



## Rain Gardens and Their Use on the Farm

Isabel Nazarian,  
Midwest Regional  
Partner Biologist

[www.pollinator.org](http://www.pollinator.org)  
[Isabel@pollinator.org](mailto:Isabel@pollinator.org)

**POLLINATOR  
PARTNERSHIP**

Protect their lives. Preserve ours.

# Support for Agricultural Lands

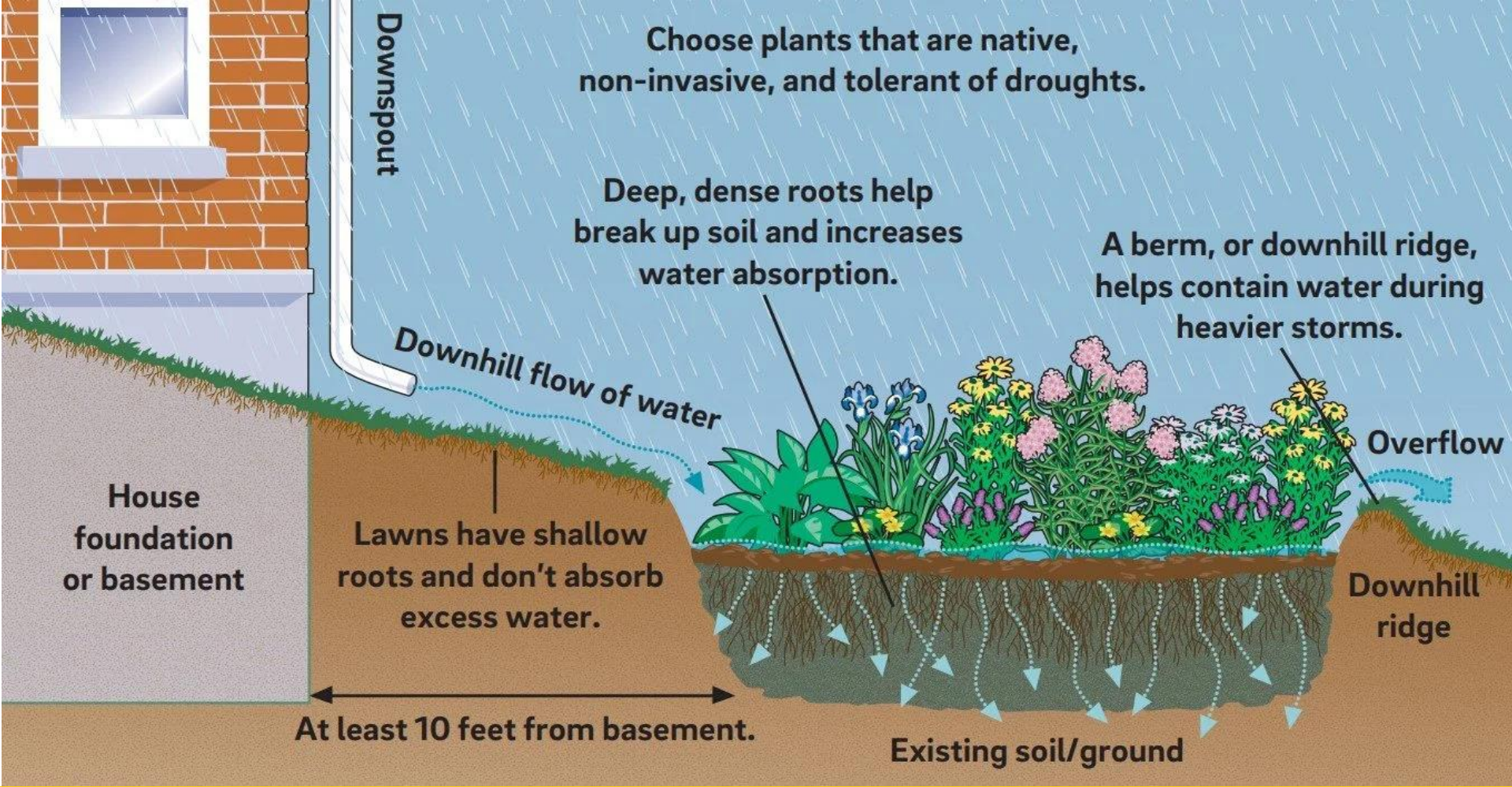


- Pollinator Partnership works to support NRCS programs through our network of Partner Biologists
- Partner Biologists provide pollinator-related conservation support to NRCS staff, partners, as well as agricultural producers and landowners
- Our state level Partner Biologists are also able to provide one-on-one assistance to landowners at various stages of pollinator habitat project(s)

# What Is a Rain Garden?

A rain garden is a type of small-scale green infrastructure designed to temporarily store rainwater and increase infiltration during precipitation events.





Choose plants that are native, non-invasive, and tolerant of droughts.

Deep, dense roots help break up soil and increases water absorption.

A berm, or downhill ridge, helps contain water during heavier storms.

Downspout

Downhill flow of water

Overflow

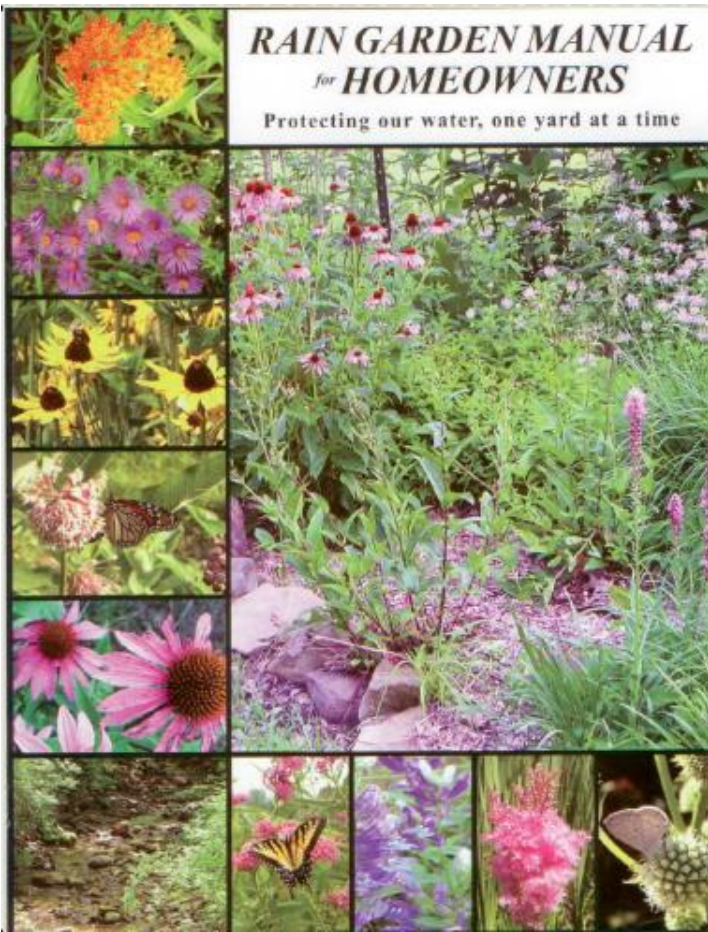
House foundation or basement

Lawns have shallow roots and don't absorb excess water.

Downhill ridge

At least 10 feet from basement.

Existing soil/ground



# Specifications

The size of a rain garden depends on:

- The size of the drainage area
- Square footage of roof or other impervious surface

The depth of a rain garden depends on:

- Soil type at the site
- Percolation (drainage) test

Rain gardens can be any shape!

**POLLINATOR  
PARTNERSHIP**

# Benefits of Rain Gardens

- Stormwater / precipitation management
  - Shuster et.al 2020: Up to 90% of rainfall events kept water from entering drainage systems
- Water quality protection
- Groundwater infiltration
- Wildlife habitat
- Nutrient filtration
- Erosion reduction





# Rain Gardens on Farms

With some engineering, rain gardens are scalable!

Rain gardens can be co-located with:

- Barns
- Confined feeding operations
- Access lanes
- Feeding and watering zones
- Other impervious surfaces across the farm



**POLLINATOR  
PARTNERSHIP**

# Rain Gardens & Pollinators

Follow general native planting guidance:

- Plan for a minimum of **3 species per bloom period**
- Select a **diversity** of bloom **shapes, sizes, and colors**
- Plant a mix of **grasses, flowers, and shrubs**

For the **basin**: select plants that are adapted to grow in and around **wetlands, riparian areas, and wet meadows**

For the **berm**: select upland species that are adapted to **medium soils**



# Resources

- Find Your Roots Tool
  - Plant selection based on zip code
- Rain Garden Quick Reference Guide
  - Terms and overview of practices
- Rain Garden Supplement
  - Equations
  - Soil assessments
  - And more!



## Find Your Roots

A tool for creating pollinator-friendly native plant lists for your habitat project



## RAIN GARDENS FOR POLLINATORS ON WORKING LAND



Amber Barnes

### What are rain gardens?

A rain garden is a shallow, vegetated basin that temporarily captures and filters stormwater runoff from hard or compacted surfaces. Planted with native species that tolerate periodic flooding, they use deep roots to increase water absorption and filter contaminants before entering local waterways. Their blooms support pollinators and other wildlife. Rain gardens help control flooding and runoff; on farms they can manage excess water from barns, compacted areas, or access roads, making them a valuable tool for reducing erosion and nutrient loss while enhancing nearby pollinator habitat.

### Components of a Rain Garden

Rain gardens are designed to capture and filter stormwater on site, helping reduce runoff and improve water quality. Each part of the garden plays an important role:

- **Inflow:** The entry point where rainwater from roofs, driveways, or other impervious surfaces is directed into the garden
- **Basin:** The shallow, planted depression that temporarily holds and filters stormwater through soil and plant roots
- **Berm:** A raised edge, often made of soil, on the downhill side of the garden that helps contain and slow the flow of water within the basin
- **Outflow:** A controlled outlet that allows excess water to safely exit the garden once it reaches capacity, preventing erosion or flooding

Together, these components allow rain gardens to manage stormwater naturally while creating habitat for pollinators and other wildlife.

*Rain gardens can come in a variety of shapes and sizes, and can be placed in a location that fits your landscape needs.*



pollinator.org



**POLLINATOR  
PARTNERSHIP**

*Thank you!*

Protect their lives. Preserve ours.

[pollinator.org](http://pollinator.org) | [isabel@pollinator.org](mailto:isabel@pollinator.org)