Know Your Plants

- **Soil and water requirements**
  - Well-drained soil, sandy soil, etc.
  - Dry, moist, drought tolerant, etc.

- **Fertilizer and pruning timing**

- **Environmental preferences**
  - Sun, part sun, shade preferences

- **Common pest problems**

- **Common environmental problems**
  - Drought stress, sun scald, winter desiccation

- **Past problems**
### Location A

<table>
<thead>
<tr>
<th>Common Name</th>
<th>Scientific Name</th>
<th>Number</th>
<th>Soil</th>
<th>Exposure</th>
<th>Past Problems/comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Autumn Fire Sedum</td>
<td><em>Sedum 'Autumn Fire'</em></td>
<td>5</td>
<td>tolerates dry soil</td>
<td>Full to part sun</td>
<td>none; cutback in spring</td>
</tr>
<tr>
<td>Purple Autumn Ash</td>
<td><em>Fraxinus americana</em></td>
<td>3</td>
<td>well-drained</td>
<td>Full sun</td>
<td>ash sawfly May 2003</td>
</tr>
</tbody>
</table>
What is Your Tolerance Level for the Problem?

- **Serious threat**
  - Quickly spreading insect or disease problem (i.e., Pine Wilt)
  - Root diseases or root-feeding insects
  - Heavy populations of insects or diseases anywhere on the plant
  - Weeds shading or crowding new plantings

*Picture: Pine Wilt in September 2003 on campus*
What is Your Tolerance Level for the Problem?

- Non-serious threat
  - Usually aesthetic problems
  - Primarily leaf diseases or leaf feeding insects

Photo: University of Nebraska–Lincoln
Management of many pests can be accomplished through proper management practices and plant selection

- Landscape Prep
- Planting
- Mulching
- Pruning
- Fertilizing
- Irrigation
- Plant Selection, for the site
Landscape Preparation

- Add organic matter to landscape beds
  - Improves health of the plants
  - Adds plant nutrients to the soil
  - Reduces chance of crown and root rots in clay soils
  - Reduces drought stress in sandy soils
Planting Trees

- Place on firm surface
- Should be at or slightly above grade
- Flare should not be buried
- Fill hole with original soil
- Hole should be 2x as wide and only as deep as the roots

Photo: University of Nebraska–Lincoln
Mulching

- Reduces mower and trimmer damage
- Improves weed control
- Retains soil moisture
- Cools soil
- Moderates soil temperature
- Reduces competition for water and nutrients

Photo: University of Nebraska–Lincoln
Benefit of Mulch

Research at Morton Arboretum: More tree roots are developed under a mulch bed than under turfgrass.

Photo: Morton Arboretum
Pruning Trees

- Most trees and shrubs should be pruned in late winter.
- Spring flowering trees and shrubs should be pruned after flowering.
  - To avoid fireblight, prune crabapples, hawthorns, pears, mountain ash, and other susceptible species during dormancy.
Pruning Trees

- Make correct pruning cuts
- Clean tools between cuts on diseased plants
- Remove no more than 1/3 of the plant in one growing season

Photo: University of Nebraska—Lincoln
Pruning Herbaceous Plants

- Cut back foliage to eliminate insect or disease problems - rejuvenate fresh foliage
- Remove collapsed foliage - due to wind, ice or snow

Photo: University of Nebraska–Lincoln
Fertilizing

- Add as needed depending on plant signs
- Avoid mid-fall (N) applications, this encourages continued growth and prevents proper hardening off
- Avoid fertilizing drought stressed plants to avoid burning the leaves
Irrigation

- Early morning (4-10 a.m.) to reduce leaf wetness and disease incidence
- Avoid saturated soil conditions to reduce root diseases, especially in groundcovers
- Avoid watering turf and landscape beds with the same irrigation head

Photo: University of Nebraska–Lincoln

Overwatered turf stressing a littleleaf linden (thin canopy)
Plant Selection

- Read publications at http://ianrpubs.unl.edu for more information (search by title)
  - Wildflowers in the Home Landscape
  - Spring Flowering Bulbs
  - Perennials in Water-Wise Landscapes

- Visit the Nebraska Statewide Arboretum: http://arboretum.unl.edu/

- Contact your local county extension office for more information.
When Pesticides Are Needed

- Use curative, spot applications
- Apply at the correct time using the appropriate product
- Apply at the correct rate
- Potentially use preventative products in troublesome areas
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