



Spotted Knapweed



flower

rosette

seeds

Spotted Knapweed

Genus: Centaurea

Species: stoebe

Priority Listing: 2B

Biennial or **Short-lived perennial**

Spotted knapweed is native to Eastern Europe, and was first introduced into the United States by accident in the late 1800s, either as a contaminant in crop seed or in the soil which accumulates at the bottom of a ship's cargo area. Spotted knapweed occurs in all 56 counties in Montana.

This plant has a root system comprised of a **taproot** as well as **lateral** roots. Some research suggests the root has **allelopathic** properties in that it produces a chemical which acts like a natural herbicide, killing seedlings that grow nearby.

When mowed repetitively this plant can adjust and grow flowers and seeds close to the ground, so spotted knapweed can range from 2" tall to 4' tall depending on management!

Young spotted knapweed plants form a grayish-green **rosette**. After the rosette stage, stems and leaves

are blue-green but can appear to be silver-gray due to the tiny hairs that cover these surfaces.

Pink to purple flowers bloom from June to September. Flowers are surrounded by oval **bracts** that have black tips giving them a 'spotted' appearance.

A single spotted knapweed plant can produce as many as 300 flower heads which are capable of generating 140,000 seeds. The seeds can remain viable for up to 5 years in undisturbed soil. The seeds of this plant are oval, tan, and 1/8" in length; seeds have a short tufted **pappus**.

Spotted knapweed is often considered a 'pioneer plant' which means that it establishes quickly in areas where the soil has been disturbed.

There are 6 biological control insects/agents that are highly recommended for use in Montana.

Allelopathic: the inhibition of growth in one species of plants by chemicals produced by another species

Biennial: a plant that lives two years, usually flowering in the second year

Biological Control Agents: a method of controlling pests (including insects, mites, weeds and plant diseases) using other living organisms

Bracts: a modified leaf that often wraps the base of a flower, these leaves vary in shape and size from the plant's other leaves

Herbicide: a chemical substance used to kill or destroy plants, likely to be used on weeds

Integrated Weed Management Techniques: the combination of multiple management tools to reduce a pest population to an acceptable level while preserving the quality of existing habitat, water, and other natural resources

Lateral: roots forming on the side of a taproot

Pappus: a group of mature flower sepals which have feather or hair-like qualities, such as a dandelion seed

Perennial: a plant whose life spans several years

Rosette: circular clusters of leaves that radiate from a center of a plant, close to the ground, like the dandelion

Taproot: a main single root of a plant, generally growing straight down