

WEEDS

Control them before they control you!



WHAT EXACTLY IS A WEED?

A weed is generally defined as:

a plant that is a nuisance or a hazard or one that causes injury to people, animals, or a desired ecosystem or crop.

Some Terminology to Know

- **Non-Native** - "Exotic", "alien", and "non-indigenous" to the Willamette Valley
- **Invasive** – those that spread into areas where they are not native and cause ecosystem level damage.
- **Noxious** – species or groups of species that have been legally designated as pests, for example by a county, state or federal (national) agency.

Impacts from weeds

Ecosystem Level Impacts:

- Disturbance Regimes (i.e. Fires)
- Hydrology
- Geomorphological Processes (i.e. Erosion, Sedimentation)
- Soil Chemistry

Economic impacts

Invasive species cost Americans about \$143 billion per year.

At least 30 new potential biological invaders enter the US every day.

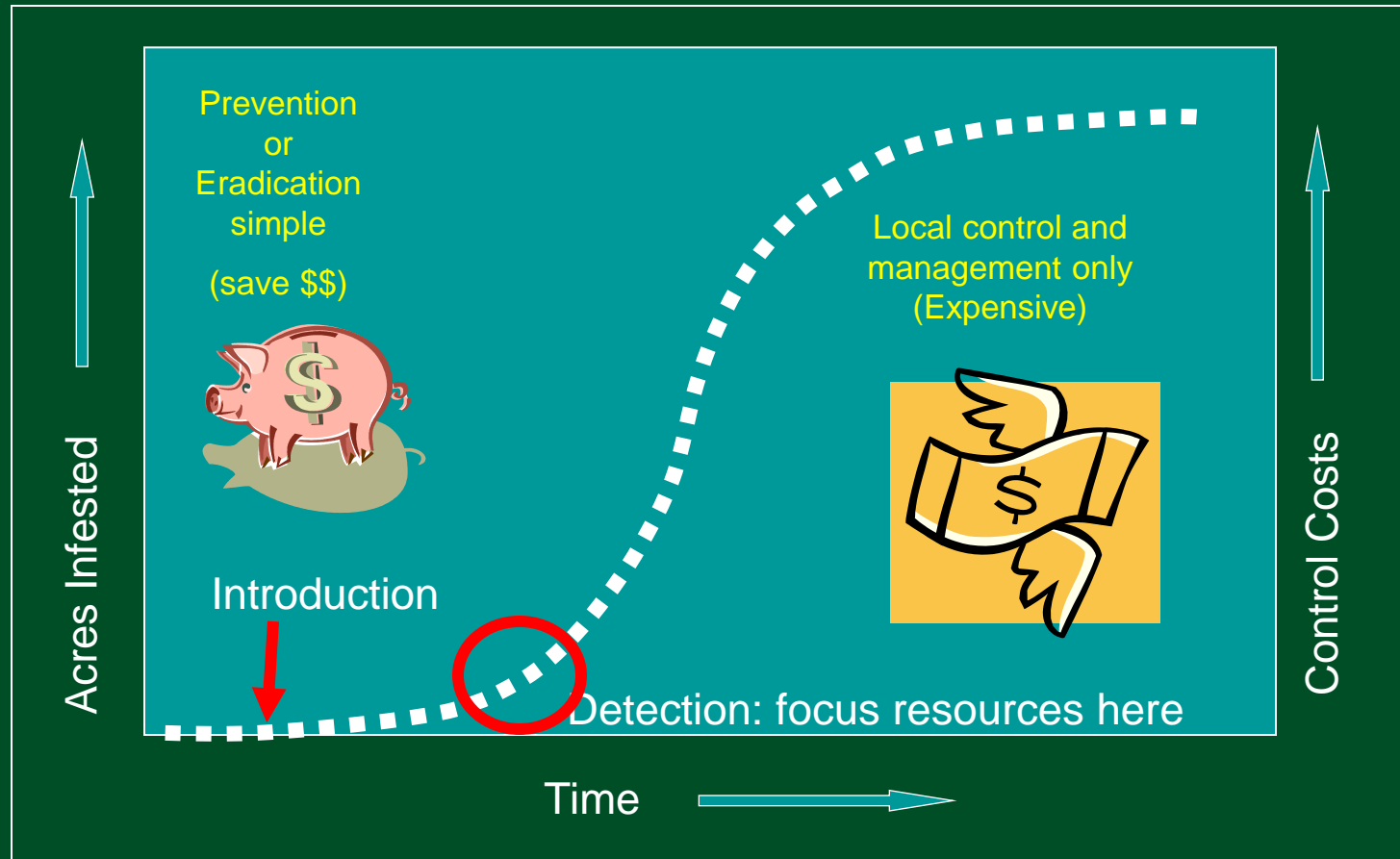
INVASIVE SPECIES ARE A MAJOR THREAT TO NATIVE SPECIES AND HABITATS

(SECOND ONLY TO
HABITAT
DESTRUCTION)





Strategies in Invasive Plant Control



Weed Management At Home

Prevention is the most effective practice of all!

- Buy clean seed/birdfeed; don't plant weeds!
- Clean yard equipment after working on weedy sites
- Don't invite weeds – amend and plant disturbed areas quickly
- Use mulch materials or weed mats
- Pull weeds early – before they go to seed!
- Be cautious at garden swaps
- Research exotic ornamentals

Hairy Bittercress

Cardamine hirsuta

- Weed in Early to mid february
- EAT it



Blackberry

Rubus discolor, *R. laciniatus*

- Five leaflets
- Deciduous to partially evergreen
- Spread by seeds, rhizome, tips



Himalayan Blackberry

Rubus discolor

- Spreads both vegetatively and by seed spread by birds
- Keep cutting back or mowing canes and plant overstory plants to prevent it in the future



Scotch Broom

Cytisus scoparius

- Woody shrub to 10 ft tall
- Showy, yellow flowers
- Small leaves
- Ridged bark
- Seeds in pods that burst and scatter



Butterfly Bush

Buddleia davidii

Buddlejaceae

- Up to 15 ft tall, deciduous
- Very Pretty pink, violet, or blue flower spikes
- Leaves velvety, lance-shaped, gray-green



Butterfly Bush

Buddleia davidii

- Spreads primarily by prolific seeding
- Cut back repeatedly.
- Hand picking of seedlings followed by establishing a ground cover (Binggeli 1998).
- It may be possible to dig plants up, but disturbance encourages seedling growth and should be avoided if possible.



English Holly

Ilex aquifolium

- Evergreen shrub/tree
- Primarily spread by birds
- Up to 50 feet tall and 15 feet wide
- Grows well in deep shade



Tree of Heaven

Ailanthus altissima

- Spreads vegetatively - sprouting from stumps or root portions and through prolific seeding
- Small plants should be pulled as soon as they are large enough to grasp, but before they produce seeds.
- Larger trees should be cut and entire rootstock removed



Garlic Mustard

Alliaria petiolata

- Biennial forb
- Allelopathic
- Most abundant in Oregon in our area
- Spread by people, animals, equipment



Garlic Mustard's Biennial Life Cycle



©2002, Gary Fewless

March of 1st year
through March of 2nd
year
1" – 6 " tall



Late March to
Early April in
Second Year the
Plant "Bolts"



Flowers mid-April
Full height
Up to 4 ft tall



Seed pods by
Mid-May
Dry stalks by July

English & Irish Ivy

Hedera helix, *H. hibernica*

- Vigorous woody perennial
- Small white flowers in tight clusters
- Spread by birds & stem fragments
- Wear gloves – sap may cause dermatitis



English Ivy

Hedera helix

- Spreads both vegetatively and by seeds spread by birds
- Cut from base of trees and dig out roots, or cut flowers to prevent fruiting



Traveler's Joy / Old Man's Beard

Clematis vitalba

- Perennial, deciduous, woody vine
- Usually five leaflets
- Blankets vegetation
- On the increase in our area
- White, puffy seed tails



Traveler's Joy

Clematis vitalba

- Spreads both vegetatively and by seed dispersed by wind and animals
- Cut vine at base, dig out root if able.
- Vines break easily at joints – make several small tugs to remove from bushes.
- Retrieve as many seeds as possible and dispose of them in fire or trash.



Knotweeds

Polygonum spp.

- Perennial forb
- Several species
- Spreads very quickly in rivers, streams
- Very, very hard to kill

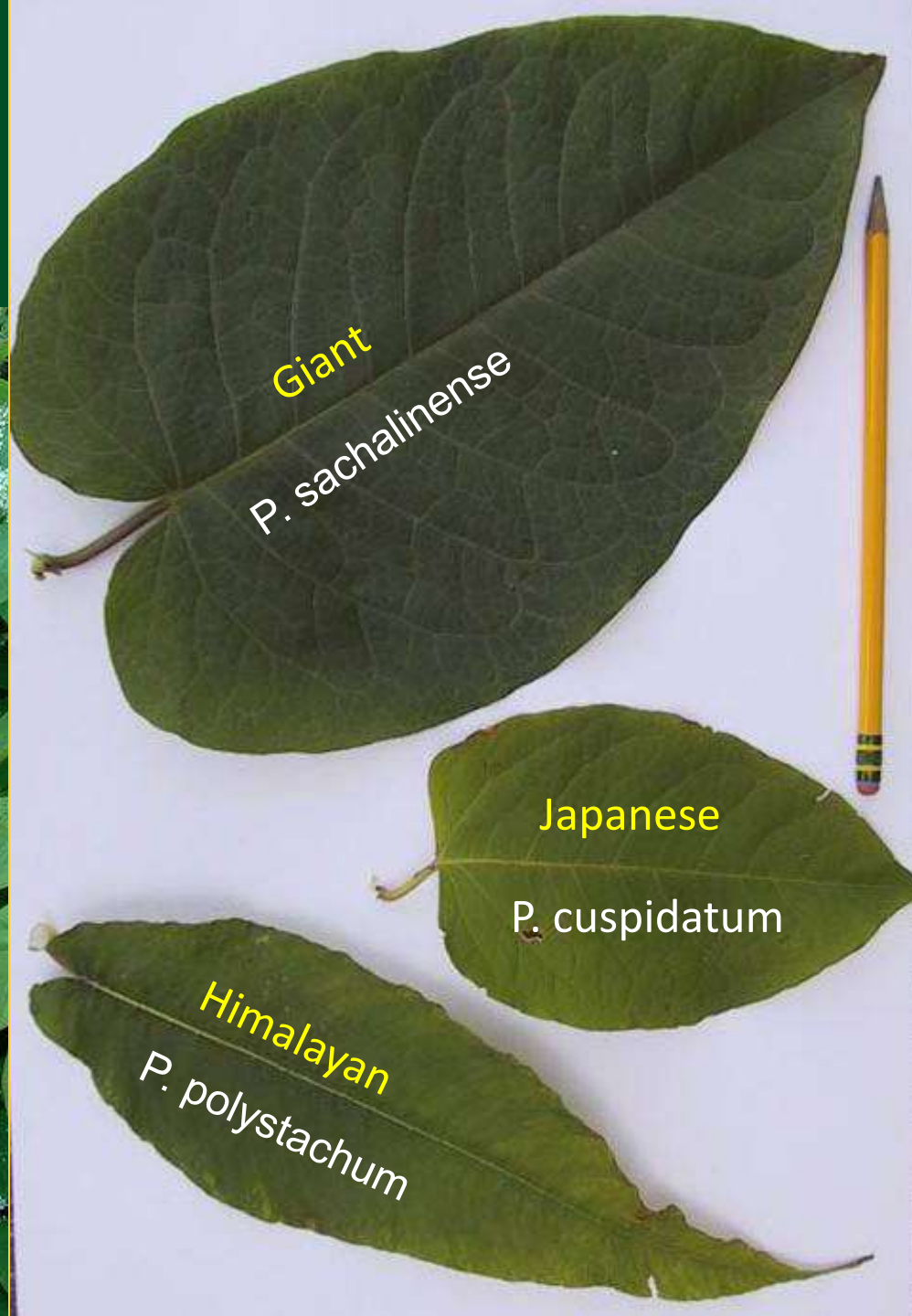


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Knotweeds

Polygonum spp.



Japanese Knotweed

Polygonum cuspidatum

- Spreads primarily vegetatively when root fragments are transported to new locations
- Cut back canes repeatedly throughout the growing season to deplete root reserves.
- Dig out EXTENSIVE root system only if you can make sure you remove ALL of the root fragments. Package up root fragments and remove from site to dispose. DO NOT let fragments enter the waterway!
- Contact your county weed agency for help in controlling this extremely invasive weed.



Pokeweed

Phytolacca americana

- Spreads by seed – birds eat the berries and deposit offsite
- Pull up young shoots – making sure to get the tap root
- Cut before it flowers and produces seed.
- Dig out very large taproot to eliminate



Lesser Celandine (*Ranunculus ficaria*)

- **LOOK FOR:**

- Dark green, shiny leaves
- Yellow flowers with eight petals
- Pale colored bulblets on stem

- **WHEN**

- March through May

- **WHERE**

- It typically grows on moist forested floodplains, in some drier upland areas, and seems to prefer sandy soils.



Herb Robert

Geranium robertianum

- Spreads entirely by seeds capable of being ejected 15-20 feet
- Hand pull before it flowers and seeds – make sure not to confuse it with Bleeding Heart – a local native with similar foliage but a different flower



Shining Geranium

Red stems

Leaves have waxy sheen

Tiny pink-purple flowers

Shiny, rounded, lobed leaves
that turn red toward the end of
summer.



Flowers from spring until late July.

Giant Hogweed

(*Heracleum mantegazzianum*)

WHAT TO LOOK FOR

- Massively tall plant (15-20 ft).
- Large umbrella shaped flowers.
- Hollow stalks with red-purple blotches that have a single erect hair in the center.
- Large (2.5-3ft wide) deeply incised leaves
- Seeds almost ½ inch!

WHEN TO LOOK

- Look for flowers in May through July.

WHERE TO LOOK

- Unmaintained urban areas, vacant lots, and areas near know establishments, roadsides, streams, rivers, and riparian areas.



Giant Hogweed Look-a-Likes

Cow Parsnip (*Heracleum lanatum*)



Angelica (*Angelica atropurpurea*)



Poison Hemlock (*Conium maculatum*)



Photos Provided by: Michigan Department of Agriculture,
Pesticide, Plant Pest Management Div. & U. S. Dept. of
Agriculture Animal & Plant Health Inspection Service Plant
Protection & Quarantine

Spurge Laurel

Daphne laureola (Thymelaeaceae Family) *Native to Europe and Mediterranean region

- Leaves alternate and spirally arranged and cluster at the shoot tips.
 - Leaves dark green and shiny on top and lighter on the underside.
 - yellow-green, bell-shaped flowers that emit a honey-like fragrance.
 - Green unripe and black ripe berries.
- **WHEN**
 - It is found year-round, blooming March - May.



CAUTION! TOXIC



Yellow Flag Iris

Iris pseudacorus

- 1 to 4+ ft tall
- Sword-like leaves, spongy midrib
 - Leaves in a fan-like, overlapping arrangement.
 - 3-sided, shiny green fruit
 - Blooms late spring/early Summer



Purple Loosestrife

Lythrum salicaria

- Spreads via underground stems (rhizomes) and is a prolific seeder
- Dig out entire root crown removing all fragments



Yellow Archangel

(*Lamium galeobdolon*) Lamiaceae/Mint

*Native to Europe

- Herbacious, evergreen perennial.
- Grows dense trailing mat.
- Flowers small, yellow and hooded growing in clusters around the stem.
- Leaves opposite, oval and hairy w/ coarsely toothed edges.



Yellow Archangel *Lamium galeobdolon*

Stems and roots
tend to break off
when pulled.

Dig up entire plant
Sheet mulch if
infestation is large

Don't forget to
monitor



Bishops Weed, *Aegopodium podagraria*

Dig up entire plant – including underground stems (rhizomes) – being careful to get all fragments as they will re-sprout - don't forget to monitor



Bamboo

- Cut it off.
- Cut it down.
- Water the area.
- Cut it down again.
- If it spread from another stand, separate it by cutting the roots connecting it. Don't use pesticide if connected to neighbors clump.



Periwinkle - *Vinca major*

- raise the runners with a rake and mow them close or dig them out by hand.
- Round-up is ineffective due to the waxiness of the leaves



Creeping Jenny, Moneywort

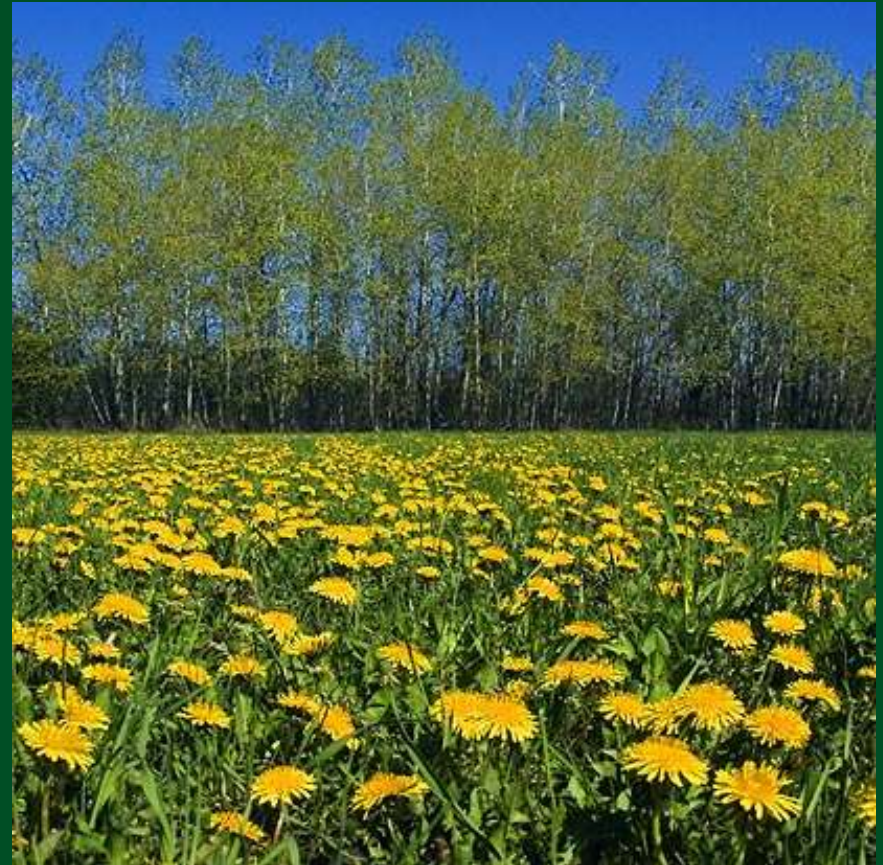
Lysimachia nummularia

- burning in spring or fall when moneywort is green but most native vegetation is dormant.
- The plant can be hand pulled where practical.
- All stems and stem fragments should be removed from the area to prevent the stems from rooting again in the soil.



Dandelions and other lawn “weeds”

- Control dandelion plants preferably when young and before they set seed.
- Many new tools for home use available



Moss

Moss does not develop in healthy lawns.

- In general, mosses can tolerate more shade than grass can. If the moss present in your yard is limited to shady areas, your options include:
 - Enjoying the moss as a low-maintenance groundcover that requires little, if any, watering, no fertilizer or mowing, and stays green and soft all year so long as it does not receive too much traffic.



- Planting a more shade-tolerant grass.
- Planting a shade-tolerant groundcover rather than a grass.
- Covering the area with mulch (pine straw, bark, etc.).
- Thin trees and shrubs
 - prune lower limbs

For Water Gardeners

- Always wash new introductions (think snails)
- Keep water garden separate from native waters
- Never dump water garden materials or water into native waters
- Research your plants for invasive potential—many commonly used aquatics are!



Your Role in Weed Control

Follow these steps!

1. Avoid purchasing potential weeds
2. Control/remove the weeds on your property
3. Minimize the spread of weeds
4. Volunteer to help clear out invasives from your favorite natural area
5. Attend a Naturescaping class or other similar class to learn more about how you can use native plants to transform your landscape into a healthy contributor to this ecosystem!

1. Avoid Purchasing Potential Weeds

- Take a weeds list with you when going to purchase plants. This helps you to avoid purchasing plants that are already causing problems within our region.
- Avoid buying wildflower mixes or make sure you check the contents. Many contain aggressive or invasive non-native species

If there is a particular non-native plant you are interested in, be wary if it:

- Produces large amounts of seeds
- Provides berries for wildlife
- Spreads quickly by runners, underground roots or plant fragments
- Is unusually pest- and weather-resistant

2. Control weeds on your property

The first step is identification:

- Do a mental or physical inventory of the plants on your property.
- Take frequent walks around your yard making note of new growth and appearance of seedlings
- Make note of any plants spreading quickly or spontaneously coming up where you've not planted them

3. Minimize the spread of weeds

Weeds are spread by:

- Humans and other animals
- Machinery
- Nature (wind, water, etc.)

Minimize your impact by:

- Leaving wildflowers where you find them
- Clean the seeds from your boots, bike tires, car tires and from your dog's fur before and after going into a natural area – leaving seeds where they may have originated.
- Empty the bilge water from your boat and check the external portion of your boat to avoid spreading aquatic pests from one waterway to another.

“IPM” Control Methods

Mechanical

- Mowing, hand pulling, cutting, burning

Cultural

- Shading, plant appropriate competitive vegetation

Biological

- Parasites, predators, and pathogens; typically a slow process

Chemical

- Spraying, painting, usually most effective in fall; FOLLOW THE LABEL



5. Attend a Naturescaping workshop

Naturescaping is:

*The use of native plants to
create natural landscapes that
are water and wildlife-friendly*

www.EMSWCD.org

Resources



<http://www.nps.gov/plants/alien/fact.htm>

<http://tncweeds.ucdavis.edu/alerts.html>

http://www.emeraldnpso.org/inv_ornmtns.html

<http://www.boskydellnatives.com/aliens.htm>

http://www.berrybot.org/pubs/fs_alinvasive.html

If you spot Kudzu or other HOT Species contact ODA:

- Invasive Species Council (866) 468-2337 invasives-info@oda.state.or.us
- Native Plant Conservation Program (541) 737-2317 plant-info@oda.state.or.us
- Noxious Weed Control Program (503) 986-4621 plant-weed-expert@oda.state.or.us