distiller’s grain, cotton seed hulls, milogranite, rice hulls, sawdust or sand to better distribute the seed over the entire area. Mix the seed and carrier at a 1:1 or 1:2 ratio. For small areas an ATV-mounted spreader or seeder can also be used. Traditional planting methods will be more practical on larger fields.

Another alternative is to mix the seed with potash or lime and spread with a fertilizer buggy. Broadcast seedings should not be dragged, disked or harrowed after planting. Instead use a cultipacker (with teeth up) to roll the ground, or with dormant seedings just let the action of freezing and thawing work the seed into the ground. **If you do not see seed on the top of the ground when you are finished, then you planted too deep.**

The site will be planted using (check all that apply):

- Broadcast
- No-till drill
- Other:

SEEDING MIXES AND LOCATION AND LAYOUT (SEE PLAN MAP)

If you are establishing native forbs with cost-share, be certain you are following the requirements of the RESTORATION and MANAGEMENT of RARE or DECLINING HABITATS (643) conservation practice which require plant material selection based on plant material selection will be based on:

1. The use of Missouri Source Identified Class (herbaceous material) – Missouri source is defined as a native plant that source genetically originated in Missouri; was not introduced; and existed within the state borders prior to arrival of



settlers. The location of the wild growing parents must be within Missouri and implies that the geographical location is known.

2. All seed from herbaceous material shall comply with Missouri seed laws including Missouri Crop Improvement Association guidance. All seed will comply with AOSCA (Association of Official Seed Certifying Agencies) certification procedures (including appropriate tagging) to include third-party verification by the Missouri Crop Improvement Association of source, genetic identity, and genetic purity of wildland collected or field or nursery grown plant germplasm materials. Seed must be Missouri origin (grown in Missouri) and certified as Missouri Source Identified Class. If Missouri origin (grown) source Identified class seed is not available Missouri source identified class seed may be obtained only from adjoining states.

Source Identified Certification means:

- Parent seed is collected from natural remnant Missouri populations
- No selection, testing, or breeding for specific traits
- Production fields are inspected to verify species, source, and lack of noxious weeds.
- Seed is certified for purity and germination.

Improved varieties or cultivars shall not be used for glade, prairie or savanna restoration projects. Reseeding of glades is only necessary on under rare circumstances, and only after the need is verified based on an on-site evaluation conducted after prescribed burning has been applied to the site. Consider the site's past uses and history before planning new seeding or over-seeding. Depending upon the level of restoration required, some sites may only need native forbs or grasses or both native forbs and grasses. See Table 1 and 2 for approved grasses and forbs.

Conservation of the monarch butterfly is critically important as it represents other pollinators and is experiencing precipitous declines, therefore, it is recommended that at least 1 species of approved milkweed (Asclepias spp.) is included in the seed mix (see Tables 1 and 2). Also see the Monarch Habitat Information Sheet (IS-MO643Monarch) for more specific information related to the monarch. A general recommendation is to plant at least three pounds of pure live seed (PLS) per acre, comprised of at least 9 species with no single species exceeding 15 percent of the total mixture. Annuals and biennials combined also should not exceed 10 percent of the mixture. A minimum of three flowering species will be included for each season (spring, summer, fall) for native pollinator plantings (see the Native Forb Information Sheet (IS-MO643Forbs) on the Missouri NRCS e-FOTG site at <http://efotg.sc.egov.usda.gov/treemenuFS.aspx> under Section IV, Upland Wildlife Habitat Management (645) standard). This helps ensure a nice diversity, and that the stand will be dominated by perennials, which will persist over time.

The native grass mixture for prairie and savanna restoration will contain a minimum of 4 species with the total amount of the grass seed in the mix to equal 4 pounds PLS per acre. Glades will require a minimum of 3 species and 3 pounds PLS per acre.

For prairie and savanna plantings little bluestem will be planted at 2.8# PLS/acre, with all other grass species limited to no more than 0.4 PLS/acre. Glades will be planted to little bluestem at 1.2# PLS/acre, plus either sideoats grama or broomsedge at 1.4# PLS/acre. All other grasses will be limited to no more than 0.4# PLS/acre.

Glade

Field(s)	Restoration practice	Acres to be seeded	Missouri Native Forb Mix (Total Pounds)	Missouri Native Grasses	Total Pounds (by specie)



Prairie or Savanna

A shrub planting is planned for the prairie

A tree and/or shrub planting are planned for the savanna.

Field(s)	Restoration practice	Acres to be seeded	Missouri Native Forb Mix (Total Pounds)	Missouri Native Grasses	Total Pounds (by specie)

OPERATION AND MAINTENANCE: Care after Planting

First and second year maintenance: Removal of competing vegetation is normally carried out for one growing season following establishment. Where applicable, mow as often as necessary during the first growing season to control competing vegetation. Competing vegetation and native grasses and wildflowers should be cut to a height of 6 inches when the average weed height is 1 foot. A flail-type mower is preferred, as it thoroughly cuts and shreds the vegetation and avoids smothering native grass and wildflower seedlings. Do not mow once the planting has gone dormant in late fall. During the second year mow only if weeds are out-competing the native grasses and wildflowers. The second year mowing should only be completed between March 15th and May 1st, or make certain that you mow above the height of the forb seedlings. Mow, clip or use approved herbicides as often as necessary to control noxious weeds and undesirable plants during the establishment period. Avoid the use of broad spectrum herbicides and spot treat infestations with a selective herbicide.

Long-term Management: Once the stand is established the introduction of management practices is essential to maintain the vegetative community. Management practice will vary by program and landowner objectives. See 643 Restoration and Management of Rare or Declining Habitats for management recommendations by community type. **Prescribed burning is essential to the restoration and management of glade, prairie, and savanna. Long term management is not feasible without prescribed burning even if other management methods are used.**

PRIMARY HABITAT CONSIDERATIONS:

- RESTORATION and MANAGEMENT of RARE or DECLINING HABITATS (643).
- Provide natural food and cover for many declining animal species.

REFERENCES:

Refer to the following job sheets, information sheets or detailed management plan for additional information.

- JS-BIOL-20 Native Forb and Non-native Legume Interseeding
- JS-BIOL-30 Controlling Undesirable Species
- JS-MO314 Brush Management
- JS-MO612 Tree and Shrub Establishment
- IS-MO338 Prescribed Burning Information Sheet
- IS-MO643 Glade Information Sheet
- IS-MO643 Prairie Information Sheet
- IS-MO643 Savanna Information Sheet



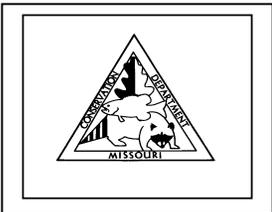


Comment:

I certify that the above information meets NRCS specifications and design and installation.

NRCS SIGNATURE

DATE



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TABLE 1 – APPROVED GRASS/GRASS LIKE – species selection will only be made from appropriate habitat type based on planting site evaluation.

Common Name	Scientific Name	Habitat Type *
GRASSES/GRASS LIKE		
Winter bent grass	<i>Agrostis hyemalis</i>	S, DP, MP, WP
Big bluestem	<i>Andropogon gerardii</i>	S, DP, MP, WP, G
Splitbeard bluestem	<i>Andropogon ternarius</i>	DP, G
Broomsedge	<i>Andropogon virginicus</i>	S, DP, MP, WP, G
Sideoats grama	<i>Bouteloua curtipendula</i>	S, DP, MP, G
River oats	<i>Chasmanthium latifolium</i>	S, MP, WP
Canada wildrye	<i>Elymus canadensis</i>	S, MP, WP
Virginia wildrye	<i>Elymus virginicus</i>	S, MP, WP, G
Cluster fescue	<i>Festuca paradoxa</i>	S, DP, MP, WP
Junegrass	<i>Koeleria cristata</i>	S, DP, MP
Switchgrass	<i>Panicum virgatum</i>	S, DP, MP, WP, G
Beaked rush	<i>Rhynchospora globularis</i>	MP, WP
Little bluestem	<i>Schizachyrium scoparium</i>	S, DP, MP, G
Tall nutgrass	<i>Scleria triglomerata</i>	S, DP, MP, WP, G
Indian grass	<i>Sorghastrum nutans</i>	S, DP, MP, G
Prairie cordgrass	<i>Spartina pectinata</i>	WP
Tall dropseed	<i>Sporobolus compositus</i>	S, DP, MP, G
Prairie dropseed	<i>Sporobolus heterolepis</i>	S, DP, MP, G
Porcupine grass	<i>Stipa spartea</i>	DP, MP
Purple top	<i>Tridens flavus</i>	S, MP
Eastern gamagrass	<i>Tripsacum dactyloides</i>	S, DP, MP, WP
Short's sedge	<i>Carex shortiana</i>	S, MP, WP
Six weeks fescue	<i>Vulpia octoflora</i>	S, DP, MP, G

* S = Oak Savanna, DP = Dry Prairie, MP = Mesic Prairie, WP = Wet Prairie, G = Glade

TABLE 2 – APPROVED FORBS - species selection will only be made from appropriate habitat type based on planting site evaluation.

Common Name	Scientific Name	Habitat Type *
Yarrow	<i>Achillea millefolium</i>	MP
Leadplant	<i>Amorpha canescens</i>	S, DP, MP, G
Meadow anemone	<i>Anemone canadensis</i>	WP
Marsh milkweed	<i>Asclepias incarnata</i>	WP
Purple milkweed	<i>Asclepias purpurascens</i>	S, DP, MP
Common milkweed	<i>Asclepias syriaca</i>	DP, MP, WP
Butterfly milkweed	<i>Asclepias tuberosa</i>	S, DP, MP, G
Whorled milkweed	<i>Asclepias verticillata</i>	S, DP, MP, G
Spider milkweed	<i>Asclepias viridis</i>	DP, MP
Fascicled false foxglove	<i>Agalinas fasciculata</i>	DP, MP
Sky blue aster	<i>Symphotrichum azureus</i>	S, DP
Smooth aster	<i>Symphotrichum laevis</i>	S
New England aster	<i>Symphotrichum novae-angliae</i>	WP
Aromatic aster	<i>Symphotrichum oblongifolius</i>	DP, MP, G
Purple daisy aster	<i>Symphotrichum patens</i>	
Willow aster	<i>Symphotrichum praealtus</i>	WP
Silky aster	<i>Symphotrichum sericeus</i>	DP, G
Canada milk vetch	<i>Astragalus Canadensis</i>	MP
White wild indigo	<i>Baptisia alba</i>	S, DP, MP, WP, G
Blue wild indigo	<i>Baptisia australis</i>	S, DP, MP, WP, G
Cream wild indigo	<i>Baptisia bracteata</i>	DP, MP, G
Tickseed Sunflower	<i>Bidens aristosa</i>	MP
Beggar tick (A)	<i>Bidens frondosa</i>	WP
Fringed poppy mallow	<i>Callirhoe digitata</i>	DP, MP
Purple poppy mallow	<i>Callirhoe involucrata</i>	DP, G
Prairie hyacinth	<i>Camassia angusta</i>	MP, WP
Wild hyacinth	<i>Camassia scilloides</i>	S, DP, MP, G
Partridge pea (A)	<i>Cassia fasciculata</i>	S, DP, MP, G
Indian paintbrush (A)	<i>Castilleja coccinea</i>	DP, MP, WP, G
New Jersey tea	<i>Ceanothus americanus</i>	S, DP, MP, G
Sensitive Pea	<i>Chamaecrista nititans</i>	S
Grandiflora coreopsis	<i>Coreopsis grandiflora</i>	DP, MP
Lanceleaf Coreopsis	<i>Coreopsis lanceolata</i>	DP, MP, G
Finger/Prairie Coreopsis	<i>Coreopsis palmata</i>	S, DP, MP, G
Plains coreopsis	<i>Coreopsis tinctoria</i>	DP, G
Tickseed coreopsis	<i>Coreopsis tripteris</i>	S, DP, MP, WP, G
Rattlebox	<i>Crotalaria sagittalis</i>	DP, G
White prairie clover	<i>Dalea candida</i>	S, DP, MP, G
Purple prairie clover	<i>Dalea purpurea</i>	S, DP, MP, G
Illinois bundle flower	<i>Desmanthus illinoensis</i>	MP, WP, G
Showy tick trefoil	<i>Desmodium canadense</i>	S, DP, MP, WP, G
Beggar's lice	<i>Desmodium canescens</i>	S, DP, MP, G
Shooting star	<i>Dodecatheon meadia</i>	S, DP, G
Pale purple coneflower	<i>Echinacea pallida</i>	S, DP, MP, G
Yellow coneflower	<i>Echinacea paradoxa</i>	S, DP, G
Purple coneflower	<i>Echinacea purpurea</i>	S, MP, WP, G



Common Name	Scientific Name	Habitat Type *
Ozark glade coneflower	<i>Echinacea simulata</i>	S, DP, MP, G
Rattlesnake master	<i>Eryngium yuccifolium</i>	S, DP, MP, G
Boneset	<i>Eupatorium perfoliatum</i>	WP
Flowering spurge	<i>Euphorbia corollata</i>	S, DP, MP, G
Rose verbena	<i>Glandularia canadensis</i>	S, DP, G
Curly cup gum plant	<i>Grindelia lanceolata</i>	S, DP, MP, G
Large-flowered Gaura	<i>Gaura longiflora</i>	DP, MP, WP, S
Sawtooth sunflower	<i>Helianthus grosseserratus</i>	DP, MP, WP, G
Ashy Sunflower	<i>Helianthus mollis</i>	DP, MP, G
Western sunflower	<i>Helianthus occidentalis</i>	DP, MP, G
Willowleaf Sunflower	<i>Helianthus salicifolius</i>	WP, MP, DP
Woodland sunflower	<i>Helianthus strumosus</i>	S
Ox-eye/false sunflower	<i>Heliopsis helianthoides</i>	S, DP, MP, G
Alum root	<i>Heuchera richardsonii</i>	DP, MP, G
Copper flag	<i>Iris fulva</i>	MP, WP
Blue flag	<i>Iris virginica shrevei</i>	WP
Roundhead lespedeza	<i>Lespedeza capitata</i>	S, DP, MP, G
Lespedeza hirta	<i>Lespedeza hirta</i>	S, DP, MP, G
Postrate lespedeza	<i>Lespedeza procumbens</i>	DP, G
Slender lespedeza	<i>Lespedeza virginica</i>	S, DP, MP, G
Violet lespedeza	<i>Lespedeza violacea</i>	S
Rough blazing star	<i>Liatris aspera</i>	S, DP, G
Glade/Bottlebrush blazing star	<i>Liatris mucronata</i>	S, DP, G
Blazing star	<i>Liatris pycnostachya</i>	DP, MP, WP, G
Eastern blazing star	<i>Liatris scariosa</i>	S, DP, MP
Squarrosa blazing star	<i>Liatris squarrosa</i>	S, DP
Squarrulosa blazing star	<i>Liatris squarrulosa</i>	S, DP, MP, G
Yellow flax	<i>Linum medium</i>	DP, MP
Cardinal flower	<i>Lobelia cardinalis</i>	WP
Blue lobelia	<i>Lobelia siphilitica</i>	WP
Seed box	<i>Ludwigia alternifolia</i>	WP
Barbara's button	<i>Marshallia caespitosa</i>	DP, MP, WP
Bunchflower	<i>Melanthium virginicum</i>	MP, WP, S (Wet)
Sensitive briar	<i>Mimosa nuttalli</i>	S, DP, MP, G
Savanna bergamot	<i>Monarda bradburiana</i>	S, DP, G
Bergamot	<i>Monarda fistulosa</i>	S, DP, MP, WP, G
Evening primrose	<i>Oenothera biennis</i>	MP
Missouri primrose	<i>Oenothera missouriensis</i>	DP,G
Sampson's snakeroot	<i>Orbexilum pedunculatum</i>	S, MP, WP
Spanish needles	<i>Palafoxia callosa</i>	S, DP, G
Wild quinine	<i>Parthenium integrifolium</i>	S, DP, MP, G
Lousewort/Wood betony	<i>Pedicularis canadensis</i>	S, DP, MP, G
Purple beardtongue	<i>Penstemon cobaea</i>	S, DP, G
Beardtongue	<i>Penstemon digitalis</i>	DP, MP, WP, G
Prairie beardtongue	<i>Penstemon tubaeflorus</i>	S, DP, MP
Narrow-leaved false dragonhead	<i>Physostegia angustifolia</i>	S, DP, MP
Obedient plant	<i>Physostegia virginiana</i>	S, MP, WP, G
Prairie parsley	<i>Polytaenia nuttallii</i>	DP, MP, WP
Prairie cinquefoil	<i>Potentilla arguta</i>	DP, MP, G
Scurfy pea	<i>Psoraleidum tenuiflorum</i>	DP, MP, WP, G
Hairy Mountain Mint	<i>Pycnanthemum pilosum</i>	S, DP, MP, WP, G
Slender mountain mint	<i>Pycnanthemum tenuifolium</i>	S, DP, MP, WP, G



Common Name	Scientific Name	Habitat Type *
Mountain mint	<i>Pycnanthemum virginianum</i>	WP
Prairie coneflower	<i>Ratibida columnifera</i>	DP, MP, G
Gray-head coneflower	<i>Ratibida pinnata</i>	S, DP, MP, G
Pasture rose	<i>Rosa carolina</i>	DP, MP, S
Prairie rose	<i>Rosa setigera</i>	MP
Black-eyed Susan (B)	<i>Rudbeckia hirta</i>	S, DP, MP, G
Missouri Black-eyed Susan	<i>Rudbeckia missouriensis</i>	DP, G
Sweet coneflower	<i>Rudbeckia subtomentosa</i>	MP, WP
Brown-eyed Susan	<i>Rudbeckia triloba</i>	S, WP
Wild petunia	<i>Ruellia humilis</i>	DP, MP, G
Pitchers sage	<i>Salvia azurea</i>	DP, MP, G
Downy skullcap	<i>Scutellaria incana</i>	S (S. MO), MP
Maryland senna	<i>Senna marilandica</i>	S, MP, WP
Royal catchfly	<i>Silene regia</i>	S, DP, MP
Rosinweed	<i>Silphium integrifolium</i>	S, DP, MP, WP, G
Compass Plant	<i>Silphium laciniatum</i>	DP, MP, WP, G
Cup plant	<i>Silphium perfoliatum</i>	WP
Prairie dock	<i>Silphium terebinthinaceum</i>	S, DP, MP, WP, G
Blue-eyed grass	<i>Sisyrinchium campestre</i>	DP
Gray goldenrod	<i>Solidago nemoralis</i>	S, DP, MP, G
Savanna goldenrod	<i>Solidago petiolaris</i>	S, DP, G
White upland aster	<i>Solidago ptarmicoides</i>	S, MP, DP, G
Riddell's goldenrod	<i>Oligoneuron riddellii</i>	WP
Rigid/Stiff goldenrod	<i>Oligoneuron rigida</i>	S, DP, MP, WP, G
Showy goldenrod	<i>Solidago speciosa</i>	S, DP, MP
Bean, Small Fuzzy	<i>Strophostyles leiosperma</i>	DP, MP, S
Goat's rue	<i>Tephrosia virginiana</i>	S, DP, MP, G
Ohio spiderwort	<i>Tradescantia ohioensis</i>	S, DP, MP, WP
Blue vervain	<i>Verbena hastata</i>	WP
Hoary vervain	<i>Verbena stricta</i>	DP, MP
Yellow ironweed	<i>Verbesina alternifolia</i>	S, BF, WP
Wingstem sunflower	<i>Verbesina helianthoides</i>	S, DP, MP
White wingstem	<i>Verbesina virginica</i>	S, BF
Ironweed	<i>Vernonia missurica</i>	MP, WP
Giant ironweed	<i>Vernonia gigantean</i>	S (Wet), WP
Culver's root	<i>Veronicastrum virginicum</i>	S, MP, WP
Golden alexander	<i>Zizia aurea</i>	S, DP, MP, WP, G

* S = Oak Savanna, DP = Dry Prairie, MP = Mesic Prairie, WP = Wet Prairie, G = Glade, BF = Bottomland Forest