This brochure was created to increase awareness of Noxious Weeds, the importance of identification, the importance of a weed management program, and some methods of weed control based on local, state and national research-based information.

How do I control weeds on my property?

1. Identify the weeds on your property.
2. Once a weed is identified, understand the life cycle of the weed:
   - winter or summer annual
   - biennial
   - simple or creeping perennial
3. Understand the types of controls:
   - Preventative
   - Biological
   - Cultural
   - Chemical
   - Mechanical
4. Develop a weed management plan:
   - planning saves money and increases effectiveness
   - include long term monitoring to address any reinfections.
   - timing is a critical part of successful weed control. Regardless of which combination of control methods are used, implementing those control methods at the correct stage of weed development will increase the chances for successful weed control in the shortest period of time, with the least cost.

What are noxious weeds?

Noxious weeds are non-native plants that disrupt native vegetation because they have no natural controls and are able to adapt to varied conditions. As a result of the Colorado Noxious Weed Act, these weeds have been placed on three separate lists (weed names are color-coded corresponding to the list they are on):

- **List A plants**: Eliminated everywhere
- **List B plants**: Spread should be stopped
- **List C plants**: Control is recommended

Effective management occurs over time and requires repeated exposure to the recommended techniques and control methods. After years of investment in mitigating the weeds on your property, the plant will eventually be destroyed.

This brochure is not meant to be all inclusive or restrictive, but offers guidelines and recommendations. References for this guide are thanks to the following sources:

- CO Dept. of Ag. - Noxious Weed Management Program
  [www.colorado.gov/pacific/agconservation/noxiousweeds](http://www.colorado.gov/pacific/agconservation/noxiousweeds)
- CO Weed Management Association - Noxious Weed Info.
  [www.cnma.org](http://www.cnma.org)

It takes consistent persistence to win the war on weeds!

**Weed Control Methods**

**Preventive**: The first and, most important step in a weed control program. In addition, prevention is probably the most cost-effective method of weed control. Methods include:
- maintaining healthy pastures, using weed-free crop seed, weed-free manure and hay,
- and clean harvesting and tillage equipment, as well as the elimination of weed infestations in areas bordering cropland, and in irrigation ditches and canals.

**Cultural**: Methods include, and are not limited to: Establishing and managing an adequate population of desirable vegetation to compete with the weeds; utilizing livestock (cattle, goats, sheep) when possible; mulching; burning; and even plastic weed barriers.

**Biological**: Biological weed control involves the utilization of natural enemies for the control of specific weed species. Biological weed control is never 100% effective, and can take 5 to 10 years for success. However, this method can be successful especially when combined with other control methods.

**Chemical**: Always read the label before using any herbicide! Weed control with herbicides is an effective tool for many target weed species. However, there are several aspects to consider when choosing a chemical program. These include: ID of target weed; herbicide selection; timing of application; desirable crop or plant species near control areas; the number of applications per year, and the number of years for treatment. Sprayer calibration methods can be obtained from your local Extension office.

**Sprayer Calibration Fundamentals**

[http://www.ext.colostate.edu/pubs/farmgmr/05003.html](http://www.ext.colostate.edu/pubs/farmgmr/05003.html)

**Always add a nonionic surfactant at 0.32 oz/gal (1qt/100 gal) or per instructions.**
### Bull thistle
*Cirsium vulgare* (Savi) Tenore

**Identification**
- Lifecycle: Biennial
- Growth form: Forb/herb
- Flower: Flowers are 1.5-2 in wide and clustered at the ends of branches. The flower bracts are somewhat tapered and covered with spines (Whitson et al. 1996).
- Seeds/Fruit: Seeds are capped with a circle of cottony plume (pappus) of white hair-like bristles.
- Leaves: The leaves extend onto the stem, clasping, or extended down along the stem.
- Stems: Mature plants can grow as tall as 6 ft. It can have a large, fleshy taproot. Stems are numerous, branched, and have broad spiny wings.
- Roots: Thick fleshy taproot
- Growth form: Perennial forb
- Flower: Flowerheads are terminal, solitary, to 1-1.5 in wide, and usually nodding. Deep rose, violet or purple, occasionally white. Flowers are subterminated by broad, spine-tipped bracts. May-July.
- Seeds/Fruit: One-seeded oblong fruit (achene) about 0.2 inches long, shiny, yellowish-brown with a plume (pappus) of white hair-like bristles.
- Leaves: Alternately, alternate, green, deeply lobed, and spiny margined. The leaves extend onto the stem giving a winged appearance. Basal rosettes are well developed, leaves elliptical to lanceolate, 6-14 in, smooth to densely hairy.
- Stems: Mature plants can grow as tall as 6 ft. It can appear solitary or with several stems from one base, and is highly branched above.
- Roots: Fleshy taproot

**Control**
- Mech: Mowing can be effective if done every 10 to 21 days during the growing season.
- Bio: Cattle, goats, and sheep will graze when plants are young and succulent in the spring.

<table>
<thead>
<tr>
<th>HERBICIDE</th>
<th>RATE (oz/acre)</th>
<th>TIMING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clomazone</td>
<td>2.0 + 1.0 to 3.0</td>
<td>Apply to rosettes in spring or fall.</td>
</tr>
<tr>
<td>Aminopyralid (Milestone)</td>
<td>5-7 oz/acre</td>
<td>Spring at the pre-bud growth stage and/or to fall regrowth.</td>
</tr>
<tr>
<td>Chlorsulfuron (Telar DF)</td>
<td>1-3 oz/acre</td>
<td>Spring during bud to bloom stage and/or to fall regrowth.</td>
</tr>
<tr>
<td>Clopyralid + 2.4-D (Redem)</td>
<td>3 pints/acre</td>
<td>Apply from rosette to bud stage when all plants have emerged.</td>
</tr>
</tbody>
</table>

### Canada thistle
*Cirsium arvense* (L.) Scop.

**Identification**
- Lifecycle: Biennial, or sometimes winter annual
- Growth form: Forb
- Flower: Heads are terminal, solitary, 1.1/2-3 in wide, and usually nodding. Deep rose, violet or purple, occasionally white. Flowers are subterminated by broad, spine-tipped bracts. May-July.
- Seeds/Fruit: One-seeded oblong fruit (achene) about 0.2 inches long, shiny, yellowish-brown with a plume (pappus) of white hair-like bristles.
- Leaves: Alternately, alternate, green, deeply lobed, and spiny margined. The leaves extend onto the stem giving a winged appearance. Basal rosettes are well developed, leaves elliptical to lanceolate, 6-14 in, smooth to densely hairy.
- Stems: Mature plants can grow as tall as 6 ft. It can appear solitary or with several stems from one base, and is highly branched above.
- Roots: Fleshy taproot

**Control**
- Mech: Severe the root below the soil surface. Mowing is most effective when plants are at full-bloom.
- Bio: Seed head weevil and the crown weevil are effective on large infestations.

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<tr>
<td>Aminopyralid (Milestone)</td>
<td>5 fl. oz/acre</td>
<td>Spring rosette to early blooming or in fall to rosettes.</td>
</tr>
<tr>
<td>Metsulfuron (Escort XP)</td>
<td>1 oz. product/acre</td>
<td>Spring from rosette through very early flower stage.</td>
</tr>
<tr>
<td>Clomazone</td>
<td>2.0 + 1.0 to 3.0</td>
<td>Apply to rosettes in spring or fall.</td>
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</table>

### Musk thistle
*Carduus nutans*

**Identification**
- Lifecycle: Biennial
- Growth form: Forb
- Flower: Heads are terminal, solitary, 1.1/2-3 in wide, and usually nodding. Deep rose, violet or purple, occasionally white. Flowers are subterminated by broad, spine-tipped bracts. May-July.
- Seeds/Fruit: One-seeded oblong fruit (achene) about 0.2 inches long, shiny, yellowish-brown with a plume (pappus) of white hair-like bristles.
- Leaves: Alternately, alternate, green, deeply lobed, and spiny margined. The leaves extend onto the stem giving a winged appearance. Basal rosettes are well developed, leaves elliptical to lanceolate, 6-14 in, smooth to densely hairy.
- Stems: Mature plants can grow as tall as 6 ft. It can appear solitary or with several stems from one base, and is highly branched above.
- Roots: Fleshy taproot

**Control**
- Mech: Sever the root below the soil surface. Mowing is most effective when plants are at full-bloom.
- Bio: None currently effective

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<td>5 fl. oz/acre</td>
<td>Spring rosette to early blooming or in fall to rosettes.</td>
</tr>
<tr>
<td>Metsulfuron (Cinnam X-tra)</td>
<td>2 oz/acre</td>
<td>Apply to rosette to early bolt stages of growth. (Spring)</td>
</tr>
</tbody>
</table>

### Scotch thistle
*Onopordum acanthium* L.

**Identification**
- Lifecycle: Biennial
- Growth form: Forb
- Flower: Heads are terminal, solitary, 1.1/2-3 in wide, and usually nodding. Deep rose, violet or purple, occasionally white. Flowers are subterminated by broad, spine-tipped bracts. May-July.
- Seeds/Fruit: One-seeded oblong fruit (achene) is wrinkled, brown to grayish-black, tipped with a plume (pappus) of slender bristles.
- Leaves: Alternate, alternate, green, deeply lobed, and spiny margined. The leaves extend onto the stem giving a winged appearance. Basal rosettes are well developed, leaves elliptical to lanceolate, 6-14 in, smooth to densely hairy.
- Stems: Mature plants can grow as tall as 6 ft. It can appear solitary or with several stems from one base, and is highly branched above.
- Roots: Thick fleshy taproot

**Control**
- Mech: Sever the root below the soil surface. Mowing is most effective when plants are at full-bloom.
- Bio: Thick fleshy taproot

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<td>2.0 + 1.0 to 3.0</td>
<td>Apply to rosettes in spring or fall.</td>
</tr>
<tr>
<td>Aminopyralid (Milestone)</td>
<td>5 fl. oz/acre</td>
<td>Spring rosette to early blooming or in fall to rosettes.</td>
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<tr>
<td>Metsulfuron (Cinnam X-tra)</td>
<td>2 oz/acre</td>
<td>Apply to rosette to early bolt stages of growth. (Spring)</td>
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**Diffuse knapweed**  
*Centaurea diffusa* Lam.

**Keys to Id**
- Floral bracts have yellow spines with teeth like a comb and a distinct terminal spine.
- Flowers are white or lavender
- Seedlings have finely divided leaves

**Control**
- Mch: sever the root below the soil surface. Mowing is most effective when plants are at full-bloom.
- Bio: livestock, seedhead weevil (*Larinus minutus*), and the root weevil fly (*Cypcholeonus achatites*)

**Identification**
- Lifecycle: Biennial or short-lived perennial
- Growth form: Forb
- Flower: Broadly urn-shaped, 0.6-0.8 in tall, terminal solitary or in clusters of 2-3. Floral bracts are yellowish with a brownish margin, fringed on the sides, and terminating in a slender bristle or spine. The heads contain two types of flowers, ray flowers (white, rose-purple, to lavender) around the edges surrounding tubular disk flowers. June-Aug.
- Seeds: Seeds are light brown to black.
- Roots: Spotted knapweed has a stout taproot.
- Stems: Upright, 4-24 in tall, highly branched, angled, with short, stiff hairs on the angles.
- Seedling: Finely divided leaves; covered by short hair

**Herbicide**

<table>
<thead>
<tr>
<th>Herbicide</th>
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</table>
| Aminopyralid    | 5-7 oz/acre | Spring at rosette to early bolt stage and/or in the fall to rosettes.
| Milestone       | 1 gal water | Spring at rosette to early bolt stage and/or in the fall rosettes.
| 2,4-D Amine     | 1 qt/acre  | Spring/fall rosettes - before flowering stalk lengths. |
| *temp must be below 85F* | 1 oz/gal water | |
| Clopyralid + Tricospyr | 1.5-2 pints/acce | Rosette to early bolt stage of growth and/or in the fall to rosettes. |
| (Redeem R&P)    | 0.75 oz/gal | |
**Common Mullein**
*Verbascum thapsus*

**Identification**
- Lifecycle: Biennial
- Growth form: Forb
- Flower: 5-10ft. tall flower spike.
- Biennial, rosette year 1, tall flowering stem year 2.

**Keys to Id**
- Leaves - felt-like, bluish green in color.
- 5-10ft. tall flower spike.
- Biennial, rosette year 1, tall flowering stem year 2.
- Glyphosate (Cimarron X)
  - Chlorsulfuron
  - Metsulfuron =

**Salt Cedar (Tamarisk)**
*Tamarix ramosissima Lede. or T. parviflora DC.*

**Identification**
- Lifecycle: Perennial
- Growth form: Forb
- Flower: numerous white flowers with four petals, plant has white, flat-topped appearance. May-June.
- Seeds/Fruit: Seed capsules are heart shaped, and contain two reddish-brown seeds.
- Leaves: Alternate, blue green, and lance-shaped. Lower leaves are stalked, while the upper leaves have two lobes clasping the stem.
- Stems: Mature plants reach 2 ft tall with erect stems
- Roots: Hrizomatosus, 29-32 inches deep

**Keys to Id**
- Saltcress is a tall shrub or small tree
- Flowers are white to pink in clusters called racemes.
- Leaves are small and scaly.

**Control**
- Cultural: Maintain healthy riparian vegetative cover.
- Mech: Chainsaw, bulldozer, mulching, and mowing MUST be combined with chemical treatments.
- Bio: The saltcedar leaf beetle (Diorhabda elongata) feeds on foliage causing stem debac.

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<tr>
<td>Metsulfuron = Methyl + Chlorsulfuron (Cimarron X-tr)</td>
<td>0.5 oz./ac</td>
<td>Apply at rosette stage.</td>
</tr>
<tr>
<td>Picloram + 2,4-D (Grazon P&amp;D)</td>
<td>2 qt/acre</td>
<td>Spring, vegetative to early bloom</td>
</tr>
<tr>
<td>Metsulfuron (Escort, Ally)</td>
<td>0.6-0.8 oz/acre</td>
<td>Spring, vegetative to early bloom</td>
</tr>
<tr>
<td>Glyphosate (Rodeo)</td>
<td>12-16 oz/acre</td>
<td>Apply in spring rosette stage.</td>
</tr>
<tr>
<td>Glyphosate</td>
<td>0.625 lbs al/acre</td>
<td>Apply at the early bud growth stage; i.e. &quot;broccoli&quot; growth stage. (Early Spring to Early Summer)</td>
</tr>
<tr>
<td>Triclopyr (Garlon 4)</td>
<td>Foliar : 2-4 qt/acre</td>
<td>Foliar : late spring to early fall</td>
</tr>
<tr>
<td>Triclopyr (Garlon 4)</td>
<td>Cut-stump : 100%</td>
<td>Cut-stump : anytime unless snow present.</td>
</tr>
<tr>
<td>Triclopyr (Garlon 4)</td>
<td>Basal bark : 1:3 herbicide:natural oil</td>
<td>Basal bark : anytime unless snow present.</td>
</tr>
<tr>
<td>Glyphosate (Rodeo)</td>
<td>Foliar : 2-4 qt/acre</td>
<td>Foliar : late spring to early fall</td>
</tr>
<tr>
<td>Glyphosate (Rodeo)</td>
<td>Cut-stump : 100%</td>
<td>Cut-stump : anytime unless snow present.</td>
</tr>
<tr>
<td>Imazapic (Aspen)</td>
<td>Foliar : 0.5-6.5 oz/gal water</td>
<td>Foliar : late spring to late summer; avoid spray solution run-off.</td>
</tr>
<tr>
<td>Chlorsulfuron (Telar)</td>
<td>Foliar : 1 oz/acre</td>
<td>Apply at the early bud growth stage; (Early Spring to Early Summer)</td>
</tr>
<tr>
<td>Clopyralid (Voyak)</td>
<td>12 fl. oz/acre</td>
<td>Apply at late flower post-flower growth stage. (Late Spring to Mid Summer)</td>
</tr>
<tr>
<td>Chlorsulfuron (Telar)</td>
<td>2 pints/acre methylated seed oil or crop oil concentrate</td>
<td>Apply at late flower post-flower growth stage. (Late Spring to Mid Summer)</td>
</tr>
<tr>
<td>Imazapic (Aspen)</td>
<td>1 oz/acre</td>
<td>Cut-stump : anytime except spring.</td>
</tr>
</tbody>
</table>

**Locoweed (Woolly)**
*Oxytropis sericea or Oxytropis lamberti*

**Identification**
- Lifecycle: Biennial
- Growth form: Forb
- Seeds: Numerous tiny, angular, brownish seeds in 2-chambered capsules.
- Leaves: Year 1: rosette leaves are felt-like soft, and bluish-green in color; Year 2: large fuzzy alternate overlapping leaves on stem.
- Stems: Produces a single flowering stem. Stem is erect, 2-8 ft tall; dried stalks stand through winter.
- Roots: Shallow taproot.
- Seedling: Forms a rosette in the first year

**Keys to Id**
- Flowers are white or purple with a pointed keel (pea-like) and borne on a leafless stalk.
- Leaves: Opposite, pinnate, and covered with silvery hairs.
- Seed pods are erect, stalkless, with a short beak that splits open to release numerous smooth brown seeds.

**Control**
- Cultural: Reduce grazing pressure in pastures to maintain healthy desirable species.
- Defer grazing from locoweed-infested sites in the spring when locoweed is green and growing.

**Mech:**
- Hand pull, dig, grub to remove all parts of plant, especially seed.
- Wear protective clothing, plant is toxic to humans in addition to livestock.
- Chem: Vegetative/early bloom in spring

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<tr>
<td>Metsulfuron (Escort XP)</td>
<td>1 oz/acre</td>
<td>Apply at the early bud growth stage; i.e. &quot;broccoli&quot; growth stage. (Early Spring to Early Summer)</td>
</tr>
<tr>
<td>Chlorsulfuron (Telar)</td>
<td>1 oz/acre</td>
<td>Apply at the early bud growth stage; (Early Spring to Early Summer)</td>
</tr>
<tr>
<td>Imazapic (Plateau)</td>
<td>12 fl. oz/acre</td>
<td>Apply at late flower post-flower growth stage. (Late Spring to Mid Summer)</td>
</tr>
</tbody>
</table>
**Kochia**
*(Kochia scoparia L.)*

**Keys to Id**
- Soft green-grey leaves on branched stems
- Pyramidal or conical shaped bushes can reach 6 ft in height.

**Identification**
- Lifecycle: Summer Annual
- Growth form: Forb
- Flower: Inconspicuous
- Seeds/Fruit: Wedge-shaped, dull brown
- Leaves: Alternate, lance-shaped
- Stems: Branched, round, slender, often red tinged
- Similar in looks to Russian Thistle

**Control**
- Mech: Hand pulling. If plants have set seed, collect and dispose of plants. Small plants may be tilled.
- Bio: None.

**Russian Olive**
*(Elaeagnus angustifolia L.)*

**Keys to ID**
- A tall shrub or small tree
- Many yellowish olive-shaped fruits.
- Leaves are light green above and silvery beneath.

**Identification**
- Lifecycle: Perennial
- Growth form: Deciduous, small tree.
- Flower: Small, light yellow clusters, bisexual.
- Leaves: Simple, alternate, narrow 2-3 inches long, and are untoothed. Upper surface is light green, the lower surface is silvery white with dense scales.
- Stems: Has 1-2 inch thorns on trunk and branches.
- Roots: Can produce root suckers. Shade tolerant.

**Control**
- Cultural: Maintain healthy riparian vegetation.
- Mech: Brush mowing and removal of cut material. MUST be combined with chemical treatments.

**Perennial Pepperweed**
*(Lepidium latifolium B.)*

**Keys to ID**
- Dense clusters of white flowers.
- Leaves and stem covered with waxy layer.

**Identification**
- Lifecycle: Perennial, member of the mustard family.
- Growth form: Forb
- Flower: White; packed in dense clusters near the ends of branches. May-Aug.
- Fruit: Nearly round, very small and sparsely hairy.
- Leaves: Alternate, lance-shaped, may be toothed, bright-green to grey-green, basal leaves are larger than the upper leaves.
- Stems: Mature plants are 1-3 ft tall.
- Roots: Deep-seated roots.
- Other: The leaves and stem are covered with a waxy layer.

**Exotics**: Do not have clasping bases, unlike Hoary cress leaves with clasping bases.

**Control**
- Mech: Hand pulling is not effective. Instead, mow in spring before seed-set and combine with chemical treatments.
- Bio: None currently available, eradication is goal in Mesa County. Do NOT graze—toxicity is high.

**Field Bindweed**
*(Convolvulus arvensis)*

**Keys to Id**
- Flowers are funnel-shaped, white to pink, and have two small bracts one inch below the flower base.
- Leaves are shaped like arrowheads.

**Identification**
- Lifecycle: Perennial
- Growth form: Forb
- Flower: Bell or trumpet-shaped, white to pink in color, and are about 1 inch long, small bracts below
- Seeds/Fruit: Seeds can remain viable for 40 years.
- Leaves: Alternate, arrowhead shaped.
- Stems: Prostrate, many feet in length
- Roots: Rhizomatous with deep taproot

**Control**
- Mech: Cutting, mowing, or pulling has a negligible effect unless the plants are cut below the surface in the early seedling stage.
- Bio: The bindweed gall mite, Aceria mahlerbae, and bindweed moth, Tytia luctuosa are effective in Colo.
**Common Cocklebur**
*Xanthium strumarium L.*

**Keys to ID**
- 2 to 4 feet tall.
- Fruits are about 1" long an prickly, stick easily to fur, hair and fabrics.

**Identification**
- Lifecycle: Annual
- Growth: Forb, branching
- Flower: Small, in axils of upper leaves, male and female flowers are separate.
- Seeds: Dark brown, flattened, pointed tips.
- Leaves: Alternate, triangular or heart-shaped, rough on both sides
- Stems: Erect, branched, ridged, rough.
- Seeds and seedlings are toxic to livestock

**Control**
- Cultural: Maintain healthy stand of natives/desired perennials, carefully manage grazing to ensure protection of desired plant species.
- Mech: Cutting or mowing has a negligible effect, due to re-sprouting from crown.
- Chemical: Glyphosate herbicides applied at the recommended label rate to young seedlings will be effective when combined with other control methods.
- Bio: *Trirhabda nitidicollis* leaf beetle Both the adult and larvae feed on rabbitbrush leaves, though use by larvae is heavier and more likely to result in mortality. Moderately effective control is possible; USDA approval status for formal use is uncertain.

**Rabbit Brush**
*Ericameria nauseosa*

**Keys to ID**
- 2 to 4 feet tall.
- Bright, fragrant yellow flowers
- Grey-green leaves

**Identification**
- Lifecycle: Perennial
- Growth: Forb, branching
- Flower: Yellow, terminal, clustered
- Leaves: Numerous, slender, alternate, 3/4-2”
- Stems: Silky, wooly covered
- Native invader

**Control**
- Cultural: Avoid over-grazing
- Mech: Cutting or mowing has a negligible effect, due to re-sprouting from crown.
- Chemical: Glyphosate herbicides applied at the recommended label rate to young seedlings will be effective when combined with other control methods.
- Bio: *Trirhabda nitidicollis* leaf beetle Both the adult and larvae feed on rabbitbrush leaves, though use by larvae is heavier and more likely to result in mortality. Moderately effective control is possible; USDA approval status for formal use is uncertain.

**Winter Annuals**
*Select problem landscape plants*

**Cheatgrass - Downy brome**
*Bromus tectorum*

**Keys to ID**
- Drooping seedhead
- Densely hairy leaves
- Greens early spring
- Changes to purple/tan in early summer

**Mustards Shepard’s purse**
*Capsella bursa-pastoris*

**Keys to ID**
- Lobed basal leaf
- Deeply toothed leaf
- Long, slender flower stalk
- Terminal flower cluster
- Small white 4-petal flowers

**control**
- Coarse deeply divided leaf
- Narrow lobed upper leaf
- Stem erect and branched
- Small yellow 4-petal flowers
- Tumbles in the wind

**Control**
- Prevent Seed Production
- Cultural: Maintain healthy stand of natives/desired perennials, carefully manage grazing to ensure protection of desired plant species.
- Mech: Cutting or mowing has a negligible effect, repeated hand pulling must be done to include as much of the remaining root system as possible.
- Bio: Domestic livestock grazing, when timed correctly can help reduce invasive plants over time.
- Chemical: Glyphosate herbicides applied at the recommended label rate to young seedlings will be effective when combined with other control methods.

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<td>Aminocyclopyrinaltertrifluralin methyl + triclopyr</td>
<td>4.75 to 8 oz + 1.0 to 1.5 lb</td>
<td>Most effective in late summer-early fall before frost.</td>
</tr>
<tr>
<td>Clopyralid + 2,4-D</td>
<td>2.2 kg/ha</td>
<td>During active growth with 2-5 inches of new growth, but when grasses are going dormant.</td>
</tr>
</tbody>
</table>

**Mustards - Tansey mustard**
*Sisymbrium altissimum*

**Keys to ID**
- Male and female flowers are separate.
- Growth: Forb, branching
- Lifecycle: Annual

**Control**
- Prevent Seed Production
- Cultural: Maintain healthy stand of natives/desired perennials, carefully manage grazing to ensure protection of desired plant species.
- Mech: Cutting or mowing has a negligible effect, repeated hand pulling must be done to include as much of the remaining root system as possible.
- Bio: Domestic livestock grazing, when timed correctly can help reduce invasive plants over time.
- Chemical: Glyphosate herbicides applied at the recommended label rate to young seedlings will be effective when combined with other control methods.

**Backyard Weed Control Tips**

Weeds (or undesirable vegetation) are a concern anytime they compete with the desired vegetation of your landscape or garden area. Weeds are opportunistic and will occupy any space that they can readily invade. Know that tolerating a few weeds can allow a healthy, functioning, attractive sustainable system.

Proper management, whether it be healthy turfgrass, adequate native plantings, or adequate mulch depth, can help to severely limit the impact that invasive and weed plants have.

An integrated management approach to weed prevention will allow for the best results to reduce any weed concerns on your property. This takes time and attention over the long term to achieve successful results.

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CSU Ext, Preparation of small spray quantities of pesticides
http://extension.colostate.edu/docs/pubs/garden/07615.pdf

CSU Ext, Weed Management for small rural acreages
http://extension.colostate.edu/docs/pubs/natres/03106.pdf

CSU Ext, Yard and Garden Publications
http://extension.colostate.edu/topic-areas/yard-garden/

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