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 Principle:
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

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
    • Limited 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>Variety</th>
<th>Angel Trumpet</th>
<th>Beesly BushHoneysuckle</th>
<th>White Persian</th>
<th>Bridal Charm</th>
<th>Buckskin Blackberry Rose</th>
<th>Mystic Spire Salvia</th>
<th>New Mexico Sage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diameter</td>
<td>12' x 26' x 10'</td>
<td>36' x 51' x 10'</td>
<td>61' x 75' x 10'</td>
<td>85' x 97' x 10'</td>
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</table>

Diameter 150 ft.
Beds: 10 ft Wide
Pathways 7 ft wide
8,800 sqft. of beds

October 31, 2009
Rain Water Harvesting System

Drip Irrigation Demonstration
Drip Irrigation

May 29th, 2010

June 9th, 2010

November 14th, 2010

October 16th, 2010

May 18th, 2011
DROUGHT!

NO Rain for 4 to 5 months

August 3rd, 2011

The following plants in Phase 1 had excellent performance during the first and second year

**Moonshine Yarrow**
- Achillea millefolium 'Moonshine'

**Hummingbird Mint**
- *Agastache* ‘Apricot sunrise’
Flame Acanthus
• *Anisacanthus quadrifidus*

Powis Castle Artemisia
• *Artemisia* ‘Powis Castle’

Texas Primrose – Compact Gold
• *Calylophus drummondianus* ‘Berlandiera’

Damianita Daisy
• *Chrysactinia mexicana*

Gregg’s Mistflower
• *Eupatorium greggi*

Angel Trumpet
• *Datura wrightii*
Ice Plant
• Delosperma cooperi

Whirling butterflies
• Gaura lindeimeri ‘Siskiyou Pink’

Whirling butterflies
• Gaura lindeimeri ‘Pink Cloud’

Whirling butterflies
• Gaura lindeimeri ‘White Fountain’

Red Yucca
• Hesperaloe parviflora

Yellow Yucca
• Hesperaloe parviflora
Pink Turk’s Cap
- Malvaviscus arboreus “Pam Puryear”

Red Turk’s Cap
- Malvaviscus arboreus var. drummondii

Blackfoot Daisy
- Melampodium leucanthum

Catmint
- Nepeta x fraassenii ‘Walker’s Low’

Brazilian Rock Rose
- Pavonia braziliensis

Rock Rose
- Pavonia lasiopetala
Russian Sage
• Perovskia lasiopetala

Augusta Duelberg Sage
• Salvia farinacea ‘Augusta Duelberg’

Henry Duelberg Sage
• Salvia farinacea ‘Henry Duelberg’

Anise Sage
• Salvia guaranitica ‘Black and Blue’

Mexican Bush Sage
• Salvia leucantha

Dwarf Mexican Bush Sage
• Salvia leucantha ‘Santa Barbara’
**Hot Lips Salvia**
- *Salvia microphylla* 'Hot Lips'

**Mystic Spires Salvia**
- *Salvia x Mystic Spires*

**Mexican Mint Marigold**
- *Tagetes lucida*

**Esparanza**
- *Tecoma stans*

**Four Nerve Daisy**
- *Tetraneuris scaposa*  
- aka *Hymenoxys scaposa*

**Lavendar Cotton**
- *Santolina chamaecyparissus*
Color Guard Yucca

- *Yucca filamentosa*

Twist-leaf Yucca

- *Yucca rupicola*

Zexmenia

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

Phase 2

<table>
<thead>
<tr>
<th>Plant Name</th>
<th>Image</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hymnop</td>
<td><img src="image1.png" alt="Hymnop" /></td>
</tr>
<tr>
<td>Butterfly Weed</td>
<td><img src="image2.png" alt="Butterfly Weed" /></td>
</tr>
<tr>
<td>Butterfly Bush 'Nanho Blue'</td>
<td><img src="image3.png" alt="Butterfly Bush 'Nanho Blue'" /></td>
</tr>
<tr>
<td>Red Canna</td>
<td><img src="image4.png" alt="Red Canna" /></td>
</tr>
<tr>
<td>Mealy-Cup Sage</td>
<td><img src="image5.png" alt="Mealy-Cup Sage" /></td>
</tr>
<tr>
<td>Orange Zest</td>
<td><img src="image6.png" alt="Orange Zest" /></td>
</tr>
<tr>
<td>Pink Tickseed</td>
<td><img src="image7.png" alt="Pink Tickseed" /></td>
</tr>
<tr>
<td>Sea Holly</td>
<td><img src="image8.png" alt="Sea Holly" /></td>
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<tr>
<td>Myrtle Spurge</td>
<td><img src="image9.png" alt="Myrtle Spurge" /></td>
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<tr>
<td>Red Mountain Sage</td>
<td><img src="image10.png" alt="Red Mountain Sage" /></td>
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<tr>
<td>Rose Mallow</td>
<td><img src="image11.png" alt="Rose Mallow" /></td>
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<tr>
<td>Texas Lantana</td>
<td><img src="image12.png" alt="Texas Lantana" /></td>
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<tr>
<td>Lantana</td>
<td><img src="image13.png" alt="Lantana" /></td>
</tr>
<tr>
<td>Sharpshaped beardtongue</td>
<td><img src="image14.png" alt="Sharpshaped beardtongue" /></td>
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<tr>
<td>Jerusalem sage</td>
<td><img src="image15.png" alt="Jerusalem sage" /></td>
</tr>
<tr>
<td>Flowering Sena</td>
<td><img src="image16.png" alt="Flowering Sena" /></td>
</tr>
<tr>
<td>Shining Coneflower</td>
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Earth-Kind Perennial Research Garden

Phase 2

- Diameter 150 ft.
- Beds: 10 ft Wide
- Pathways: 7 ft wide
- 8,800 sqft. of beds

Phase 1: T1: 12’ x 20’ x 10’
- T3: 36’ x 51’ x 10’
- T4: 65’ x 75’ x 10’
- T5: 85’ x 97’ x 10’

Phase 2: T2: 36’ x 51’ x 10’
- T3: 36’ x 51’ x 10’
- T4: 85’ x 97’ x 10’
Earth-Kind Educational Programs and Garden Tours

http://collincountygardening.tamu.edu

Acknowledgements:

- Steve George
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- Texas Pure Products
- Plastic Mart
- Collin County Government
- Green Lake Nursery