

Saving the Bay One Yard at a Time

**Melanie Crowder
And Karen Anderson**

UNIVERSITY OF
MARYLAND
EXTENSION



BAY-WISE

A MASTER GARDENER PROGRAM



UNIVERSITY OF
MARYLAND



COLLEGE OF
AGRICULTURE &
NATURAL RESOURCES



UNIVERSITY OF
MARYLAND
EXTENSION



UNIVERSITY OF
MARYLAND
EXTENSION

MASTER
GARDENER 

UNIVERSITY OF
MARYLAND
EXTENSION

MASTER
GARDENER 

UNIVERSITY OF
MARYLAND
EXTENSION



ASK A MASTER GARDENER
PLANT CLINIC

A MASTER GARDENER PROGRAM

UNIVERSITY OF
MARYLAND
EXTENSION



POLLINATORS

A MASTER GARDENER PROGRAM

UNIVERSITY OF
MARYLAND
EXTENSION



GROW IT • EAT IT

A MASTER GARDENER PROGRAM

UNIVERSITY OF
MARYLAND
EXTENSION



COMPOSTING

A MASTER GARDENER PROGRAM

UNIVERSITY OF
MARYLAND
EXTENSION



BAY-WISE

A MASTER GARDENER PROGRAM

UNIVERSITY OF
MARYLAND
EXTENSION



NATIVE PLANTS

A MASTER GARDENER PROGRAM

Resources

UNIVERSITY OF
MARYLAND
EXTENSION

extension.umd.edu/hgic



extension.umd.edu/learn/ask-gardening



marylandgrows.umd.edu

UNIVERSITY OF
MARYLAND
EXTENSION

extension.umd.edu/mg



LOCAL
PROGRAMS

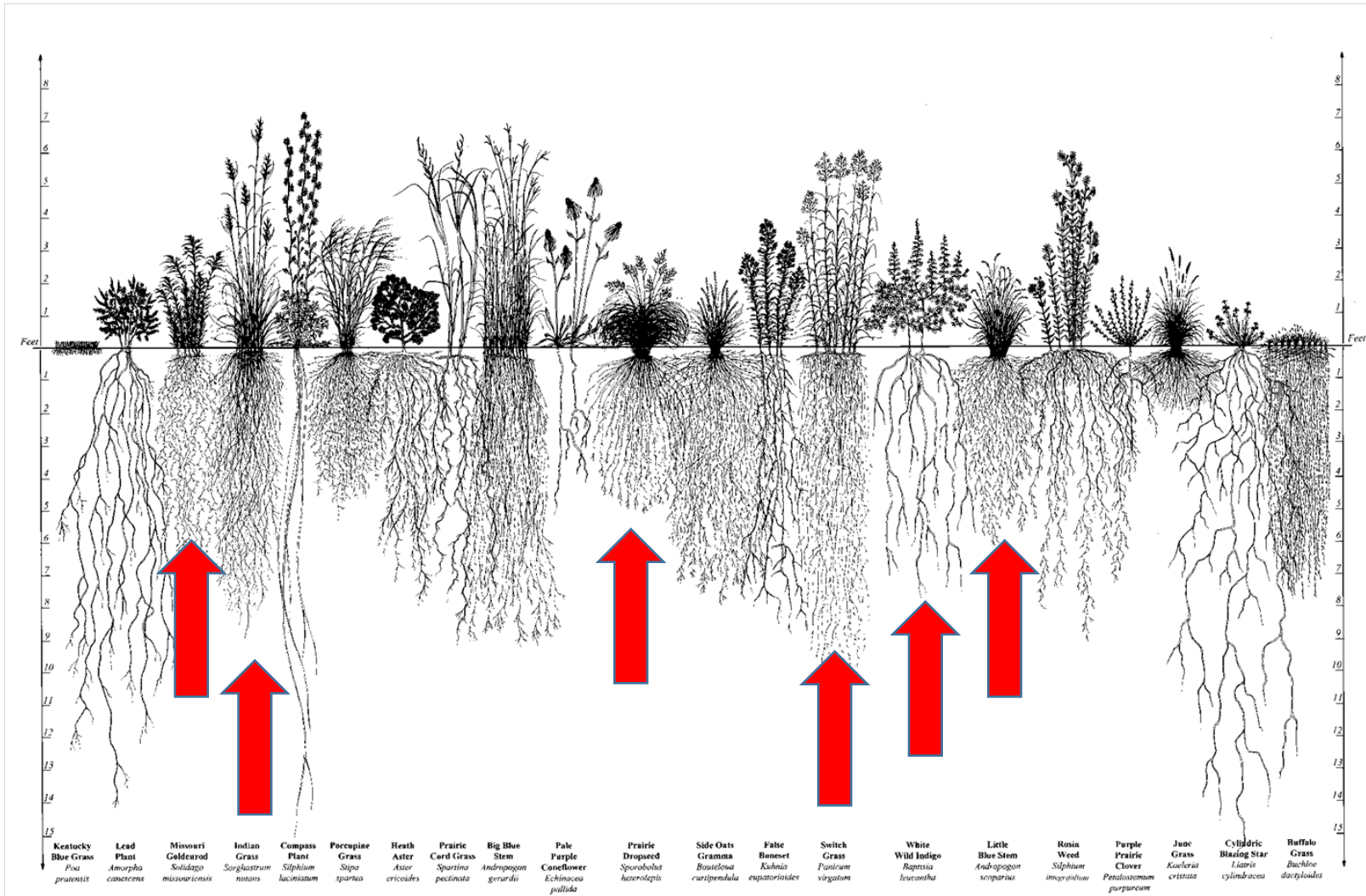
MASTER GARDENER
HANDBOOK

How many gallons of rain does a 1,000 Sq. Ft. roof shed in a 1-inch rain event?

- A. 325 gallons
- B. 450 gallons
- C. 560 gallons
- D. 625 gallons
- E. 700 gallons



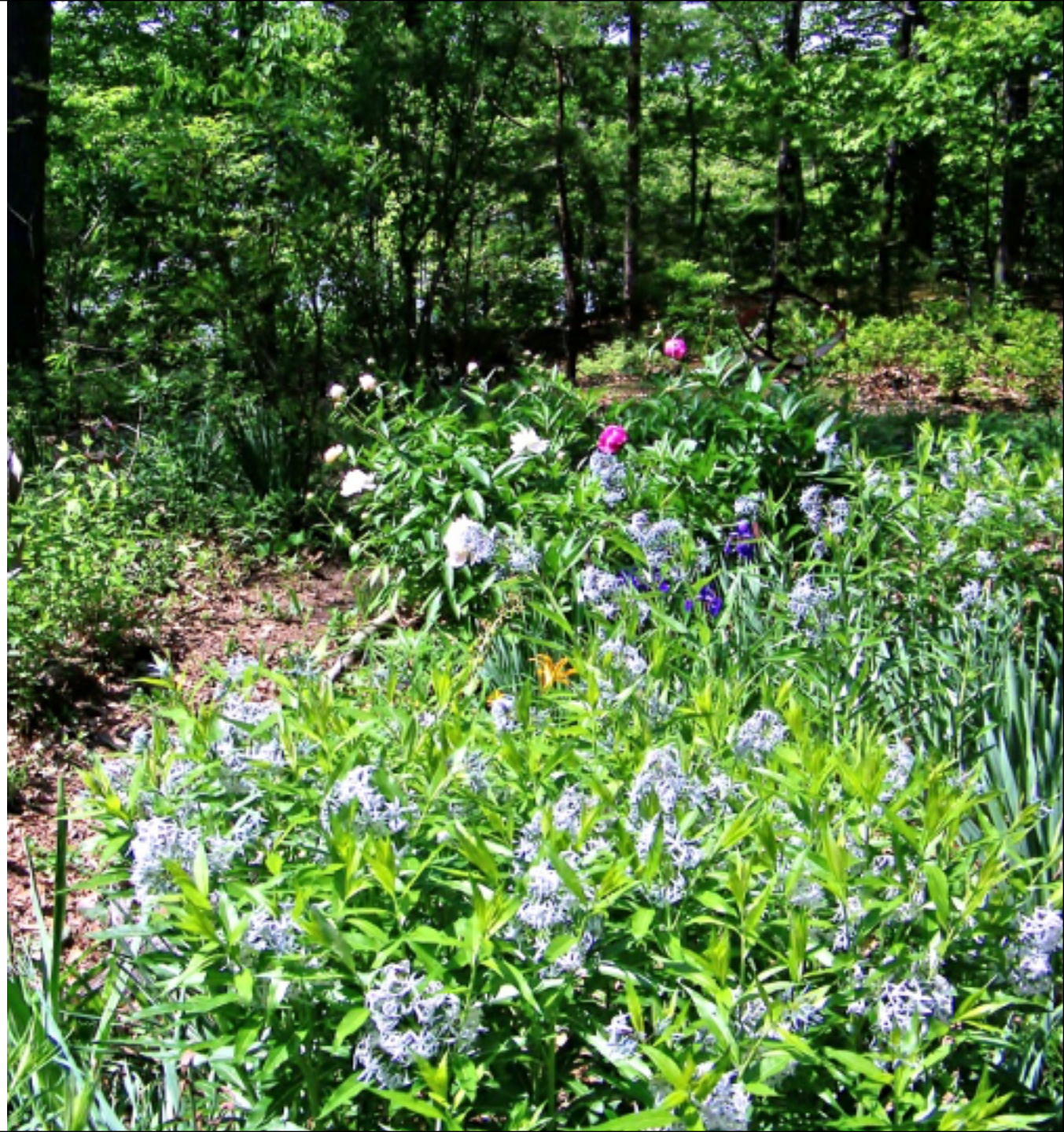




Root Systems of Prairie Plants

Conservation Landscaping

- Promotes landscaping management that works with nature to reduce pollution and enhance wildlife habitat.
- It encourages less lawn area, less fertilizer and pesticide use.
- It uses beneficial plants (preferably native to the area).
- It requires less water and less maintenance.



Small Swale or Dry Creek Bed



Black plastic was placed over the area to kill the plants, then removed.

Mulch was tried first—unsuccessfully



Photos courtesy of D. Berbert, CCMG

Retention Pond and Coir Logs

- A 4' deep pit was dug with a backhoe.
- About 3' of septic rocks were added.
- Then ground cloth and about 1' of topsoil, topped with compost.



- Coir Logs can stabilize hillsides, control erosion and trap sediment



Successful Slope Gardens



Effective sunny slope garden, preventing erosion with terracing using a combination of rocks and a wooden retaining wall.



Shady woodland slope plantings, utilizing rocks and naturally downed logs to prevent erosion.



Native Plants to Plant on Septic Fields and Mounds

- These do not obstruct septic pipes.
- Their roots take up nutrients, including nitrogen, from the wastewater below.
- Create a Pollinator Meadow on your septic field!



Rain Gardens

- A well-designed rain garden collects and soaks up rainwater that flows from hard surfaces. Water stands no longer than 24-48 hrs.
- Plant roots can take up or lock in pollutants and absorb nutrients from the rainwater.
- Replenish groundwater resources.
- Enhance the beauty of yards.
- Provide wildlife habitat.



July 2020

North Beach Sunrise Garden



June 2016



Include Native Plants in Your Yard Because They:

- Are better adapted to local soil and climate.
- Are more resistant to native pests and diseases.
- Help preserve the balance of natural ecosystems.
- Provide better conditions for nests for native birds.
- Serve as host plants for native insects – supporting 35 times more caterpillars than alien plants, and
- Wildlife have adapted to the nutrition provided by native plants.



Planning a Pollinator Garden

- Include native plants that bloom from spring to fall.
- Choose plants that also serve as host plants for the caterpillars to eat.
- Blooms should vary in size and depth. Some insects have short tongues and need shallow blossoms.
- Vary the height of the plants. Some bees and pollinators fly at lower or higher levels.
- Provide moisture: puddles or shallow dishes with stones or sand.
- Plant in a sheltered area of your yard—butterflies like hot weather and wait for 80 degrees to fly.



More Things to Do

- Mass plant species together. Pollinators are attracted by masses of color.
- Include a variety of bloom sizes, shapes and depth of bloom.
- Fill in waste areas with nectar plants.
- Provide nesting and egg-laying sites:
 - Untilled, unmulched, partially bare ground
 - Woody vegetation, rotting wood
 - Nesting materials such as leaf pieces and mud.
- Provide sheltered, undisturbed places for hibernation and overwintering, such as brush piles, leaving garden vegetation uncut.

IT'S OK TO BE MESSY!

https://mda.maryland.gov/resource_conservation/counties/Tip7.pdf

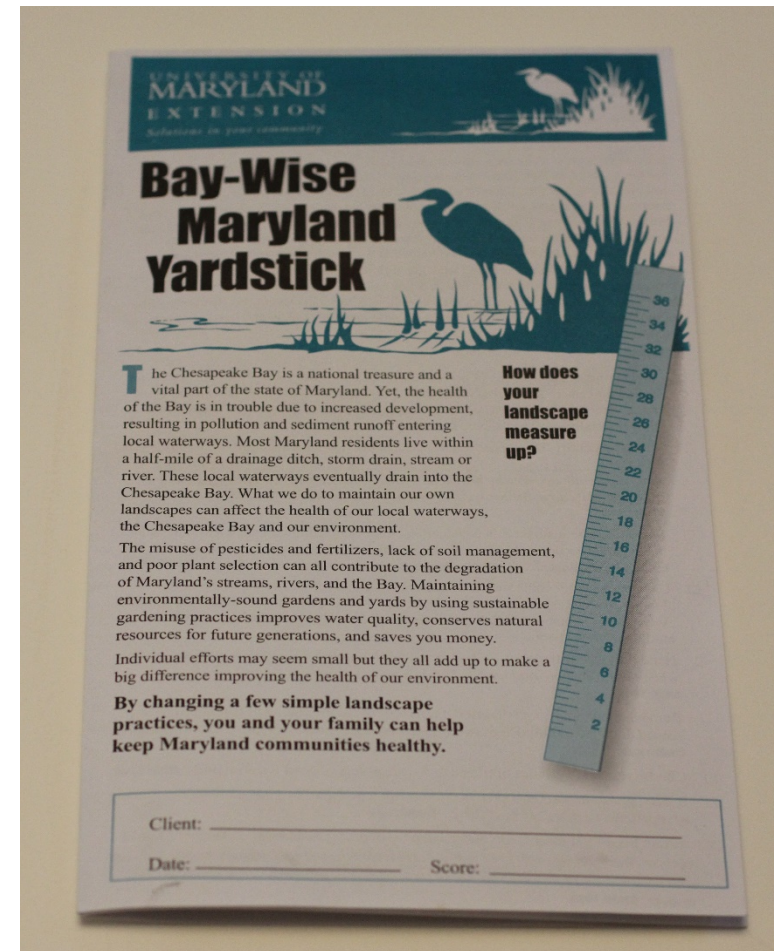
Master Gardener Bay-Wise Program

- A team of qualified Master Gardeners visit homeowner's property (or place of business) to evaluate it and determine if it meets the criteria for Bay-Wise Certification.
- Information for homeowner visits; contact: Calvert County Extension Office: llaher@umd.edu. Phone: (410) 535-3662 or (301) 855-1150
- They will be contacted to set up a date and time that are mutually convenient
- MG: contact Melanie Crowder; CCMG Bay-Wise coordinator: sallymerle@yahoo.com
- Consultations for the public currently on hold.



Bay-Wise Maryland Yardstick: There are many ways to earn 36 inches.

- Control Stormwater Runoff
- Encourage Wildlife
- Protect the Waterfront
- Mow Properly/Water Efficiently
- Manage Yard Pests with IPM
- Mulch Appropriately/Recycle Yard Waste
- Fertilize Wisely
- Plant Wisely





The Visit

- Please allow a minimum of two hours for a visit.
- We make consultation visits! Not all yards earn 36 inches, but we give advice about sustainable gardening, where and what to plant.
- If your yard qualifies, you are given a Bay-Wise sign to display.

Master Gardeners are volunteers and our services are Free!

Bay Restoration Fund (BRF)

- The BRF grant to Calvert County Health Department received funds from the Maryland Department of the Environment to pay for the Best Available Technology (BAT) septic system.
 - BAT reduces nitrogen by at least 50% and produces cleaner wastewater.
 - Priority is given to properties with failing or failed septic systems and those properties with metal septic tanks in the **Critical Area**.
 - Other properties, with a failed septic system outside the critical area and without a failed septic system, may be eligible for a percentage grant award.
-
- <https://www.calverthealth.org/community/environmentalhealthservices/brf.htm>

Critical Area Reforestation Program

- Implemented in December 1988, it requires the County to maintain 100% of existing forest cover within the Critical Area (land within 1,000 feet of tidal waters).
- To apply, please visit:
http://www.co.cal.md.us/DocumentCenter/View/2798/Reforestation_application?bidId=
- The Calvert County Native Plant List (trees and shrubs that will be provided by the County):
<http://www.co.cal.md.us/DocumentCenter/View/251/Native-Plants-Feb-2011?bidId=>

Online Information Resources

- **Stormwater Management for Homeowners: Buffers.** Virginia Cooperative Extension
https://www.pubs.ext.vt.edu/content/dam/pubs_ext_vt_edu/spes/spes-14/SPES-14.pdf
- **The Green Book for the Buffer, An illustrated Guidebook for Planting at the Shoreline,** Maryland Department of Natural Resources Critical Area Commission for the Chesapeake and Atlantic Coastal Bays
https://dnr.maryland.gov/criticalarea/Documents/GreenBook_Buffer.pdf
- **How to Plan for and Plant Streamside Conservation Buffers with Native Fruit and Nut Trees and Woody Floral Shrubs**
https://www.pubs.ext.vt.edu/content/dam/pubs_ext_vt_edu/ANR/ANR-69/CNRE-27.pdf
- **Calvert County Critical Area Reforestation Evaluation (CARE) Committee - Free Trees in the Critical Area program** <https://www.calvertcountymd.gov/1254/Critical-Area-Reforestation-Committee>
- ***Critical Area Map locator***
http://calvertgis.co.cal.md.us/Html5_272/Index.html?configBase=http://cgg-gisweb02.calvert.ccg.local/Geocortex/Essentials/GC_PROD/REST/sites/Critical_Area_Map/viewers/HTML5272/virtualdirectory/Resources/Config/Default

Online Information Resources-Plant Lists

Plants for salt marshes and upland slopes. Center for Coastal Resources Management.

http://ccrm.vims.edu/livingshorelines/lr_wetland_plants_zone.html

Native plants for sunny slopes. University of Maryland Extension HGIC.

<https://extension.umd.edu/hgic/topics/native-plants-sunny-slopes>

Native plants for shady slopes. University of Maryland Extension HGIC.

<https://extension.umd.edu/hgic/topics/native-plants-shady-slopes>

Salt Tolerant Northern Neck Native Plants, Northern Neck Chapter of the Virginia Native Plant Society

<https://static1.squarespace.com/static/5a848930cf81e0bad21ebac2/t/5ab17334758d4654e4805b59/1521578805958/Salt+Tolerant.pdf>

Native plants of high value to migratory birds. Virginia Eastern Shore Native Plant Guide

<https://static1.squarespace.com/static/58e25c41e6f2e17ea4cb7766/t/5919fc10be659426c4538096/1494875152521/NativePlants+of+High+Value+to+Migratory+Birds.pdf>



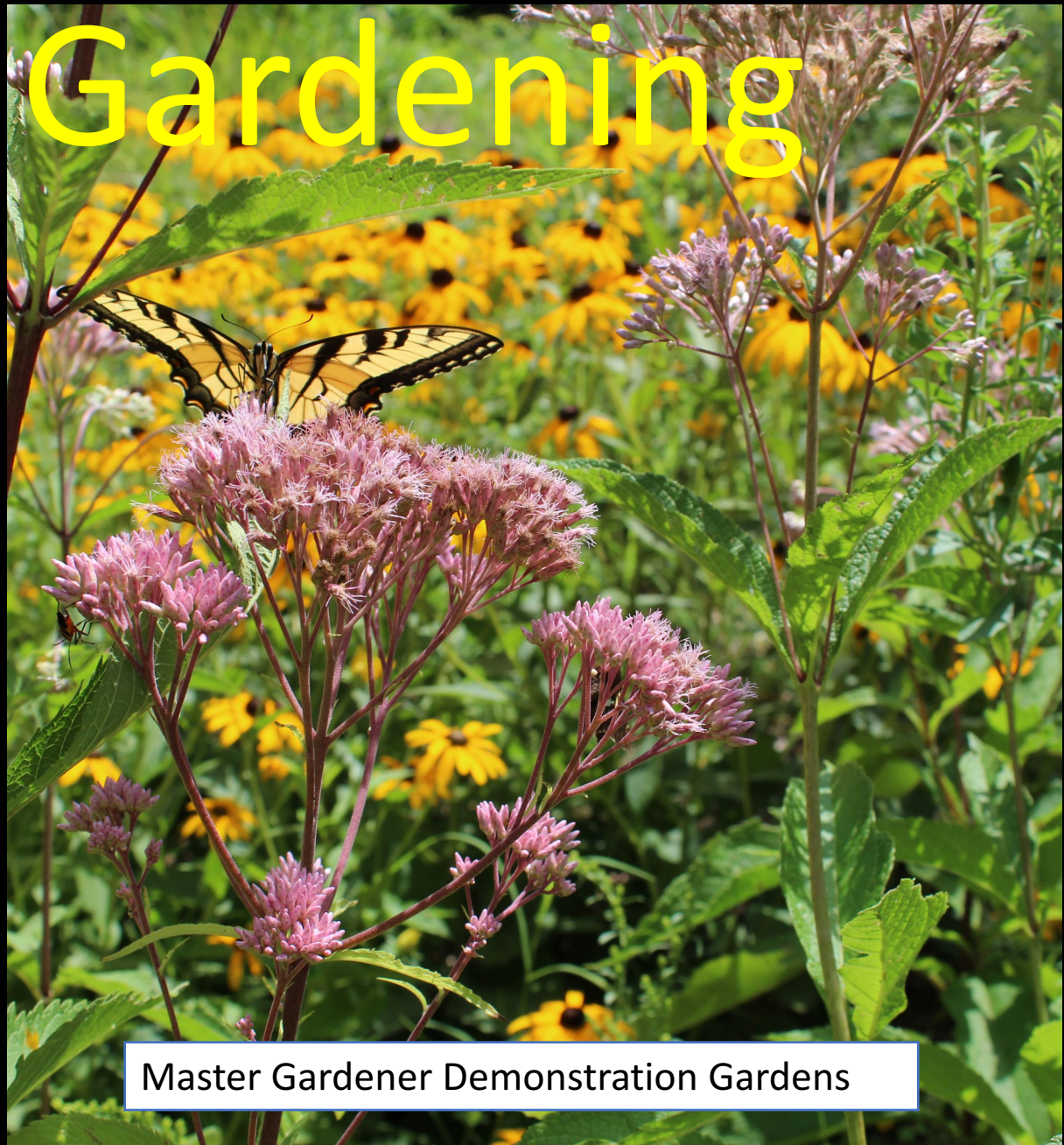
Happy Gardening



Sunrise Garden, North Beach



ACLT Pollinator Garden



Master Gardener Demonstration Gardens