

Russian knapweed

Colorado Dept. of
Agriculture
Conservation
Services Division
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Key ID Points

1. Russian knapweed can be distinguished from other knapweeds by the pointed papery tips of the floral bracts.
2. The roots are dark brown and have scale leaves.

Russian knapweed Identification and Management



Identification and Impacts

Russian knapweed (*Acroptilon repens*) is a non-native deep-rooted perennial that spreads by aggressive, creeping, horizontal roots (rhizomes) and seeds. The roots are black with a scaly appearance. Russian knapweed can grow up to 3 feet in height. The stems and leaves are covered with short, stiff hairs. The flowers are urn-shaped, pink to purple in color, and are solitary at the tips of the upper branches. Russian knapweed can be distinguished from other knapweeds by the pointed papery tips of the rounded bracts that surround the flowers. Russian knapweed emerges in early spring after soil temperatures remain above freezing. It produces flowers from June to August and sets seed in late summer to early fall. Russian knapweed reproduces primarily from its root system. Buds on the horizontal roots can form adventitious shoots that can grow to be independent plants.

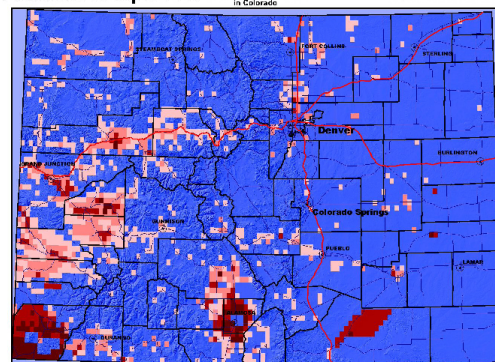
Russian knapweed is allelopathic, which means it contains a toxic substance that inhibits the growth of competing plants. This weed may also be toxic to horses resulting in serious injury or possibly death of the animal. Russian knapweed displaces native vegetation and reduces forage values on range and pasturelands.

Habitats for Russian knapweed includes many land types, from roadsides, ditch banks, riparian zones, pastures, irrigated cropland, clear cuts, and cropland.

The most effective method of control for Russian knapweed is to prevent its establishment through proper land management. Maintain healthy pastures and rangeland and continually monitor your property for new infestations. If Russian knapweed is already established, using an integrated weed management approach proves to be effective. Russian knapweed can be managed with herbicides or insects, but long-term control must include planting competitive plant species to occupy bare ground once infested by the weed. Details on the back of this sheet can help to create a management plan compatible with your site ecology.

Russian knapweed is designated as a "List B" species on the Colorado Noxious Weed Act. It is required to be either eradicated, contained, or suppressed depending on the local infestations. For more information, visit www.colorado.gov/ag/csd and click on the Noxious Weed Program link or call the State Weed Coordinator at the Colorado Department of Agriculture, Conservation Services Division, 303-239-4100.

Russian knapweed 2002 Quarterquad Survey Distribution and Abundance in Colorado 118,341+ infested acres



Distribution Legend: 0-10 acres, 11-50 acres, 51-100 acres, 101+ acres. Acreage estimates supplied by County Weed Supervisors and compiled by Colorado Department of Agriculture and Colorado State University.

Bracts photo at left, © Steve Dewey, Invasive.org. Infestation map above, Crystal Andrews, Colorado Department of Agriculture. All other photos © Kelly Uhing.

Acroptilon repens

**CULTURAL**

Establishment of selected grasses can be an effective cultural control of Russian knapweed. Contact your local Natural Resources Conservation Service for seed mix recommendations. Maintain healthy pastures and prevent bare spots caused by overgrazing. Bareground is prime habitat for weed invasions.

**BIOLOGICAL**

A gall forming nematode, *Subanguina picridis*, is currently being monitored for effectiveness but is not yet available to the public. For more information, contact the Palisade Insectary of the Colorado Department of Agriculture, 970-464-7916.

**MECHANICAL**

Mowing several times before the plants bolt stresses Russian knapweed and forces them to use nutrient reserves stored in the root system. Combining mowing with herbicides will further enhance control of this weed. Mow repeatedly during the summer, then apply a herbicide in the fall.

Integrated Weed Management:

The most effective control for Russian knapweed is to prevent its establishment through proper land management. An integrated weed management approach can be effective when dealing with Russian knapweed. It can be managed with herbicides or insects, but long-term control must include planting competitive plant species to occupy bare ground once infested by the weed.

HERBICIDES

The following are recommendations for herbicides that can be applied to range and pasturelands. Always read, understand, and follow the label directions. Rates are approximate and based on equipment with an output of 30 gallons per acre. Please read label for exact rates. **The herbicide label is the LAW!**

HERBICIDE	RATE	APPLICATION TIMING
Aminopyralid (Milestone)	4-6 ounces/acre	Apply in the spring and summer to plants in the bud and flowering stage and to dormant plants in the fall. Add non-ionic surfactant @ 0.32oz/gal water or 1 qt/100 gal water.
Picloram (Tordon 22K *this is a Restricted Use Pesticide*)	1 qt./acre or 1 oz/gal water	Apply in spring to bud/early flower stage and/or fall rosette. Add non-ionic surfactant @ 0.32oz/gal water or 1qt/100 gal water.
Chlorsulfuron (Telar)	1-3 oz/acre or 2 grams/3 gallons of water	Apply in spring from pre-bloom to bloom and to fall rosettes. Add non-ionic surfactant @ 0.32oz/gal water or 1qt/100 gal water.

Nematode photo © Tony Ceasar, Invasive.org. All other photos © Kelly Uhing.

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