



INVASIVE ALIEN SPECIES

Russian Knapweed

(*Rhaponticum repens* aka *Centaurea repens*, *Acroptilon repens*)

SK Provincial Designation: Noxious

Overview:

Russian knapweed is a long-lived perennial that produces seed, but reproduces primarily by sprouting buds from its spreading root system. Roots are black or dark brown with small, alternate scales – buds sprout from within the scale axils. This sprouting results in dense, cloned patches of plants. Rosettes form in the spring and plants bolt early summer. The roots also exude a substance that inhibits the growth of nearby plants.

Although one of the knapweeds, Russian knapweed has enough differences to be considered another genus by some taxonomists, *Acroptilon repens*.

Russian knapweed contains toxic compounds that can cause “chewing disease” in horses, a neurological disorder. Horses must consume large quantities – more than 50% of its body weight in about 30 days. Only horses are affected and it is fatal once symptoms develop.



ABOVE: Russian knapweed (photo by Steve Dewey, Utah State University, Bugwood.org)



ABOVE: Russian knapweed (photo by Stan Shebs)

Habitat:

Native to Eurasia, it thrives in any soil, but does very well in clay soil. It is intolerant of shade, prolonged drought, and wet sites.

Identification:

Stems: The stems are erect, thin, stiff and branched openly; they can be from .5 to 1 m tall. Young stems are covered with soft, short, gray hairs.

Leaves: Leaves are alternate and oblong to lance shaped. Lower leaves are deeply lobed. Upper leaves are attached directly to the stem with smooth to toothed margins, and become progressively smaller.

Flowers: Urn-shaped pink to purple flowers occur singly at the ends of stems. Bracts are green with papery edges. Flowers become straw-colored at maturity.

Seed: The seeds are oval, flattened, grey to ivory in color, and 2-3 mm long. Seeds have long, white bristles at the tip when young, which fall off at maturity.

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Russian Knapweed (*continued*)

Prevention:

Russian knapweed can be a contaminant in hay.

Control:

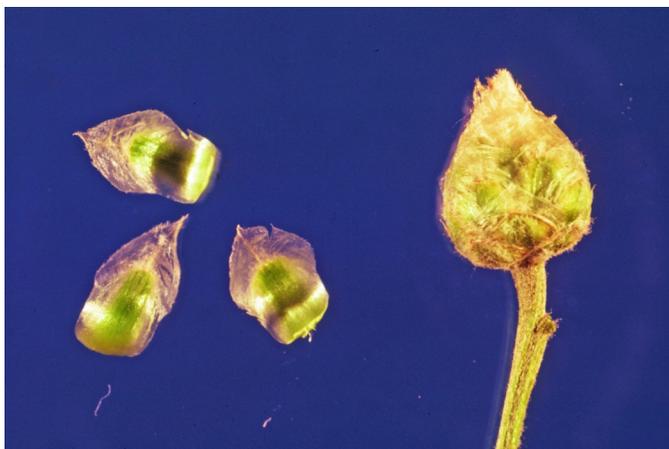
Grazing: Russian knapweed is considered unpalatable, unless suitable forage is lacking (overgrazing).

Cultivation: Cultivation without herbicide use is more likely to spread infestations by distributing root pieces.

Mechanical: Removal of the plant to ground level prevents seed production. Repeated removal can help exhaust root reserves. Bud sprouting does not occur after the plant has bolted.

Chemical:¹ Picloram is considered the most effective, regardless of application time. The herbicides 2,4-D and Clopyralid are also effective. Herbicides accompanied by fertilizing and seeding of competing vegetation will be the most effective. Consult your Regional Forage Specialist, the Agriculture Knowledge Centre 1-866-457-2377 and or the Guide to Crop Protection for more details.

Biological: A gall forming nematode and a rust fungus have been introduced for bio-control.



CLOCKWISE FROM TOP:

1. Russian knapweed flowers
2. Russian knapweed seed head and seeds
3. Russian knapweed plant

All photos on this page by photo by Steve Dewey, Utah State University, Bugwood.org

1. Always follow the product labels. The use of pesticides in any manner not published on the label or registered under the *Minor Use of Pesticides* regulation constitutes an offence under both the *Federal Pest Control Products Act* and the *Pest Control Products Act (Sask)*. Additionally, permits are required by Saskatchewan Environment to apply pesticides in close proximity (<50 meters) to waterways in accordance with *The Environmental Management and Protection Act, 2002*. For the latest information on pesticides for agricultural use in Saskatchewan, please consult the provincial *Guide To Crop Protection*, produced annually by the Saskatchewan Ministry of Agriculture.