



NOXIOUS WEEDS

Status: Introduced

RUSSIAN KNAPWEED

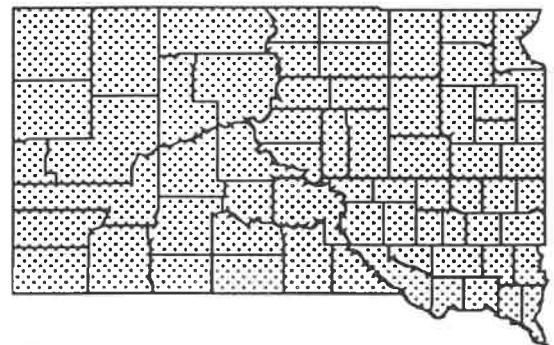
(*Centaurea repens*)

Description

Russian knapweed, also known as Russian cornflower, is a member of the thistle family. It can be identified by the presence of short, white hairs on its stems and leaves and its white to light rose, small flowers. These short white hairs - knap - give the plant its name. Flower heads are $\frac{3}{8}$ to $\frac{1}{2}$ inch (1 to 1.3 cm) across and are born in small clusters on branch tips. Seeds are light, almost straw-colored and shine like fresh, clean wheat straw. They are $\frac{1}{8}$ inch (3.2 mm) long with one rounded and one pointed end. The plants are generally 2 to 3 feet (61 to 91 cm) tall with many branches. The hairy stems are tough, becoming hard and harsh as the plant matures. Russian knapweed has 2 distinct leaf types - upper and lower. The upper leaves are smaller, more narrow and have no lobes. The lower leaves are longer, wider and have indentations along their margins, resembling small dandelion leaves. The stems and leaves of this plant can be distinguished by a distinctive, bitter taste. Two unique characteristics of this species are the pale, egg-shaped flower head bracts and the dark brown, scaly roots. The roots, sometimes called "blackroot," are the most identifiable feature of Russian knapweed.



Distribution



A native of Eurasia, Russian knapweed was probably introduced to North America about 1898 as an alfalfa seed contaminant. Russian knapweed is a relatively new weed to South Dakota and is not widespread. Although this species has infested less than 4,500 acres in the state, it is considered a statewide pest.

Natural History

This creeping *perennial* grows in dense patches that are nearly impossible to walk through and cover the ground so completely that a crop cannot grow among the plants. Russian knapweed emerges earlier than other *noxious weeds* and is usually full-grown in June. This early, rapid, dense growth gives this species a great competitive advantage over spring-planted and low-growing crops. While it will infest alfalfa and native grass, it spreads much more rapidly in cultivated fields.

The extensive root system of Russian knapweed makes this species one of the most difficult to control. One seedling can produce a root system in one season that penetrates 2 feet (61 cm) deep and spreads 2 feet in every direction. In 2 growing seasons, the roots may go down 10 feet (3.1 m) and form a circle 10 to 12 feet (3.1 to 3.7 m) in diameter.

Russian knapweed blooms from June through August. Seeds form from July to September. However, the plant does not

always produce seed. Because the seeds are small and difficult to separate from most small crop seeds, this species is commonly spread as a crop seed and hay contaminant.

Management Considerations

The best control for Russian knapweed is prevention. Stands can be reduced 75 to 90% in a relatively short time using crop practices and chemicals. However, the remaining 10 to 25% are considerably more difficult to kill. Continuing pressure must be exerted from competitive crops, cultivation, and chemicals for 3 to 5 years. Cultivation is necessary every 2 weeks in May through June and every 3 weeks when the plant is growing more slowly in August through October. Crops that can compete with knapweed are sudangrass, soybeans, forage sorghum, and buckwheat. Chemicals should be applied at least 5 feet (1.5 m) beyond the borders of the weed patch.

Glossary

Bract - a modified leaf growing at the base of a flower.

Noxious weed - designation of the State Weed Control Board. These are weeds that are difficult to control once they are established.

Perennial - a plant that lives more than two years.

References

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Technical Reference:

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