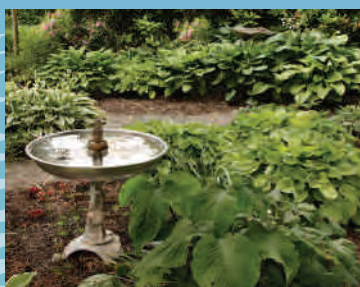


# GardenSmart Oregon

a guide to  
non-invasive  
plants





## A gardener's dream

Oregon is a gardener's dream. Our varied climates and mild conditions allow us to showcase a wide variety of plants from around the world. In fact, nursery crops are Oregon's number one agricultural commodity.

Unfortunately, a few plants used in gardens and landscapes cause serious ecological harm by 'jumping the fence' and spreading elsewhere. These invasive plants can become serious problems that threaten water quality, wildlife and our economy by crowding out native plants, changing stream flows, increasing erosion, competing with crops or creating fire hazards.

This booklet offers gardeners and landscape designers many choices of plants that work for gardens while protecting the health and beauty of Oregon's natural lands and waters. We highlight plants that should be avoided because they are invasive, and offer non-invasive alternatives (both natives and non-native ornamentals) that you can safely plant instead.

We hope you will use this booklet as a guide to help you make the most informed choices for your garden, water garden or landscape. Enjoy your garden!

## Quick definitions

**Native (indigenous) plant:** Present in the Pacific Northwest historically prior to European-American settlement.

**Non-native (exotic, alien, introduced) plant:** Brought to the Pacific Northwest by humans either deliberately or by accident.

**Invasive plant:** Thrives and spreads aggressively outside its natural range.

**Ornamental plant:** A non-native plant commonly sold and available in garden centers.

**Weed:** Casual term used for any plant that is undesirable in a given location.

**Noxious weed:** Plant listed by the state as "noxious" because it is harmful to agriculture, water resources or human health.

**Regions of concern:** Areas within Oregon where the plant is known to have invasive tendencies, or has a high probability of becoming invasive.

# GardenSmart Oregon

## a guide to non-invasive plants



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## What you can do

Every Oregonian can do something to safeguard what we love about our state - our pristine natural areas, healthy streams and lakes, abundant fish and wildlife, and working farms and ranches. The first step is to avoid purchasing, planting or growing invasive plants. By being part of the solution, you can help protect Oregon from invasive species.

- Use this guide to select non-invasive plants.
- Support nurseries and businesses that sell non-invasive plants.
- Don't trade plants with other gardeners if you suspect they may be invasive.
- Spread the word (but not the weed!) to your fellow gardeners.

### If you already have invasive plants in your garden:

- Remove the invasives and replace them with suitable non-invasive plants.
- Dead-head (remove flowering heads and seeds) so plants do not release seed.
- Dispose of invasive plant materials by bagging and placing in the garbage (composting does not kill some plants and seeds).

### About water gardens:

- Be sure your water garden is fully contained (not near creeks, natural ponds or areas prone to flooding).
- Do not dump pond plants (or animals such as fish, snails or turtles) into natural areas.
- Buy water garden supplies only from knowledgeable and responsible retailers.
- Inspect and rinse aquatic plants in tap water to remove unintended hitchhikers, such as snails and plant fragments.

For more information about invasive species and how you can prevent them, see the Resources section on page 52.

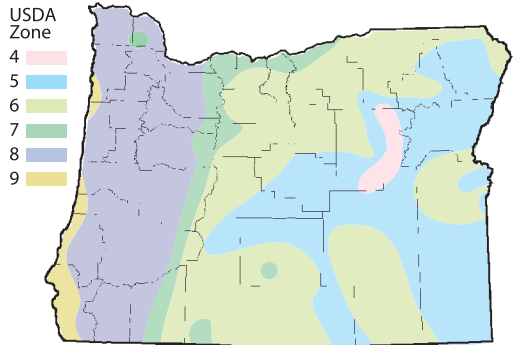
## Guide to plant selection

Each plant is unique, not only in how it looks, but also in the growing conditions it requires. There are no exact substitutes for invasive plants, so check the characteristics of any alternative you are considering to ensure it will grow in your situation.

Many invasive plants can grow in a wide variety of challenging conditions. For example, English ivy is both a groundcover and a vine, grows in both full sun and full shade, tolerates drought, and is hardy down to about -20° F. Suitable replacements need to fit your specific circumstances. Creeping juniper might be a good replacement in full sun, but Barren strawberry would be a better option in shade.

### USDA hardiness zones

USDA hardiness zones are based on a single factor: average minimum temperature. Lower numbered zones experience lower temperatures, so plants must be tougher to survive there. Choose alternatives with a USDA zone equal to or lower than the zone where you live. For example, in Zone 7, a Zone 5 plant may be fine, but a Zone 8 plant probably won't survive the winter.



USDA zones do not account for other conditions such as moisture and light, so keep that in mind when choosing alternatives. Some of our recommended plants may be suitable only in western, eastern or southern Oregon, but not throughout the entire zone.

Your local nursery can help you select the best alternatives for your location.

### Symbols used in this booklet

🌲 evergreen   🍃 deciduous

☀️ full sun   🌄 partial sun   ● shade

💧 wet   💧 moist but drained   💧 moderately dry   🚫 drought tolerant

# Brooms and Gorse

Scotch (Scot's) broom - *Cytisus scoparius*, Portuguese broom - *C. striatus*, Spanish broom - *Spartium junceum*, French broom - *Genista monspessulana*, Gorse - *Ulex europaeus*

## Habitats Invaded:

Grasslands, prairies, pasture and rangelands, roadsides, cut-over forest lands and sand dunes. Brooms and gorse both change soil nutrients and create fire hazards.

## Region of Concern:

All of Oregon

## Identification:

- Shrubs to 6 ft tall with green stems, small, inconspicuous green leaves and, pea-like yellow flowers
- Portuguese broom has pale yellow flowers and fruit pods that are densely white-hairy
- Gorse has distinctive 1 inch long thick spines

## Things You Should Know:

- Over 12,000 seeds can be produced by each mature shrub
- Seeds can survive in soil up to 50 years
- Adds nitrogen to soil and provides highly flammable fuels for wildfires
- Flowers and seeds are toxic to humans and most livestock

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© John M. Randall - The Nature Conservancy





# Alternatives


## NATIVE PLANTS



© Environmental Services

◀ Tall Oregon grape  
*Mahonia (Berberis) aquifolium*

USDA

Zone 5    

Mountain mahogany - *Cercocarpus ledifolius*

Zone 4    


Golden currant - *Ribes aureum*

Zone 4    

Mock orange - *Philadelphus lewisii*

Zone 4    

Blue blossom - *Ceanothus thyrsiflorus*

Zone 7    

## ORNAMENTALS



© Mark Turner

◀ Forsythia hybrids  
*Forsythia x intermedia*  
Has fall color

USDA

Zone 5    

Winter jasmine - *Jasminum nudiflorum*

Zone 6    

Japanese kerria - *Kerria japonica*

Zone 4    

Savin juniper - *Juniperus sabina*

Zone 3    

# Butterfly bush, Summer lilac

*Buddleja (Buddleia) davidii, B. variabilis*

## Habitats Invaded:

Butterfly bush can form crowded stands along riverbanks and on cobblebars, cut-over forest lands, pastures, and in open waste areas.

## Regions of Concern:

Western Oregon, and spreading into the western slope of the Cascade Mountains

## Identification:

- Shrub up to 10 ft tall with arching branches and dense clusters of showy flowers
- Flowers are 4-petaled, tubular at base, and white to pink to purple (sometimes with orange centers)
- Leaves are velvety, lance-shaped and gray-green in color

## Things You Should Know:

- Spreads by broken stem fragments and by seeds that are dispersed by wind and water
- Flowers produce nectar that is attractive to butterflies and other insects

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© Tom Forney, Oregon Dept of Agriculture





# Alternatives


## NATIVE PLANTS

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◀ **Blue blossom**  
*Ceanothus thyrsiflorus*

USDA

Zone 7    


**Red-flowering currant** - *Ribes sanguineum*

**Mountain mahogany** - *Cercocarpus ledifolius*

**Mock orange** - *Philadelphus lewisii*

**Blue elderberry** - *Sambucus cerulea*

Zone 5    

Zone 4    

Zone 4    

Zone 4    

## ORNAMENTALS

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◀ **Meyer lilac**  
*Syringa meyeri*

Has fall color

USDA

Zone 3    

**Eastern ninebark** - *Physocarpus opulifolius*

**Bluebeard** - *Caryopteris x clandonensis*

**Koreanspice viburnum** - *Viburnum carlesii*

**Weigela varieties** - *Weigela florida*

Zone 2    

Zone 6    

Zone 5   

Zone 4    

# English holly

*Ilex aquifolium*

## Habitats Invaded:

English holly can occur in pristine to highly disturbed coniferous forests, in forest gaps, and along the edges of wetlands.

## Regions of Concern:

Western and southern Oregon

## Identification:

- Evergreen shrub or small tree to 20 ft tall
- Leaves are thick and spiny or prickly along the edges
- May bear bright red berries

## Things You Should Know:

- Birds and small mammals use berries as a food source and disperse seeds
- Berries and foliage are commonly used for holiday decoration
- Berries are toxic to humans



# Alternatives

## NATIVE PLANTS



© Pat Breen - Oregon State University

◀ Pacific waxmyrtle  
*Myrica californica*

- Tall Oregon grape - *Mahonia aquifolium*
- Red elderberry - *Sambucus racemosa*
- Bitter cherry - *Prunus emarginata*
- Toyon - *Heteromeles arbutifolia*

USDA

- |        |  |  |  |  |
|--------|--|--|--|--|
| Zone 7 |  |  |  |  |
| Zone 5 |  |  |  |  |
| Zone 6 |  |  |  |  |
| Zone 4 |  |  |  |  |
| Zone 7 |  |  |  |  |

## ORNAMENTALS



© Mark Turner

◀ Meserve hybrid blue holly  
*Ilex x meserveae* cvs.

USDA

- |        |  |  |  |  |
|--------|--|--|--|--|
| Zone 5 |  |  |  |  |
| Zone 3 |  |  |  |  |
| Zone 7 |  |  |  |  |
| Zone 7 |  |  |  |  |
| Zone 6 |  |  |  |  |

# European hawthorn, Oneseed hawthorn

*Crataegus monogyna*

## Habitats Invaded:

Forests, riverbanks, oak woodlands, disturbed grasslands and pastures.

## Regions of Concern:

Western and southern Oregon

## Identification:

- Deciduous shrub or small tree to 15 ft tall with smooth, pale gray bark
- Leaves are 3-lobed, flowers are white and showy, dark red berries with one seed
- Branches with stout thorns up to 1 inch long

## Things You Should Know:

- Birds consume berries and disperse seeds
- May interbreed with native Douglas hawthorn



© Piero Amorati - IC Croce-Caselecchio di Reno



© Pat Breen, Oregon State University



# Alternatives





## NATIVE PLANTS



© Environmental Services

◀ **Western serviceberry**  
*Amelanchier alnifolia*  
Has fall color




USDA

Zone 4    


Mock orange - *Philadelphus lewisii*

Douglas hawthorn - *Crataegus douglasii*

Suksdorf's hawthorn - *Crataegus suksdorfii*

Zone 4    

Zone 5    

Zone 7    

## ORNAMENTALS



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◀ **Lavalle hawthorn**  
*Crataegus x lavalleyi*  
Has fall color

USDA

Zone 4    

Flowering crabapple - *Malus spp.*

Green hawthorn - *Crataegus viridis* 'Winter King'

Thornless cockspur hawthorn - *Crataegus crusgalli*

Purpleleaf choke cherry - *Prunus virginiana*

Zone 4    

Zone 4    

Zone 4    

Zone 2    

# Himalayan blackberry, Armenian blackberry

*Rubus armeniacus, R. discolor, R. procerus*

## Habitats Invaded:

Himalayan blackberry can form dense impenetrable thickets in moist forests, riverbanks, near ponds, wetlands and drainage ditches. It is also common along roadsides, right-of-way corridors and can dominate range and pasturelands.

## Region of Concern:

All of Oregon, especially western Oregon

## Identification:

- Shrubby dense thickets of long bending branches (canes) that appear as 8 ft tall mounds or banks
- Stems/canes are 5-angled in cross-section with hooked prickles
- Leaves usually with 5 large, oval leaflets that are dark green on top and grayish-green underneath
- Showy flowers are white-pink, yielding juicy, black, edible berries

## Things You Should Know:

- Spreads by seeds, root sprouts and by cane tips that readily root
- Introduced to North America by the famous plant breeder Luther Burbank in 1885 as *Himalayan Giant*





# Alternatives

## NATIVE PLANTS



© Linda McMahan - OSU Extension Service

◀ **Salmonberry**  
*Rubus spectabilis*

USDA

Zone 5    

Zone 4    

Zone 5    

Zone 3     

Zone 6    

**Thimbleberry** - *Rubus parviflorus*

**Thin-leaf huckleberry** - *Vaccinium membranaceum*

**Snowberry** - *Symphoricarpos albus*

**Indian plum** - *Oemleria cerasiformis*

## ORNAMENTALS



© Oregon Raspberry and Blackberry Commission

◀ **Marionberry or Boysenberry**  
*Rubus* 'Marion' or 'Boysen'

USDA

Zone 6   

Zone 4   

Zone 4   

Zone 5     

**Red raspberry** - *Rubus idaeus*

**Black raspberry** - *Rubus occidentalis*

**Rocky Mt. thimbleberry** - *Rubus deliciosus*

# Knotweeds, Fleece flower, Mexican bamboo

Japanese knotweed - *Polygonum cuspidatum*, Giant knotweed - *P. sachalinense*, Himalayan knotweed - *P. polystachyum* and hybrids, syn. *Fallopia japonica* and *Reynoutria japonica*

## Habitats Invaded:

Riverbanks, wet seeps and open disturbed sites. Knotweeds can form large, dense stands that degrade streamside habitats for salmon and other wildlife.

## Regions of Concern:

All of Oregon

## Identification:

- Feathery white to cream colored flowers
- Bamboo-like hollow stems up to 10 ft tall, often with purple speckles
- Stems have a distinctive reddish-brown papery sheath at stem joints

## Things You Should Know:

- Spread primarily by broken stem fragments that are easily dispersed by flowing water
- Dense infestations can restrict public access along riverbanks for recreation and fishing



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# Alternatives



















## NATIVE PLANTS

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◀ **Red osier dogwood**  
*Cornus sericea ssp. occidentalis*  
 Has fall color

USDA

- Zone 3    
- Zone 4    
- Zone 5   
- Zone 5    
- Zone 7   

**Native willows** - *Salix spp.*

**Ninebark** - *Physocarpus capitatus*

**Oceanspray** - *Holodiscus discolor*

**Goat's beard** - *Aruncus dioicus*



## ORNAMENTALS

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◀ **Virginia sweetspire**  
*Itea virginica*  
 Has fall color

USDA

- Zone 5    
- Zone 5    
- Zone 3    
- Zone 4    

**Dappled willow** - *Salix integra* 'Hakuro Nishiki'

**Clumping bamboo** - *Fargesia* species and cultivars

**Tatarian dogwood** - *Cornus alba*

**Summersweet** - *Clethra alnifolia*

# Russian olive, Oleaster

*Elaeagnus angustifolia*

## Habitats Invaded:

Russian olive occurs mostly in the arid interior of Oregon along riverbanks and streambanks, as hedgerows, and in seasonally moist places. It is tolerant of soil salinity and alkalinity, and can alter river flows.

## Regions of Concern:

Eastern and southern Oregon, spreading west along the Columbia River into the Columbia Gorge

## Identification:

- Large shrub or small tree up to 30 ft tall with large 2-3 inch long thorns
- Leaves are long, narrow and silvery with tiny scales
- Flowers are small, yellow and fragrant, developing into green-brownish red dry mealy fruits

## Things You Should Know:

- Birds and small mammals feed on the fruits and disperse seeds
- Originally recommended for use as windbreaks, wildlife habitat and for soil stabilization

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© Chris Evans - River to River CWMA, Bugwood.org





# Alternatives

## NATIVE PLANTS



© Mark Turner

◀ **Quaking aspen**  
*Populus tremuloides*  
 Has fall color

USDA			
Zone 3			
Zone 4			
Zone 6			
Zone 3			
Zone 4			

**Blue elderberry** - *Sambucus cerulea*

**Scouler's willow** - *Salix scouleriana*

**Silver buffaloberry** - *Shepherdia argentea*

**Narrowleaf willow** - *Salix exigua*

## ORNAMENTALS



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◀ **Variegated boxelder**  
*Acer negundo* 'Variegatum'  
 Has fall color

USDA			
Zone 5			
Zone 3			
Zone 4			
Zone 4			
Zone 6			

**Common hackberry** - *Celtis occidentalis*

**Corneliancherry dogwood** - *Cornus mas*

**Silverberry** - *Elaeagnus commutata*

**Thorny elaeagnus** - *Elaeagnus pungens* 'Fruitlandii'

# Saltcedar, Tamarisk

*Tamarix ramosissima*

## Habitats Invaded:

Saltcedar occurs mostly in moist seeps in arid regions, along riverbanks and streambanks, lake and pond margins, and in ditches and canals. It alters water availability, soil chemistry, and creates fire hazards.

## Regions of Concern:

Eastern and southern Oregon, spreading west along the Columbia River into the Columbia Gorge

## Identification:

- Large shrub or small tree up to 26 ft tall with small, scale-like leaves, often with salt glands or crystals
- Bark is reddish-brown and smooth
- Showy flowers are white-to-pink and borne in feathery flower clusters

## Things You Should Know:

- Spreads by broken root and stem fragments and by seeds that are dispersed by wind and flowing water
- Each mature plant can produce 500,000 seeds per year
- Plants can exude salts and other chemicals onto the soil surface making it unsuitable for other plants to germinate
- Consumes large amounts of water

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© Steve Dewey - Utah State, Bugwood.org





# Alternatives


## NATIVE PLANTS

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◀ **Blue elderberry**  
*Sambucus cerulea*

USDA

Zone 4    

Native roses - *Rosa nutkana* or *R. woodsii*

Birchleaf spirea - *Spiraea betulifolia*

Mountain hollyhock - *Iliamna rivularis*

Narrowleaf willow - *Salix exigua*

Zone 5     

Zone 4    

Zone 3   

Zone 4    

## ORNAMENTALS

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◀ **Black elderberry**  
*Sambucus nigra cvs*

Has fall color

USDA


Zone 5    

Chinese fringe flower - *Loropetalum chinense*


Apache plume - *Fallugia paradoxa*

Chinese fringetree - *Chionanthus retusus*

White fringetree - *Chionanthus virginicus*

Zone 8     

Zone 4   

Zone 5     

Zone 4     

# Spurge laurel

*Daphne laureola*

## Habitats Invaded:

Spurge laurel occurs in the understory of coniferous forests and oak woodlands.

## Regions of Concern:

Western Oregon and the Columbia Gorge

## Identification:

- Small shrub up to 3 ft tall with spirally arranged dark, shiny, evergreen leaves
- Flowers are light green, bearing small blue-black berries

## Things You Should Know:

- Birds consume berries and disperse seeds
- Leaves, bark and berries are toxic to humans, and may cause skin dermatitis

© Whatcom County Weed Board



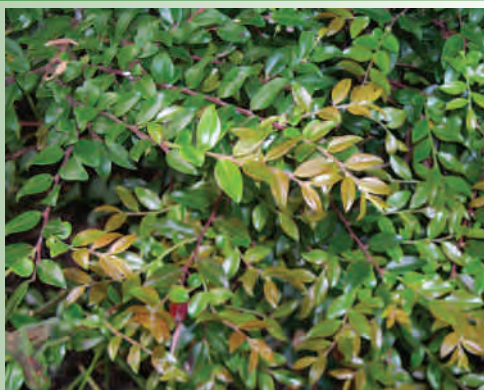
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# Alternatives

## NATIVE PLANTS

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### ◀ Evergreen huckleberry

*Vaccinium ovatum*

USDA

Zone 6    

Zone 5    

Zone 6   

Tall Oregon grape - *Mahonia aquifolium*

Salal - *Gaultheria shallon*

Western rhododendron - *R. macrophyllum*

Sword fern - *Polystichum munitum*

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© Chris Guntermann



### ◀ Winter daphne



*Daphne odora*

USDA

Zone 7    

Zone 5   

Zone 7    

Zone 3    

Zone 5    

Rhododendron - *Rhododendron* spp. and cvs

Fragrant sweet box - *Sarcococca ruscifolia*

Nannyberry - *Viburnum lentago*

Burkwood daphne - *Daphne x burkwoodii*

# Tree of heaven

*Ailanthus altissima*

## Habitats Invaded:

Riverbanks, wet seeps and open disturbed sites such as roadsides, forest and field edges. Tree of heaven can also form large, dense thickets in urban waste lots, pavement cracks, railroad beds and old mine spoils.

## Regions of Concern:

All of Oregon, especially southwest Oregon and the Columbia Gorge, and in disturbed urban areas

## Identification:

- Tall tree to 80 ft with smooth gray bark and large compound leaves
- Leaves can be up to 4 ft long and are generally comprised of 11-41 leaflets per leaf
- Flowers are yellow-pink and borne in clusters, developing into dry straw-colored or reddish-brown fruits
- Fruits are papery-winged with a single seed in the center

## Things You Should Know:

- Root sprouts can form large dense colonies
- Small seeds with paper-winged structures allow long-distance dispersal by wind; a single mature tree can produce more than 300,000 seeds per year
- Tree described in the famous children's book *A Tree Grows in Brooklyn*
- Crushed leaves smell like rancid peanut butter and produce toxic chemicals that may prevent the establishment of adjacent vegetation



© Jennifer Goodridge, Environmental Services

# Alternatives

## NATIVE PLANTS



© Pat Breen - Oregon State University

### ◀ Sitka or Pacific mountain ash

*Sorbus sitchensis*

Has fall color

USDA

Zone 4    

Zone 5    

Zone 3    

Zone 3    

Zone 4    

**Bigleaf maple** - *Acer macrophyllum*

**Ponderosa pine** - *Pinus ponderosa*

**Greene's mountain ash** - *Sorbus scopulina*

**Lodgepole pine** - *Pinus contorta* var. *latifolia*

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### ◀ Autumn purple ash

*Fraxinus americana*

'Autumn Purple' ®

Has fall color

USDA

Zone 4    

Zone 3    

Zone 3    

Zone 5    

Zone 4    

**Japanese tree lilac** - *Syringa reticulata*

**Kentucky coffeetree** - *Gymnocladus dioica*

**Japanese zelkova** - *Zelkova serrata* varieties

**Ginkgo (sterile male)** - *Ginkgo biloba*



# Bachelor's button and Knapweeds

Bachelor's button, cornflower - *Centaurea cyanus*

Bighead knapweed - *C. macrocephala*, Meadow knapweed - *C. pratensis*

## Habitats Invaded:

Grasslands, roadsides, reforestation sites and rights-of-way. Knapweeds can form dense infestations that devalue pastures and rangelands.

## Region of Concern:

All of Oregon

## Identification:

- Bachelor's button - Annual up to 3 ft tall with showy white, blue or purple flower heads, foliage is covered with short, gray hairs
- Bighead knapweed - Perennial to 5 ft tall with large, stalked, basal rosette leaves, and showy globe-shaped yellow flower heads that can be 3 inches in diameter (*photo on right*)
- Meadow knapweed - Perennial to 3 ft tall and is often many-branched with white to rose-purple flowers (*photo on left*)

## Things You Should Know:

- Seeds are spread by grazing animals, on shoes and clothing, and by vehicles and road equipment
- Bachelor's buttons are still often included in "wildflower" seed mixes (do not buy these)

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© Mark Turner





# Alternatives

## NATIVE PLANTS

© Linda McMahan - OSU Extension Service



◀ **Bluehead gilia**  
*Gilia capitata*


USDA

Zone 5    

Zone 4    

Zone 5    

Zone 5    

Zone 4    

Low penstemon - *Penstemon humilis*

Jacob's ladder - *Polemonium pulcherrimum*

Showy fleabane - *Erigeron speciosus*

Farewell-to-spring - *Clarkia amoena*

HERBACEOUS

## ORNAMENTALS

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◀ **Pincushion flower**  
*Scabiosa columbaria*

USDA

Zone 4    

Zone 3    

Zone 3    

Annual   

Zone 4    

Globe thistle - *Echinops ritro*

Sea holly - *Eryngium amethystinum*

Sweet-sultan - *Centaurea moschata*

Purple coneflower - *Echinacea purpurea*

# Fennel

*Foeniculum vulgare*

## Habitats Invaded:

Fennel can develop dense uniform stands in grasslands, pastures, creekbanks, old fields, ditches, roadsides and in open abandoned lots.

## Regions of Concern:

Western and southern Oregon

## Identification:

- Aromatic perennial up to 6 ft tall with finely dissected grayish-green feathery leaves
- Tiny yellow flowers clustered into umbrella-shaped groups
- Base is non-bulb forming

## Things You Should Know:

- Bulb-forming varieties of fennel are non-invasive
- Seeds can be dispersed by birds and rodents
- Foliage smells of licorice

© Tom Forney - Oregon Department of Agriculture



© Tom Forney - Oregon Department of Agriculture



# Alternatives

## NATIVE PLANTS



© Linda McMahan - OSU Extension Service

◀ **Yarrow**  
*Achillea millefolium*

USDA			
Zone 4			
Zone 4			
Zone 7			
Zone 4			
Zone 7			

- Wild white aster - *Aster divaricatus*
- Goat's beard - *Aruncus dioicus*
- Canada goldenrod - *Solidago canadensis*
- Lovage - *Ligustichum apiifolium*

HERBACEOUS

## ORNAMENTALS



© Nick Kurzenko

◀ **Cosmos**  
*Cosmos bipinnatus*

USDA			
Annual			
Annual			
Zone 3			
Zone 3			
Annual			

- Annual sunflowers - *Helianthus annuus*
- Ground clematis - *Clematis recta* 'Purpurea'
- Golden alexander - *Zizia aurea*
- Anise - *Pimpinella anisum*

# Hawkweeds

Yellow hawkweed, Kingdevil hawkweed - *Hieracium floribundum*

Orange hawkweed - *H. aurantiacum* (photos below)

## Habitats Invaded:

Grasslands, pastures, rangelands and disturbed open ground.

Hawkweeds can form dense colonies that reduce available soil moisture and nutrients.

## Region of Concern:

All of Oregon, especially central and northeast Oregon

## Identification:

- Perennials up to 2 ft tall, growing from a basal rosette of hairy leaves, often with long horizontal aboveground stems
- Flowers are dandelion-like with petals squared on the ends with several rounded teeth and are either yellow (Yellow hawkweed) or orange with an orange-red center (Orange hawkweed)
- Flowers are typically clustered at the top of a hairy, flowering stalk (unlike dandelions which have one flower per stalk)
- Stems and leaves exude a milky sap

## Things You Should Know:

- Can spread vegetatively from aboveground stems (stolons)
- Seeds have small barbs that catch in fur or on clothing

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# Alternatives

## NATIVE PLANTS

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◀ Oregon sunshine  
*Eriophyllum lanatum*

USDA

Zone 5    



Douglas aster - *Aster subspicatus*

Zone 5    

Orange sneezeweed - *Helenium hoopesii*

Zone 4    

California poppy - *Eschscholzia californica*

Zone 5    

Arrowleaf balsamroot - *Balsamorhiza sagittata*

Zone 4    

HERBACEOUS

## ORNAMENTALS

© Mark Turner



◀ Tickseed  
*Coreopsis verticillata*  
'Moonbeam'

USDA

Zone 3    

Black-eyed Susan - *Rudbeckia hirta* 'Prairie sun'

Zone 4    

Prairie coneflower - *Ratibida columnifera*

Zone 3    

Common sneezeweed - *Helenium autumnale*

Zone 3   

Yellow oxeye daisy - *Bupthalmum salicifolium*

Zone 5   

# Herb Robert and Shiningstar geranium

Herb Robert, Stinky Bob - *Geranium robertianum*

Shining geranium, Shining crane's bill - *G. lucidum*

## Habitats Invaded:

Understory of moist forests along trails, old logging roads and areas with disturbed soils. Common in urban parks and in areas with lots of foot traffic.

## Region of Concern:

Western Oregon

## Identification:

- Annuals or biennials up to 1.5 ft tall, typically as low-growing rosettes
- Herb Robert has fine white glandular hairs covering the entire plant, deeply divided dark green-red leaves, and flowers are pink to purple (*photos bottom left*)
- Shining geranium is hairless with yellowish-green shiny leaves that are lobed and have tiny pink-to-purple flowers (*photo below right*)

## Things You Should Know:

- Generally spreads by seed
- Herb Robert is easily recognized by its unique strong, unpleasant smell

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# Alternatives



## NATIVE PLANTS



© Linda McMahan - OSU Extension Service

◀ Stream violet  
*Viola glabella*

USDA

Zone 6    

Zone 8    

Zone 6    

Zone 5    

Zone 4    

Beach strawberry - *Fragaria chiloense*

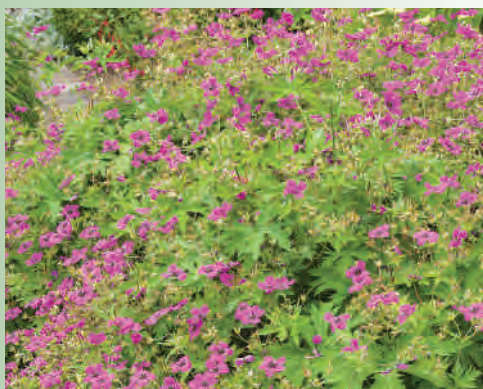
Wood strawberry - *Fragaria vesca*

Wild bleeding heart - *Dicentra formosa*

Cliff penstemon - *Penstemon rupicola*

HERBACEOUS

## ORNAMENTALS



© Mark Turner

◀ Cranesbill geranium  
*Geranium sanguineum* cvs.

USDA

Zone 3   

Zone 5    

Zone 5    

Zone 4    

Zone 3    

Bishop's hat - *Epimedium pinnatum*

Mt. Atlas daisy - *Anacyclus depressus*

Chinese false spirea - *Astilbe chinensis*

Dwarf goat's beard - *Aruncus aethusifolius*

# Jubata grass, Purple pampasgrass

*Cortaderia jubata*

## Habitats Invaded:

Jubata grass can form dense impenetrable stands and create substantial fire hazards in coastal bluffs and dunes, disturbed grasslands, forest gaps or cut-over forest areas.

## Regions of Concern:

Western Oregon, especially southern Oregon coast

## Identification:

- Large clump-forming grass up to 8 ft tall
- Large showy flower plumes are typically purple-tinged to tawny in color
- Leaves are long, linear, coarse and scratchy

## Things You Should Know:

- Large plant clumps can produce more than one million seeds per year
- Sharp leaves can cut skin and hands
- All plants are female and can develop viable seed without fertilization

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© Mandy Tu - The Nature Conservancy



# Alternatives


## NATIVE PLANTS

© Darcy Stumbaugh - The Nature Conservancy



◀ **Idaho fescue**  
*Festuca idahoensis*

USDA

Zone 5    

Giant chain fern - *Woodwardia fimbriata*


Tufted hairgrass - *Deschampsia caespitosa*


Roemer's fescue - *Festuca roemerii*

California fescue - *Festuca californica*

Zone 8    

Zone 5    

Zone 7    

Zone 4    

HERBACEOUS

## ORNAMENTALS

© Carolyn Martus



◀ **Deergrass**  
*Muhlenbergia rigens*

USDA

Zone 7     



Giant sacaton - *Sporobolus wrightii*

Little bluestem - *Schizachyrium scoparium*

Feather reed grass - *Calamagrostis x acutoflora*

Giant ryegrass - *Leymus condensatus*

Zone 5   

Zone 3     

Zone 4    

Zone 7    

# Myrtle spurge and Leafy spurge

Myrtle spurge - *Euphorbia myrsinites* (photo right)

Leafy spurge - *E. esula* (photos left)

## Habitats Invaded:

The spurges can form thick substantial stands in semi-arid grasslands, pastures and rangelands, pine savanna woodlands, prairies, disturbed roadsides and neglected croplands.

## Regions of Concern:

Eastern and southern Oregon

## Identification:

- Perennial up to 3 ft tall with distinctive blue-green leaves that are geometrically arranged
- Stems and leaves exude a sticky, milky sap
- Flowers are small, yellow-green and clustered

## Things You Should Know:

- Large colonies can form from extensive root systems
- Plant and milky sap is toxic to humans and most grazing animals

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# Alternatives

## NATIVE PLANTS



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◀ **Stonecrop**  
*Sedum spathulifolium* or  
*S. lanceolatum*

USDA			
Zone 5			
Zone 5			
Zone 5			
Zone 4			
Zone 5			

**Pussytoes** - *Antennaria argentea*

**Wild strawberry** - *Fragaria virginiana*

**Sulphur flower** - *Eriogonum umbellatum*

**Oregon sunshine** - *Eriophyllum lanatum*

## ORNAMENTALS



© Linda McMahan - OSU Extension Service

◀ **Creeping raspberry**  
*Rubus pentalobus*

**Miniature yarrow** - *Achillea tomentosa* 'Nana'

**Hens-and-chicks** - *Sempervivum tectorum*

**Penstemon** - *Penstemon pinifolius* 'Mersea yellow'

**Evening primrose** - *Oenothera macrocarpa*

USDA			
Zone 7			
Zone 3			
Zone 4			
Zone 4			
Zone 4			

HERBACEOUS



# Policeman's helmet, Jewelweed

*Impatiens glandulifera*

## Habitats Invaded:

Policeman's helmet can form dense thickets in lowland forests, riverbanks and streamsides, and along roads.

## Regions of Concern:

Western Oregon, and spreading east along the Columbia River into the Columbia Gorge

## Identification:

- Annual up to 5 ft tall with juicy, succulent purple-tinged stems that are easily broken
- Attractive pink-to-purple flowers with a short spur at the base

## Things You Should Know:

- Contains explosive seed pods
- Sometimes seeds are exchanged among garden groups (do not do this)

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# Alternatives

## NATIVE PLANTS

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◀ Red columbine  
*Aquilegia formosa*

USDA			
Zone 4			
Zone 7			
Zone 4			
Zone 5			
Zone 4			

Cutleaf penstemon - *Penstemon richardsonii*

Alum root - *Heuchera micrantha*

Wild bleeding heart - *Dicentra formosa*

Scarlet gillia - *Ipomopsis aggregata*

HERBACEOUS

## ORNAMENTALS

© Mark Turner



◀ Cardinal flower  
*Lobelia cardinalis*

USDA			
Zone 3			
Zone 4			
Annual			
Zone 5			
Zone 4			

New England aster - *Aster novae-angliae*

Spider flower - *Cleome hassleriana*

Meadowrue - *Thalictrum aquilegifolium*

Toad lily - *Tricyrtis hirta*

# Toadflaxes

Dalmatian toadflax - *Linaria dalmatica*

Yellow toadflax, Butter and eggs - *L. vulgaris*

## Habitats Invaded:

The toadflaxes can form dense stands in grasslands, meadows, pasture and rangelands, and in the understory of dry coniferous forests.

## Region of Concern:

All of Oregon, especially eastern and southern Oregon

## Identification:

- Perennials up to 10 ft tall with waxy, green-blue leaves and stems
- Flowers are showy and bright yellow-orange and have an obvious elongated spur

## Things You Should Know:

- Spreads from laterally creeping roots or by seed
- A mature plant of Dalmatian toadflax can produce 500,000 seeds annually

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# Alternatives

## NATIVE PLANTS

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◀ **Blue flax**  
*Linum lewisii*

USDA			
Zone 4			
Zone 4			
Zone 3			
Zone 5			
Zone 7			

- Showy fleabane - *Erigeron speciosus*
- Sulfur buckwheat - *Eriogonum umbellatum*
- Oregon sunshine - *Eriophyllum lanatum*
- Oregon iris - *Iris tenax*

## ORNAMENTALS

© 2003 Tony Morosco



◀ **Snapdragons**  
*Antirrhinum majus*

USDA			
Annual			
Zone 7			
Zone 3			
Zone 4			
Zone 3			

- Torch lily - *Kniphofia* 'Little maid'
- Penstemon - *P. barbatus* 'Schooley's yellow'
- Penstemon - *P. pinifolius* 'Mersea yellow'
- Daylilies - *Hemerocallis* 'Stella de oro', 'Hyperion'

HERBACEOUS

# English ivy and Irish ivy

*Hedera helix*, *H. hibernica*

## Habitats Invaded:

Moist coniferous and deciduous forests, especially near urban areas. English ivy can form a thick canopy layer that carpets the forest understory, climbs and smothers trees, encourages tree rot, makes tree canopy heavier and more susceptible to windthrow, and increases fire hazards.

## Region of Concern:

Western Oregon

## Identification:

- Vigorous woody perennial with 2 growth forms
- Juvenile form remains as a creeping understory vine with leaves that are usually 3-lobed
- Adult reproductive form has erect, shrubby stems with diamond-shaped leaves
- Small white flowers in tight clusters with purple berries

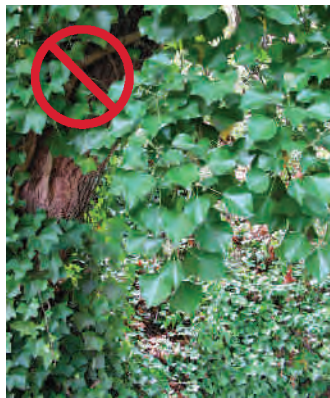
## Things You Should Know:

- Birds can disperse fruits and seeds into forests and stem fragments can regenerate if left in soil
- Dense infestations can harbor other pests such as rats
- Sap may cause skin dermatitis

© Leslie Winter-Gorsline - Environmental Services



© Tom Forney - Oregon Department of Agriculture





# Alternatives

## NATIVE PLANTS



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◀ Beach strawberry  
*Fragaria chiloense*

USDA  
Zone 8    

Creeping barberry - *Mahonia repens*

Zone 5    

Sword fern - *Polystichum munitum*

Zone 5    

Prostrate ceanothus - *Ceanothus prostratus*

Zone 5    

Kinnikinnick - *Arctostaphylos uva-ursi*

Zone 3    

## ORNAMENTALS



© Pat Breen - Oregon State University

◀ Allegheny spurge  
*Pachysandra procumbens*

USDA  
Zone 5   

Mock bearberry manzanita - *Arctostaphylos*

Zone 5    

Star jasmine - *Trachelospermum asiaticum*

Zone 7   

Barren strawberry - *Waldsteinia fragarioides*

Zone 4    

Creeping three-leaf sumac - *Rhus trilobata*

Zone 4    

GROUNDCOVERS-VINES

# Old man's beard, Traveler's joy

*Clematis vitalba*

## Habitats Invaded:

Moist coniferous and deciduous forests, especially along riverbanks and near urban areas. Old man's beard climbs into tree canopies and can smother shrubs and trees.

## Regions of Concern:

Western Oregon, and spreading east along the Columbia River into the Columbia Gorge

## Identification:

- Deciduous perennial vine up to 100 ft long
- Small white flowers form distinctive globular-feathery seed heads

## Things You Should Know:

- Feathery seeds are easily dispersed by wind, water and animals
- One large plant can produce over 100,000 seeds per year
- Seed puffs give this plant its common name

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© Tom Forney - Oregon Department of Agriculture



# Alternatives

## NATIVE PLANTS

© Linda McMahan - OSU Extension Service



◀ Orange honeysuckle  
(Western trumpet)  
*Lonicera ciliosa*

USDA

Zone 5    

Rock clematis - *Clematis columbiana*

Zone 4    

Hairy honeysuckle - *Lonicera hispidula*

Zone 5    

## ORNAMENTALS

© Mark Turner



◀ Anemone clematis  
*Clematis montana*

USDA

Zone 5    

Purpleleaf grape - *Vitis vinifera* 'Purpurea'

Zone 6    

Ornamental kiwi vine - *Actinidia kolomikta*

Zone 4    

Silvervein creeper - *Parthenocissus henryana*

Zone 6     

Clematis cultivars - *Clematis* 'Jackmanii', etc.

Zone 4    

GROUNDCOVERS-VINES

# Parrotfeather and Brazilian elodea, Giant waterweed

Parrot feather, *Myriophyllum aquaticum*

Brazilian elodea, *Egeria densa*

## Habitats Invaded:

Freshwater lakes and ponds, reservoirs, wetlands, wet ditches and slow moving streams. Dense infestations can trap sediments, restrict water flow and impede irrigation and recreation.

## Region of Concern:

All of Oregon

**Identification:** *Myriophyllum aquaticum* (photos bottom left and center)

- Aquatic perennial that has both submersed and emergent stems and leaves
- Above water stems resemble bright green bottle brushes

**Identification:** *Egeria densa* (photo bottom right)

- Fully submersed aquatic plant with leaves in whorls of 4
- Leaves are about 1 inch long with finely toothed edges
- Showy white 3-petaled flowers rise above water

## Things You Should Know:

- Both species spread from broken stem fragments
- Do not dump pond plants into streams, rivers, ponds, or wetlands
- Thick stands of these species can inhibit boating and pose a serious threat to swimmers who become entangled in the submerged vegetation



© John M. Randall - Nature Conservancy



# Alternatives

## NATIVE PLANTS



© Environmental Services

◀ **Wapato**  
*Sagittaria latifolia*

USDA

Zone 4   

Zone 5   

Zone 4   

Zone 5   

Zone 4   

**Water plantain** - *Alisma plantago-aquatica*

**Spatterdock** - *Nuphar polysepalum*

**Floating-leaved pondweed** - *Potamogeton natans*

**Water shield** - *Brasenia schreberi*

## ORNAMENTALS



© Van Bloern Gardens

◀ **Zebra rush**  
*Scirpus zebrinus*

USDA

Zone 3   



# Purple loosestrife

*Lythrum salicaria*

## Habitats Invaded:

Freshwater wetlands, wet prairies, meadows, and shorelines of lakes, streams, rivers, ditches and canals. Can survive in drier garden areas with irrigation. Extensive stands can restrict water flow and impede irrigation and recreation.

## Region of Concern:

All of Oregon

## Identification:

- Perennial to 8 ft tall with showy, pink-purple flower spikes
- Stems are angular
- Flowers usually have 5-7 petals with a small yellow center

## Things You Should Know:

- Spreads from broken stem fragments and seeds that are easily dispersed by wind and water
- Each plant can produce as many as 100,000 seeds per year

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# Alternatives

## NATIVE PLANTS



© Environmental Services

◀ **Douglas spirea**  
*Spiraea douglasii*  
Has fall color

USDA

Zone 5    

Purple monkey flower - *Mimulus lewisii*

Common camas - *Camassia quamash*

Small-flowered bulrush - *Scirpus microcarpus*

River lupine - *Lupinus rivularis*

Zone 4  

Zone 6    

Zone 5    

Zone 7    

## ORNAMENTALS



© Mark Turner

◀ **Spike speedwell**  
*Veronica spicata*

USDA

Zone 3    

Gayfeather - *Liatris spicata*

Bee balm - *Monarda didyma*

Siberian iris - *Iris sibirica* or *I. sanguinea*

Swamp milkweed - *Asclepias incarnata*

Zone 3    

Zone 4    

Zone 4    

Zone 3    

# Ribbongrass, Reed canarygrass

*Phalaris arundinacea var. picta*

## Habitats Invaded:

Ribbongrass can form dense colonies in marshes, meadows, wet ditches, and along riverbanks and on cobblebars. It can survive in both fresh and brackish water.

## Region of Concern:

All of Oregon

## Identification:

- Perennial to 10 ft tall with flat leaf blades
- Ribbongrass has variegated green-white leaves
- Rhizomes can form a thick sod layer

## Things You Should Know:

- Spreads by broken stem fragments or by seeds that are often dispersed by flowing water
- Can be grazed, but consuming too much often leads to a debilitating condition in livestock called “Phalaris staggers”

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# Alternatives

## NATIVE PLANTS



© Mark Turner

◀ **Tufted hairgrass**  
*Deschampsia caespitosa*

USDA

Zone 5    



Slough sedge - *Carex obnupta*

Santa Barbara sedge - *Carex barbarae*


Cattails (tall or dwarf) - *Typha latifolia*

Great Basin wild rye - *Leymus cinereus*

Zone 5   

Zone 7    

Zone 4   

Zone 4    

## ORNAMENTALS



© Mark Turner

◀ **Big bluestem**  
*Andropogon gerardii*

USDA

Zone 7    

Little bluestem - *Schizachyrium scoparium*

Zone 3    



# Yellow flag iris, Yellow water iris

*Iris pseudacorus*

## Habitats Invaded:

Freshwater and brackish wetlands, and shorelines of lakes, streams, rivers, ditches and canals. Dense mats can trap sediments creating higher, drier land.

## Region of Concern:

All of Oregon

## Identification:

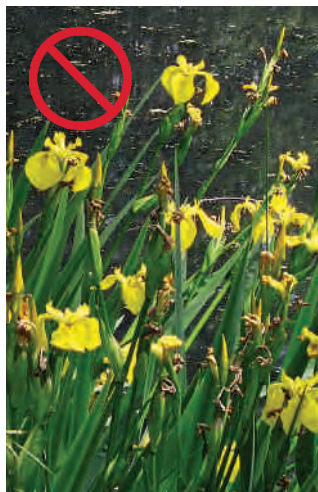
- Perennial to 5 ft tall with thick swordlike leaves and several yellow to cream-colored flowers per stem
- The only completely yellow-flowered iris that grows in natural settings

## Things You Should Know:

- Spreads by broken stem fragments and by seeds that float in water
- All parts of the plant are toxic to humans and animals



© Ash Creek Images



© Ash Creek Images



# Alternatives

## NATIVE PLANTS



© Linda McMahan - OSU Extension Service

◀ **Monkeyflower**  
*Mimulus guttatus*

USDA			
Zone 6			
Zone 4			
Zone 5			
Zone 6			

**Rocky Mountain iris** - *Iris missouriensis*

**Douglas iris** - *Iris douglasii*

**Skunk cabbage** - *Lysichiton americanum*

## ORNAMENTALS



© Mountain Mist Ornaments, Inc.

◀ **Japanese iris**  
*Iris ensata*

USDA			
Zone 4			
Zone 4			
Zone 2			

**Siberian iris** - *Iris sibirica* 'Butter and sugar'

**Blue-flag iris** - *Iris versicolor*

**Grass-leaved goldenrod** - *Euthamia graminifolia*

# Resources

## Be informed. Get involved.

### To report invaders or Class A Oregon noxious weeds:

<http://oregoninvasiveshotline.org> or [www.weedmapper.org](http://www.weedmapper.org)  
or call the Invasive Species Hotline, 1-866-INVADER

### Learn to identify invasive species, remove them, and help protect Oregon from invaders:

The Statesman Journal's Invasive Species of Oregon, [www.statesmanjournal.com](http://www.statesmanjournal.com)

Oregon Public Broadcasting, [www.opb.org/silentinvasion](http://www.opb.org/silentinvasion)

SOLV, [www.solv.org/programs/invasives.asp](http://www.solv.org/programs/invasives.asp)

The Nature Conservancy, [www.nature.org/oregon](http://www.nature.org/oregon)

The Nature Conservancy's technical web site, <http://tncweeds.ucdavis.edu>

Oregon Invasive Species Council, [www.oregon.gov/OISC/](http://www.oregon.gov/OISC/)

Oregon noxious weed profiles, <http://oregon.gov/ODA/PLANT/WEEDS/statelist2.shtml>

Center for Invasive Plant Management, [www.weedcenter.org](http://www.weedcenter.org)

Pacific Northwest Invasive Plant Council, <http://depts.washington.edu/waipc>

National Invasive Species Information Center, [www.invasivespeciesinfo.gov/](http://www.invasivespeciesinfo.gov/)

Oregon's list of noxious weeds, <http://oregon.gov/oda/plant/weeds/lists.shtml>

Oregon State University-Oregon Sea Grant-Aquatic Invaders Identification Guide  
<http://seagrant.oregonstate.edu/themes/invaders/index.html>

**Native Plant Nurseries:** [www.plantnative.org/nd\\_or.htm](http://www.plantnative.org/nd_or.htm)

For more information on what you and your business can do about invasive plants, see the Voluntary Codes of Conduct for the horticulture industry, endorsed by the Oregon Association of Nurseries  
[www.centerforplantconservation.org/invasives/codesn.html](http://www.centerforplantconservation.org/invasives/codesn.html)

## WEB SITES AND PHONE NUMBERS

## BOOKS

Boersma, P.D, Reichard, S.H. and A.N. Van Buren (eds.). 2006. Invasive Species in the Pacific Northwest. University of Washington Press, Seattle.

Kaufman, S.R. and W. Kaufman. 2007. Invasive Plants: A Guide to Identification, Impacts, and Control of Common North American Species. Stackpole Books, Mechanicsburg.

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We are grateful for technical assistance provided by the Oregon Department of Agriculture, USDA Forest Service, Bureau of Land Management, Marion Soil and Water Conservation District, 4-County Cooperative Weed Management Area, Oregon Association of Nurseries Natural Resources Committee, Salix Associates, Wallowa Resources, Northwest Weed Management Partnership, East Multnomah Soil and Water Conservation District, West Multnomah Soil and Water Conservation District, The Center for Lakes and Reservoirs at Portland State University, Portland Parks and Recreation, Audubon Society of Portland, Tualatin Hills Park and Recreation District, The Oregon Zoo, City of Lake Oswego, Native Plant Society of Oregon.

**GardenSmart Oregon is available as a downloadable file:**

**<http://oregoninvasiveshotline.org>**

This publication is an original project of the ***Stop the Invasion*** campaign:  
Oregonians taking action to protect our state from invasive species.



The ***Stop the Invasion*** campaign Partners also thank:

Barbara Coit Yeager, Coit Family Foundation and Willard L. Eccles Charitable Foundation, Jeffrey L. Clark, Rocky and Julie Dixon, Mr. and Mrs. Norbert Leupold, Corporation for Public Broadcasting, U.S. Bureau of Land Management, OPB, Bridges Foundation, Robin and Gorham Nicol, Oregon Department of Forestry, Oregon Department of Agriculture, SOLV, and Oregon Invasive Species Council.

## **Original Edition Partners:**

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The Nature Conservancy

Oregon Association of Nurseries

Oregon State University,  
Extension Service

Oregon Sea Grant

Clackamas Community College

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Conservation District

Wallowa Resources

Oregon Invasive Species Council