

Knapweed Fact Sheet

Russian and Squarrose Knapweed

Asteraceae Family

Russian knapweed (*Acroptilon repens*)



Steve Dewey, USU University, Bugwood.org



(c)John M Randall/The Nature Conservancy

Squarrose knapweed (*Centaurea virgata*)



Cindy Roche, Bugwood.org



Nathan Belliston/ Utahweed.org

Distinguishing Features:

❶ Flowers:

- Russian knapweed: Flowers are pink or purple colored. Bracts have papery tips.
- Squarrose knapweed: Flowers are pink or purple colored. Spiny bracts having a long, recurved (backward pointing) terminal spine.

❷ **Seeds:** Seeds can remain viable up to eight years. Seeds below depths of one and a half inches will not germinate until the soil is disturbed.

❸ **Leaves:** Generally deeply lobed and sparse along the stem.

❹ **Roots:** Russian knapweed roots are easily recognizable by their black or dark brown color and small buds that develop into adventitious shoots, enabling the plant to spread rapidly and form dense colonies.

❺ **Flowering Time:** June to October depending on species.

❻ Life cycle/ other:

- Russian knapweed: Long lived perennial spreading by creeping roots as well as seeds.
- Squarrose knapweed: Perennial. Limited distribution in Salt Lake County.



Steve Dewey, Utah State University, Bugwood.org



K.G. Beck, Bugwood.org

Russian knapweed plant (top) and new shoots emerging from the roots (below).

Impacts:

- Knapweeds are highly competitive plants that can exclude more desirable plants and form large, dense infestations.
- *Russian knapweed* contains an allelopathic compound which inhibits the growth of competing plants.
- Knapweed invasions cause losses averaging up to 63 percent of available grazing forage.

*Please visit our website for references sourcing this information.

Control:

- The most effective method of control for Russian and squarrose knapweed is to prevent its establishment through proper land management.
- Russian knapweed does not establish readily in healthy, natural habitats.
- For small Russian and squarrose knapweed sites with limited distribution, dig up plants and remove as much root as possible. It is recommended to dig at least 8 inches below the soil surface to avoid resprouting.
- Carefully monitor sites throughout the growing season to remove missed plants. Expect the level of control work to be intensive for the first several years.
- For large infestations, both knapweeds can be treated with an appropriate herbicide for the site. Squarrose knapweed appears to be more difficult than other knapweeds to control using herbicides. Annual treatments for several years will be needed because plants often regrow after chemical application.
- Spraying Curtail® herbicide, which is a mixture of 2,4-D and clopyralid, on dormant plants in the fall has been very effective at controlling Russian knapweed in Utah, but only if it is followed by reseeding during the year following treatment.
- Picloram (Tordon™) has been determined to be the most effective herbicide on Russian knapweed regardless of the time of application. (TNC Species Management Summary, 2005).
- Once the initial infestation has been controlled, native species (i.e. grasses) should be replanted to act as a vegetative suppressant and to actively compete with emerging knapweed plants.
- A variety of biological control agents have been released for control of knapweeds. The biological control agents may reduce seed production and stress the plant, thereby reducing the competitiveness of knapweeds. The effectiveness of biologicals on the whole infestation is minimal unless used in combination with other control methods.
- Mowing alone is not recommended for control. Since the plant has the ability to flower below the mower height, mowing alone will not prevent seed production.



Top and Bottom photos by Steve Dewey, Utah State University, Bugwood.org

A Mormon cricket perches on a squarrose knapweed plant.



Squarrose knapweed in full bloom.

**Please visit our website for references sourcing this information.*



Salt Lake County Weed
Control Program
www.slco.org/weeds/
385-468-4035
noxiousweeds@slco.org