

## Native Plantings

It is the goal of the City of Joliet to encourage the establishment of vegetation communities that are native to Illinois and would have been part of the Joliet landscape prior to settlement. To that end, the City of Joliet has developed a preferred list of native plants that are recommended for the establishment of native prairies.

Pre-settlement landscape conditions in the Joliet area consisted primarily of tall grass prairie. These prairies included a variety of native grasses such as big bluestem, Indian grass, switchgrass, and little bluestem, among others. However, the Illinois prairies also consisted of native, perennial wildflowers interspersed with the tall grasses of the prairie. These included species such as purple coneflower, black-eyed Susan's, prairie dock, and prairie smoke, among others. Typical Illinois prairies may have encompassed more than 800 species of perennial plants.

Although prairies were the dominant vegetation community, trees and shrubs were also components of the landscape albeit a minor part. Trees were limited to groves of oaks (called oak openings) and floodplain forests along the major rivers in the area. Areas in which the prairie interspersed with the scattered native oaks, were called savannas, which also would have been a common landscape component in pre-settlement Joliet.

The recommended plant lists included in the ordinance are species that are considered native perennial prairie species. The prairie plants selected are considered hardy and are more tolerant of urban conditions. The approved plant lists include a list for areas of poor drainage (wet) conditions and mesic/upland prairies for well drained and sloping terrain.

Native prairies can be established through either seeding, planting live plugs and tubers, or a combination of both methods. The approved plant lists include the recommended quantities of seeds per acre in either pounds or ounces. It is recommended that any seeding efforts be supplemented by the installing of live plugs and tubers, generally 100 per acre per selected species. If the entire area is to be planted through plugs and tubers, they should be installed in a random fashion on approximate eight (8) inch centers.

All seeds to be used will be cultivated, not gathered from the wild, and from nursery stock grown within 300 miles of Joliet. Seeding should be done between October 15 and November 15. Hand broadcast seed should be mixed with four parts clean, fine, damp sand with one part seed. Cover and nurse crop shall consist of winter wheat and oats at the rate of 18 pounds per acre and to be seeded between October 15 and November 15. Wildflower seeds will be sowed ¼ inch deep; grass seeds will be sowed ½ deep.

Rangeland Type Grass Drill and Interseeding Attachment are the preferred equipment designed specifically for the seeding of native prairie grasses. When interseeding into existing turf, the rangeland type grass drill must be equipped with a non-till interseeding attachment that can cut a slit in the soil free of leaves and debris, place the seed in the slit, and compact the seed into the soil in the slit.

## PLANT LIST

### Sedge Meadow Zone/Wet Prairie

Common name	Scientific Name	Quantity/Acre
Sweet flag	<i>Acorus calamus</i>	8.50 Oz.
Swamp milkweed	<i>Asclepias incarnata</i>	1.50 Oz.
Bebb's sedge	<i>Carex bebbii</i>	4.00 Oz.
Lake sedge	<i>Carex lacustris</i>	3.00 Oz.
Tussock sedge	<i>Carex stricta</i>	6.00 Lbs.
Fox sedge	<i>Carex vulpinoidea</i>	2.75 Oz.
Turtlehead	<i>Chelone glabra</i>	4.00 Lbs.
Willow herb	<i>Epilobium coloratum</i>	3.00 Oz.
Spotted Joe Pye weed	<i>Eupatorium maculatum</i>	3.00 Oz.
Boneset	<i>Eupatorium perfoliatum</i>	3.00 Oz.
Dudley's rush	<i>Juncus dudleyi</i>	3.00 Lbs.
Torrey's rush	<i>Juncus torreyi</i>	3.00 Lbs.
Rice cutgrass	<i>Leersia oryzoides</i>	1.00 Oz.
Blazing star	<i>Liatris spicata</i>	6.00 Oz.
Cardinal flower	<i>Lobelia cardinalis</i>	0.25 Oz.
Great blue lobelia	<i>Lobelia siphilitica</i>	0.25 Oz.
Cut-leaf water horehound	<i>Lycopus americanus</i>	1.00 Oz.
Switch grass	<i>Panicum virgatum</i>	0.50 Lbs.
False dragonhead	<i>Physostegia virginiana</i>	6.00 Oz.
Swamp buttercup	<i>Ranunculus septentrionalis</i>	4.00 Lbs.
Chairmakers rush	<i>Scirpus americanus</i>	3.00 Oz.
Wool grass	<i>Scirpus cyperinus</i>	1.00 Oz.
Riddell's goldenrod	<i>Solidago riddelli</i>	2.50 Lbs.
Common spiderwort	<i>Tradescantia ohimensis</i>	1.00 Oz.
Common ironweed	<i>Vernonia fasciculata</i>	3.00 Oz.

### Mesic Prairie

Common name	Scientific Name	Quantity/Acre
Lead plant	<i>Amorpha canescens</i>	3.00 Oz.
Little bluestem	<i>Andropogon scoparius</i>	32.00 Oz.
Sky blue aster	<i>Aster azureus</i>	2.00 Oz.
New England Aster	<i>Aster novae-angliae</i>	1.25 Oz.
Canada milkvetch	<i>Astragalus canadensis</i>	3.00 Oz.
Prairie coreopsis	<i>Coreopsis palmata</i>	5.00 Oz.
Tall coreopsis	<i>Coreopsis tripteris</i>	3.00 Oz.
Purple prairie clover	<i>Dalea purpurea</i>	4.00 Oz.
Pale Purple Coneflower	<i>Echinacea pallida</i>	3.00 Oz.
Purple coneflower	<i>Echinacea purpurea</i>	3.00 Oz.
Canada rye	<i>Elymus canadensis</i>	18.00 Oz.
Virginia wild rye	<i>Elymus virginicus</i>	18.00 Oz.
Rattlesnake master	<i>Eryngium yuccifolium</i>	4.00 Oz.
Prairie smoke	<i>Geum triflorum</i>	2.00 Oz.
Downy sunflower	<i>Helianthus mollis</i>	8.00 Oz.
Round headed bush clover	<i>Lespedeza capitata</i>	3.00 Oz.
Rough blazing star	<i>Liatris aspera</i>	10.00 Oz.
Prairie blazing star	<i>Liatris pycnostachya</i>	1.00 Oz.
Purple prairie clover	<i>Petalostemum purpureum</i>	3.00 Oz.
Prairie Cinquefoil	<i>Potentilla arguta</i>	2.00 Oz.
Grey-headed coneflower	<i>Ratibida pinnata</i>	2.00 Oz.
Black-eyed Susan	<i>Rudbeckia hirta</i>	2.00 Oz.
Sweet brown eyed Susan	<i>Rudbeckia subtomentosa</i>	2.00 Oz.
Brown-eyed Susan	<i>Rudbeckia triloba</i>	2.00 Oz.
Rosinweed	<i>Silphium integrifolium</i>	8.00 Oz.
Compass Plant	<i>Silphium laciniatum</i>	10.00 Oz.
Cup-plant	<i>Silphium perfoliatum</i>	8.00 Oz.
Prairie dock	<i>Silphium terebinthinacea</i>	8.00 Oz.
Mountain blue-eyed grass	<i>Sisyrinchium campestre</i>	3.00 Oz.
Stiff goldenrod	<i>Solidago rigida</i>	3.00 Oz.
Prairie cordgrass	<i>Spartina pectinata</i>	16.00 Oz.
Prairie dropseed	<i>Sporobolus heterolepis</i>	12.00 Oz.
Culver's root	<i>Veronicastrum virginicum</i>	2.00 Oz.
Golden alexander	<i>Zizia aurea</i>	5.00 Oz.

**Prairie/savanna mix**

<b>Common name</b>	<b>Scientific Name</b>	<b>Quantity/Acre</b>
Butterfly weed	<i>Asclepias tuberosa</i>	3.00 Oz.
Canada milkvetch	<i>Astragalus canadensis</i>	3.00 Oz.
White wild indigo	<i>Baptisia leucantha</i>	3.50 Oz.
Side oats grama	<i>Bouteloua curtipendula</i>	20.00 Oz.
Wild hyacinth	<i>Camassia scilloides</i>	2.00 Oz.
Partridge pea	<i>Cassia fasciculata</i>	3.00 Oz.
Indian paintbrush	<i>Castilleja coccinea</i>	3.00 Oz.
New Jersey tea	<i>Ceanothus americana</i>	8.00 Oz.
Prairie redroot	<i>Ceanothus ovatus</i>	3.00 Oz.
Lance-leaf coreopsis	<i>Coreopsis lanceolata</i>	3.00 Oz.
Shooting star	<i>Dodecatheon meadia</i>	2.00 Oz.
Purple coneflower	<i>Echinacea purpurea</i>	6.00 Oz.
Virginia wild rye	<i>Elymus virginicus</i>	18.00 Oz.
Prairie smoke	<i>Geum triflorum</i>	2.00 Oz.
Canada hawkweed	<i>Hieracium canadense</i>	3.00 Oz.
Wild bergamot	<i>Monarda fistulosa</i>	6.00 Oz.
Wild quinine	<i>Parthenium integrifolium</i>	4.00 Oz.
Prairie phlox	<i>Phlox pilosa</i>	6.00 Oz.
Jacob's ladder	<i>Polemonium reptans</i>	6.00 Oz.
Prairie buttercup	<i>Ranunculus rhomboides</i>	3.00 Oz.
Yellow coneflower	<i>Ratibida pinnata</i>	2.00 Oz.
Black-eyed Susan	<i>Rudbeckia hirta</i>	2.00 Oz.
Sweet brown eyed Susan	<i>Rudbeckia subtomentosa</i>	2.00 Oz.
Brown-eyed Susan	<i>Rudbeckia triloba</i>	2.00 Oz.
Starry campion	<i>Silene stellata</i>	5.00 Oz.
Rosinweed	<i>Silphium integrifolium</i>	8.00 Oz.
Compass plant	<i>Silphium laciniatum</i>	10.00 Oz.
Prairie dock	<i>Silphium terebinthinacea</i>	8.00 Oz.
Prairie goldenrod	<i>Solidago patula</i>	2.50 Oz.
Golden alexander	<i>Zizia aurea</i>	5.00 Oz.

### Ditch Species

Common name	Scientific Name	Quantity/Acre
Buffalo grass	<i>Buchloe dactyloides</i>	4.00 Lbs.
Hardstem bulrush	<i>Scirpus acutus</i>	0.25 Oz.
Softstem bulrush	<i>Scirpus validus</i>	0.25 Oz.
Prairie cordgrass	<i>Spartina pectinata</i>	2.00 Oz.

### Short grass/Small area plantings

Common name	Scientific Name	Quantity/Acre
Little bluestem	<i>Andropogon scoparius</i>	32.00 Oz.
Side oats grama	<i>Bouteloua curtipendula</i>	20.00 Oz.
Buffalo grass	<i>Buchloe dactyloides</i>	4.00 Lbs.
Black-eyed Susan	<i>Rudbeckia hirta</i>	2.00 Oz.
Sweet brown eyed Susan	<i>Rudbeckia subtomentosa</i>	2.00 Oz.
Brown-eyed Susan	<i>Rudbeckia triloba</i>	2.00 Oz.
Prairie dropseed	<i>Sporobolus heterolepis</i>	12.00 Oz.

### Tree Species

Common name	Scientific Name
Shagbark hickory	<i>Carya ovata</i>
White oak	<i>Quercus alba</i>
Swamp white oak	<i>Quercus bicolor</i>
Bur oak	<i>Quercus macrocarpa</i>
Black oak	<i>Quercus velutina</i>

### Shrubs

Common name	Scientific Name
Red osier dogwood	<i>Cornus stolonifera</i>
Hazelnut	<i>Corylus americana</i>
Ninebark	<i>Physocarpa opulifolius</i>
Black haw	<i>Viburnum prunifolium</i>
Arrowwood	<i>Viburnum rafinesquianum</i>

The use of big bluestem (*Andropogon gerardii*) and Indian grass (*Sorghastrum nutans*) will be limited to areas in which conditions would limit the growth of a more diverse prairie stand. These two species trend towards mono-typic stands and can out-compete the less aggressive native wildflowers. The use of these two species will require approval from the City prior to their use in a native prairie restoration/creation.

Native prairie vegetation can be utilized in parking lot “islands” and narrow land strips with proper planning. To prevent the vegetation from dropping into the active parking areas upon dormancy, it is recommended that parking lot islands and narrow land strips

be planted with a limited mix of short grass and wildflower mixtures. The approved list of species for this use is included in the planting lists.

The use of trees and shrubs in the proposed prairie landscape plan will be limited to the following species that are considered the native climax trees of northern Illinois. To replicate pre-settlement conditions, the trees and shrubs should be scattered across the site in random plantings (when space allows). Trees and shrubs should not constitute more than five (5) percent of the native landscape area.

In areas zoned for native landscaping, the use of conifers will be limited as there are no known native conifers that thrived in the Joliet area. The use of conifers for screening purposes will have to be approved individually. Conifers already approved for use in Joliet under other ordinances will be the recommended species.

### Management/Maintenance

The following are the preferred methods for managing prairies and native landscapes. Historically, prairies in Illinois evolved from fire, which favored the deep rooted native prairie vegetation over the more shallow rooted trees and non-native vegetation. In an urban setting, burning may not always be feasible.

#### Mowing:

Mowing is a method of weed control; however, mowing should only be conducted during the first two years of prairie establishment. Mowing should only be required if weed cover is determined to be a problem for establishment of native grasses and wildflowers. The use of a rotary type mower is recommended to prevent creation of mats of clippings. Do not mow shorter than a ten (10) inch height. The goal is to cut the non-native plants early in the growing season. These plants tend to sprout earlier in the growing season. Mowing will not occur after June 30.

Mowing, direct plant herbicide application and hand pulling are the primary recommended methods of weed control to be utilized.

#### Herbicide Applications:

Round-up and Rodeo (Glyphosates) are the recommended chemical herbicides to be used. All applications will be conducted by licensed herbicide applicators.

#### Burn Management:

Prescribed burning is the typical method of long-term enhancement and weed control in the prairie restoration/creations. Burning shall be conducted annually or as deemed necessary by a landscape contractor. Burning should not occur for the first two years to encourage the accumulation of dead plant material for fuel.

All IEPA burn permits shall be obtained by the landscape contractor. Authorization to conduct prescribed burns within the City will require approval.