Top 10 Most Common NOXIOUS WEEDS

(and how to make them less common)



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What is a Noxious Weed?

Difficult to Manage

Carrier or host for insects or disease

Toxic or Poisonous

Highly Destructive



Aggressive

NOXIOUS
WEEDS:
Non-native plants
that cause
ecological and
economical
damage

Competitive

Why Control Noxious Weeds?



...and because it's the Law.

RCW 17.10

PURPOSE: to limit economic loss and adverse effects to Washington's agricultural, natural, and human resources due to the presence and spread of noxious weeds...

Chapter 16-750 WAC

The adopted state noxious weed list with the names of those plants which the state noxious weed control board finds to be highly destructive, competitive, or difficult to control by cultural or chemical practices

Noxious Weed Classification

CLASS

37 Species Non-native species with limited Distribution

Eradicating existing infestations and preventing new infestations are the highest priority

Eradication of all Class A plants is required by law

CLASS

66 Species Non-native species with limited distribution in portions of WA

Designated for mandatory control where they are not widespread.
Containment and prevention of new infestations is the goal

Some Class B
weeds are
designated for
mandatory control
per County



51 Species Widespread in WA <u>or</u> are of interest to Agriculture Industry

Class C status allows a county to enforce control if it is beneficial to that county

Integrated Pest Management

- The combined use of various control methods to manage pests.
- Improve the efficiency of pest control while reducing negative environmental impacts.
- IPM Planning considers site characteristics, timing, plant phenology, monitoring and other factors

Biological

- Insects
- Managed Grazing
- Pathogens

Cultural

- Fertilization
- Cover Crop
- Apply Mulch

Herbicidal

- Foliar Spray
- Injection
- Pre-emergents

Mechanical

- Cutting
- Digging
- Hand pulling
- Mowing

What ARE the Top 10 Most Common NOXIOUS WEEDS? And how to control them...

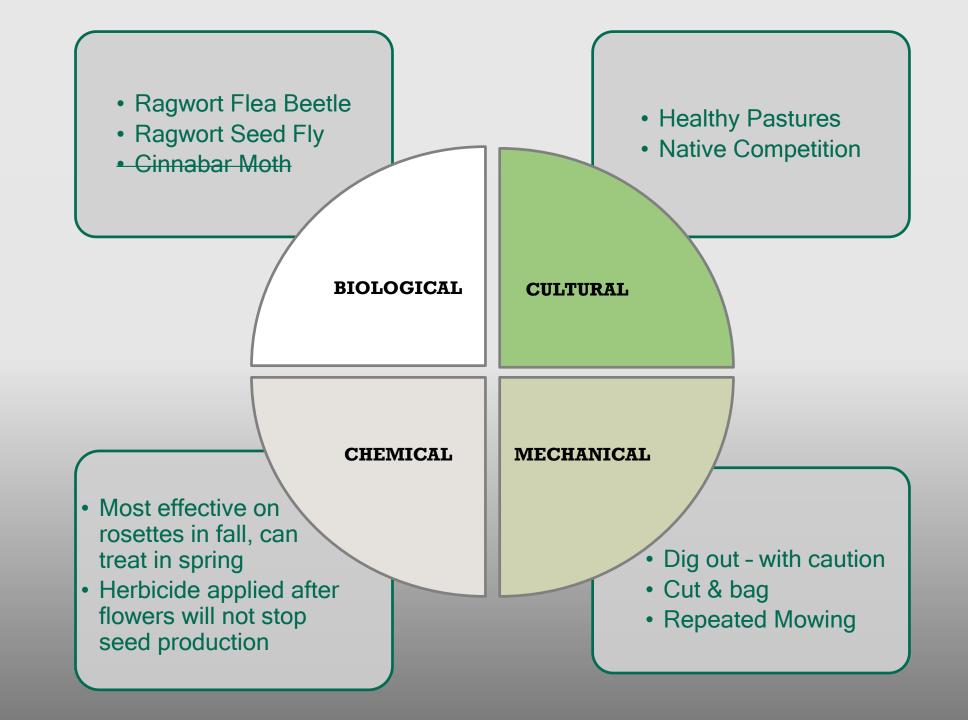


- Taprooted Biennial ~perennial
- Reproduces by seed
- Toxic high in alkaloids
- Many disk flowers, only 13 Ray flowers







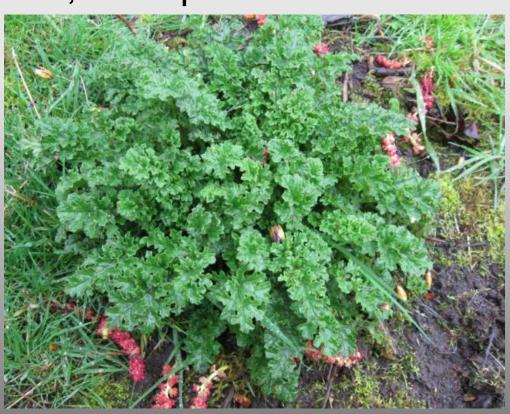


Tansy Ragwort - Jacobaea vulgaris

B

- Rosette stage (remove or spray)
- 2. Bolting stage, before buds develop (remove or spray)
- 3. Flowering stage (DO NOT SPRAY, hand pull or cut and trash!





Himalayan Blackberry- Rubus armeniacus



- Evergreen perennial
- Reproduces by seed and vegetatively





 Grazing by Goats, follow with other methods

 Prescribed burning to remove above ground vegetation does not kill roots

BIOLOGICAL

CULTURAL

CHEMICAL

- Variety of herbicides available
- Late summer/fall is best time to treat

MECHANICAL

- Dig up plants remove all roots
- Remove & dispose of stems and roots

Himalayan Blackberry- Rubus armeniacus



- 1. Enjoy the berries one last time the more you pick, the fewer seeds left for the birds to spread
- 2. When the berries are done, cut plants back to the ground, remove canes (optional)
- 3. Wait 2-3 weeks
- 4. Spray with a systemic herbicide
- 5. Monitor & replant



Knotweeds

B

- Aggressive Perennial
- Spreads by rhizome, fragmentation









Knotweeds

Japanese Knotweed















Japanese Knotweed - Polygonum cuspidatum













Giant Knotweed - Polygonum sachalinense





AKA Sakhalin knotweed
Listed in 1999
Native to Asia

Bohemian Knotweed - *Polygonum x* bohemicum







Himalayan Knotweed - Persicaria wallichii





AKA Bell shaped knotweed Listed in 2003 Native to Asia



- NEW Knotweed psyllid, Aphlara itadori
- Grazing only in combination with other methods, care not to damage riparian areas

BIOLOGICAL

CULTURAL

Grub small infestations

- Rhizomes/fragments can regenerate
- Frequent cutting (<2 weeks) for many years
- Cut & loosely cover with thick landscape fabric,

& Monitoring

Persistence

Native competition may help

CHEMICAL

Foliar Spray

Stem Injection

Knotwee

MECHANICAL

Remove entire root system

flatten & monitor

Knotweeds

- 1. DO NOT CUT/MOW
- 2. Enjoy the flowers
- 3a. Spray with a foliar spray
- 3b. Inject with herbicide using an injection gun
- 4. Monitor & follow up as needed





Canada Thistle - Cirsium arvense



- Rhizomatous perennial
- Quickly invades, outcompeting native plants
- Reduces crop yields







- Stem Gallfly
- Little damage by Insects, Nematodes and American Goldfinch

- Competitive Crops (alfalfa, forage grasses)
- Healthy Pastures
- Native Competition

BIOLOGICAL

CULTURAL

CHEMICAL

- FOLIAR SPRAY:
- Spring treatments before or during the bud stage
- Fall treatments before frost

MECHANICAL

- Repeated tillage 7 to 28 day intervals
- Repeated mowing weakens stems (late spring)

Canada Thistle - Cirsium arvense



- 1. Prevent from flowering repeat cut if needed
- 2. Spray in fall or spring (or both)
- 3. Plant desirable vegetation & monitor



Bull Thistle - Cirsium vulgare



- Tap-rooted Biennial
- Forms dense thickets outcompeting natives
- Spreads by seed







- Seedhead Gallfly reduces seed production
- Grazing may be effective until seeds start to develop

- Shade intolerant plant tall grasses/other plants
- Reduce disturbance
- Healthy Pastures

BIOLOGICAL

CULTURAL

CHEMICAL

- Most effective on rosettes in fall, can treat in spring
- Herbicide applied after flowers will not stop seed production

MECHANICAL

- Dig out
- Hand pull /dispose flowers
- Mow not too early

Bull Thistle - Cirsium vulgare

C

- 1. Rosette stage: dig up (or spray)
- 2. Bolting stage: cut or dig (or spray)
- 3. Flowering stage: cut & trash
- 4. Monitor and plant desirable vegetation





Wild Carrot – Daucus carota

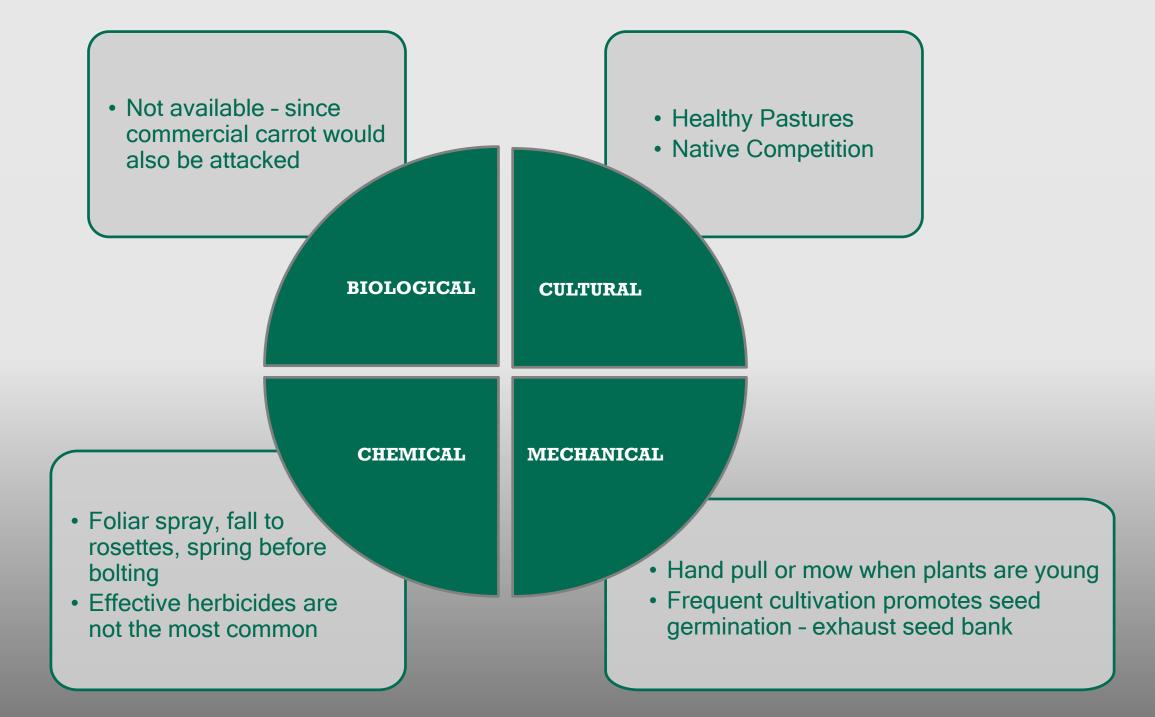
- Taprooted herb, annual / short lived perennial or biennial, reproduces by seed
- Entire plant covered in coarse stiff hairs
- Outcompetes natives, taints cow milk, mildly toxic to livestock











Wild Carrot – Daucus carota

- 1. Seedling/rosette stage: hand pull / mow / spray
- 2. Bolting stage: mow / spray
- 3. Flowering stage: remove flowerheads









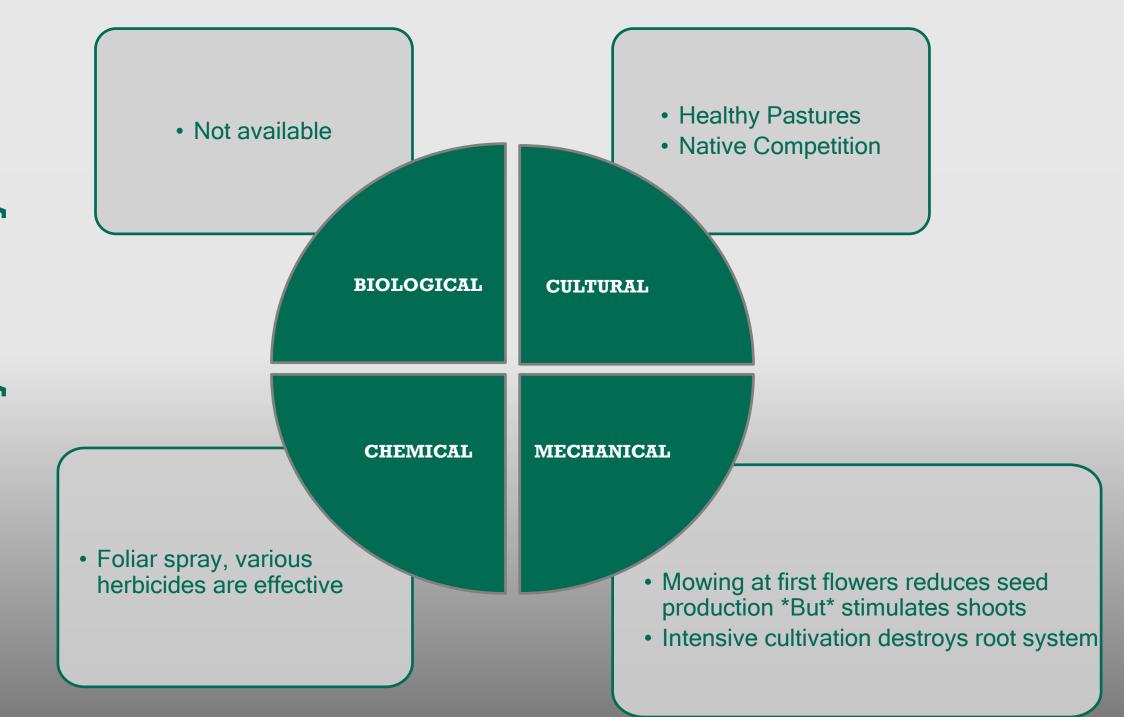
Oxeye Daisy – Leucanthemum vulgare



- Perennial herb
- Shallow branched rhizomes, adventitious roots
- Many small yellow disk flowers make up the center wiith white ray flowers appearing like petals







Oxeye Daisy - Leucanthemum vulgare



- 1. Seedling/rosette stage: spray
- 2. Flowering stage: cut
- 3. Post flowering stage: spray or intensively cultivate



English Ivy - Hedera helix 'Baltica', 'Pittsburgh', and 'Star'; Hedera hibernica' 'Hibernica'

IIIDCIIIICA

Evergreen Perennial vine

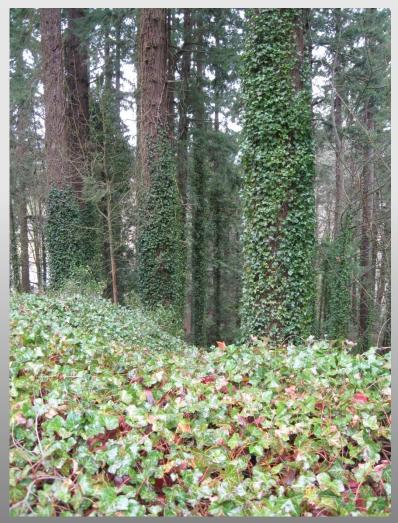
 Spreads by vegetative stem growth and by seed

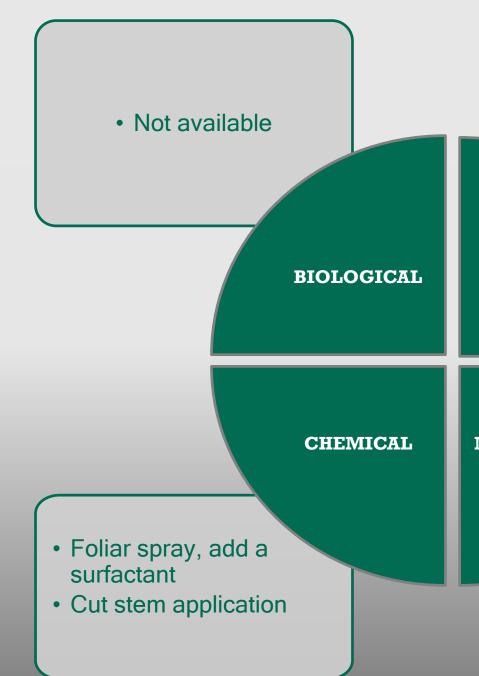
Stem and root fragments can

resprout









- Monitor after removal
- Sheet mulch following removal
- Burn plants repeatedly with a blow torch (caution) eventually depletes plants

CULTURAL

Wear Gloves

MECHANICAL

- Hand pull or dig when soil is moist
- Climbing vines can be cut waist/chest height & pull away lower stem from tree
- Remove to prevent re-rooting

English Ivy - Hedera helix 'Baltica', 'Pittsburgh', and 'Star'; Hedera hibernica' 'Hibernica'

<u>C</u>

- 1. Cut vines climbing trees
- 2. Remove vegetation mat of lvy
- 3. Sheet mulch
- 4. Replant
- 5. Monitor



Field Bindweed - Convolvulus arvensis

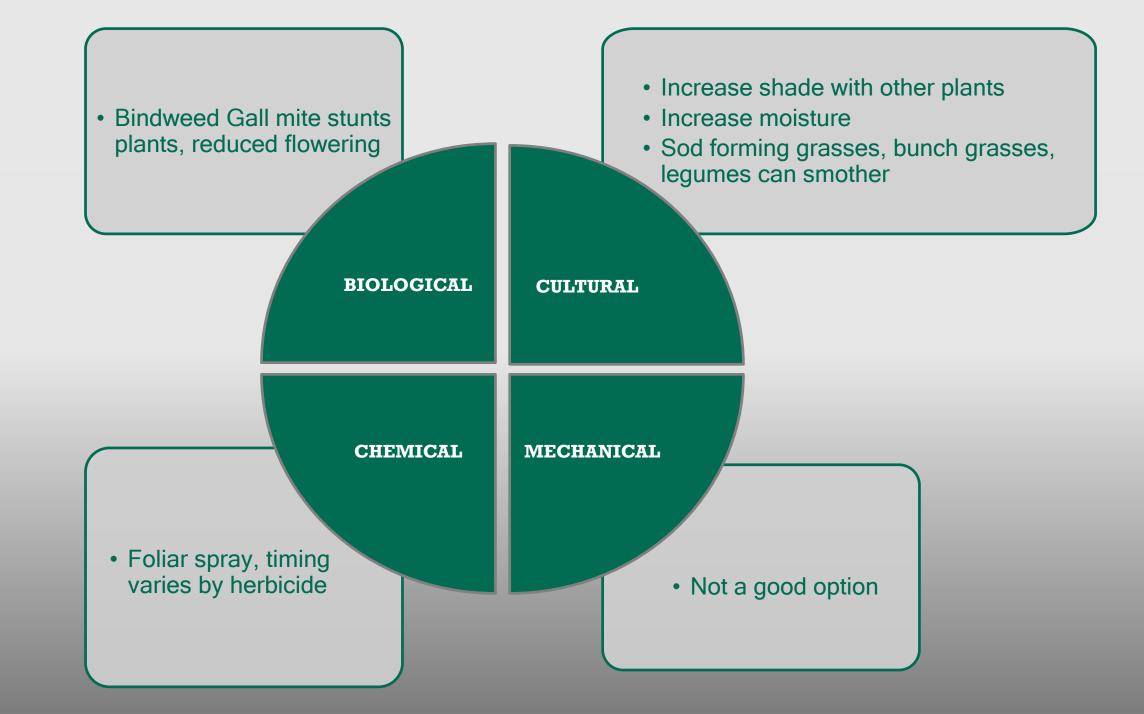


- Perennial herb
- Once established, nearly impossible to eradicate
- Reproduces from roots, rhizomes, stem fragments and seed









Field Bindweed - Convolvulus arvensis



- 1. Prevent from seeding (pull/cut)
- 2. Spray
- 3. Shade out
- 4. Increase soil moisture

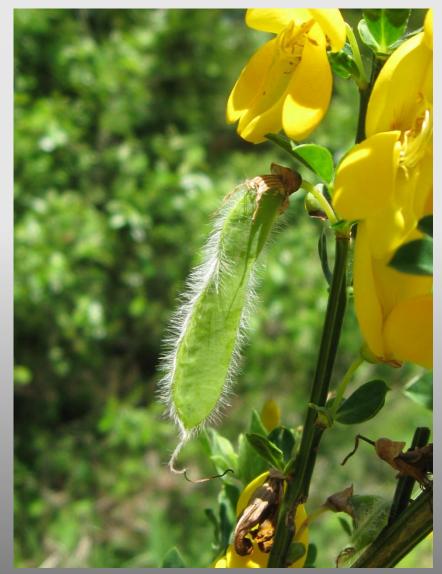


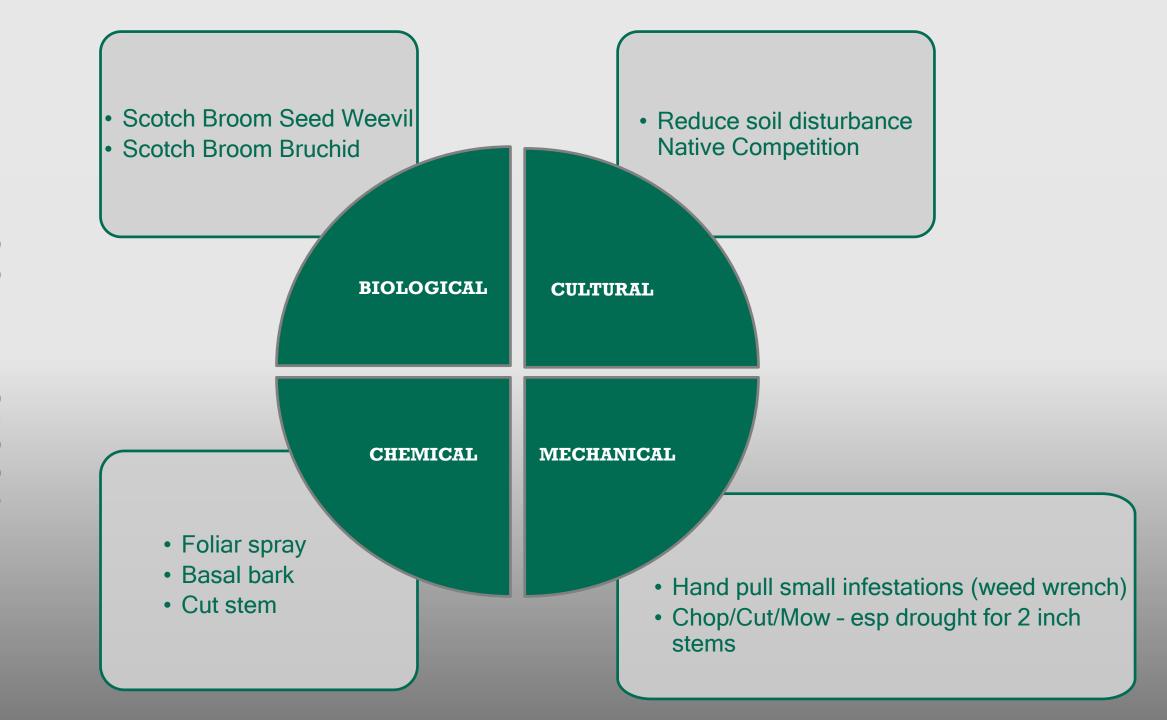
Scotch Broom – Cytisus scoparius

B

- Perennial shrub, reproduces by seed
- Aggressively forms monocultures
- Seeds toxic to livestock & horses



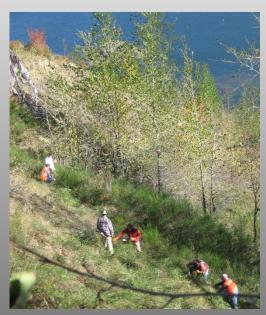




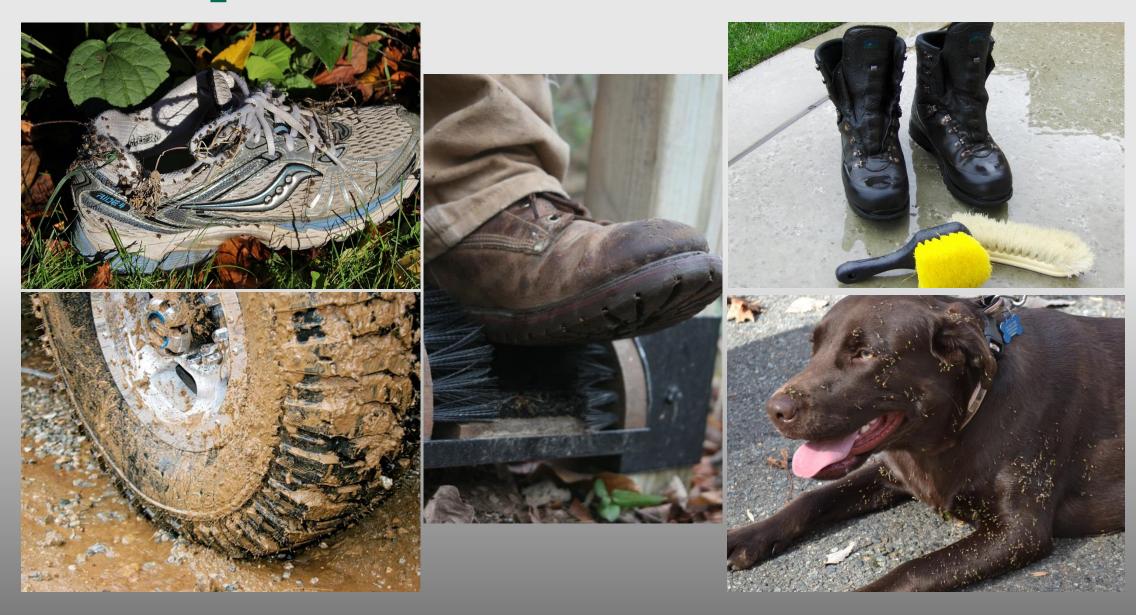
Scotch Broom – Cytisus scoparius

- 1. Control plants before seed pods develop (generally a 3 year period)
 - Pull seedlings
- 2a. (Small infestations) Cut larger plants during drought, or cut-stem treatment
- 2b. (Large infestations) brush hog & apply herbicide
- 3. Monitor the area for new plants and repeat above steps
- 4. Plant competitive (not invasive) plants





Stop the Weeds, Catch the Seeds!



Thank You



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Cowlitz County Noxious Weed Control Program

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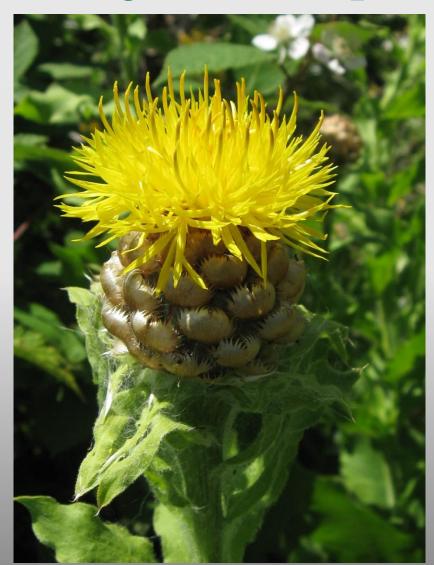
Office: (360) 577-3117 x1

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www.co.cowlitz.wa.us/noxiousweeds

Bighead Knapweed - Centaurea macrocephala





AKA lemon fluff, globe centaurea, yellow bachelor's button Listed in 1988 Native to Romania & Armenia



