

# Demo Rain Garden

## Boone County



### Background Information

A rain garden was established in 2018 in a portion of the Boone County Community Gardens, on a plot of land offered by the Lebanon Church of Christ. The two acre site is an open field located within Lebanon city limits.

This site was chosen to redirect stormwater and filter it through the soil. As the garden matures, it is expected that this will reduce the water flow into the wet areas of the land. There is a future plan to use the past wet areas as a public vegetable garden.

Several Boone County Master Gardeners headed the planning and design portion of the project. Site preparation was done by hand through the work of volunteers. Some plants were extras following the establishment of a Pollinator Garden, while others were purchased by the Boone County Community Garden Organization.

The plants in the rain garden consist of a mix of sun-tolerant prairie grasses, forbes, and wildflowers. These plants were extras following the establishment of a Pollinator Garden, while others were purchased by the Boone County Community Garden Organization.

Following the installation of the garden, a Boone County Rainscaping Education Team, consisting of seven Master Gardener Volunteers, was formed.



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## Garden Design: Plantings and Information

Plant Scientific Name	Common Name	Number Used
<b><i>Penstemon hirsutus</i></b>	Hairy Beardtongue	7
<b><i>Carex vulpinoidea</i></b>	Fox Sedge	3
<b><i>Aquilegia canadensis</i></b>	Columbine	6
<b>Clover <i>Dalea purpurea</i></b>	Purple Prairie	6
<b><i>Schizachyrium scoparium</i></b>	Little Bluestem	9
<b><i>Liatris scariosa</i></b>	Northern Blazing Star	6
<b><i>Ratibida pinnata</i></b>	Yellow Coneflower	6
<b><i>Aster oolentangiensis</i></b>	Sky Blue Aster	6
<b><i>Carex crinita</i></b>	Fringed Sedge	7
<b><i>Coreopsis palmata</i></b>	Prairie Coreopsis	6
<b><i>Echinacea purpurea</i></b>	Purple Coneflower	9
<b><i>Hibiscus moschuetos</i></b>	Swamp Rose Mallow	3
<b><i>Chelone obliqua</i></b>	Rose Turtlehead	6
<b><i>Heliopsis helianthoides</i></b>	Ox-eye Sunflower	9
<b><i>Asclepias incarnata</i></b>	Marsh Milkweed	9
<b><i>Solidago riddellii</i></b>	Riddel's Goldenrod	1
<b><i>Eupatorium maculatum</i></b>	Joe-Pye Weed	1
<b><i>Sporobolus heterolepis</i></b>	Prairie Dropseed	5
<b><i>Rudbeckia hirta</i></b>	Black-eyed Susan	4
<b><i>Pycnanthemum</i></b>	Mountain Mint	4
<b><i>Physostegia virginiana</i></b>	Obedient Plant	10



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## Maintenance Plan: Establishment Period

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- The garden should be weeded every 2-4 weeks for first six months, then tentatively once a month thereafter.
- Tracking progress of the garden:
  - If desired, a before and after photo of the garden should be taken when it is weeded to help keep track of what should be weeded and what plants should not be removed.
  - Taking a photo of your garden every few weeks will allow one to visually see the maturation of the garden over time; photos could be uploaded to a computer or printed and kept in a photo album to keep as part of the educational display.

## Maintenance Plan: General Maintenance

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- Fertilizer
  - Some starter fertilizer could be used on the site if there are low potassium levels. Otherwise, the native plants should adapt to the soil type on site.
- Watering
  - From installation for about a month – water as weeded; about 30 minutes – make sure everything's moist.
  - Once plants are established, you should not need to water them except during prolonged dry periods (about one week).
  - If excessive rain is experienced, it is advised to temporarily reroute some incoming water away from the garden by cutting a notch in the berm. Large, mature plants handle saturation better than young, small plants.
  - Water from the rain barrels can be used to water the garden, but in case of a dry period a hose and/or sprinkler system may be used.
- Weeding
  - During the first few establishment years, weeding should take place every month as needed. Over time, the plants will fill in and weeding won't be necessary.
  - Hand pulling of weeds should be sufficient.
  - Weeding will be provided by the office or it's grounds crew.
- Mulch
  - It should be coarse, double shredded hardwood or another alternative which does not easily float.
  - Approximately 3 inches should be maintained in the garden at all times.

## Maintenance Plan: Seasonal Maintenance

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*This is namely for after the two-three year establishment period, but should still be carried out during those first two years.*

- Year-round
  - Keep drain clear and garden clean of garbage
  - Weed (except winter)

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- Spring:
  - Prune dead vegetation and plants that have grown too large
  - Weed the garden and add mulch if needed
  - Remove excess sediment (i.e. leaves, sticks, debris) that may have collected over winter
  - Remove dead stalks/seed heads from previous season
  - Replenish mulch layer to maintain 3 inch layer
  - Best time to plant new/different plants and replace plants that may have died over winter
    - Plugs establish more successfully than seeds
- Summer
  - Remove weeds (i.e. crabgrass, dandelions etc.)
  - Water during dry periods (based on whether National Weather service declares drought; if no rain for one week)
  - Monitor berm around edge of garden for erosion
- Fall
  - Do not remove (too many) leaves that may have fallen into the garden – leaves will provide compost material for following spring growth; layer of leaves is fine but mounds of leaves are not
  - Remove weeds and diseased plants
  - If fall is dry continue to water until grounds begin to freeze (late October)
- Winter
  - No maintenance is needed; can cut back rain garden to clean up for spring if wanted
  - You should check to make sure garden is clean of garbage, leaves, etc. every few weeks

## Resource Contacts:

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Curt Emanuel – Boone County Purdue Extension: [cemanuel@purdue.edu](mailto:cemanuel@purdue.edu)

## About the Purdue Rainscaping Education Program

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The Purdue Rainscaping Education Program offers state-wide training for Purdue Master Gardeners, conservation agencies and organizations, stormwater professionals, and landscape companies and consultants.

The two day workshop sessions cover an introduction to rainscaping and rain gardens with specific modules for rain garden site selection, plant selection and garden design, installation, maintenance, and community engagement.

Workshops include hands-on activities, interactive discussions, and field trips to community rainscaping projects. Participants also gain experience through creation of a demonstration rain garden with community partners in a public space.