

**Colorado Department of Agriculture
Noxious Weed Program**

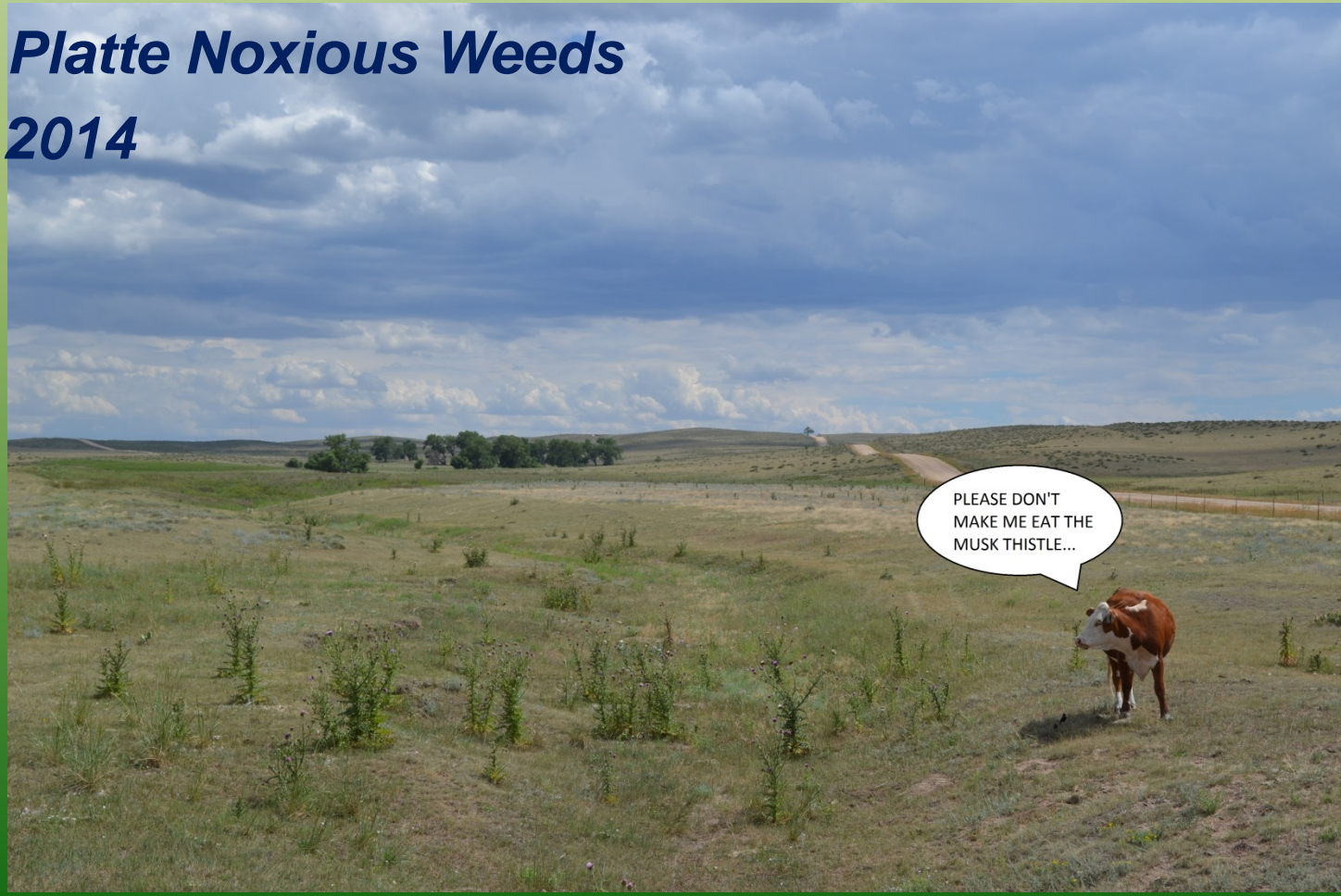


Denver Water

Source Water Protection Plan

Upper South Platte Noxious Weeds

February 14, 2014



What? Me worry?







Today's Outline

- Why manage weeds?
- Common weeds vs. “noxious” weeds
- Issues affecting management
- Impacts on water quality and quantity
- Noxious weeds in your neighborhood
- Best management practices



Why manage weeds?

- Agricultural productivity
- Native plant communities
 - value to wildlife
 - livestock
- Soil erosion
- Water consumption
- Wildfire





Common weeds vs. “noxious” weeds

- Alien plants or parts of alien plants that:
- Aggressively invade or are detrimental to economic crops or native plant communities;
- Are poisonous to livestock;
- Are carriers of detrimental insects, diseases, or parasites; or



Common weeds vs. “noxious” weeds

- Alien plants or parts of alien plants that:
- The direct or indirect effect of the presence of this plant is detrimental to the environmentally sound management of natural or agricultural ecosystems.



Issues affecting management

- A chronic problem – no crisis here!
- Hidden costs tend to lower the priority
- Costs of loss and recovery
- Land management goals
- NPDES & herbicide use in general

Impacts on water quality

- Soil erosion – sedimentation
- Re-seeding issues
- Herbicide use



Russian knapweed

purple loosestrife, wetlands



Impacts on water supply

- Water consumption by phreatophytes



Wildfire

- Shortens the fire cycle, sometimes considerably
- Has long-term consequences, even “permanent”
- Water quality – runoff, debris slides, etc.





Noxious weeds in your neighborhood

➤ List A species

- Orange hawkweed
- Elongated mustard

➤ List B species

- Thistles
- Diffuse knapweed
- Leafy spurge
- Yellow toadflax

➤ Other List B species

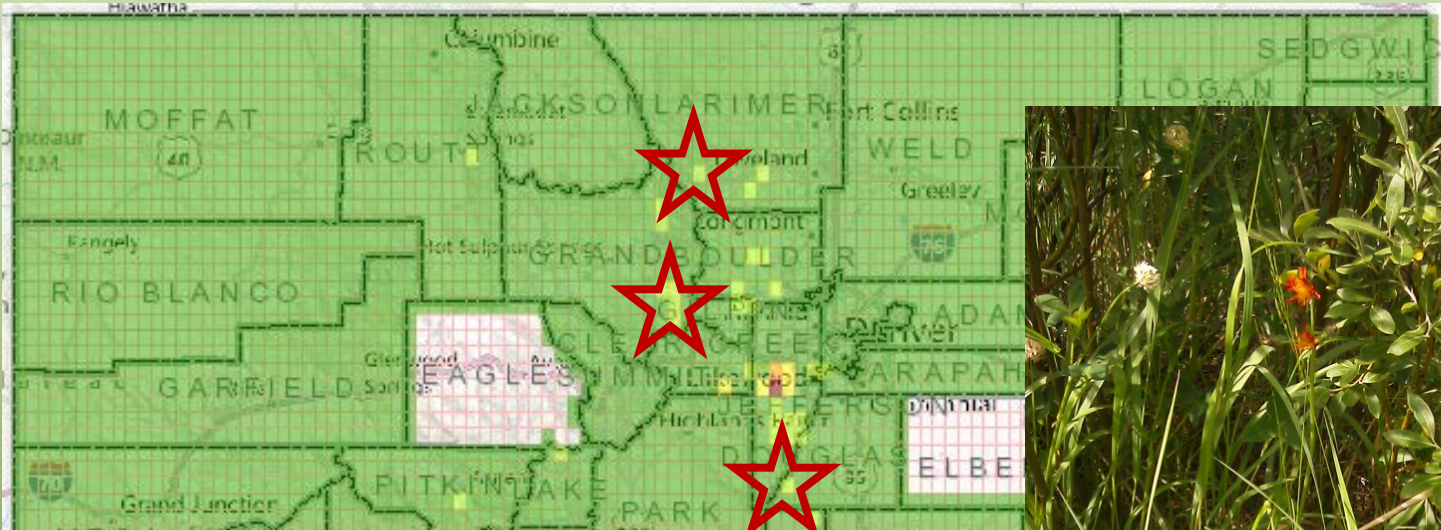
- Thistles
- Russian and spotted knapweeds
- Dalmatian toadflax
- Hoary cress &
- Perennial pepperweed
- Daisies

Noxious weeds in your neighborhood

orange hawkweed



Orange Hawkweed



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Elongated mustard





biennial thistles



Noxious weeds in your neighborhood



Canada thistle



Noxious weeds in your neighborhood



diffuse knapweed

Noxious weeds in your neighborhood



Leafy spurge





Noxious weeds in your neighborhood

yellow toadflax



Noxious weeds in your neighborhood

others: hoary cress and perennial pepperweed



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others: oxeye daisy,
chamomiles



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others: oxeye daisy,
chamomiles





Best management practices

- Prevention!
 - Keep from establishing
 - Once established,
 - Survey & map
 - Contain & suppress
 - Eliminate
- Tools
 - Mechanical
 - Herbicides
 - Land management
 - Biological controls
 - Educate & report



Best management practices - IPM

- Tools
 - Mechanical
 - Herbicides
 - Land management
 - Biological controls
 - Educate & report
- Pulling, digging
- Mowing
- Grazing



Best management practices - IPM

- Tools
 - Mechanical
 - Herbicides
 - Land management
 - Biological controls
 - Educate & report
- Label is the law
- Modes of action
- Selective vs.
- Non-selective
- Foliar vs. pre-emergent
- Soil activity
- “water’s edge”
- NPDES



Best management practices - IPM

- Tools
 - Mechanical
 - Herbicides
 - Land management
 - Biological controls
 - Educate & report
- Knowledge of weeds
- Cropping rotation
- Grazing rotation
- Fire
- Crop selection
- Financial vs. land health



Best management practices - IPM

- Tools
 - Mechanical
 - Herbicides
 - Land management
 - Biological controls
 - Educate & report
- Cost-effective
- Will not eradicate
- Good for suppression
- Selected weed species
- CDA Insectary



Best management practices - IPM

- Tools
 - Mechanical
 - Herbicides
 - Land management
 - Biological controls
 - Educate & report
- Weed ID
- Where/whom to report?
- EDRR

Resources

Colorado Department of Agriculture

Home > Noxious Weeds >

Advisory Committee
County Weed Programs
Early Detection Rapid Response
FAQs
Grants And Financial Assistance
Noxious Weed Species
Noxious Weed Mapping
Plant Assessment Matrix
Publications
Contact Us

Noxious Weeds

The goals of the program are to:

- prevent the introduction of new invasive plant species
- eradicate species with isolated or limited populations
- contain and manage those invasive species that are well established and widespread

To accomplish these goals the program:

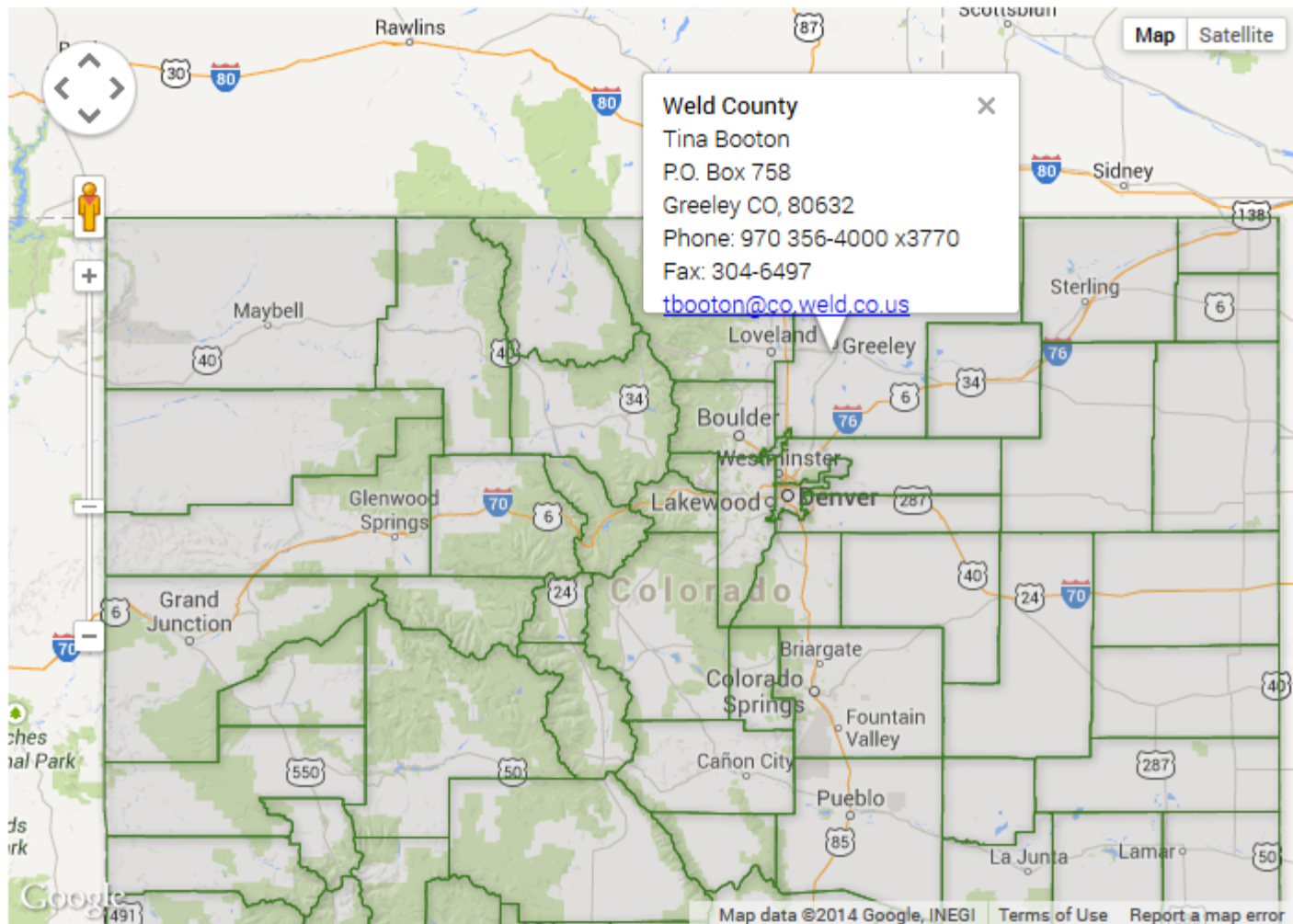
- implements preventative strategies to reduce the opportunity for new invasive species
- provides information and resources to local weed managers
- helps establish local weed management areas emphasizing coordinated efforts among public and private landowners
- educates public agency staff and private citizens about the negative impacts associated with noxious weeds



Resources

County Contacts

Below is a Google map of Colorado with contact information on each County Weed Program. Should you have any questions please feel free to [contact us](#).





	List B Species	Rangeland, pasture, and riparian site recommendations	1
<h1>thistle</h1>	<p>Colorado Dept. of Agriculture, Conservation Services Division 700 Kipling Street Suite 4000 Lakewood, CO 80215 303-239-4100</p>  	<h2 style="text-align: center;">Musk thistle</h2> <h3 style="text-align: center;">Identification and Management</h3>  <p>Identification and Impacts</p> <p>Musk thistle (<i>Carduus nutans</i>) is a non-native biennial forb that reproduces solely by seed. A biennial is a plant that completes its lifecycle</p> <p>Habitats for Musk thistle include disturbed, overgrazed areas. Once a pasture is infested, the livestock carrying capacity for that area is significantly decreased. The plant may also occur on rangeland, roadsides, ditches, riparian areas, and trails.</p> <p>The key to effective control of Musk thistle is to prevent the plant's seed production. Planting desirable grasses and forbs to out compete Musk thistle can also be effective. Dense Musk thistle stands can be treated by spot treatments of herbicides and by a persistent mechanical program. Details on the back of this sheet can help to create a management plan compatible with</p>	<h1>nutans</h1>



Thank you!

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