



Identification and Management of

# **Knapweeds** in Colorado

Larimer County Department of Natural Resources

3rd Edition

## Actual Scale



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Thank you to the following people for reviewing this guide:  
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Dichotomous key created by Renee Galeano-Popp

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Third Edition

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## About This Guide

This guide should give you the upper hand in managing invasive knapweeds, whether you're a private landowner or public land manager. It was developed with the layperson in mind, so you can effectively identify and manage invasive knapweeds. While control measures are provided, contact your local weed management agency for techniques specific to your area.

Each species of knapweed is presented with the following:

- Common and scientific names
- Colorado noxious weed status (List A, B or C)
- Photos of a flower and other key identifiable characteristics
- Identification descriptions during different growth stages
- Management strategies (biological, mechanical and chemical)
- Distribution map of the weed in Colorado, plus where it is known to exist in Larimer County, Colorado, and adjacent states

The guide continues with a look-alike section of plants that are commonly mistaken for knapweeds, organized by the flower's color. For the more adventuresome, a dichotomous key to help identify knapweeds in Colorado follows. The guide concludes with tables of herbicide recommendations for knapweed control, a glossary of terms and information about Larimer County Weed District services.

### A Few Notes About This Guide

- Scientific names in this guide follow the Integrated Taxonomic Information System and are current as of the printing of this guide.
- See the Glossary for definitions of List A, B and C in Colorado.
- Many of the photos in this guide were acquired from the Weed Images database at [www.bugwood.org](http://www.bugwood.org), provided by the University of Georgia Center for Invasive Species and Ecosystem Health and the Weed Science Society of America. Thank you to these organizations for providing photos!
- Herbicide recommendations are given with product names. These are not endorsements of these products. Other products with the same active ingredient may be available.
- For more detailed information on knapweed locations in Colorado, visit [www.colorado.gov](http://www.colorado.gov) and search for "noxious weed mapping".

## The Label Is the Law!

This guide is not intended as a substitute for an herbicide's product label. **Always read and understand the label.** The user of any herbicide is liable for all aspects of handling the product, including mixing, loading, applying, controlling spills and disposing of it. Protect yourself and the environment by being safe and cautious while using herbicides.

## Introduction

Knapweeds are from the Northern Hemisphere and were introduced to North America from Europe and Asia. Similar climates and habitats as the western United States exist where knapweeds originated. However, here in the U.S., knapweeds from Europe and Asia lack the insects, viruses, fungi and other natural controls that keep their populations in check. Here, they are free to establish monocultures and choke out desirable, native or other beneficial species.

Across the western U.S., these exotic species can have negative impacts on rangelands, rights-of-way, recreation areas and other lands. Several knapweeds have established populations in Colorado, including diffuse, spotted and Russian knapweeds in Larimer County.



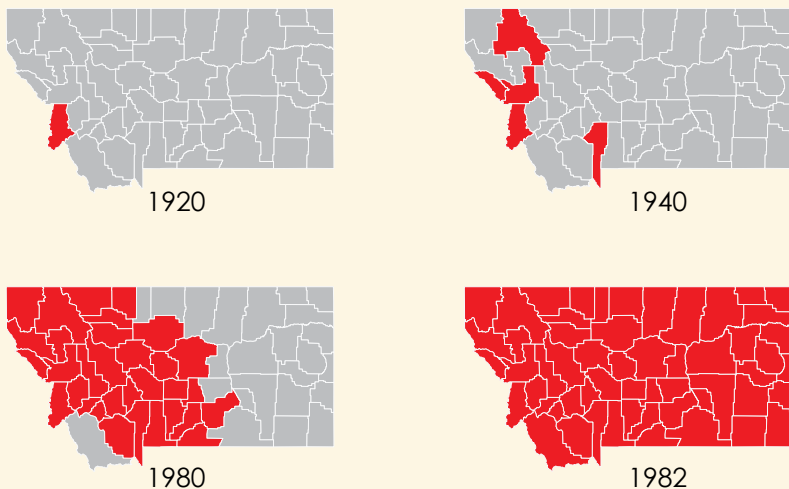
*Russian knapweed completely covers this field, creating a monoculture and rendering the field useless for grazing.*

Knapweeds are members of the sunflower/daisy family, *Asteraceae*. They are in the same family as thistles. Knapweeds found in North America are members of the genus *Centaurea* with the one exception of Russian knapweed (*Acroptilon repens*), which was separated from the others in 1995. In addition to the knapweeds presented in this guide, three more *Centaurea* species exist in Colorado. However, they are not considered to be of management concern at this time.

### Why the Concern with Knapweeds?

Knapweeds have resulted in severe economic and environmental impacts in many Western states. Spotted knapweed is established in every county in Washington, Idaho, Montana and Wyoming, and yellow starthistle has infested many millions of acres in California. Costs to control knapweed exceed tens of millions of dollars annually in the U.S. Russian knapweed and yellow starthistle contain toxins that are poisonous to livestock, especially horses, and diffuse knapweed forms a tumbleweed, causing problems on downwind structures.

### Spread of Spotted Knapweed in Montana



Spotted knapweed first appeared near Missoula, Montana, before 1925. By 1982, it existed in every county in Montana. Information in this diagram is courtesy of Montana State University Extension.

### Prevention

The most cost-effective way to manage any noxious weed, including knapweed, is to prevent it from establishing in the first place. The key to prevention is to stop the spread of seeds.

- Do not drive vehicles through infested areas.
- Do not graze livestock during flowering and seeding of weeds.
- Always use certified weed-free hay.
- Avoid moving stock from muddy, weed-infested fields to non-infested areas. Seeds clinging to muddy hooves and hides will spread.
- Detect and eradicate new weed infestations early. Minimize soil disturbance and control neighboring infestations quickly, before they become established.
- Overgrazing should be avoided. Any bare ground should be re-seeded to promote desirable vegetation.



One tumbleweed caught under a vehicle can contain 2,000 seeds.



Technicians with Larimer County spray noxious weeds at Horsetooth Mountain Open Space west of Fort Collins, Colorado.

## Management

Since most knapweeds reproduce primarily by seed, the key to successful management is to prevent seed production using the management practices below. These practices are seldom successful on their own. Often, it is best to use an integrated approach that combines techniques.

**Biological:** Fair results can occur using insects that attack specific weed species. The effects of these insects in suppressing infestations are more pronounced during drought or other stresses on the weeds. Insect releases are preferred in areas with large infestations that are difficult to access using other management techniques. Insects and other biological agents can be used to suppress or minimize infestations but will not eradicate them. Therefore, insects and other bio-control agents are not appropriate for List A weeds marked for eradication, or small infestations detected early enough to eradicate. Grazing, another method of bio-control, is mostly ineffective to reduce knapweed infestations. Livestock generally find knapweeds distasteful, and some of them are poisonous. For more information on insects and other bio-control agents, visit [www.colorado.gov](http://www.colorado.gov) and search for “biocontrol”.



*The lesser knapweed flower weevil (Larinus minutus) can be an effective bio-control for knapweeds.*

**Mechanical:** Hand-pulling can be effective. The top 3-5 inches of the taproot should be removed, or re-growth can occur. If plants have started to flower, it is important to bag and dispose of plants to prevent seed dispersal. Knapweeds can irritate the skin. If pulling knapweeds, wearing leather gloves and a long-sleeved shirt is recommended. Russian knapweed is the exception, since it is impossible to pull all the rhizomes (underground stems), which



*Hand-pulling weeds can be effective for controlling most knapweeds.*

will re-sprout. Mowing multiple times before or when plants start to flower can reduce seed production and stress the weeds. However, mowing will only suppress them and is not effective for eradication.

**Chemical:** Many factors should be considered when applying herbicides. Timing and growth stage of the plant are highly important. If the area to be sprayed is grazed, limitations on herbicide use may exist. Certain herbicides can cause damage to desirable grasses and forbs. Some herbicides have a residual effect that can hamper re-seeding. Please see Tables 1 and 2 on pages 26 and 27 for herbicide recommendations, or contact your local weed agency.



*Know what herbicides work best to control knapweeds in your area.*

**Cultural:** Establishing desirable, competitive vegetation can prevent or slow down invasion by noxious weeds. This can be accomplished through various methods, such as irrigation, change in grazing practices or application of a selective herbicide. In cases of widespread disturbance, seeding desirable vegetation is necessary.



*Hydroseeding can establish desirable plants and prevent knapweeds.*

### Know How Knapweeds Reproduce

Understanding how a weed species reproduces is critical to managing an infestation of it. For annual weeds and those that reproduce only by seed, it is important to control them before the weeds flower and set seed. It may take several years to exhaust a seedbank, so managing an infestation over subsequent years is necessary. For long-lived perennials that can reproduce by rhizomes, such as Russian knapweed, other strategies are needed. Generally, the most efficient solution is herbicide, which can move through the plant and kill below-ground rhizomes.

# Diffuse knapweed

(*Centaurea diffusa*)

**LIST B** Noxious Weed in Colorado



© Casey Cisneros



© Casey Cisneros



© Casey Cisneros

## Diffuse knapweed

Diffuse knapweed is a winter hardy biennial that reproduces only by seed. It thrives in disturbed areas, rights-of-way and overgrazed rangelands and may have allelopathic properties.

### Identification

- First-year rosette is low lying with finely divided leaves.
- Buds are urn-shaped at the ends of branches with rigid spines forming comb-like bracts.
- Flowers are typically white but can be pink-to-purple, appearing in July and August.
- Plant grows to 3 feet tall usually into a ball shape that breaks off to form a tumbleweed.

### Management

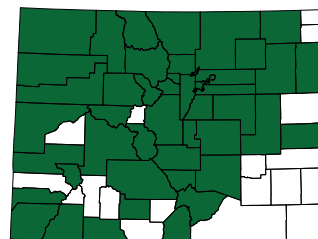
**Biological:** Fair control can be achieved with a seed head weevil (*Larinus minutus*) and root weevils (*Cyphocleonus achates* and *Sphenoptera jugoslavica*). Grazing can suppress infestations.

**Mechanical:** Hand-pulling is effective, as long as plants with seed heads are bagged and disposed. Diffuse knapweed can cause a rash on skin, so wear gloves. Mowing can reduce seed production and spread but serves only to suppress the infestation. Mowed plants can still produce flowers.

**Chemical:** See Table 1 on page 26 for herbicide recommendations.

### Distribution

Diffuse knapweed is found across Colorado, primarily along the Front Range and east to Limon. In Larimer County, it's found mostly in the southeast part of the county, Estes Park, Red Feather Lakes, Pinewood Springs and U.S. Highway 287 north of Fort Collins to the Wyoming border.



■ Weed known to exist in county

Weed distribution data courtesy of the Colorado Department of Agriculture

# Spotted knapweed

(*Centaurea stoebe*)

**LIST B** Noxious Weed in Colorado



© Casey Cisneros



© Casey Cisneros



© Tim D'Amico

## Spotted knapweed

Spotted knapweed is a short-lived perennial with a taproot that reproduces primarily by seed. It thrives in disturbed and overgrazed sites with dry-to-moist soils and has allelopathic properties. Spotted knapweed is often found with diffuse knapweed, and hybrids of the two can form.

### Identification

- Seedling rosette is low lying with finely divided leaves.
- Buds are urn-shaped at the ends of branches with black spots on the bracts, without the long, rigid spines of diffuse knapweed.
- Flowers are pink-to-purple and rarely white, appearing June through October.
- Leaves are coarse like sandpaper.
- Plant grows up to 4 feet tall, erect and branching toward the upper half.

### Management

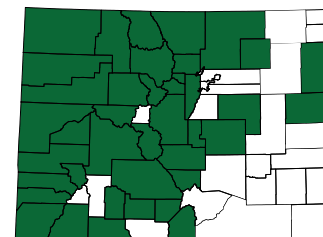
**Biological:** Fair control can be achieved with a seed head weevil (*Larinus minutus*) and root weevils (*Cyphocleonus achates* and *Sphenoptera jugoslavica*). Grazing is less effective than mowing.

**Mechanical:** Hand-pulling is effective, as long as seed heads are bagged and disposed. Roots should be removed to prevent plants from re-sprouting. Mowing can reduce seed production and spread but serves only to suppress the infestation.

**Chemical:** See Table 1 on page 26 for herbicide recommendations.

### Distribution

Spotted knapweed is scattered across Colorado and found along I-70 through the mountains. In Larimer County, it's found in Estes Park, Red Feather Lakes and U.S. Highway 287 north of Fort Collins to the Wyoming border.



■ Weed known to exist in county

Weed distribution data courtesy of the Colorado Department of Agriculture

# Russian knapweed

(*Acroptilon repens*)

**LIST B** Noxious Weed in Colorado



## Russian knapweed

Russian knapweed is a perennial that spreads by rhizomes (underground stems) and seed. It thrives nearly anywhere but prefers moist soils. Russian knapweed has allelopathic properties, and hybrids can form with spotted knapweed. It is poisonous to horses and one of the most difficult perennial weeds to control.

### Identification

- Root is black and scaly, with new plants emerging from the root system.
- Buds are urn-shaped at the ends of branches with papery bracts.
- Flowers are pink-to-purple but can be white, appearing June through August.
- Lower leaves are lobed, and upper leaves are entire.
- Plant grows up to 3 feet tall, with stiff short hairs on the stem.

### Management

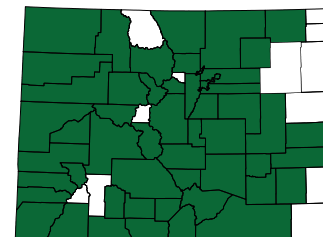
**Biological:** Currently, there are no biological controls for Russian knapweed. Grazing animals generally avoid Russian knapweed because of its bitter taste.

**Mechanical:** Hand-pulling and mowing reduce seed production and stress the plant, but they are not effective long-term management tools.

**Chemical:** See Table 2 on page 27 for herbicide recommendations.

### Distribution

Russian knapweed is scattered across Colorado, especially prevalent in the San Luis Valley and southern Colorado. It's found across Larimer County, with most occurrences in the eastern part of the county below 6,000 feet in elevation.



■ Weed known to exist in county

Weed distribution data courtesy of the Colorado Department of Agriculture



# Meadow knapweed

(*Centaurea x moncktonii*)

**LIST A** Noxious Weed in Colorado



© John Cardina



© Great Smoky Mountains National Park



© Routt County

## Meadow knapweed

Meadow knapweed is a perennial with a woody crown that reproduces mainly by seed. It thrives in moist pastures, riversides and riparian areas. Meadow knapweed is one of the most difficult perennial weeds to control. Because it is a List A noxious weed in Colorado, report any suspected sightings to your local weed coordinator.

### Identification

- Buds are urn-shaped, round and robust at the ends of branches with bracts that are brown or copper, appearing metallic, with papery fringed margins.
- Flowers are rose-to-purple and rounder than other knapweeds, appearing July through November.
- Lower leaves are lobed, and upper leaves are linear and 6 inches long.
- Plant grows to 20-40 inches tall.

### Management

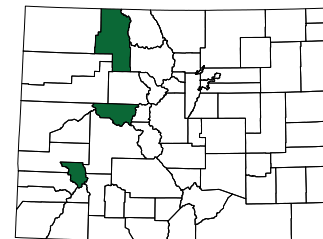
**Biological:** Bio-controls are not an appropriate method of eradication for List A noxious weeds in Colorado.

**Mechanical:** Hand-pulling at least 6 inches of the root can be effective for small populations, as long as plants are bagged and disposed.

**Chemical:** See Table 1 on page 26 for herbicide recommendations.

### Distribution

Meadow knapweed is only found in Colorado in a few known isolated sites in Pitkin and Routt counties. It is not known to exist in Larimer County.



■ Weed known to exist in county

Weed distribution data courtesy of the Colorado Department of Agriculture

# Squarrose knapweed

(*Centaurea virgata*)

**LIST A** Noxious Weed in Colorado



© Steve Dewey



© USDA Agricultural Research Service



© Steve Dewey

# Squarrose knapweed

Squarrose knapweed is a long-lived perennial with a taproot that reproduces mainly by seed. It thrives in disturbed sites and overgrazed rangelands and closely resembles diffuse knapweed. Because squarrose knapweed is a List A noxious weed in Colorado, report any suspected sightings to your local weed coordinator.

## Identification

- Seedling rosette has deeply dissected leaves.
- Buds are slender and urn-shaped, single or paired at the ends of branches, with spiny bracts that re-curve or spread out, differing from diffuse knapweed.
- Flowers are rose-to-pink and smaller than other knapweeds, appearing July through September.
- Lower leaves are deeply dissected, and upper leaves are bract-like.
- Plant grows to 1-3 feet tall, breaking off in the fall to form a tumbleweed.

## Management

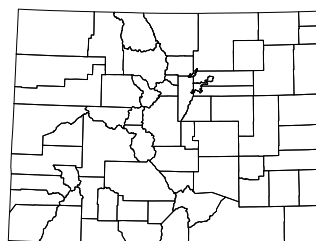
**Biological:** Bio-controls are not an appropriate method of eradication for List A noxious weeds in Colorado.

**Mechanical:** Hand-pulling at least 8 inches of the taproot can be effective for small populations, as long as plants are bagged and disposed.

**Chemical:** See Table 1 on page 26 for herbicide recommendations.

## Distribution

Squarrose knapweed is not known to exist in Colorado but can be found in Utah and Wyoming.



■ Weed known to exist in county

Weed distribution data courtesy of the Colorado Department of Agriculture

# Yellow starthistle

(*Centaurea solstitialis*)

**LIST A** Noxious Weed in Colorado



© Mary Ellen (Mel) Harte



© Joseph M. DiTommaso



© Steve Dawey

## Yellow starthistle

Yellow starthistle is a winter hardy annual that reproduces only by seed. It thrives nearly anywhere but does not tolerate shaded areas. Yellow starthistle is poisonous to horses. Because it is a List A noxious weed in Colorado, report any suspected sightings to your local weed coordinator.

### Identification

- Seedling rosette has deeply lobed leaves.
- Buds are urn-shaped at the ends of branches with hard, sharp spines.
- Flowers are yellow and dandelion-like, appearing July through October.
- Leaves on a flowering plant are bract-like.
- Plant grows to 3-24 inches tall, with a winged stem and gray-green color.

### Management

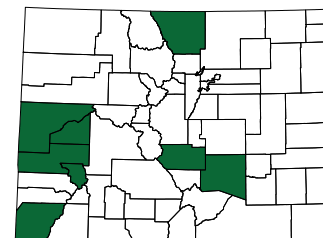
**Biological:** Bio-controls are not an appropriate method of eradication for List A noxious weeds in Colorado.

**Mechanical:** Hand-pulling can be effective for small infestations, as long as flowering plants are bagged and disposed.

**Chemical:** See Table 1 on page 26 for herbicide recommendations.

### Distribution

Yellow starthistle exists across Colorado in isolated patches. In Larimer County, an infestation west of Berthoud is nearly eradicated. Widespread, large infestations of yellow starthistle exist in many Western states.



■ Weed known to exist in county

Weed distribution data courtesy of the Colorado Department of Agriculture

# Purple starthistle

(*Centaurea calcitrapa*)

Not Listed in Colorado

Purple starthistle is a biennial that reproduces only by seed. Report any suspected sightings to your local weed coordinator.

## Identification

- Rosette has deeply lobed leaves, and older rosette has a circle of spines in the center.
- Bracts have 1-inch, straw-colored spines.
- Flowers are lavender-to-deep purple and 1 inch tall.
- Plant grows to 1-4 feet tall, densely and rigidly branched with a stout taproot and young stems and leaves with cobweb-like hairs.

## Distribution

Purple starthistle is not known to exist in Colorado but can be found in Utah, Arizona and New Mexico. It is more prevalent along the West Coast.



# Iberian starthistle

(*Centaurea iberica*)

Not Listed in Colorado

Iberian starthistle is a biennial that reproduces only by seed. Report any suspected sightings to your local weed coordinator.

## Identification

- Rosette has deeply lobed leaves, and older rosette has a circle of spines in the center.
- Bracts have 1-inch, straw-colored spines.
- Flowers are lighter purple than purple starthistle and 1 inch tall, with flower heads that are more rounded.
- Plant grows to 1-4 feet tall, densely and rigidly branched with a stout taproot and young stems and leaves with cobweb-like hairs.

## Distribution

Iberian starthistle is not known to exist in Colorado but can be found in Wyoming and Kansas. It is more prevalent along the West Coast.



# Purple Flower Look-Alikes

These plants may be mistaken for spotted, Russian, meadow, diffuse and squarrose knapweeds, or purple and Iberian starthistles.



**Common burdock** is a List C noxious weed with large, fleshy leaves.



**Asters** are native plants, and certain asters have large, showy flowers.



**Canada thistle** is a List B noxious weed with spines on the leaves and stems.



**Bachelor's button** is an ornamental plant closely related to noxious knapweeds.



**Common teasel** is a List B noxious weed with large buds that grows up to 8 feet tall.



**Common crupina** is a List A noxious weed not known to exist in Colorado.

# White Flower Look-Alikes

These plants may be mistaken for diffuse knapweed.



**Horseweed** is an introduced, sometimes invasive plant with many flowers at the end of each branch.



**False boneset** is a native plant that does not have sharp spines on its buds.



**Canada thistle** is a List B noxious weed that normally has pink-to-purple flowers but occasionally forms white flowers, with spines on the leaves and stems.

# Yellow Flower Look-Alikes

These plants may be mistaken for yellow starthistle.



**Curlycup gumweed** is a native plant with rubbery leaves, gum-like sap and spines that are not sharp.



**Salsify** is an introduced, sometimes invasive plant that does not branch and has sepals that are not sharp.



**Common groundsel** is a troublesome plant that is fleshier without bract-like leaves.



**Broom snakeweed** is a native plant that forms a woody bush.



**Sow thistle** is a List C noxious weed that lacks spines on the involucre.

## Dichotomous Key

1A.	No spines on the bracts subtending the flower head, bracts papery with purple flowers	<i>Acroptilon repens</i>
1B.	Spines present on the bracts subtending the flower head	2
2A.	Flowers bright or deep yellow	3
2B.	Flowers not bright or deep yellow	4
3A.	Fringed brown bracts, leaves 10-30 cm long and mostly entire not toothed or divided	<i>Centaurea macrocephala</i>
3B.	Flowers deep yellow, bracts with hard, sharp, straight spines ½ -1¼ inch long	<i>C. solstitialis</i>
4A.	Flowers white, cream colored to pale yellow, leaves divided and bracts with short, comb-like spines on each side	<i>C. diffusa</i>
4B.	Flowers blue, rose or purple	5
5A.	Flowers mainly blue	6
5B.	Flowers not mainly blue	7
6A.	Usually only one flower head per stem, leaves entire, flowers blue to purplish	<i>C. montana</i>
6B.	Multiple flower heads per stem, blue flowers, escape from gardens	<i>C. cyanus</i>
7A.	Flowers purple or rose colored with straight 1-inch spines on the bracts	8
7B.	Purple flowers lacking straight 1-inch spines on the bracts subtending the flower head	9
8A.	Rose colored to very light purple flowers with straight, 1-inch spines and a narrow flower head	<i>C. calcitrapa</i>
8B.	Flowers light purple with straight, 1-inch spines	<i>C. iberica</i>
9.	Rose to purple flowers with distinctive bracts	10
10A.	Purple flowers with a single black spot on the subtending bracts	<i>C. stoebe</i>
10B.	Purple flowers with comb-like bracts similar to <i>C. diffusa</i> except the bracts re-curve	<i>C. virgata</i>
10C.	Purple flowers with brown tipped bracts and papery fringed margins	<i>C. x moncktonii</i> (This is a hybrid between <i>C. jacea</i> and <i>C. nigra</i> . Although <i>C. jacea</i> is not included in this guide, it is in Colorado and is hard to distinguish from <i>C. x moncktonii</i> .)

# Herbicide Tables

## Table 1

Herbicides to control diffuse knapweed, spotted knapweed, meadow knapweed, squarrose knapweed and yellow starthistle

***Prior to purchasing herbicide, read and understand the product label.***

Common name	Brand name	Rate (per acre)	Comments
Aminocyclopyrachlor	Method 240SL	8-18 oz	This herbicide is not labeled for use in range and pasture with livestock present.
Aminopyralid	Milestone	5-7 oz, or 8-14 oz if spot spraying	Higher rates have demonstrated enhanced efficacy on mature plants.
Clopyralid	Transline	5-21 oz	As of 2018, this herbicide is labeled for use in tree plantations.
Clopyralid+Triclopyr	Prescott	24-32 oz	Optimal treatment time is mid-bolt.
Picloram	Tordon 22K, Picloram 22K	16-32 oz	"Restricted Use" pesticide in Colorado. State pesticide license is required to purchase this herbicide.

The target life stages for applying these herbicides to the knapweeds listed above the table are rosette to bud forming or fall rosettes.

Tank mixes with 2,4-D or compound herbicides, such as Prescott, may save money and reduce grass injury that can result from a higher use rate of a single herbicide. However, this may result in increased injury to desirable vegetation. For the most appropriate herbicide recommendations, check with your local weed management agency or university extension program.

## Table 2

Herbicides to control Russian knapweed

***Prior to purchasing herbicide, read and understand the product label.***

Common name	Brand name	Rate (per acre)	Comments
Aminocyclopyrachlor	Method 240SL	8-18 oz	This herbicide is not labeled for use in range and pasture with livestock present.
Aminopyralid	Milestone	7 oz, or 8-14 oz if spot spraying	Higher rates have demonstrated enhanced efficacy on mature plants.
Clopyralid	Transline	16-21 oz	As of 2018, this herbicide is labeled for use in tree plantations.
Picloram	Tordon 22K, Picloram 22K	32-64 oz	"Restricted Use" pesticide in Colorado. State pesticide license is required to purchase this herbicide.

The target life stages for applying these herbicides to Russian knapweed are rosette to bud forming or late fall during dormancy.

## Glossary

**Allelopathic** - the inhibition of growth in one plant species by chemicals produced by another

**Annual** - a plant that completes its life cycle in one growing season; reproduction is generally by seed

**Biennial** - a plant that requires two growing seasons to complete its life cycle; reproduction is by seed

**Bract** - a small leaf-like structure below the flower on the bud or involucre

**Bud** - a small lateral or terminal protuberance on the stem of a plant that may develop into a flower, leaf or shoot

**Floret** - a small, individual flower within a cluster of flowers

**Hybrid** - the offspring of two plants or animals of different breeds, varieties, species or genera

**Involucre** - a circle or cluster of bracts at the base of the flower head; the shape and size of the involucre or bud is often an identifying feature

**Monoculture** - an area dominated by one plant species

**Noxious weed** - a plant species designated by regulation for suppression or eradication because of the threat it poses to the environment, economy or human health

**List A** - Colorado requires mandatory eradication.

**List B** - Eradication is not feasible statewide, but the species may be possible to eradicate locally. If eradication is not feasible, then the species must be suppressed and stopped from spreading onto adjacent lands.

**List C** - Management is recommended by the state but not required unless designated a noxious weed by local land managers.

**Ornamental** - a plant used in landscaping with desirable traits, such as flower color, drought tolerance or unusual foliage

**Perennial** - a plant that lives three or more years

**Restricted Use** - an herbicide that requires a special license to purchase and use

**Rhizome** - an underground stem, usually lateral, sending out shoots above ground and roots below

**Riparian** - areas that normally have moist to wet soils, such as transitional zones between aquatic ecosystems and uplands

**Rosette** - a somewhat round, flattened cluster of leaves, typical of the early growth stage of many biennial plant species

**Taproot** - a primary root that grows vertically downward and gives off small lateral roots

### Typical Flower Head for *Centaurea* Plants



**Florets** are individual flowers grouped to appear as one flower. The **involucre** appears like a flower bud and can take on the shape of a cup, urn or basket. **Bracts** can be smooth, fringed, papery or spiny.



## Larimer County Weed District Services

The Larimer County Weed District is part of the county's Land Stewardship Program, which strives to minimize the occurrence of weeds and associated negative impacts on native plant communities, agricultural lands and public corridors in Larimer County, Colorado. The district provides a variety of services to help you manage plants on your property.

**Site Visits:** Staff can visit your property to identify plants and tree pests and provide treatment recommendations using best management practices.

**Cost-Share Program:** If you live within the Weed District boundary, you can receive reimbursements to reduce the cost of herbicides and mowing.

**Herbicide Sales:** Buy herbicides for range, pasture and natural areas at the Weed District Office. This service is available to all Larimer County residents.

**Do Not Spray Requests:** Request that Larimer County not spray the roadside adjacent to your property with pesticides. You must submit your request annually.

**Request a Speaker:** Staff is available to present on vegetation management to classes, clubs, home owners associations and other groups. Call (970) 498-5768 to schedule a presentation.

### Visit [larimer.org/weeds](http://larimer.org/weeds) for:

- Suggestions on weed control
- Weed District boundary
- Lists of applicators, consultants, mowers and seed companies
- State noxious weed lists
- Help identifying a weed
- Reporting an insect or plant pest
- More info on services

## Notes





## **Larimer County Weed District**

2649 E. Mulberry St., Suite 6  
Fort Collins, CO 80524

(970) 498-5768  
[larimer.org/weeds](http://larimer.org/weeds)