Help Protect California Landscapes

Invasive Weed to Watch for:

Yellow Starthistle

Yellow starthistle (*Centaurea solstitialis*)

What is a Noxious Weed?

A noxious weed is a category of invasive plant. Invasive plants are not native to the area, and tend to be very aggressive by outcompeting native plants for nutrients and water. By crowding out native plants, noxious weed infestations result in decreased plant diversity and decreased forage and habitat for native animals. Noxious weeds degrade fish and wildlife habitat, clog waterways, turn pastures into wastelands, disrupt forest regeneration, and overrun our forest and park areas. Although usually brought in accidentally, sometimes noxious weeds are introduced intentionally, especially when homeowners are looking for new and exotic landscaping specimens.

Did you know? *Noxious weeds are the second greatest threat to species conservation—second only to land development!*

Stem of a mature yellow starthistle plant

Facts about Yellow Starthistle

- Yellow starthistle (*Centaurea solstitialis)* is native to Eurasia and was introduced to California circa 1850 via South America.
- It is a long-lived winter annual that is usually found below 6,000 feet elevation in dry, sunny areas where average annual rainfall is between 10 and 60 inches.
- Seeds germinate from fall through spring, corresponding to the normal rainy season in California. By late spring, roots can extend over 3 feet into the soil, although the portion above ground is a relatively small basal rosette. This allows yellow starthistle to out-compete shallow-rooted annual species during the drier summer months.
- Recent reports indicate that yellow starthistle infests more than 15 million acres in California, and can be found in 56 of the 58 counties in the state, including El Dorado County.
- Yellow starthistle lowers the yield and forage quality of rangelands and interferes with livestock grazing and forage harvesting. It also reduces the value of and access to recreational areas, and it can also displace native plants. It forms dense infestations and rapidly depletes soil moisture, thus preventing the establishment of other species.
- Yellow starthistle is poisonous to horses, causing a nervous disorder called “chewing disease” that is fatal once symptoms develop. Horses are the only animals known to be affected in this manner and should not be allowed to graze on this plant.

Yellow Starthistle Identification:

- **Stems:** Stiff, wiry and single in small plants and openly branch near the base or above in larger plants. Leaf bases extend down the stems giving stems a winged appearance.

- **Leaves:** Rosette leaves are typically deeply lobed, often appear ruffled, have toothed to wavy edges, and usually wither by bloom. Stem leaves are mostly linear to narrowly oblong, or lance shaped with the widest part above the middle. All leaves are densely covered with fine, white, cottony hairs that hide most of the stiff, thick hairs and glandular dots also present on the leaves.

- **Flowers:** Flowering takes place from June through December dependent on weather and location, but can be delayed by mowing and grazing. Many small and narrow, bright yellow, tubular flowers (disk flowers) cluster into a round to egg-shaped flower head. Flower heads form singly at both the stem tip and sometimes where branches meet the main stem (axils). At the base of each flower head are long stiff spines.

- **Seeds:** Produces two kinds of fruit. Both are hairless, and are generally barrel-shaped. One type is glossy, gray or tan, and ends in a tuft of slender, stiff, white bristles. The other type is dull dark brown, and is tuft less.

- **Roots:** Deep, vigorous taproot.

Yellow starthistle rosette

Control Methods:

Mechanical:

- Hand removal, mowing, or cultivation, when used to prevent seed production over 2 to 3 years or more (the soil life of the seeds), can reduce or eliminate an infestation.

Biological:

- Four natural enemies of yellow starthistle have been imported from Europe. These include two species of weevils, and two species of flies. They all attack the flower/seed head and directly or indirectly reduce seed production, the only means of reproduction and spread of this weed.

Chemical:

- Chemicals that are recommended for the control of yellow star thistle include: *Aminopyralid, Clopyralid, Triclopyr, Glyphosate, Chlorsulfuron,* and *Imazapyr.*
- For a list of recommend herbicides including rate, timing, and summary, please visit: https://wric.ucdavis.edu/information/natural%20areas/wr_C/Centaurea_solstitialis.pdf
- Herbicides should only be applied at the rates and for the site conditions and/or land usage specified on the label of the product being used. ***Follow all label directions.***

An unchecked yellow starthistle population

Invasive weeds displace native plants and destroy healthy forests and parks.

Please

Help protect our native forest and park lands from weed invasion and preserve wildlife habitat.

What You Can Do:

- **Become familiar with local noxious weeds**
- **Report any weed sightings**
- **Do not plant invasive plants in gardens where they potentially could become a problem.**
- **If traveling from weed infested area, remove seeds and plant parts on clothing, pets, car/bike tires, etc. before returning to an un-infested area to prevent weed spread.**

To report suspected noxious invasive weeds in your area, please contact:

El Dorado/Alpine County Department of Agriculture, Weights and Measures

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(530)621-5520
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