






COMPARISON TABLE FOR THISTLES

There are two native thistles that can be mistaken for noxious thistles, which can result in their unnecessary demise. This table should help to distinguish between the good and the bad thistles.

	Native Thistles				
Thumbnail Photos					
Species	Italian thistle <i>Carduus pycnocephalus</i>	Canada thistle <i>Cirsium arvense</i>	Bull thistle <i>Cirsium vulgare</i>	California thistle <i>Cirsium occidentale</i> var. <i>californica</i>	Anderson's thistle <i>Cirsium andersonii</i>
Stems (Native thistles have at least a portion of the stem between leaves that is completely free of spiny leaf tissue)	Narrowly winged with spiny leaf tissue (usually continuous along stem)	Base of leaf may extend down stem (sometimes partially winged)	Winged with prickly leaf tissue (usually continuous along stem)	Base of leaf extends down stem up to a few inches, but not continuous (not winged)	Base of leaf does not extend downward on stem (not winged)

Leaves	Hairy, very spiny. Basal leaves sometimes have faint white veins (can be confused with milk thistle, which has no hairs)	Green, hairless, 2 to 8 inches long, smaller toward top of stem.	Sparse, bristly hairs on green upper surface; lower surface white-woolly. Upper surface rough to the touch like medium sandpaper	Grayish on both upper and lower surfaces due to woolly hairs. Upper surface soft to the touch.	Dark green above, white-woolly below. Upper surface soft to the touch
Height range	6 in. to 6 ½ ft.	18 in. to 3 ¼ ft.	18 in. to 6 ½ ft.	18 in. to 6 ft.	16 in. to 3 ft.
Life form	Annual or biennial	Clump-forming perennial	Biennial, sometimes annual or short-lived perennial	Biennial	Perennial or biennial.
Flower color	Pink to purple	Purplish, sometimes white or pink	Purple	White to lavender or rose	Purplish-red
Flowerheads	Clusters of 2 to 5.	Clustered (male and female on separate plants)	Clustered, hourglass shape	Solitary at branch ends.	Solitary or in clusters of few heads
Flowerhead diameter	Less than 1 in.	Less than 1 in.	Up to 2 in.	Up to 2 in.	Up to 1 ½ in.

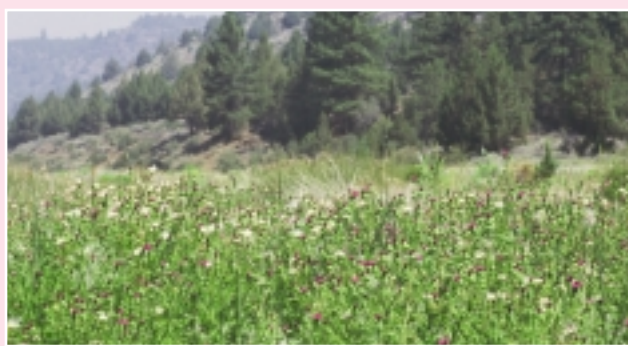
SUNFLOWER FAMILY (Asteraceae)

BULL THISTLE (*Cirsium vulgare*)

State Noxious Weed List: No rating as of 2003



entire plant



infestation

close up of flowerheads
(note spiny leaf-like tissue on stems)**BULL THISTLE**

General description: Biennial. Fleshy taproot gives rise to one stem that branches freely above the middle of the plant. Two to 6 feet tall. First year plants form a rosette up to 3 feet in diameter. Second year plants bolt and form alternating, spiny, pinnately-lobed stem leaves that are hairy and rough to touch on the upper side (like medium sandpaper) and cottony underneath. Leaf tissue extends down the stem of the plant forming long, prickly, seemingly continuous wings on the stem.

Flowers and seeds: One to hundreds of flowerheads form in clusters at the ends of branches. The purple flowerheads are 1 ½ to 2 inches wide. Each yellowish-brown seed is topped with a circle of feathery, white hairs up to 1 inch long (pappus). Plants may flower from early June until the first hard frost, but generally peak from July to August in California. Can produce tens of thousands of seeds, viability is often above 90 percent. Seeds can be viable for 5 years.

Habitat: Grows from sea level to around 8,000 feet. Meadows and moist forest openings in the mountains. Increases after fire disturbance if seed bank is present. Most common in disturbed areas.

Mechanism of spread: Reproduces by seed, which is spread by water, animals, human activities, and to a

lesser degree, wind. May be moved in transport of agricultural products such as hay.

Impacts: Reduces forage, deters grazing, degrades recreation, and competes with native species in highly valued habitats such as meadows.

Origin and distribution: Native to Europe, western Asia, and North Africa. Probably arrived in eastern North America first, as a contaminant in seed and/or ballast of ships. Bull thistle is found on all continents except Antarctica. It occurs throughout California and is widely distributed in our tri-county area. It is one of only a few non-native species that is found at high elevation in the wilderness.

Important control hints: Hand pulling works well but requires thick protective gloves! Mowing or cutting is effective if done just prior to flowering, and followed up to cut or pull any resprouts. Any flowerheads should be removed from the site or viable seed will form. If using chemicals, timing is important. See pages 4 and 5 for more information on control.