



## Plantain

*Plantago lanceolata*

### ID tips

- Small white flowers that bloom starting at base of inflorescence and move upward
- Leaves are lance shaped with prominent parallel veins



### Identification

- Lifecycle: Perennial
- Flower: Small white flowers that bloom starting at base of inflorescence and move upward
- Leaves: Leaves are lance shaped with prominent parallel veins growing from the crown of the plant
- Roots: Fibrous roots
- Seedling: Seedlings similar to mature plant
- Other: Reproduces by seed, individual plant grows larger with time

### Management

- Cultural: Maintaining healthy desired vegetation
- Mechanical: Hand pulling, hoeing, mowing will limit seed production
- Biological: None available
- Chemical: dicamba, Escort (metsulfuron)



## Russian thistle

*Salsola iberica*

### ID tips

- Inconspicuous flowers
- Leaves are alternate, narrow, plant has multiple stems



### Identification

- Lifecycle: Annual
- Flower: Inconspicuous
- Leaves: Leaves are alternate, narrow and may appear scale like
- Roots: Tap root with fibrous roots
- Seedling: Seedlings have a grass like appearance before plant branches
- Other: Stems may have red stripes, reproduces by seed, becomes a prickly tumbleweed

### Management

- Cultural: Maintaining healthy desired vegetation
- Mechanical: Hand pulling, hoeing, mowing will limit seed production
- Biological: None available
- Chemical: 2,4-D, Roundup (glyphosate)

## Additional Resources:

An integrated weed management system will produce the best results on your property. Relying solely on one management method will result in less than desired results and may lead to resistance in the weed. Utilizing a combination of cultural, mechanical, biological and chemical methods will provide the best results.

Rapid identification and management produces the best result.

### Colorado Department of Agriculture

<https://www.colorado.gov/pacific/agconservation/noxiousweeds>

### Colorado Weed Management Association

<http://www.cwma.org/>

### Boulder County Parks and Open Space Weeds Division

Steve Sauer, Boulder County Weed Coordinator, [ssauer@bouldercounty.org](mailto:ssauer@bouldercounty.org) 303-678-6110

<http://www.bouldercounty.org/os/openspace/pages/weeds.aspx>

### CSU Extension Boulder County

Sharon Bokan, Boulder County Extension Small Acreage Coordinator, [sbokan@bouldercounty.org](mailto:sbokan@bouldercounty.org) 303-678-6176

<http://boulder.extension.colostate.edu/natural-resources/weeds/>

### CSU Extension Fact sheets

<http://extension.colostate.edu/publications-2/>

### CSU Extension Small Acreage website

<http://www.ext.colostate.edu/sam/index.html>

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# Boulder County Nuisance Weed Management Pocket Guide



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This brochure was designed to increase weed awareness, in this case nuisance weeds, the importance of identification and development of a weed management plan and provide some weed management methods.

### How do I manage weeds on my property?

1. Positively identify the weed.  
Improper identification may lead you to the wrong management methods.
2. Understand the weed's life cycle. Is it a winter or summer annual (1 year growth cycle), biennial (2 year growth cycle) or perennial (multiple year growth cycle)? Does the perennial spread only by seed (simple) or seed and vegetative sprouts (complex). Timing of management methods is an important part of a successful weed management plan.
3. Learn what management techniques are available
  - a. Cultural
  - b. Mechanical
  - c. Biological
  - d. Chemical (includes both "synthetic" and "organic")
4. Develop a weed management plan that includes monitoring of the weeds and property.



## Barnyard grass

*Echinochloa crus-galli*

### ID tips

- Tall (up to 5') annual grass with many stems that are reddish to purple
- Flower panicles are often purplish or reddish, flowers and seeds born on branches not the main stem



### Identification

- Lifecycle: Warm season annual
- Flower: Grass flowers that are purplish to reddish
- Leaves: Grass leaves approximately 1/2" in width
- Roots: Fibrous
- Seedling: Grass seedlings often purple and flattened at the base
- Other: Reproduces by seed, tends to prefer irrigated areas

### Management

- Cultural: Cultural management helps but barnyard grass can compete with desired vegetation
- Mechanical: Hand pulling, hoeing, mowing will limit seed production
- Biological: Livestock may graze young plants
- Chemical: Roundup (glyphosate)



## Blue mustard

*Chorispora tenella*

### ID tips

- Flowers are small, purple, 4 petalled and connected to main stem
- Leaves are oblanceolate with wavy or coarse-toothed margins



### Identification

- Lifecycle: Winter annual
- Flower: Flowers are small, purple, 4 petalled and connected to main stem
- Leaves: Leaves are oblanceolate with wavy or coarse-toothed margins
- Roots: Tap root
- Seedling: Seedlings are similar to mature plants but leaves are oval with no waviness
- Other: Reproduces by seed, distinctive "cabbage" odor when crushed, one of the earliest weeds to bloom, seeds are born in beaked pods

### Management

- Cultural: Maintaining healthy desired vegetation
- Mechanical: Hand pulling, hoeing, mowing will limit seed production
- Biological: None available
- Chemical: Escort (metsulfuron), Telar (chlorsulfuron)



## Prostrate knotweed

*Polygonum aviculare*

### ID tips

- Erect to trailing plant with multiple stems
- Leaves are lance to oblong shaped, alternate with papery sheaths at nodes



### Identification

- Lifecycle: Annual
- Flower: Flowers are small, pink and located at leaf base
- Leaves: Leaves are lance to oblong shaped and alternate on stem
- Roots: Taproot
- Seedling: Seedlings have similar leaves to mature plant with fewer stems
- Other: Stems radiate from central point, papery sheaths at leaf nodes, only spreads by seed, may be found in compacted soils

### Management

- Cultural: Maintaining healthy desired vegetation
- Mechanical: Hand pulling, hoeing, mowing not effective due to low growth habit
- Biological: None available
- Chemical: Escort (metsulfuron), dicamba



**Always read and follow the instructions on the herbicide label!**



## Common purslane

*Portulaca oleracea*

### ID tips

- Small 5 petalled yellow flowers
- Prostrate, fleshy plant with multiple stems with green leaves and flesh or reddish colored stems



### Identification

- Lifecycle: Annual
- Flower: small petalled yellow flower
- Leaves: Smooth, succulent, shiny tear drop shaped green leaves that may have a reddish tinge
- Roots: Taproot
- Seedling: Seedlings similar to adult plants
- Other: Reproduces by seed, stems radiate from central core, multiple stems, plants may re-root after pulling or hoeing

### Management

- Cultural: Maintaining healthy desired vegetation
- Mechanical: Hand pulling, hoeing, mowing not effective due to low growth habit
- Biological: None available
- Chemical: 2,4-D, dicamba



## Flixweed

*Descurainia sophis*

### ID tips

- Small 4 petalled yellow or greenish-yellow flowers
- Leaves are fern like and come from a central point



### Identification

- Lifecycle: Winter annual
- Flower: Small 4 petalled yellow or greenish-yellow flowers
- Leaves: Leaves finely divided and fern like, growing from a central point
- Roots: Tap root
- Seedling: Seedling similar to mature plant
- Other: Reproduces by seed, seeds are borne in long capsules that resemble stems

### Management

- Cultural: Maintaining healthy desired vegetation
- Mechanical: Hand pulling, hoeing, mowing will limit seed production
- Biological: None available
- Chemical: Escort (metsulfuron), Telar (chlorsulfuron)



## Foxtail barley

*Hordeum jubatum*

### ID tips

- Perennial grass
- Flowers are a spike with very long awns (long hairs)
- Leaves are pale green and ¼" or less in width



### Identification

- Lifecycle: Perennial
- Flower: Spike of flowers with long awns
- Leaves: Leaves are grass blades that are less than ¼" wide
- Roots: Fibrous roots
- Seedling: Grass
- Other: Grows in a clump that gets larger with time, reproduces by seed, tends to like wetter areas

### Management

- Cultural: Cultural management helps but foxtail barley can compete with desired vegetation
- Mechanical: Hand pulling or digging are effective, mowing to limit seed production
- Biological: None available
- Chemical: Roundup (glyphosate)

Photos courtesy of Casey Matney, Ag/Hort Agent, University of Alaska Cooperative Extension Service

## What is a Nuisance Weed?

Nuisance weeds are not noxious weeds. Noxious weeds are defined by State and Federal law and are non-native plants that have no natural controls and are able to adapt to varied conditions. The Colorado Weed Act places noxious weeds onto three separate lists – A, B and C. Please refer to the Boulder County Noxious Weed Pocket Guides for more information on Boulder County noxious weeds.

Nuisance weeds are those plants that annoy humans because they grow where we want something else to grow. They tend to not be as aggressive in growth as noxious weeds.

Weed management is an ongoing process that will continue until you sell your property. Check along fence lines, ditches and roads as these are usually the first areas to be infested. Any time you disturb the soil, you open the door for a weed infestation to start.

### Boulder County Weed Management Plan

<http://www.bouldercounty.org/doc/parks/wedmpln.pdf>

This brochure is not meant to be all inclusive but is a guideline for those weeds commonly found in the county. Photographs for this brochure are from the following sources.

CO Dept. of Ag. - Noxious Weed Management Program  
<http://www.colorado.gov/ag/weeds>  
CO Weed Management Association - Noxious Weed Info.  
<http://www.cwma.org/>  
USDA Plants Database - Plants information  
<http://plants.usda.gov/java/>

## Weed Management Methods

**Cultural:** Cultural methods involve getting and keeping desired vegetation established and healthy. Developing and following a grazing management plan, reseeding disturbed areas, using clean weed free seed and maintaining proper stubble height are all cultural methods.

**Mechanical:** Mechanical methods include but are not limited to hand pulling, mowing, hoeing, tillage and burning.

**Biological:** Biological methods include the use of natural predators for specific weed species. This may include insects, fungi, bacteria and livestock. Biological methods are not 100% effective and can take 5 to 10 years to establish sufficient populations to be effective. Insects can be obtained from the Colorado Department of Agriculture's Insectary.

<https://www.colorado.gov/pacific/agconservation/request-bug>

**Chemical:** Chemical methods include both "organic" and "synthetic" herbicides. "Organic" herbicides only burn the foliage on plants. They work best on small plants. They will also burn foliage on desired plants. Always positively identify the weed and determine the best herbicide to use and application timing. **Read, understand and follow the label prior to application.** Mixing at a higher rate or using an herbicide where it is not labelled for use is illegal and may cause harm to desirable plants, humans, livestock and wildlife. For more information on the herbicides listed, please contact Steve Sauer, Boulder County Parks and Open Space or Sharon Bokan, Boulder County Extension. Contact information on last page.

Sprayer calibration:

<http://www.ext.colostate.edu/pubs/farmmgmt/05003.html>



**Hare barley**

*Hordeum murinum*

### ID tips

- Annual grass
- Flowers are a spike with awns (long hairs)
- Leaves are smooth to hairy and less than ¼" wide



### Identification

- Lifecycle: Annual
- Flower: Spike of flowers with mid length awns
- Leaves: Leaves are grass blades that are smooth to hairy and less than ¼" wide
- Roots: Fibrous roots
- Seedling: Grass
- Other: Reproduces by seed, well developed clasping auricles at leaf collar

### Management

- Cultural: Maintaining healthy desired vegetation
- Mechanical: Hand pulling, hoeing, mowing will limit seed production
- Biological: None available
- Chemical: Roundup (glyphosate)



**Field Pennycress**

*Thlaspi arvense*

### ID tips

- Leaves alternate, lance shaped
- Small white 4 petalled flowers in a terminal raceme



### Identification

- Lifecycle: Annual
- Flower: Small 4 petalled flowers
- Leaves: Leaves are lance shaped and largest at the base, most leaves are basal
- Roots: Tap root
- Seedling: Seedlings have ovate shaped leaves
- Other: Reproduces by seed, seed pod is circular in shape with outer edge beige in color when dry

### Management

- Cultural: Maintaining healthy desired vegetation
- Mechanical: Hand pulling, hoeing, mowing will limit seed production
- Biological: None available
- Chemical: Escort (metsulfuron), Telar (chlorsulfuron)



**Common mallow**

*Malva neglecta*

### ID tips

- Flowers white with lavender striping, fused at base
- Leaves rounded with heart shaped base and long petiole
- Fruit is round button/cheese wheel shape



### Identification

- Lifecycle: Annual or Biennial
- Flower: Flowers white with lavender striping, fused at base
- Leaves: Leaves rounded with heart shaped base and long petiole
- Stems: Lower growth habit with multiple stems
- Roots: Taproot
- Seedling: Seedling similar to adult plant
- Other: Reproduces by seed, may re-sprout if not all of root is removed

### Management

- Cultural: Maintaining healthy desired vegetation
- Mechanical: Hand pulling, hoeing, mowing will limit seed production
- Biological: None available
- Chemical: Telar (chlorsulfuron)



## Spotted spurge

*Chamaesyce maculata*

### ID tips

- Prostrate plant with reddish stems and oval leaves with reddish spots
- Stems exude a milky sap when broken



### Identification

- Lifecycle: Annual
- Flower: Tiny pinkish flowers
- Leaves: Oval/oblong leaves with or without a red spot
- Stems: Reddish stems that radiate from central core with side branching
- Root: Taproot
- Seedling: Similar to adult plant
- Other: Reproduces by seed, plants may re-root after pulling or hoeing

### Management

- Cultural: Maintaining healthy desired vegetation
- Mechanical: Hand pulling, mowing not effective due to low growth habit
- Biological: None available
- Chemical: 2,4-D, dicamba, Garlon A (triclopyr)



## Tumble mustard

*Sisymbrium altissimum*

### ID tips

- Small pale yellow 4 petalled flowers
- Deeply lobed basal rosette, multiple branches above with reduced leaves



### Identification

- Lifecycle: Winter annual
- Flower: Small pale yellow 4 petalled flowers, borne on the ends of the many branches
- Leaves: Basal/rosette leaves deeply lobed, upper leaves finer and reduced
- Roots: Tap root
- Seedling: Seedlings have spatulate shaped leaves that later form the deeply lobed rosette leaves
- Other: Reproduces by seed, seeds borne in long capsules that resemble stems, stems break off at the ground and become tumble weeds

### Management

- Cultural: Maintaining healthy desired vegetation
- Mechanical: Hand pulling, hoeing, mowing will limit seed production
- Biological: None available
- Chemical: Escort (metsulfuron), Telar (chlorsulfuron)



## Redroot pigweed

*Amaranthus retroflexus*

### ID tips

- Leaves broader at base and lance shaped with prominent veins
- Lower stem and root are often pinkish red



### Identification

- Lifecycle: Summer annual
- Flower: Small, green flowers in terminal spikes
- Leaves: Lance shape with broader bases and prominent veins
- Roots: Tap root
- Seedling: Seedlings initially have more linear shape but still with prominent veins
- Other: Reproduces by seed

### Management

- Cultural: Maintaining healthy desired vegetation
- Mechanical: Hand pulling, hoeing, mowing will limit seed production
- Biological: None available
- Chemical: Telar (chlorsulfuron), dicamba, Roundup (glyphosate), Escort (metsulfuron)



## Curly dock

*Rumex crispus*

### ID tips

- Flowers small and borne in large clusters, mature seeds are winged and reddish brown
- Leaves are mostly basal with wavy margins, wide and approximately 12" long



### Identification

- Lifecycle: Perennial
- Flower: Flowers small and borne in large clusters
- Leaves: Leaves are mostly basal with wavy margins, wide and approximately 12" long
- Roots: Fibrous roots
- Seedling: Seedlings are small rosettes similar to mature plant
- Other: Seeds and stem turn reddish brown at maturity, reproduces only by seed, clump grows larger with age

### Management

- Cultural: Maintaining healthy desired vegetation
- Mechanical: Hand pulling or mowing will limit seed production
- Biological: None available
- Chemical: 2,4-D, dicamba, Escort (glyphosate)



## Kochia

*Kochia scoparia*

### ID tips

- Inconspicuous flowers
- Leaves grey green color, small, very hairy
- Dried dead plant becomes a tumbleweed



### Identification

- Lifecycle: Annual
- Flower: Inconspicuous
- Leaves: Leaves are small grey green in color with many soft hairs
- Roots: Tap root with fibrous roots
- Seedling: Seedlings look similar to mature plant with smaller leaves and often form a soft grey green mat in the spring
- Other: Reproduces by seed, plant can get to 6' tall and will become a tumbleweed

### Management

- Cultural: Maintaining healthy desired vegetation
- Mechanical: Hand pulling, hoeing, mowing will limit seed production
- Biological: None available
- Chemical: Dicamba, fluroxypyr, Roundup (glyphosate)



## Netseed lambsquarter

*Chenopodium berlandieri*

### ID tips

- Leaves alternate and greyish green and may appear mealy
- Stems may be striped with pink or purple



### Identification

- Lifecycle: Annual
- Flower: Inconspicuous small greenish gray flowers in leaf axils
- Leaves: Leaves are greyish green, may appear mealy, alternate and ovate
- Roots: Tap root
- Seedling: Seedlings look similar to mature, leaves may be pinkish red color
- Other: Reproduces by seed, may reach 4' tall with many branches

### Management

- Cultural: Maintaining healthy desired vegetation
- Mechanical: Hand pulling, hoeing, mowing will limit seed production
- Biological: None available
- Chemical: 2,4-D, dicamba, Roundup (glyphosate)



## Prickly lettuce

*Lactuca serriola*

### ID tips

- Small yellow daisy like flowers
- Leaves are linear deeply lobed with spines on the underside white midrib



### Identification

- Lifecycle: Annual or biennial
- Flower: Small daisy like yellow flowers with only ray flowers
- Leaves: Leaves are linear deeply lobed with spines on the underside white midrib
- Roots: Tap root
- Seedling: Seedling leaves are ovate with slight lobing
- Other: Reproduces by seed, stems and leaves exude a milky liquid when broken

### Management

- Cultural: Maintaining healthy desired vegetation
- Mechanical: Hand pulling, hoeing, mowing will limit seed production
- Biological: None available
- Chemical: 2,4-D, dicamba, Roundup (glyphosate), Escort (metsulfuron)



## Horseweed

*Conyza canadensis*

### ID tips

- Single stem with alternate hairy leaves, lower leaves are spatulate while upper leaves are linear shaped
- Flowers are small, inconspicuous, white and yellow



### Identification

- Lifecycle: Annual
- Flower: Flowers are small, inconspicuous, white and yellow that are located at the stem terminals
- Leaves: Single stem with alternate hairy leaves, lower leaves are spatulate while upper leaves are linear shaped
- Roots: Tap root
- Seedling: Seedlings are rosettes with hairy, more spatulate shaped leaves
- Other: Reproduces by seed

### Management

- Cultural: Maintaining healthy desired vegetation
- Mechanical: Hand pulling, hoeing, mowing will limit seed production
- Biological: None available
- Chemical: 2,4-D, dicamba, Roundup (glyphosate)