

RUSSIAN KNAPWEED

Centaurea repens



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.

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:

The entire plant is covered with greasy hairs and has a thick, fleshy taproot.

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.

Seeds: 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.

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: 2,4-D, Aminopyralid (alone or in a product mix with 2,4-D or Metsulfuron- methyl), Dicamba, MCPA and Picloram are registered for use on Russian knapweed. Always check product labels to ensure the herbicide is registered for use on the target plant in Canada by the Pest Management Regulatory Agency. Always read and follow label directions. Consult your local Agricultural Fieldman or Certified Pesticide Dispenser for more information.

Biological: The biological control agent that has received the most study is the Russian knapweed gall nematode (*Subanguina picridis*). Larval and adult stages of the nematode form galls on plant stems, leaves and root crowns. Infective larvae form galls in the spring and multiply until August; the larvae then disperse into the soil until the next year. *S. picridis* was first introduced into Canada in 1976 (Julien and Griffiths, 1998) but only became established in British Columbia. *Puccinia acroptili* was accidentally introduced into North America (Canada) before 1970¹.



References:

¹<http://www.cabi.org/isc/?compid=5&dsid=2946&loadmodule=datasheet&page=481&site=144>