

Urban Weeds

Control them before they control you!



Workshop Outline

What is a Weed?

Definitions

Impacts on Ecosystems & Economy

Strategies in Weed Control

Prevention

Urban Weed Slides (Backyard, Regional, High Alert)

Your Role in Weed Control

IPM Control Methods

Q & A

Evaluations

What is a WEED?

A plant that is considered a nuisance, or troublesome that grows where it is not wanted and often spreads fast, taking the place of desired plants.

A plant that is considered a hazard or 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

Aggressive: fast moving/spreading plant.

Invasive: Those that spread into areas where they are not native and cause ecosystem level damage.

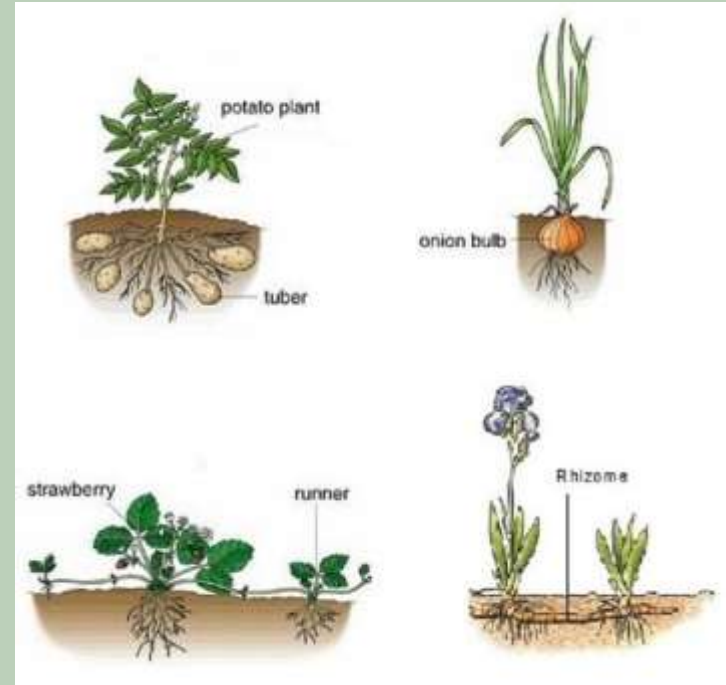
Noxious: Species (or groups of species) that have been legally designated as pests, for example by a county, state or federal agency.



Growth & Spread Terminology

Vegetative
(roots, stems, rhizomes)

Reproductive
(Seeds)



Impacts from Weeds

Economics



Affects on Habitat & Native Species



Ecosystem-level Impacts



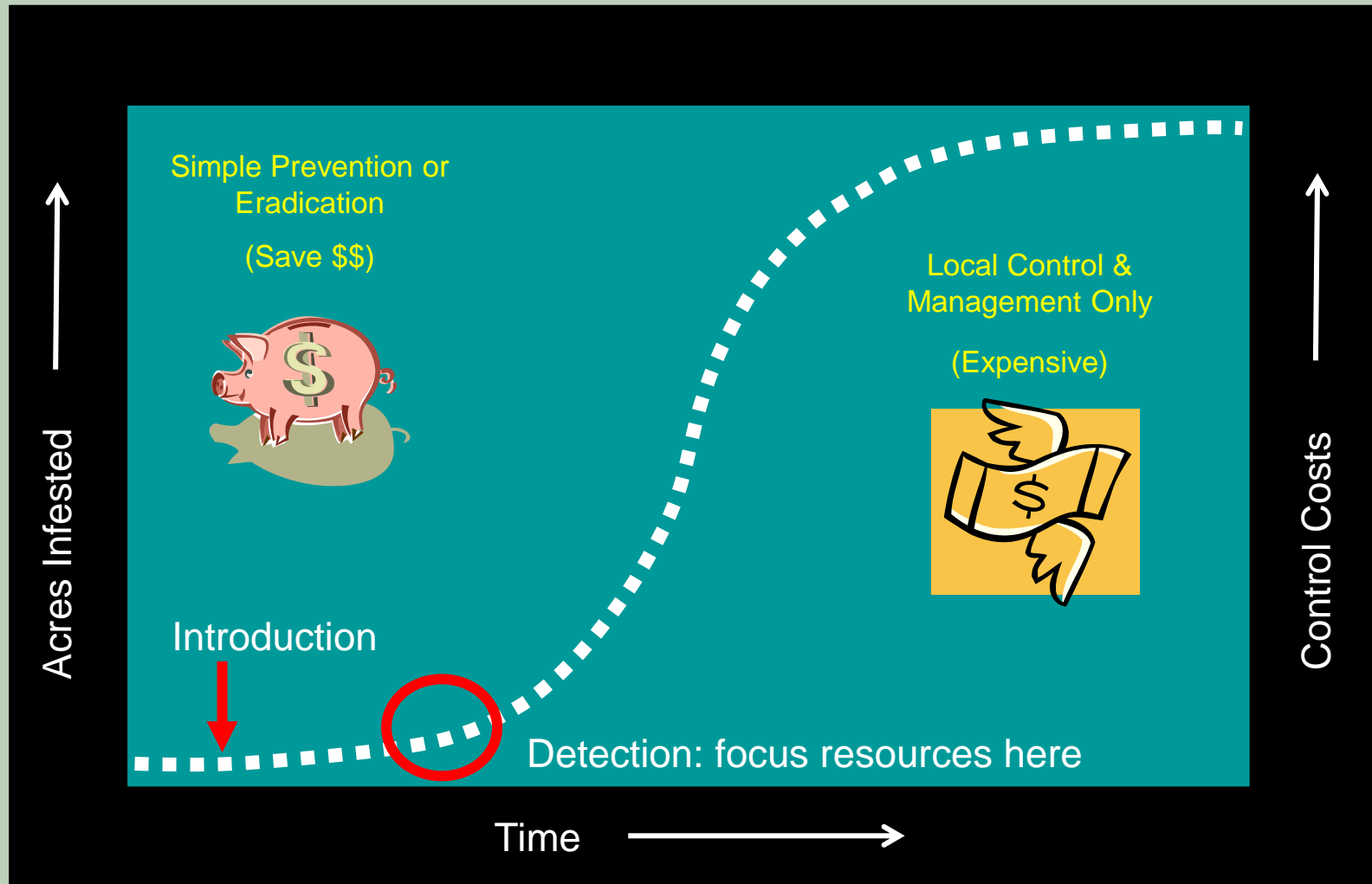
Economic Impacts

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



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

Strategies in Invasive Plant Control



Impacts on Habitat & Native Species

Invasive species are a major threat to native species and habitats.



(Second only to habitat destruction.)

Impacts on Habitat & Native Species



Ecosystem Level Impacts

Disturbance Regimes



Hydrology



Geomorphological Processes (*Erosion, Sedimentation*)



Soil Chemistry





Common Backyard Invaders



Hairy Bittercress

Cardamine hirsuta

Look for:

- Small round clumps in damp, recently disturbed soil
- Wiry green stems with small white flowers

Spreads:

- Growth via taproot in small clumps
- Birds, wind & rain

Removal:

- Hand pull or use small tool
- Early to mid-February

Other:

- *Pull these before the flowers go to seed*



Dandelions

- Control dandelions when young and before they set seed
- Many new tools for home use available
- Although, dandelions are good for lawn!



Mosses

If the moss in your yard is limited to shady areas:

- Enjoy as a low-maintenance groundcover!
- Requires little, if any watering, no fertilizer or mowing
- Stays green and soft all year so long as it does not receive too much traffic.



Mosses (cont.)

Common causes of moss in lawn:

- Lack of fertility
- Soil compaction
- Poor drainage
- Too much shade
- Poor soil aeration
- Low pH

Moss can tolerate more shade than grass, so it moves in as the grass thins out.



Creeping Jenny

Lysimachia nummularia

Look for:

- Creeping/vining groundcover

Spreads:

- Vegetatively

Removal:

- Hand pull where practical
- Remove all stems and fragments to prevent re-rooting
- Burn in spring or fall when green and other natives are dormant

Other:



Periwinkle

Vinca major

Look for:

- Trailing vine with purple flowers

Spreads:

- Spreads along the ground, roots at the stems to form a dense mat

Removal:

- Raise the runners with a rake and dig out by hand
- You can also mow close to ground

Other:

- Round-up is ineffective due to waxiness of the leaves



Herb Robert

Geranium robertianum

Look for:

- Fuzzy red stems from a central rosette
- Similar foliage to Bleeding Heart.
- Notice flower with 5 petals is different than the bleeding “heart”

Spreads:

- Entirely by seeds capable of being ejected up to 20'

Removal:

- Hand pull before it flowers and seeds

Other:



Comparison

Invasive Herb Robert



Native Bleeding Heart



Shining Geranium

Geranium lucidum

Look for:

- Red stems
- Shiny rounded, lobed leaves turn red near end of summer
- Tiny pink-purple flower
- Pointed “beak” at top of fruit pod

Spreads:

- Entirely by seeds capable of being ejected up to 20’

Removal:

- Hand pull

Other:



Pokeweed

Phytolacca americana

Look for:

- Green or red stems with large, simple leaves and purple/black berries

Spreads:

- Seeds dispersed by birds eating berries and depositing offsite

Removal:

- Pull up young shoots making sure to get taproot
- Cut before it flowers & produces seed
- Dig out taproot of larger specimens

Other: plant and berries are **toxic**



Bishop's Weed

Aegopodium podagraria

Look for:

- Light blue-ish-green delicate foliage that is often, but not always, variegated.

Spreads:

- Rhizomes – creeping underground stems and roots

Removal:

- Dig up entire plant including underground roots. Dispose of soil.
- Be careful to get all fragments as they re-sprout.
- Monitor

Other:

- *Keep monitoring for re-growth and maintain*



Lesser Celandine

Ranunculus ficaria

Look for:

- Dark green, shiny leaves
- Yellow flowers with 8 petals
- Pale colored bulblet on stem
- March - May

Spreads:

- Rhizomes, bulbs

Removal:

- Remove plant and surrounding soil when blooming in early spring

Other:



Bamboo

Look for:

- Rhizome – underground

Spreads:

- Rhizome – underground

Removal:

- Cut it off
- Cut it down
- Water the area
- Cut it down again

Other:

- *If it spread from another stand, cut the roots that connect it.*
- *Don't use pesticides if connected to neighbors clump*



Water Gardens and along waterways

- Research first!
*Many commonly used
aquatics are invasive*
- Always wash new plant
introductions (think snails)
- Keep water garden
separate from waterways
- Never dump water
garden materials
(or water) into local
waterways



Purple Loosestrife

Lythrum salicaria

Look for:

- Square, woody stem with downy hair
- Magenta-colored flower spikes throughout much of the summer

Spreads:

- Underground rhizomes
- Prolific seeding

Removal:

- Dig out entire root crown & remove all fragments

Other:



Yellow Flag Iris

Iris pseudacorus

Look for:

- Bright yellow flowers in typical iris form
- 3-sided, shiny green fruit
- Sword-like leaves in a fan-like pattern

Spreads:

- Vegetatively – rhizomes
- Seed pods

Removal:

- Remove before it goes to seed
- Must be dug out and all fragments removed.

Other:



Yellow Flag Iris

Iris pseudacorus



Found spreading into our natural areas



Butterfly Bush

Buddleia davidii

Look for:

- Pink, violet or blue flower spikes
- Velvety, lance-shaped, leaves - green on top, fuzzy white on bottom

Spreads:

- Prolific seeding (wind dispersal)

Removal:

- Seedlings: Hand pick (be sure to get roots), then plant a native ground cover
- Cut back repeatedly. (Grows back more vigorously when cut.)

Other:

- *Disturbance from digging up encourages seedling growth and should be avoided if possible.*



Tree of Heaven/ Stinking Sumac

Ailanthus altissima

Look for:

- Suckers coming from base of tree
- Large alternately arranged leaves with leaflets in pairs
- Smells of rancid peanut butter

Spreads:

- Spreads vegetatively, sprouting from stump and root portions
- Prolific seeding

Removal:

- Hand pull small seedlings before seeds
- Use weed wrench for saplings

Other:

Root system is aggressive enough to cause damage to sewers and foundations.



Weed Wrench!



Tree of Heaven/Stinking Sumac



Comparison

Tree of Heaven



Black Walnut



English Holly

Ilex aquifolium

Look for:

- Evergreen shrub/tree with waxy, pointy leaves and red berries
- Grows up to 50' tall, 15' wide

Spreads:

- Seed – Primarily dispersal by birds
- Vegetative - suckers

Removal:

- Hand pull small seedlings
- Cut and stump-treat/grind large ones
- Weed Wrench

Other:



English Ivy

Hedera Helix

Look for:

- Vigorous woody vine
- Small white flowers in tight clusters

Spreads:

- Vegetatively by stem fragments
- Seed dispersal by birds

Removal:

- Cut from base of trees (or other structure) and dig out roots
- Cut flowers to prevent fruiting

Other:

- Wear gloves – sap can cause dermatitis



English Ivy

Hedera Helix



Traveler's Joy

Clematis vitalba

Look for:

- Deciduous woody vine, 5 leaflets, white puffy seed tails
- Blankets other vegetation

Spreads:

- Vegetatively
- Seed dispersal by animals & rain

Removal:

- Cut vine at base, dig out root if able
- Vines break easily at joints – make several small tugs to remove from bushes

Other:

- *Retrieve as many seeds as possible & dispose in fire or trash*



Traveler's Joy/Old Man's Beard

Clematis vitalba



Himalayan Blackberry

Rubus discolor

Look for:

- Thick, red arching canes
- Large, round, toothed leaves with 5 leaflets

Spreads:

- By stem fragments & rhizomes
- Seed dispersal by birds

Removal:

- Cut canes to 1ft, find “crown” & dig up
- Plant overstory plants to shade out
- Check monthly and continually cut back

Other:



Native (non-invasive)

Trailing blackberry – *Rubus ursinus*

How to tell it from the invasive blackberry



Glaucus (bluish-gray)
“film” on canes.



Trailing (non arching – unless it's
climbing something)

Generally 3-leaflets

High Alert: New and Notorious Regional Invaders



Spurge Laurel

Daphne laureola

Look for:

- Dark green leaves are shiny on top, lighter on underside. Spirally arranged leaves cluster at shoot tips
- Yellow/green, bell shaped flowers emit a honey-like fragrance.
- Berries unripe are green, turn black when ripe

Spreads:

- Seeds dispersed by birds & rodents
- Vegetatively through root sprouts

Removal:

- Hand pull (with gloves) for small patch
- Larger shrubs must be dug out
- Weed Wrench

Other:

- **CAUTION: Toxic!**



Spurge Laurel

Daphne laureola



Yellow Archangel

Lamiaeum galeobdolon

Look for:

- Variegated leaves are opposite, oval and hairy with coarsely toothed edges
- Small, yellow hooded flowers grow in clusters at stem

Spreads:

- Spreads vegetatively by stem fragments. Also spreads by seed.

Removal:

- Dig up entire plant.
- Sheet mulch if infestation is large
- Monitor

Other:

- Stems & roots tend to break off when pulled



Scotch Broom

Cytisus scoparius

Look for:

- Woody shrub with showy yellow flowers, grows to 10' tall
- Rigid bark, small leaves
- Seeds in pods that burst & scatter

Spreads:

- Seeds projected from pod and remain viable

Removal:

- Pull small plants (and roots!) by hand
- Larger plants – use weed wrench
- Over 2" in diameter & not green at base, cut as low as possible

Other: Leguminous



Garlic Mustard

Alliaria petiolata

Look for:

- Year 1: small rosette of round, kidney-shaped leaves w/ scalloped edges
- Year 2: elongated flower stalk appears

Spreads:

- Spread by people, animals, equipment

Removal:

- Hand-pull, dispose of in bag, in trash

Other:

- allelopathic



Year 1



Year 2

Garlic Mustard Biennial Life Cycle

Year 1

March – March

- *1" – 6" tall*



March – April

- *Bolts*



Year 2

Mid-April

- *Flowers*
- *Full ht: 4 ' tall*



Mid-May

- *Seed Pods*



Mid-June

- *Dry Stalks*



Giant Hogweed

Heracleum mantegazzianum

Look for:

- Very tall plant (15-20')
- Large umbrella shaped flowers (*May – July*)
- Hollow stalks with red-purple blotches
- Large (2-3' wide!) deeply incised leaves

Spreads:

- Seeds

Removal:

- Call Oregon Dept. of Ag –
1-800-INVADER

Other:

- **TOXIC!**



Giant Hogweed (*Heracleum mantegazzianum*)



Giant Hogweed Look-a-Likes

Cow Parsnip
Heracleum lanatum



Angelica
Angelica atropurpurea



Poison Hemlock
Conium maculatum



Japanese Knotweed

Polygonum cuspidatum

Look for:

- Large leaves, hollow reddish stems

Spreads:

- Vegetatively – root fragments get transported via humans, machinery

Removal:

- Cut back canes repeatedly
- Dig out EXTENSIVE root system only if you can remove ALL root fragments
- Package up and remove from site

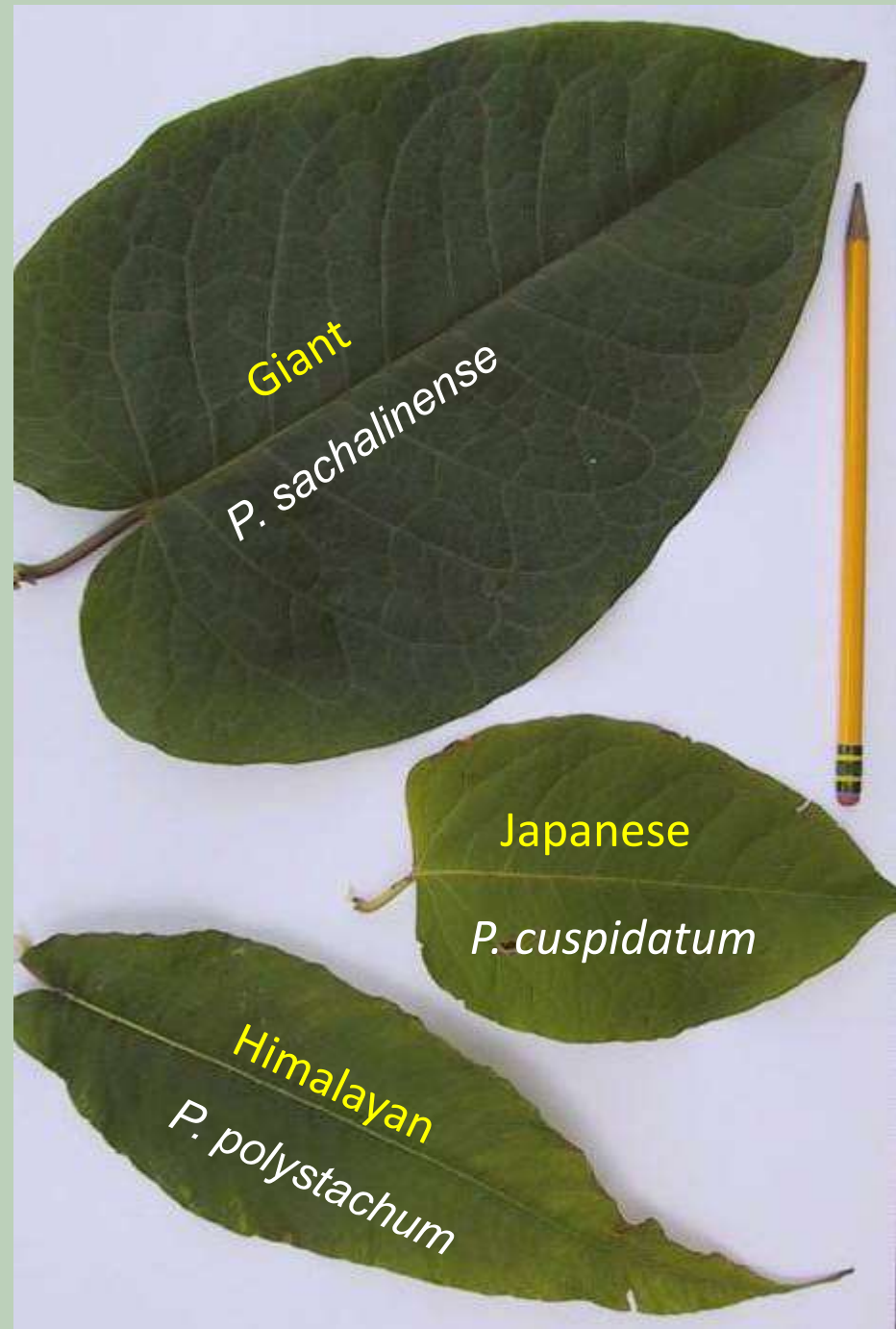
Other:

- *Contact your county weed agency for help in controlling this extremely invasive weed*



Japanese Knotweed

Polygonum cuspidatum





Kudzu

Pueraria lobata

Look for:

- Three Leaflets. Purple/pink pea-like flowers, pea-like seedpods

Spreads:

- Spread by runners and rhizomes and by vines that root at the nodes to form new plants & rarely by seed.

Removal: Call 1-800-INVADER

- Mow every month for two growing season.
- Removal of EXTENSIVE root crown – any plant parts must be placed in plastic bag and sent to landfill or can be fed to cattle

Other:

- Leguminous





“The plant that ate the South”

Your Role in Weed Control

- 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**
- **Check contents when buying wildflower mixes. Many contain aggressive or invasive non-native species**

1. Avoid Purchasing Potential Weeds

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

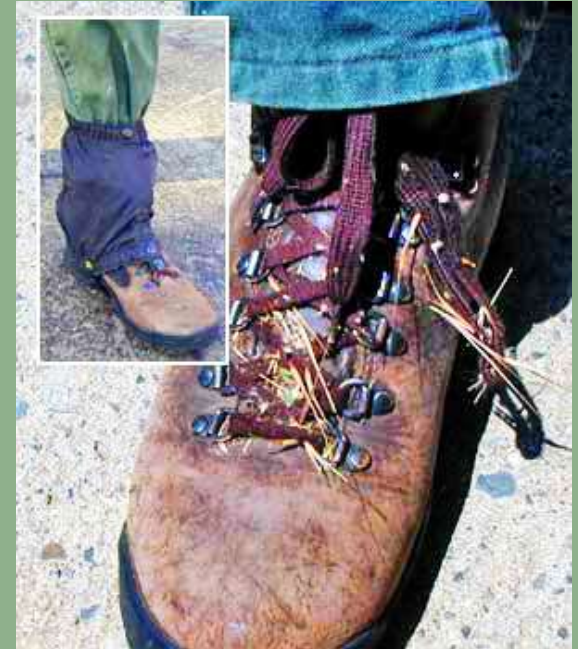
The first step is identification:

- Inventory 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 & Other Animals**
- **Machinery & Equipment**
- **Nature (wind, water, etc.)**



3. Minimize the Spread of Weeds

Minimize your impact by:

- **Leaving wildflowers in the wild**
- **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.**

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



Learn More

- **Portland Plant List – at the end of the document is the best weeds list to take to the nursery with you:**

<https://www.portlandoregon.gov/bes/article/473164>

- **Invasive Plant fact sheets:**

<http://www.invasive.org/species/weeds.cfm>

- **If you spot Kudzu or other HOT Species contact ODA:**

Invasive Species Council 1- 866-INVADER (1-866-468-2337)

invasives-info@oda.state.or.us

Attend other EMSWCD Workshops!

**Learn more about using native plants to
create natural landscapes that are
water and wildlife-friendly**

Native Plants

Naturescaping

Rain Gardens

www.emswcd.org

