

Hedging your shrub
investments:
Managing for pests on
ornamental shrubs

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Definition of Shrub

- A woody plant of relatively low height, having several stems arising from the base and lacking a single trunk; a bush



Why Shrubs?

- Next to trees, shrubs provide structure and framework





Ornamental Shrubs

ABIOTIC DISORDERS

Overwatering - poorly drained soils

Yews –

Symptoms – decline
and dieback,

Cause: lack of
oxygen, root rots,
Winter dieback (due
to transpiration
during warm days
during the winter)



Overwatering

Spiraea

- Fire Blight
- Leaf spot-fungus
- Powdery mildew



Overwatering

- **Iron Chlorosis** -

Over watering is probably the most common cause of chlorosis, in fact iron chlorosis can be induced if soils are kept excessively wet as a result of over watering, compacted soils, or poor drainage.



Winter Injury

Plant away from steam vents

Drought stress

Protect with loose wrapping

Water during winter during

Warm days above freezing



Herbicide Injury

- Non – specific roundup around grass edges
- 2,4-D volatilization above 85 degrees







COMMON SHRUB PESTS

Euonymus japonicus

Bright golden foliage



'Aureo-marginata'



Euonymus japonicus 'Silver King' & 'Silver Queen'

- Evergreen hedge plant with attractive, silvery-white or silvery cream on leaf margins
- Can be grouped to form a low screen.
- Tolerates poor soils, heat.
- Moderate size to 6 feet tall, 3 feet wide.
- Full sun to partial shade



Euonymus Scale

Symptoms: white or yellow spots on leaves, scales concentrated on stems, females overwinter

Management: plant further from buildings for better air circulation, insecticidal soap, horticulture oils



Euonymus scale females, males,
and crawlers



Euonymus

Powdery Mildew

White flecks on upper surface leaves

Management:

- Prune out affected leaves
- Provide adequate spacing for air circulation to lower humidity
- Some horticulture oils may help
- Fungicides Bravo, Flotox, Funginex rotate



UC Statewide IPM Project
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Burning Bush or Winged Euonymus *Euonymus alatus* 'Compacta'

This is a **deciduous** shrub, which grows to a height of 10 to 20 feet and similar spread, depending on the variety. The dark-green foliage turns brilliant red in fall. The flowers are ornamentally unimportant, yellow-green, and present in May and June. The plant likes partial shade to full sun and well-drained soil.



Winged Euonymus:

Two Spotted Spider Mite

The life cycle from egg to adult can occur in five days at 75 degrees F, thus several generations occur from late spring through fall.

Management:

- Plant in part sun
- Insecticidal soap or horticulture oil
- Water plant during dry periods



Photo by
Michael Masiuk

Euonymus alatus (photo from



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Boxwood (*Buxus spp.*)

Deer Resistant, Evergreen, pruned to any shape or left to take on natural shape. Zone 5-9

Boxwood Psylla

- American boxwood
- aka jumping plant lice (1/16") covered with white secretion
- Winged adults early summer
- Symptoms: infected shoots arch inward (cabbage like clusters), sticky honeydew, black sooty molds
- Prune out infestation
- Insecticidal soap or horticulture oil



Lilac

Syringa vulgaris

Fragrant

Blooms spring (cut blooms)

Colors from white to deep purple

Renewal pruning

Powdery mildew

Lilac borer



Lilac

Powdery Mildew

Severity: 2 out of 5

Frequency 4 out of 5

Management:

- Plant in sunny location with good air movement
- Do not crowd
- Remove diseased and dead leaves around plants
- Avoid excessive fertilization



Lilac/Ash Borer

- Larvae of a clear winged moth feed in the wood of lilac
- adults emerge as adult moth when common lilac is in full bloom for ~ 6 weeks thereafter
- After mating lays eggs within 10 days on bark of host plant

Treatment: pheremone traps to determine emergence, permethrin or bifenthrin



UGA1325100



Cotoneaster

Can be susceptible
to Fire Blight

Manage by pruning



Junipers

Juniperus spp

Low maintenance

Spreading



Phytophthora

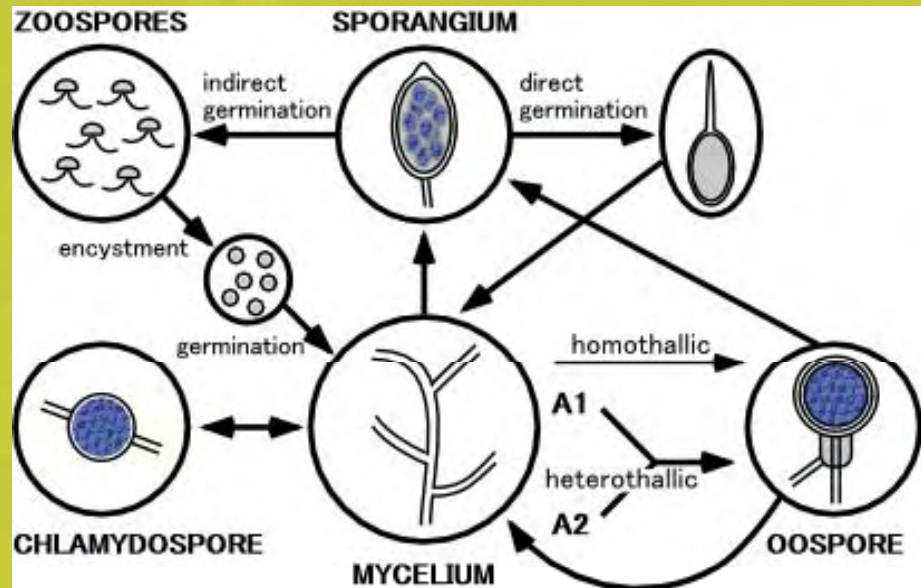
Root Rot in Juniper

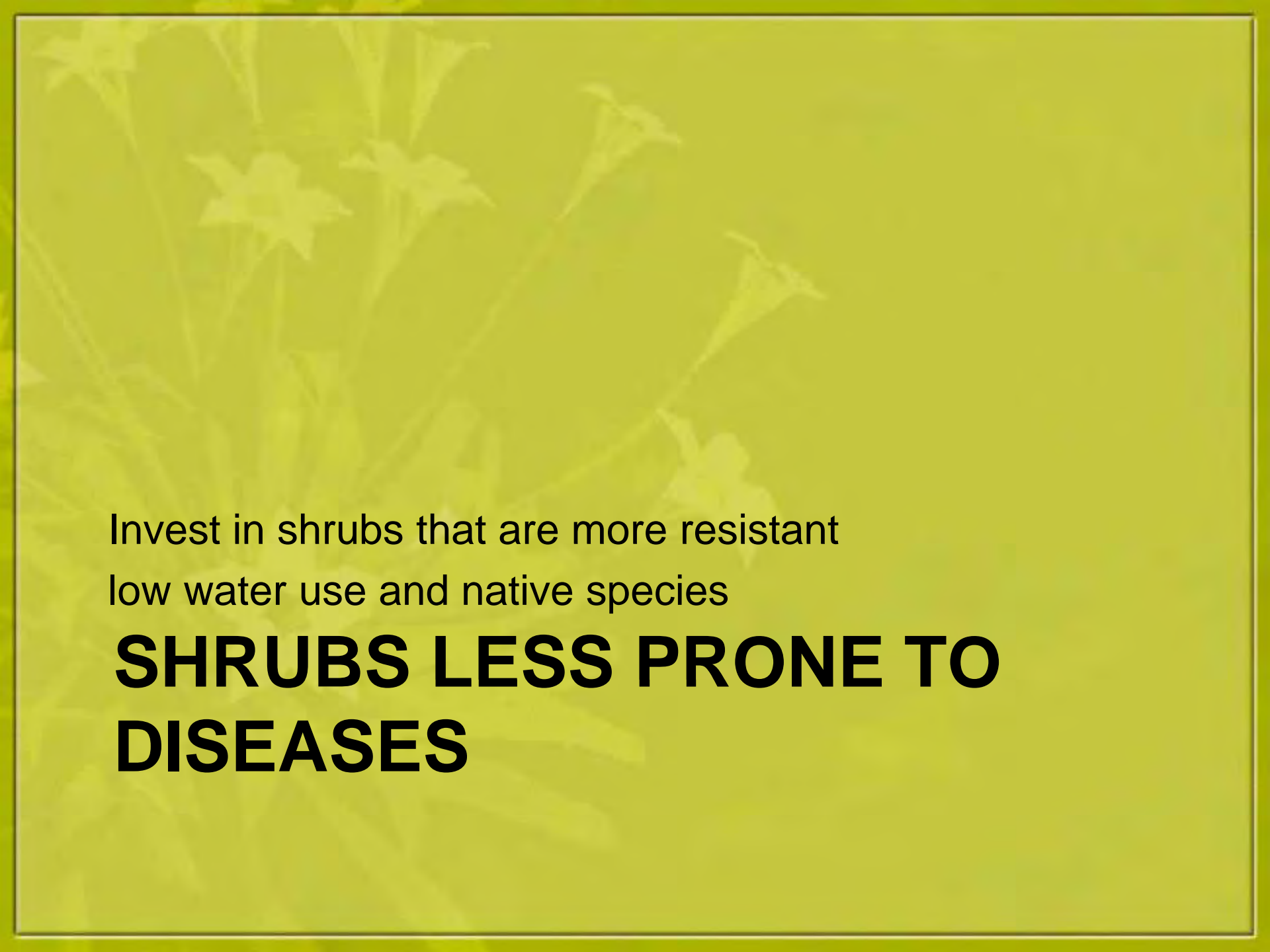
- fungus like organism that becomes active with host plant and saturated soil conditions
- Inner bark becomes brown as tissue dies



Treatment:

Avoid overwatering and plant resistant species





Invest in shrubs that are more resistant
low water use and native species

**SHRUBS LESS PRONE TO
DISEASES**

Star Magnolia
Magnolia koebus
var. stellata

15 – 20 feet tall

Zone 4-8

Dense oval shrub

Protect from south exposure



Ninebark

Physocarpus opulifolius

8 -10 ft tall upright shrubs

White pink flowers

Red or purple leaves in fall

Prefers sun but will tolerate partial shade



'Center Glow'



'Coppertina'



Beautybush

Kolkwitzia

- 6 – 10 ' tall, upright vase-shaped
- Blossoms heavily in spring followed by pinkish-brown bristly fruits
- Transplant b-and-b
- Well-drained soil, full sun for best flowering
- Prune out old canes yearly; can shear to revitalize
- Adaptable to pH
- 'Rosea' deep pink flowers
- Zone 4-8





Hazelnut

Corylus spp.

Pest resistant

Drought tolerant



Smokebush

Cotinus coggygria

10-12 feet

Upright loose open habit

Different foliage – green
to purple

Tolerate drought and salt



Silver Buffaloberry (*Shepherdia rotundifolia*)

- Attractive shrub
- 4 to 6 feet
- Prefers rocky soil and slopes
- Silvery foliage



Serviceberry
Amelanchier alnifolia

Also native species
available –

Amelanchier utahensis





Potentilla fruticosa

- Small to medium deciduous shrub
- Blooms throughout summer
- Tolerant of various soils
- Susceptible to spider mite damage

Butterfly Bush

Buddleia davidii

- Large shrub to 10' tall
- Flowers perfect, usually lavender, orange at the mouth
- Very fast-growing
- Prune to the ground in early spring; flowers on new growth
- Seeds freely- remove flowers before they go to seed
- Prefers alkaline soils
- Many cultivars available
- Zones 5 – 9



Resources

- University of Illinois Extension
<http://www.urbanext.uiuc.edu/shrubselector>
- Utah State University Extension www.treebrowser.org
- Conservation Garden Park Plant List
<http://www.conservationgardenpark.org/>
- <http://www.virtualplanttags.com/>

University of Illinois Extension Selecting Shrubs for Your Home

- [Search Shrubs](#)
- Shrubs by:**
- Size**
- [Tolerance](#)
- [Exposure](#)
- [Use](#)
- [Shrub Pests](#)
- [Credits](#)

Small

[Large](#)
[Medium](#)
[Small](#)

Text search:



Alpine Currant
Ribes alpinum



Anglojap Yew
Taxus x media



Bigleaf Hydrangea
Hydrangea macrophylla



Black Chokeberry
Aronia melanocarpa



Black Jetbead

[< Back to Search](#)

Creeping Cotoneaster

Cotoneaster adpressus

Hardiness Zone:	5 - 7
Mature Height:	1-2 Feet
Mature Width:	4-6 Feet
Features:	Small, white flowers tipped with pink in spring; summer leaves are small but lustrous; small, bright red fruit in late summer and autumn; autumn color is red.
Culture:	Full sun; prefers a moist, well-drained soil, but can tolerate dryness; tolerates alkaline soil.
Mature Form:	Low, spreading form that roots along the branches where they touch the ground; stiff branches.
Native To:	China
Soil Conditions:	<input checked="" type="checkbox"/> Dry <input checked="" type="checkbox"/> Moist, Well-Drained <input type="checkbox"/> Wet
Tolerance:	<input checked="" type="checkbox"/> Alkaline Soil

4 pictures total.

< Back

Next >



Creeping Cotoneaster flowers

Size:



Small

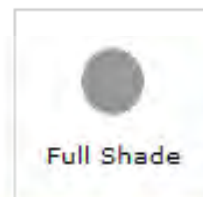


Medium



Large

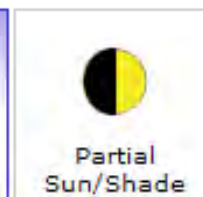
Exposure/ Light Requirements:



Full Shade



Full Sun



Partial Sun/Shade

www.treebrowser.org



TreeBrowser

FIND A TREE

Trees Remaining: 241 out of 241

CHARACTERISTICS

General

Family:

Cultivar Availability:

Hardiness Zone:

Type:

Utah Native:

Growth

Growth Rate:

Mature Height:

Longevity:

Power Lines:

Crown Shape:

Ornamental

Flowers:

Fruit:

Foliage:

Fall Color:

Bark:

Tolerance of...

Shade:

TREE LIST

Common Name	Scientific Name	Family	Favorites <i>Clear</i>
Alder, European or Common	<i>Alnus glutinosa</i>	Betulaceae - Birch	<input type="checkbox"/>
Alder, Thinleaf or Mountain	<i>Alnus tenuifolia</i>	Betulaceae - Birch	<input type="checkbox"/>
Apple	<i>Malus pumila</i>	Rosaceae - Rose	<input type="checkbox"/>
Apricot	<i>Prunus armeniaca</i>	Rosaceae - Rose	<input type="checkbox"/>
Arborvitae, Oriental	<i>Thuja (Platycladus) orientalis</i>	Cupressaceae - Cypress	<input type="checkbox"/>
Ash, Blue	<i>Fraxinus quadrangulata</i>	Oleaceae - Olive	<input type="checkbox"/>
Ash, European	<i>Fraxinus excelsior</i>	Oleaceae - Olive	<input type="checkbox"/>
Ash, Green	<i>Fraxinus pennsylvanica</i>	Oleaceae - Olive	<input type="checkbox"/>
Ash, Singleleaf or Dwarf	<i>Fraxinus anomala</i>	Oleaceae - Olive	<input type="checkbox"/>

Arborvitae, Oriental

Thuja (Platycladus) orientalis

See Northern White-Cedar for description. Major differences:

Twigs/buds: Twigs arranged in vertically flattened sprays.

Flowers/fruit: Monoecious; fruit a cone; 1/3" to 1" long; upright; 6 to 8 scales, thicker than above.

General

Family: Cupressaceae - Cypress
 Cultivar Availability: Yes
 Hardiness Zone: 6 - 9
 Type: Conifer
 Utah Native: No

Ornamental

Flowers: No
 Fruit: Yes
 Foliage: Yes
 Fall Color: No
 Bark: No

Growth

Growth Rate: Low
 Mature Height: Medium

Tolerance of...

Shade: Low

