



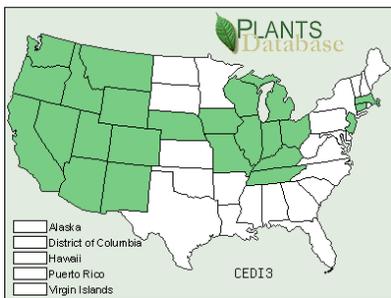
Diffuse Knapweed

Centaurea diffusa Lamarck
(Synonym *Acosta diffusa* [Lam.] Sojak)

Common Name: diffuse knapweed, white knapweed, spreading knapweed, tumble knapweed

Native Origin: Eurasia

Description: An annual, biennial, or short-lived perennial herbaceous plant in the aster family (*Asteraceae*) growing 4-24 inches tall. Plants form low rosettes and may remain in this form for one to several years. The stems are upright, highly branched, and angled, with short, stiff hairs on the angles. Two types of leaves exist, long, deciduous basal leaves, which form the rosette and stem leaves which are alternate, smaller, less divided, stalkless, and bract-like near the flower clusters. Flower heads are urn-shaped, 0.6-0.8 inches tall, solitary or in clusters of 2-3 at the ends of the branches. The heads contain two types of flowers, ray flowers around the edges surrounding tubular disk flowers. The petals are white, rose-purple, to lavender. Small dry fruits contain light brown to black seeds. Diffuse knapweed reproduces entirely by seed. A single plant can produce up to 18,000 wind dispersed seeds. Plants have deep taproots.



Habitat: It grows along right-of-ways, roads, dry forest edges, open forested areas, fringe forest, riverbanks, rangelands, and disturbed or overgrazed lands. It also invades undisturbed grasslands, shrub-lands, and riparian communities. Plants prefer open habitats to shaded areas, light, dry, porous soils and semi-arid to arid conditions.

Distribution: This species is reported from states shaded on Plants Database map. It is naturalized across western United States and has a scattered distribution in the Midwestern and Northeastern states. It is considered invasive in AZ, CO, ID, NE, OR, UT, WA, and WY.

Ecological Impacts: Diffuse knapweed is a highly competitive and aggressive plant that forms dense colonies in pastures, over-grazed rangelands, croplands, and along riverbanks. It has the ability to travel and spread seeds over relatively long distances as a tumble weed. Once established, it can form monotypic stands, suppress other vegetation by competing for water, and crowd out native species.



Control and Management: Caution, when working with diffuse knapweed, wear protective gloves to avoid getting sap into open cuts or abrasions.

- **Manual-** Hand pull small infestations before seed set in mid August
- **Chemical-** It can be effectively controlled using any of several readily available general use herbicides such as glyphosate, picloram, 2,4-D, and dicamba. Repeat applications will help control spread. Follow label and state requirements.
- **Biocontrol-** USDA Animal and Plant Health Inspection Service (APHIS) lists twelve biological control agents that are known to attack diffuse knapweed. At this time, nine have been established in the United States that may help reduce seed production or inhibit root and shoot growth. In California four biological control agents, *Urophora affinis*, *Sphenoptera jugoslavica*, *Bangasternus fausti*, and *Larinus minutus*, have been established to help control diffuse knapweed.

References: <http://plants.usda.gov>, www.nps.gov/plants/alien/map/eucy1.htm, www.forestimages.org, <http://el.ercd.usace.army.mil/pmisp/plants/html/centaur3.html>, <http://tncweeds.ucdavis.edu/esadocs/documnts/centdif.html>, www.fs.fed.us/database/feis/plants/forb/centdif/all.html, www.invasivespeciesinfo.gov/plants/diffknapweed.shtml, www.cdfa.ca.gov/phpps/ipc/weedinfo/bc-table.htm#anchor316122