

Native Plants: The Basis of a Healthy Ecosystem

Marc Radell, PennState Master Gardener, Montgomery County

- ❖ Native plant: found in given area prior to human intervention (in U.S., prior to European contact)
- ❖ Ecosystem: geographically specified system of organisms, their abiotic environment, and the processes that control their dynamics.
- ❖ Role of organisms in energy cycle/food web: primary producers (plants); consumers; and decomposers
- ❖ Photosynthesis is the basis of all food and energy transfer for almost all living organisms
- ❖ Plants also play key role in nutrient and water cycling and provide other ecosystem services
- ❖ Native plants have adapted to native soils and help maintain soil chemistry
- ❖ Local organisms have adapted to native plants – maximum efficiency, biodiversity
- ❖ Using non-native plants disrupts energy, nutrient, and water cycles in local ecosystems
- ❖ Non-native plants can introduce diseases and pests
- ❖ Plant community: a grouping of plants that coexist and interact with each other
- ❖ For backyard plant communities, consider
 - Consider soil, moisture, sun, air
 - Design objective
 - Habitat objective
 - Dominant plant species (size, number)
 - Secondary plant species
 - Lawn = grassland
 - Flower bed = meadow
 - Rain garden = wetland
 - Hedge row = shrubland
 - Specimen tree = woodland
- ❖ “Going native’ step by step
 - Remove invasive non-natives
 - Use natives as all new plant material
 - Use natives as replacements for non-native plants that die
 - Replace high-maintenance non-natives
 - Don’t propagate non-natives
 - As you re-work existing plantings, compost non-natives and plant natives
 - Replace remaining non-natives

For copies of presentation, plant lists, and other materials, please visit

www.marcmradell.com