Earth-Kind® Perennials

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Earth-Kind Environmental Stewardship
What is Environmental Stewardship?

• Environmental stewardship is the responsibility for environmental quality shared by all those whose actions affect the environment.
  • Source: www.EPA.gov
Earth Kind®
Environmental Stewardship

• Earth Kind® uses research-proven techniques to provide maximum gardening and landscape enjoyment while preserving and protecting our environment.

• The objective is to combine the best of organic and traditional gardening and landscaping principles to create a new horticultural system based on real-world effectiveness and environmental responsibility.
How do Gardening practices affect the Environment?

Water  | Pollutants  | Waste  | Energy

Water

Pollutants

Waste

Energy
Environmental Stewardship

- As individuals our impact on the environment is minimal but collectively we have a large, negative impact.
- Therefore if as individuals we change our practices we can collectively reduce or eliminate our negative impact.
Earth-Kind®
Landscaping System

Earth-Kind principles

• Planning and design
• Practical turf areas
• Appropriate plant selection
• Soil improvement
• Efficient irrigation and rainwater catchment
• Effective use of mulches
• Appropriate maintenance
Earth Kind® Principles

• Earth Kind® is for anyone who enjoys beautiful, productive landscapes and gardens which require only minimal maintenance

• Using this program we employ Earth Kind® techniques of plant selection and culture practices to avoid problems before they occur

• We reduce or eliminate the need for organic or synthetic pesticides and fertilizers

• Save up to 20% of yard wastes from entering landfills

• We reduce water use by up to 70%
Plant Selection

• Using well adapted plants is one of the most fundamental elements of an Earth Kind landscape.

• Plants that are well adapted to your area will:
  – Use less water
  – Need less soil modification
  – Require little or no fertilizer
  – Less susceptible to pest, diseases, and problems
  – Be more tolerant of stressful environmental conditions
Earth-Kind Perennials Research Program

• Purpose:
  – Environmental Stewardship
  – Evaluate herbaceous perennials without the use of fertilizer and pesticides, with limited supplemental irrigation
  – Utilize the Earth-Kind Soil Management System to improve soil properties, fertility, and health, reduce weed pressure, and conserve soil moisture
  – Collect scientific data on the plant performance to identify superior plant material for the landscape that requires low maintenance
Earth-Kind Perennials Research Program

• Earth-Kind Soil Management System:
  • Add 3 inches of compost and till 6-8” deep
  • Add 3 inches of wood mulch to the soil surface
  • Maintain a 3 inch layer of mulch

Note: For heavy clay soil it is recommended to incorporate an additional 3 inches of expanded shale (Earth-Kind Plant Research trials do not use expanded shale)
Earth-Kind Perennials Research Program

• Steps:

  – **Pesticides and Fertilizer**
    • No synthetic, natural, or organic pesticides or fertilizers will be applied to the plants or the soil during the duration of the trial.

  – **Maintenance**
    • Through these field trials, identification of plants that have low maintenance requirements is significant. Any maintenance that is required for each test plant should be documented on data collection forms.
Myers Park and Event Center

October 31st, 2009
### 69 Plants Selected for Phase 1

<table>
<thead>
<tr>
<th>Yarrow</th>
<th>Angel Trumpet</th>
<th>Whirling Butterflies 'White Fountain'</th>
<th>Blackfoot Daisy</th>
<th>Goldsturm Black-eyed Susan</th>
<th>Mystic Spires Salvia</th>
<th>New Mexico Agave</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hyssop</td>
<td>Ice Plant</td>
<td>Daylily 'Little Business'</td>
<td>Catmint 'Walker's Low'</td>
<td>Dwarf Mexican Petunia</td>
<td>Pincushion Flower 'Butterfly Blue'</td>
<td>Powis Castle Artemisia or wormwood</td>
</tr>
<tr>
<td>Flame Acanthus</td>
<td>Cheddar Pink 'Firewitch'</td>
<td>Daylily 'Stella D'Oro'</td>
<td>Brazilian rock rose</td>
<td>Augusta Duelberg sage</td>
<td>Pink Skullcap</td>
<td>Wheeler's Sotol</td>
</tr>
<tr>
<td>Aromatic Aster</td>
<td>First Love Dianthus</td>
<td>Red Yucca</td>
<td>Rock Rose</td>
<td>Henry Duelberg sage</td>
<td>Texas Betony</td>
<td>Bear Grass</td>
</tr>
<tr>
<td>False Indigo</td>
<td>Purple Coneflower - Kim's Knee High</td>
<td>Yellow Yucca</td>
<td>Russian Sage</td>
<td>Anise Sage or Black and Blue sage</td>
<td>Mexican Mint Marigold</td>
<td>Lavendar Cotton</td>
</tr>
<tr>
<td>Chocolate Daisy</td>
<td>White Coneflower</td>
<td>New Gold Lantana</td>
<td>David Summer Phlox</td>
<td>Mexican Bush Sage</td>
<td>Gold Star Esperanza, Yellow Bells</td>
<td>Lamb's Ear</td>
</tr>
<tr>
<td>Texas Primrose - Compact Gold</td>
<td>Englemann Daisy, Cutleaf Daisy</td>
<td>Shasta Daisy 'Becky'</td>
<td>John Fanick Summer Phlox</td>
<td>Dwarf Mexican Bush Sage</td>
<td>Four Nerve Daisy</td>
<td>Purple Heart</td>
</tr>
<tr>
<td>Damianita Daisy</td>
<td>Joe Pye Weed</td>
<td>Gayfeather 'Floristan White'</td>
<td>Vivid Fall Obedient Plant</td>
<td>Hot Lips salvia</td>
<td>Brazilian Verbena</td>
<td>Color Guard or Adam's Needle</td>
</tr>
<tr>
<td>Ox-eye Daisy</td>
<td>Whirling Butterflies 'Siskiyou Pink'</td>
<td>Pink Turk's Cap 'Pam Pурyear'</td>
<td>Mexican Oregano</td>
<td>Caradonna Blue Sage or Caradonna Salvia</td>
<td>Homestead Purple Verbena</td>
<td>Twist-Leaf Yucca</td>
</tr>
<tr>
<td>Gregg's Mistflower</td>
<td>Whirling Butterflies 'Pink Cloud'</td>
<td>Red Turk's cap</td>
<td>Prostrate Rosemary</td>
<td>Transylvanian Sage</td>
<td>Zexmenia</td>
<td></td>
</tr>
</tbody>
</table>
Diameter 150 ft.
Beds 10 ft Wide
Pathways 7 ft wide
8,800 sqft. of beds

T1 : 12’ x 26’ x 10’
T2 : 36’ x 51’ x 10’
T3 : 61’ x 75’ x 10’
T4 : 85’ x 97’ x 10’
January 15th, 2010
The following plants had excellent perform during the first year
Hummingbird Mint

- *Agastache ‘Apricot sunrise’*
- 32” tall x 37” wide
Flame Acanthus

- *Anisacanthus quadrifidus*
- 28” tall x 32” wide
Fall Aster

• *Aster oblongifolia*
• 21” tall x 36” wide
• Blooms late September to October
• Attracts butterflies, especially monarchs
• Texas native
Chocolate Daisy

- Berlandiera lyrata
- 16” tall x 40” wide
Texas Primrose – Compact Gold

• Calylophus drummondianus ‘Berlandiera’
• 3” x 12”
Damianita Daisy

- Chrysactinia mexicana
- 12” x 20”
Gregg’s Mistflower

- *Eupatorium greggi*
- aka Blue Mist Flower
- 24” tall x 48” wide
- lavender-blue flowers
- Attracts butterflies
- Texas native
Angel Trumpet

• *Datura wrightii*
• 36” x 64”
Ice Plant

- *Delosperma cooperi*
- 5” x 22”
Whirling butterflies

- *Gaura lindeimeri* ‘Pink Cloud’
- 18” and 36”
- Blooms spring-fall
Whirling butterflies

- *Gaura lindeimeri* 'Siskiyou Pink'
- 20” x 37”
New Gold Lantana

- *Lantana x hybrida* ‘New Gold’
- 20” x 48”
Pink Turk’s Cap

- *Malvaviscus arboreus* “Pam Puryear”
- 28” x 36”
Red Turk’s Cap

- *Malvaviscus arboreus var. drummondii*
- 20” x 36”
Blackfoot Daisy

- *Melampodium leucanthum*
- 12” x 30”
Catmint

- *Nepeta x fraassenii* ‘Walker’s Low’
- 16” x 41”
Brazilian Rock Rose

- *Pavonia brazziliensis*
- 30” x 50”
- Flowers pale pink to white with red eye
- Blooms spring to fall
Rock Rose

- *Pavonia lasiopetala*
- 26” x 60”
Russian Sage

• Perovskia lasiopetala
• 20” x 40”
Augusta Duelberg Sage

- *Salvia farinacea* ‘Augusta Duelberg’
- 30” x 36”
Henry Duelberg Sage

- Salvia farinacea ‘Henry Duelberg’
- 29” x 42”
- Blooms April-November
- Attracts butterflies
- Texas native
Anise Sage

- Salvia guaranitica
  ‘Black and Blue’
- 20” x 34”
Mexican Bush Sage

- *Salvia leucantha*
- 42” x 48”
Dwarf Mexican Bush Sage

• *Salvia leucantha* ‘Santa Barbara’
• 30” x 36”
Hot Lips Salvia

- *Salvia microphylla* ‘Hot Lips’
- 35” x 43”
Mystic Spires Salvia

- *Salvia* x Mystic Spires
- 30” x 48”
Mexican Mint Marigold

- *Tagetes lucida*
- aka Texas Taragon
- 24” x 36”
- Blooms fall to frost
Four Nerve Daisy

- *Tetraneuris scaposa*
- aka *Hymenoxys scaposa*
- 10” x 10”
Zexmenia

- *Wedelia hispida*
- 24” x 50”
- Blooms spring-fall
- Texas native
Powis Castle Artemisia

- *Artemisia* ‘Powis Castle’
- Silver, aromatic foliage, nearly evergreen
- 14” x 35”
Lamb’s Ear

- *Stachys byzantina* ‘Helen Von Stein’
- Gray, wooly leaves
- 12” x 24”
Rain Water Harvesting System Demonstration
Earth Kind Perennial Research Garden at Myers Park
Texas AgriLife Extension Service
Collin County Master Gardeners
Myers Park and Event Center
Drip Irrigation Demonstration
Drip Irrigation
Earth-Kind Perennial Research Garden
Phase 2
Earth-Kind Research and Demonstration Projects at Myers Park

• **Current:**
  – Earth-Kind® Demonstration Gardens: North entrance and circle drive (Fall 2009)
  – Earth-Kind® Demonstration Rain Garden: North end of the main parking area (Fall 2009)
  – Earth-Kind® Perennial Research Garden (Spring 2010)
  – Rain Water Harvesting and Drip Irrigation System Demonstration (Summer 2010)
Earth-Kind Perennial Demonstration Gardens

- 3” Compost
- 3” Expanded shale
- Incorporate
Earth-Kind Perennial Demonstration Gardens
Earth-Kind Perennial Demonstration Gardens
Earth-Kind Demonstration Garden
North Entrance Gate
Large-scale Demonstration
Rain Garden
Large-scale Demonstration Rain Garden
Earth-Kind Projects at Myers Park

• **FY2011:**
  – Earth-Kind® **Crape Myrtle** Research Garden
  – Earth-Kind® **Rose** Research Garden
  – Earth-Kind® **Vegetable** Research Garden
  – Earth-Kind® **Pasture and Native Grass** Research and Demonstration
Earth-Kind Rose & Crape Myrtle Research Gardens
Earth-Kind Vegetable Research Garden
Raised Beds and Hoop House
Earth-Kind Research and Demonstration Projects at Myers park

• Future:
  – Herbs
  – Vines
  – Shrubs
  – Groundcover
  – Bulbs
  – Annuals
  – Turfgrass
  – Fruit
  – Nuts
  – Wine grapes
Earth-Kind Educational Programs and Garden Tours

• March 26-27
• May 21
• June 18
• June 23-25
• July 23
• Aug 13: NTWEC
• Sept 22-23: AHS
• For more info: http://collincountygardening.tamu.edu
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Green Lake Nursery
Noble Foundation
Chambersville Tree Farm