Diffuse Knapweed

Centaurea diffusa

FAMILY	*Asteraceae*-daisies & sunflowers	**ORIGIN**	East Mediterranean and Western Asia
LIFE CYCLE	Perennial or biennial	**OTHER NAMES**	White Knapweed, Spreading Knapweed, Tumble Knapweed

QUICK FACTS

- Diffuse Knapweed typically grows **1 to 5 feet** tall. Once it reaches maturity, it grows, spreading branches that give the plant a ball-like appearance while providing it with **tumbleweed-like mobility.**
- Due to this weed's **invasiveness**, it has a tendency to overtake disturbed lands, such as rangelands, open forests, pastures, roadsides, and vacant parking lots, thereby reducing the available space for other plants to grow while **consuming** most of the soil's moisture.
- Since Diffuse Knapweed has spines that stick out from the base of the flower, cattle and wildlife run the risk of **puncturing their mouths and stomachs** when eating them due to the low grazing opportunities where Diffuse Knapweed is abundant.

Due to the aggressive nature of this knapweed species, it tends to infest rangelands and pastures quickly and efficiently. It also increases soil erosion and requires more frequent roadside maintenance, as it often grows along right-of-ways. Due to its rapid growth and reproduction rate, it's becoming increasingly complex to reduce the spread and population of Diffuse Knapweed. Considering that it can regrow from its root system, Diffuse Knapweed appears to be fire-resistant and has regrown in areas that have received fire treatment.

What does it look like?

Diffuse knapweed is a winter-hardy forb that usually grows as a biennial but may at times grow as an annual or short-lived perennial. Plants grow 1–3½ ft (0.3–1 m) tall, often have numerous spreading branches, and are supported by a long taproot. Weeds similar in appearance include spotted knapweed and purple starthistle. The primary difference is that diffuse knapweed has white flowers with petals that point upwards.

Roots: The plant has a deep and fibrous taproot that can grow more than 2.3 feet deep within the first 40 days.

Leaves: Leaves (4–8 in. long) are alternate, often covered with grayish hairs; lower leaves are deeply lobed; upper leaves are linear and entire.

Flowers: Consist of flower heads with white flower petals (sometimes either rose or purple colored). Each flower head is comprised of hundreds of florets. Below the flowers are several straw colored bracts with spiky tips.

Seeds: Each floret produces a single brown seed that has a tuft of soft, bristly hair.

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Impact and Management

Economic

This weed will develop into a monoculture due to its aggressive seed production and rapid vegetative growth. Aside from big game, it can reduce the available forage for domestic livestock and wildlife. Some wildlife will eat the knapweed willingly, but they only consume the rosettes due to the spines below the flowers, as there is a risk of injury to the animal's mouth and stomach lining. Most of the consumption of these weeds (either by domestic livestock or wildlife) occurs during winter and early spring, due to the limited availability of forage from other plant life.

Ecosystem Health

Once established, diffuse knapweed displaces native plants, resulting in loss of diverse plant life as well as any other forageable plants in the area. Due to the weed taking up all the moisture in the surrounding soil, it leaves no room for other plants to thrive. This then makes it harder for any herbivores to find a decent food source, which in turn reduces the predator population within the area as well. As soon as this weed can establish itself, there won't be room for anything else.

Erosion

Diffuse Knapweed significantly increases the risk of soil erosion by outcompeting and displacing native grasses and ground cover. Due to the weed's weaker root structure compared to native grasses, it tends to be shorter, which causes erosion of the top layer of soil at a faster rate because it breaks up the soil more quickly. This leaves it vulnerable to water and wind erosion. The roots of diffuse knapweed release allelopathic biological compounds that reduce the soil's integrity, thereby limiting the amount of resources available to native plant species.

Before attempting to eradicate this weed, long-term goals for land use should be set. Without a plan for effective revegetation, spotted knapweed, being a pioneer species, will quickly move back into a cleansed area, along with other undesirable weeds. To prevent spotted knapweed's spread, it is important to remove plants before they flower and release seeds, especially along roadsides, trails, or other high-traffic areas. Mechanical control can include digging up plants or mowing them before they set seed, though this must be done consistently to be effective.

DO's

- Monitor infestations regularly to catch new plants early and prevent further spread.
- Reseed disturbed areas with native or desirable plants/crops after removing spotted knapweed to encourage healthy, competitive vegetation.
- Remove plants before they flower to prevent seed production and spread.

DON'Ts

- Ignore small infestations—spotted knapweed can spread rapidly, so early intervention is critical.
- Allow seeds to disperse by failing to remove plants before they flower or by letting them go to seed.
- Disturb the soil unnecessarily—this can create an environment favorable to the spread of spotted knapweed.

TAOS SOIL & WATER CONSERVATION DISTRICT

For more information on managing diffuse knapweed, please visit **www.nmweeds.org**