

Help Protect California Landscapes

Invasive Weed to Watch for:

Carolina Horse Nettle



Carolina horse nettle (*Solanum carolinense*)

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!



Carolina horse nettle fruit

Facts about Carolina horse nettle

- ◆ Carolina horse nettle is a perennial herb that can grow up to 3 feet tall. This plant is a member of the Solanaceae (or nightshade) family which also includes tomatoes and bell peppers.
- ◆ Native to the central and eastern United States and northern Mexico. This herbaceous plant is considered invasive to the rest of North America and has been found in the Sierra Nevada range, Central Valley, south coast ranges and northern ranges of California.
- ◆ Favors disturbed areas as well as grasslands and dunes. They grow readily in sandy or loamy soils, but also tolerate a wide range of soil types.
- ◆ Carolina horse nettle prefers sun and well-drained soils, but can tolerate both wet or dry conditions.
- ◆ Spreads by its seeds and vegetatively by its roots. Fruits and seeds are dispersed by agricultural activities, water, soil movement, and animals.
- ◆ The average number of seeds per berry is 85. One plant can produce up to 5000 seeds.
- ◆ All parts of the plant including its tomato-like fruit are toxic to humans and livestock. Dried plant material does not lose its toxicity. Cattle can be poisoned by Carolina horse nettle while sheep and goats are more resistant to the plant's toxicity. More toxins are present in the fruits than in the leaves.
- ◆ Symptoms caused by ingesting any part of the plant include: fever, headache, scratchy throat, nausea, vomiting, and diarrhea. Ingesting the fruit can cause abdominal pain, circulatory and respiratory depression, or even death.

What to Look For:

- ◆ **Stems:** Covered with large white or yellow spines.
- ◆ **Leaves:** Alternate leaves are 2" to 6" long and 3" across, and have short petioles. Dark green leaves that are sharply lobed with a pointed tip. Each of its broadly lanceolate or ovate leaves have several teeth or shallow lobes on both sides. There are white hairs and scattered spines along the central vein on the underside of each leaf.
- ◆ **Flowers:** Clusters of white to light violet flowers which bloom May to September in California. Flowers are about 3/4" across, have 5 petals, and are united at the base. Near the center, there are 5 elongated yellow anthers. No noticeable floral scent. Flowering begins one month after new shoots emerge and berries begin to mature 4-8 weeks later.
- ◆ **Fruit:** Berries mature 4-8 weeks after flowering begins. Therefore, seed production typically begins in June or July. The fruit is a yellow 5/16 to 3/4 inch diameter berry. Seeds are yellowish to orange-brown, with a smooth and glossy appearance.



Carolina horse nettle. Note the lobed leaves and spiny stems

Control Methods:

Mechanical:

- ◆ Mechanical control methods such as mowing, hoeing, and tillage have shown very little success in horsenettle control due to the plant's extensive root system. Tillage actually helps horse nettle spread by distributing root pieces.

Chemical:

- ◆ Several herbicides that have been tested and shown to be effective include glyphosate, Surmount, Chaparral, GrazonNext, Grazon P+D, and Milestone. Horsenettle should not be mechanically removed for at least two weeks following treatment to allow herbicides to translocate into the roots.

Biological:

- ◆ The Colorado potato beetle, eggplant flea beetle, and tobacco hornworms feed on this plant.

Cultural:

- ◆ Feeding infested hay is the one of the primary ways the weed is introduced into a field. If possible, buy clean hay of known origin. Also, because horsenettle seed can pass intact through an animal's gastrointestinal tract, avoid immediate movement of cattle from heavily infested pastures to uninfested ones if at all possible.



Carolina horse nettle seedling

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**

**311 Fair Lane, Placerville, CA
(530)621-5520
eldcag@edcgov.us**

