Native Plants for Pollinators and other Beneficial Insects

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Cooperative Extension and Research
Native Plants Program

Aug 4-5, 2009
Native Pollinators and Native Plants
Jefferson City
Native Plants Program

Lincoln University Cooperative Extension

The Native Plants Program (NPP) assists farmers, ranchers and others to learn to identify native plants, use them in landscaping, produce them as specialty crops (dyes, seed production, food), and/or establish them for wildlife habitat and other conservation practices.

Goals: to increase awareness about the importance of native plants, native pollinators and other important wildlife, and to advance the knowledge of NP as potential crops for small farms.

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Bloodroot

*Sanguinaria canadensis*
Outreach and Education
• Workshops and Seminars
• Field Days-
• Demonstration Gardens
• Outdoor laboratories

Research
• Native cool-season grasses
Nature Outdoor Laboratories at Lincoln University

Purpose
The purpose for citizens and visitors to learn to identify local vegetation including prairie, savanna, woodland, wetland, and glade flora, and benefit from a relaxing and attractive environment.

Perennial flowers, grasses, shrubs, and trees naturally growing in Missouri will provide cover and food for butterflies and birds and transform these areas into nature outdoor classrooms.
Locations

Allen Hall at Lincoln University Campus
Allen Hall at Lincoln University Campus
Lincoln University Busby Farm: Naturescaping with native plants, savanna restoration, short and tall grass prairie establishment, prescribe burn training, nature trail, etc.
• Manheim Community Garden in Kansas City: Demonstration native plant gardens to attract pollinators.

• Martin Civic Center in Marshall, MO: Demonstration and interpretation native plant gardens. Funded by the Buckner Foundation.
Native Plant Research

Poverty grass (*Danthonia spicata*): shade tolerance and turfgrass potential studies.

4 shade levels to evaluate growth and seed production

Native cool-season grasses trials to determine persistence:
- Manna grass
- Cluster fescue
- Virginia wildrye
- River oats
2009 Events

• Native Plant Sale-Bradford Farm, April 2009

• Bobwhite quail/Native Plant Field Day-June 18-MU/LU

• Native Plant Propagation Workshop – LU/MDC/MOBOT
  • June 23-Carver Farm, Jefferson City/June 30 STL/TBA KC

• Creating Habitat for Native Pollinators Workshop-
  • Aug 4-5/PDP-SARE-LU/MU-Train the trainers

• Nature and Agriculture in the City: Kansas City and Marshall, MO. Aug 22 and Aug 29-LU

• In Touch with Nature at Busby Farm-Field Day
  • Saturday Oct. 3-LU
Native plant perennials attractive for beneficial insects including bees

<table>
<thead>
<tr>
<th>Common name</th>
<th>Scientific name</th>
<th>Blooming months</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blue lobelia</td>
<td><em>Lobelia siphilitica</em></td>
<td>Aug-Sept-Oct</td>
</tr>
<tr>
<td>Canada anemome</td>
<td><em>Anemone canadensis</em></td>
<td>April-July</td>
</tr>
<tr>
<td>Culver’s root</td>
<td><em>Veronicastrum virginianum</em></td>
<td>July-August</td>
</tr>
<tr>
<td>Cup plant</td>
<td><em>Silphium perfoliatum</em></td>
<td>July-Sep</td>
</tr>
<tr>
<td>Goldenrod</td>
<td><em>Solidago spp</em></td>
<td>Sept-October</td>
</tr>
<tr>
<td>Horsemint</td>
<td><em>Monarda spp.</em></td>
<td>July-Sep</td>
</tr>
</tbody>
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Adapted from: [http://nativeplants.msu.edu](http://nativeplants.msu.edu)  (Michigan State University)
Great blue lobelia: *Lobelia siphilitica*

Average to wet soil

- yellow-faced bees
- sweat bees
- small carpenter bees
- bumble bees
- Predators

Blooming: Aug-Oct

Shade tolerant
Canada or meadow anemone (*Anemone canadense*)

- Attracts many natural enemies and few native bees
- Full sunlight to moderate shade
- Can be used for ground cover
- Medium soil moisture
Culver’s root (*Veronicastrum virginicum*)

Very attractive for bees:
- Sweat bees
- Small carpenter bees
- Bumble bees

- Average to wet soil
- Moderate shade to full sun
Cup plant (*Silphium perfoliatum*)

- Sunflower family
  - Sun-chokes
  - Compas plant
  - Prairie dock

- Blooming: summer-fall
- Sweat, leafcutter bees
- Small carpenter bees
- Digger and bumble bees

- Full sunlight to moderate shade
- Moist to average soil moisture
- Provides seed for birds-Fall
Goldenrods (*Solidago* spp)

- Attracts bees, butterflies, and wasps
- Blooms: summer and fall
- Responds to mowing
- Dry to moist soil

Tall goldenrod (*Solidago altissima*)
Stiff goldenrod (*Solidago rigida*)

- Attracts bees, butterflies, and wasps
- Blooms: late summer and fall
- Well drained soil
- Full sun
Wild Bergamot (*Monarda fistulosa*)

Full sun to some shade - bees, flies

(Mint family)
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<tr>
<td>Joe-pye weed</td>
<td><em>Eupatorium purpureum</em></td>
<td>Aug-Sep</td>
</tr>
<tr>
<td>New England Aster</td>
<td><em>Aster nova-angliae</em></td>
<td>Sep-Oct</td>
</tr>
<tr>
<td>Sand coreopsis</td>
<td><em>Coreopsis lanceolata</em></td>
<td>Late spring-Fall</td>
</tr>
<tr>
<td>Swamp milkweed</td>
<td><em>Asclepias incarnata</em></td>
<td>July-August</td>
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Joe-pye weed: *Eupatorium maculatum*

- Blooms late sp early fall
- Full sun
- Tolerates shade
- Dry to moist soil

- Bumble bees
- Digger bees
- Wasps and other natural enemies
Late boneset (*Eupatorium serotinum*)
New England aster (Aster nova-angliae)

- Blooms in Sep-Oct
- Attracts many bees and other beneficial insects
- Dry to moist soil
Lanceleaf coreopsis (*Coreopsis lanceolata*)

- Full sun
- Dry to moist soil
- Attracts: many bees, butterflies, moths, Wasps, flies, skippers
- Midspring – Midsummer- Fall (mowed)

Source: http://www.illinoiswildflowers.info/prairie/plantx/
Milkweeds
Swamp milkweed (*Asclepias incarnata*)
• Common and swamp milkweed
• Moist to wet soil
• Monarch butterflies and many other butterflies
• Blooms: summer
Common milkweed
(*Asclepias syriaca*)
Butterfly weed

*Asclepias tuberosa*
Butterfly weed
*Asclepias verticillata*

- Full sun
- Dry to moist soil
- Attracts: many bees, butterflies, moths, Wasps, flies, skippers

- Midspring –Midsummer- Fall (mowed)
Slender mountain mint
(Pycnanthemum tenuifolium)
Partridge pea (*Chamaechrista fasciculata*)
Annual Legume
Nitrogen fixing legume-reseeds itself
Shrubs

Important component in farms to provide cover—fodder for beneficial insects and other wildlife

April

*Prunus americana*

American plum

Used for nesting by many songbirds
Food for quail, birds, and small mammals

September
Hibiscus lasiocarpus
(Rose mallow)

- Soil conservation
- Wildlife food, cover, and nesting
- Facultative wetland
- Landscape potential
- Cotton family
False wild indigo
Amorpha fruticosa
Nitrogen-fixing shrub - full sun to shade
Food for bees, wasps, and other insects
Quail and other birds eat the seed
Climbing rose *Rosa setigera*

- Good cover for small mammals and birds
- Birds consume berries
- Moderate shade to full sunlight

Easy to grow from cuttings and seed
Buttonbush (*Cephalanthus occidentalis*)

For wet sites, attracts bees, flies, butterflies, wasps, hummingbirds, etc.
Plant-Insect Interactions

Vernonia spp (ironweeds)

Sassafrass albidum
Solidago spp (goldenrod).
*Solidago spp* (common goldenrod).
Sambucus canadensis (Elderberry)
Hibiscus lasiocarpus (rose mallow).
References from Michigan State University
Attracting Beneficial Insects with Native Flowering Plants.
MSU Extension Bulletin
office (517-353-6740) to order copies. The bulletin inventory number is E-2973.

Conserving Native Bees on Farmland.
Includes native bee biology with practical advice for increasing native bee abundance on farms.
Call the MSU Extension Bulletin office (517-353-6740) to order copies.
The bulletin inventory number is E-2985.
http://nativeplants.msu.edu/publications.htm

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