



THE UNIVERSITY OF ARIZONA
COLLEGE OF AGRICULTURE & LIFE SCIENCES

Cooperative Extension

Coconino County



A Northern Arizona Homeowner's Guide To Identifying and Managing **DIFFUSE KNAPWEED**

Common name(s): Diffuse knapweed

Scientific name: *Centaurea diffusa*

Family: Sunflower or Aster family (Asteraceae)

Reasons for concern: This plant is a prolific seed producer. It can quickly take over both disturbed and managed areas, outcompeting native species and reducing plant diversity and wildlife habitat. It also contains allelopathic (toxic) chemicals that suppress the growth of nearby native vegetation.

Classification: Non-native. Included on the Arizona Noxious Weed List.

Botanical description: Broadleaf, mounding, herbaceous plant.

Leaves: Begins life cycle as rosette with finely divided, gray-green leaves. Leaves on mature plant covered with short dense hair. Long, lobed lower leaves give way to smaller leaves further up the stem.

Stem(s): Grows single stem (rarely 2), rough, with many spreading branches, 1 to 3 feet tall. Stems begin to appear in May.

Flowers: Blooms June through October. Flowers white, rose-purple or lavender. Numerous flowering heads solitary or in clusters of 2 or 3 at ends of branches. Very sharp, spiny bracts (modified leaves) under flowers which flair outward. Longest terminal spine on bracts particularly sharp. Flowers do not fall off stems when seeds mature.

Seeds: Seed production starts in July

Roots: Large taproot

Native to: Eurasia



Diffuse knapweed habit. Image credit: Max Licher, swbiodiversity.org/seinet

Where it grows: Waste areas, roadsides, dry rangelands. Sunny, dry, disturbed areas. Low and high altitudes. Won't tolerate moist areas or shade. Elevations up to 8,500 feet.

Life cycle: Annual, biennial or short-lived perennial

Reproduction: By seed

Weedy characteristics: Diffuse knapweed can germinate in winter or summer, grow very large, and is highly aggressive. It produces allelopathic (toxic) compounds that prevent other plants from growing nearby. Plants produce thousands of seeds on average, which remain viable for years. Occasionally will tumble like tumbleweed, spreading seeds far and wide. Weed-whacked or grazed plants will re-grow.

Look-alike non-native plants: Diffuse knapweed can be confused with non-native Spotted and Russian knapweeds, both of which need to be eradicated. See separate pages on these invasive plants on this website.

Control strategies: Hand dig or pull the rosette during their first year of growth. Disturb the soil as little as possible, to reduce germination of new seedlings. Step down disturbed soil. During the second year, remove 2 to 3 inches of the taproot to prevent re-growth. Never let it go to seed. Bag any buds, flowers or seed heads. Always wear gloves when pulling to avoid serious skin irritation. Frequently monitor previous infestations for new growth. Plant desirable native species to outcompete invasives. Mowing is not recommended as it may stimulate new knapweed growth. Several insect biological controls are available. Herbicides can be effective on the rosette stage. Contact your local county extension office for more information on chemical control.

Images:



Diffuse knapweed flower head showing spiny bracts.
Image credit: Max Licher, swbiodiversity.org/seinet



Diffuse knapweed. Image credit: Cindy Roche, Bugwood.org



Diffuse knapweed rosette. Image credit: Richard Old, XID Services, Inc., weed-id.com

References:

- **Diffuse knapweed** Noxious Weed Control Board, Washington State
<http://www.nwcb.wa.gov/weeds/diffuse-knapweed>
- **Diffuse and Spotted Knapweed** Colorado State University Extension
<http://extension.colostate.edu/topic-areas/natural-resources/diffuse-and-spotted-knapweed-3-110/>

<https://nazinvasiveplants.org>

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