

## What is a 'noxious weed'?

A 'noxious weed' is any species of plant that is, or is liable to be, troublesome, aggressive, intrusive, detrimental, or destructive to agriculture, silviculture, or important native species, and difficult to control or eradicate (definition as per the California Food and Agricultural Code).

A common characteristic of all noxious weeds is their aggressive, competitive behavior. Typically, they steal precious moisture, nutrients, and sunlight from surrounding plants thus, impacting native vegetation.

## Yolo County's noxious weeds *weeds of special concern*

### u p l a n d w e e d s

Barbed Goatgrass	<i>Aegilops triuncialis</i>
Medusahead	<i>Taeniatherum caput-medusae L.</i>
Yellow Starthistle	<i>Centaurea Solstitialis L.</i>
Iberian thistle	<i>Centaurea iberica</i>
Perennial Pepperweed or Tall Whitetop	<i>Lepidium latifolium L.</i>
Puncturevine	<i>Tribulus terrestris L.</i>
Rush Skeletonweed	<i>Chondrilla juncea L.</i>
Klamathweed or St. Johnswort	<i>Hypericum perforatum</i>

### r i p a r i a n w e e d s

Tree of Heaven	<i>Ailanthus altissima</i>
Giant Reed	<i>Arundo donax</i>
Tamarisk	<i>Tamarix parviflora</i>

### a q u a t i c w e e d s

Water hyacinth	<i>Eichhornia crassipes</i>
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To find out the state of any noxious weed or invasive weed in California contact any County Agricultural Commissioner's office.



## The Yolo County Weed Management Area (YWMA)

The Yolo County Weed Management Area (YWMA) was formed by federal, state, county, city, private industry, and landowners that are concerned about the explosion of invasive plant species in Yolo County.

Our goal is to educate the public on noxious and invasive weeds. This brochure is the first step in increasing the public awareness of what is a noxious or invasive weed.

## Additional Partners

City of Woodland • City of Davis • Yolo County Farm Bureau • Yolo County Department of Public Works • Cal-Trans • Yolo County Flood Control • County Parks, California Department of Forestry • Reclamation Districts • Yolo Shortline, California Northern Railroad, local Fire Districts • Yolo County Cattlemen & Woolgrowers • California Native Plant Society • Cache Creek Conservancy • California Department of Water Resources • California Department of Fish & Game • Natural Resources Conservation Service • Yolo Basin Foundation • University of California, Davis • Community Alliance with Family Farmers.

## For additional information please contact:

### Yolo County Department of Agriculture

[www.yolocounty.org](http://www.yolocounty.org)  
(530) 666-8140

### Yolo County Farm Advisor, UC Cooperative Extension

(530) 666-8143

### Yolo County Resource Conservation District

[www.yolorcd.ca.gov/weeds/](http://www.yolorcd.ca.gov/weeds/)  
(530) 666-2037 ext. 3

### The Yolo County Weed Management Area (YWMA)

[www.cdfa.ca.gov/wma](http://www.cdfa.ca.gov/wma)

# Fighting the Weed Wildfire

## Yolo County's Noxious Weeds

The mission of the Yolo County Weed Management Area (YCWMA) is to promote and coordinate the management, control and efforts toward eradication of the County's noxious weeds through education and cooperation with land owners, agencies, organizations, and the general public.

## Preventing the introduction of noxious weeds

The transportation of contaminated hay, seeds, flower arrangements, nursery stock, and other apparently harmless purchases have introduced many noxious weeds to California. Some so-called noxious weeds are escaped ornamental plants that have gone wild, like Tree of Heaven, fertile Baby's Breath, or Purple Loosestrife. Most people are unaware that bringing even one plant or seed packet across state borders can create a new plant infestation. This can disrupt native vegetation. Prevention and early detection allows us to eradicate new outbreaks and devote our principle efforts toward management and containment of existing, large-scale infestations.

### Prevention tips

- 🌿 Always check your vehicle for plants or seeds when leaving an infested site.
- 🌿 Be aware when moving dirt, compost, or equipment since seed can be viable for up to 10 years.
- 🌿 Do not be tempted by attractive flowers from other states or counties. Do not introduce its seeds or seedling into the state or county.
- 🌿 Report known locations and sightings to the Yolo County Agricultural Commissioner's office.
- 🌿 Tell neighbors and friends about noxious weeds.
- 🌿 Join the Yolo County Weed Management Area.



## Control is an annual task, not a one year miracle

Weed scientists and biological scientists state that biological control options for noxious weeds are expanding at a rapid rate. However, they caution that biological control is not and never will be a cure all or total replacement for judicious herbicide use. Instead, scientists stress that successful long-term management of noxious weeds relies on a combination of biological, chemical, cultural, and physical methods an integrated approach. Integrated weed management and improved land management are the answer.

### Types of weed control methods

- 🌿 **Cultural control method:** Includes, but is not limited to, mowing, burning, mulching, hand pulling, grazing, and cultivation.
- 🌿 **Chemical control method:** Consists of applying pre and post emergence products. There are selective and non-selective products. Always read the label directions before using any herbicide.
- 🌿 **Biological control method:** Involves a specific predator for a specific weed. Usually insects are the control mechanism. Used for long term projects, results will not be noticeable for several years. Is compatible with most cultural and chemical control methods.

### Weed control steps

- 🌿 Identify the weed to be controlled
- 🌿 Write down the location and size of the infestation.
- 🌿 Determine control method(s) and timing
- 🌿 Re-establish desired plant species after control method is used.
- 🌿 Always monitor for re-infestations.

## Now that you have identified and gained some control over your weeds, what is the next step?

Whenever you make the effort to control weeds, you will be faced with having bare ground in their place. That bare ground will soon be re-infested with a new set of weeds unless you replace them with desirable plants. There are many types of plants that are well adapted to your specific site.

Perennial broadleaf plants or grasses are the most ideal. Once these plants are established, they will out compete any weeds that might try to move into your new weed free area.

Certain annual grasses, or even cereal grains like wheat or barley, will provide a quick competitive cover to help discourage new weeds from becoming established, or previously existing weeds from coming back. Be cautious however, of annual grasses. They can become weeds themselves if left unattended.

Remember it is important to plant something back in the newly weed free areas, or you will find yourself waging a never-ending battle with weeds. For help with finding the right plant for your area, contact your local Agricultural Commissioner, UC Cooperative Extension office, or the local Resource Conservation District.





## Puncturevine

*Tribulus terrestris* L.

**Other names:** goathead, caltrop, and Mexican or Texan sandbur.

**Background:** Native to Mediterranean.

**Identification:** Annual with prostrate or somewhat ascending, mat forming, trailing stems, each about 1 to 5 feet long. Leaves opposite, hairy and divided into 4 to 8 pairs of leaflets. Flowers yellow, with 5 petals. Fruit hard, on underside of stem, separating into five parts when mature, each with 2 to 4 sharp hard spines, resembling a goat's head. Flowers April to October

**Distribution:** Grows in pastures, cultivated fields, waste areas, and disturbed sites such as roadways. Toxic to livestock in vegetative condition. It particularly thrives in sandy and sandy loam soils. The hard spiny burrs damage wool, and may be injurious to livestock as well as humans' bare feet, dogs' pads and bike tires. Puncturevine is widespread throughout northeastern California and northwestern Nevada with scattered occurrence.



## Tree of Heaven

*Ailanthus altissima*

**Background:** It is native to East Asia.

**Identification:** It is fast-growing perennial shrub/tree. Mature plants have bark that is thin, gray and slightly rough. They have a flat-topped form and height can be 20 to 60 feet (6 to 18 meters). The leaves of Tree of Heaven are 1 to 3 feet long and have 13 to 25 leaflets arranged on opposite sides of the stalk. The leaflets are 3 to 5 inches long and 1 to 2 inches wide. The leaflets are toothed at the base and have an unpleasant odor if crushed. Flowers can be male, female, or both male and female. They consist of 4 to 8 inch long, dense greenish panicles at the ends of branches. The plant produces a spirally twisted winged fruit that is about 1-1/2 inches long, with a seed at the center of the wing. The greenish-yellow fruit turn pinkish or reddish brown as they mature. Dense clusters of seeds remain on the tree through the winter. Seeds germinate from April through June. Fruit matures from September through October.

**Distribution:** It produces many suckers, spreads by seeds and invasive roots and thrives even in poor soils. It was once cultivated as an ornamental but has escaped from cultivation and become well-established in many areas of California.



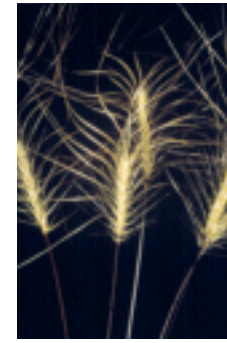
## Yellow Starthistle

*Centaurea Solstitialis* L.

**Background:** Native to southern Europe.

**Identification:** Annual 1 to 3 feet, erect and rigid branching, from taproot. Stems rigid, winged, and covered with cottony pubescence. Basal leaves deeply lobed (as are leaves of seedlings); upper leaves entire and sharply pointed. Flowers yellow, terminal armed with straw-colored thorns approximately 1 inch across. Outer seed dark brown without bristles; inner seed mottled light brown with a tuft of white bristles, about 1/8 inch long. Flowers May to October.

**Distribution:** Invades various soil types on waste areas, road-sides, pastures, and dry rangelands. Toxic to horses, as it causes "chewing disease". Once this plant invades a site it may sit without increasing for several years. It becomes genetically adapted to that site and then the population explodes; it spreads rapidly. Much of California is heavily infested with yellow starthistle. It is continually spreading into the, Sierra Mountains, where it has not been previously know to occur. Small populations must be eradicated!



## Medusahead

*Taeniatherum caput-medusae* L.

**Background:** Native to Eurasia.

**Identification:** Aggressive winter annual 1 to 2 feet. Leaf blades generally 1/8 inch wide or less, rolled. Inflorescence long awned spike nearly as wide as long. Mature awns or beards twisted 1 to 4 inches long, stiff, finely barbed. Sometimes confused with foxtail or squirrel tail, however spike heads does not break apart as seed mature. Individual awned-florets fall away, leaving a bristly head of awn-like glumes that will persists over winter.

**Distribution:** Extremely competitive, crowding out many native and desirable plants, invading millions of acres of semi-arid rangeland. Appears most common on high shrink-swell clay soils. Infested rangelands have suffered up to 75% reductions in grazing capacity. Introduces fire into non-fire prone ecosystems. Control of small, isolated infestations is critical. Medusahead is found scattered throughout California.



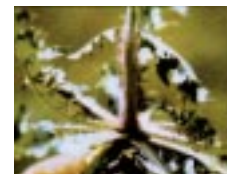
## Rush Skeletonweed

*Chondrilla juncea* L.

**Background:** Native to southern Europe.

**Identification:** A much branched biennial or perennial, 1 to 4 feet, with milky sap. Lower 4 to 6 inches of stem have downward bent, coarse reddish hairs. Leaves form basal rosettes, sharply toothed, that wither as stems develop. Stem leaves inconspicuous, narrow and entire. Flowers scattered on branches, less than 1 inch across, with 7 to 15 yellow, strap-shaped petals with 5 distinct teeth at the end. Seeds pale brown to nearly black, about 1/8 inch long, several-ribbed, smooth below with tiny scale projections above, terminated by numerous soft white bristles. Flowers July to September.

**Distribution:** It generally grows in well-drained light textured soils along road-sides, rangelands, grain fields, pastures and vineyards. Easily invades disturbed sites. Extensive, deep root system makes rush skeleton weed difficult to control.



## Klamathweed or

St. Johnswort

*Hypericum perforatum*

**Background:** Native to Europe.

**Identification:** Perennial 1 to 3 feet with erect, tow ridged stems and numerous rust colored branches. Leaves opposite, oblong, entire, covered with tiny transparent dots. Flowers numerous, bright yellow, with five separate petals that twist after flowering. Petals have occasional minute black dots around the edges. Stamens numerous, arranged in three groups. Flowers June to September.

**Distribution:** Usually found in sandy or gravelly soils and along road-sides. Contains toxic substance, which causes animals that eat it to lose weight and develop a skin irritation when exposed to strong sunlight. Klamathweed ranges from the Pacific Ocean to east Nevada.







## Giant Reed

*Arundo donax*

**Other names:** Common reed, False bamboo, Dumb cane

**Background:** Native to warmer southern areas of Europe and was introduced to California as an ornamental plant.

**Identification:** It is a perennial plant that can grow 6 to 20 feet tall. The stems are hollow, nearly woody, and about one inch in diameter. Leaves on the plant are arranged in rows on each side of the stem. The leaf blades on the main stem are 1 to 3 inches broad and flat. On smaller stems, the blades are narrow. The blade margins are rough and saw-like, while the base of the blade is heart-shaped and slightly hairy. Flowers on the giant reed appear in large panicles, one to two feet long. Each spikelet contains several long, hairy flowers that successively

grow shorter towards the tip. The rhizomes are tough, thick and knotty and have many branches. The roots are stout and about 1/4 inch in diameter. No viable seeds are produced in California.

**Distribution:** It is troublesome along streams and canals. In these areas, giant reed interferes with water flow, reduces stream capacity, and negatively impacts plant and animal diversity.

## Water hyacinth

*Eichhornia crassipes*

**Other names:** Pickerel-weed, floating water hyacinth

**Background:** Native to tropical America and was introduced into the United States as an ornamental plant.

**Identification:** Water hyacinth is a floating, perennial, aquatic plant that has two leaf types. The underwater leaves are long and narrow and sometimes broader at the tips. Leaves found above the water surface are usually broad and nearly round. Both leaf types are glossy and bright green and grow from a central crown in rosette fashion. The leaf stalks appear inflated and bladder-like. The mature plant can be up to 2 feet tall, and although it usually floats on the water, it can also root in mud. Roots are dark and fibrous. The plants form stolons that produce new plants. Flower stalks (8 flowers per stalk) are 12 to 14 inches tall with a single leaf and several tubular sheaths enclosing the upper portion. Flowers may be bluish-purple or white. The upper petal of each flower is enlarged and has a patch of blue or deep purple with a yellow blotch. Limited reproduction occurs by the seed, which is produced in a capsule. Flower stalks containing mature seed droop over into the water and the seed develops underwater, dropping into the mud.

**Distribution:** It can obstruct water flow in irrigation ditches and drainage canals. This plant is now a serious aquatic pest in parts of the U.S.



## Perennial Pepperweed or Tall Whitetop

*Lepidium latifolium L.*

**Other names:** Whitetop

**Background:** Native to southern Europe and western Asia.

**Identification:** Perennial 1 to 6 feet. Leaves lanceolate, bright green to gray-green, smooth to toothed margin. Basal leaves larger than upper leaves. White flowers develop in dense clusters near the ends of branches. Fruit a two-seeded capsule. Reddish-brown seeds, round, flat, slightly hairy, and about 1/16 inch long. Flowers June to August.

**Distribution:** Grows in waste areas, wet areas, ditched, road-sides, cropland, along waterways, and dry habitats such as road cuts and fills. Robust, deep-seated spreading roots and numerous seeds make this weed very difficult to control. outcompetes native vegetation and crop, forming in own monoculture. Attempts at mechanical removal can spread the plant and increase its numbers.



## Tamarisk

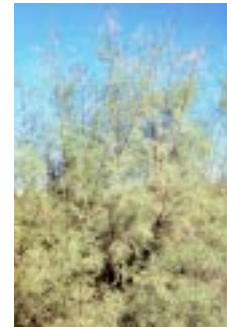
*Tamarix parviflora*

**Other names:** Salt Cedar

**Background:** Native to Eurasia.

**Identification:** This aggressive riparian weed is a deciduous (sometimes evergreen) shrub or small tree that grows 5 to 20 feet tall. The stems are reddish-brown in color and even as saplings, have bark on them. Leaves are small and scale-like, like those of juniper or cedar. They appear on highly branched and slender stems. The flowers are pink to white and are 5-petaled. [Another type of tamarisk is the smallflower tamarisk (*T. parviflora* D.C.). Smallflower tamarisk is similar in appearance as the salt cedar but has 4-petaled flowers with brown to deep purple bark on its stems. Smallflower tamarisk was introduced from Southern Europe and is also widespread.]

**Distribution:** Both species of tamarisk are widespread throughout the U.S. Both are most common along streams, canals, and reservoirs in the West. These plants are very invasive in riparian areas and displace native vegetation by competing intensely for ground water. Plants that develop on stream banks can inhibit the flow of the stream, exacerbating local flooding problems and causing property damage.



## Barbed Goatgrass

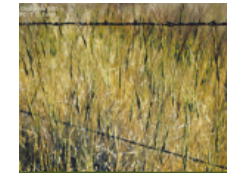
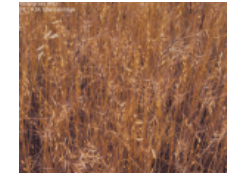
*Aegilops triuncialis*

**Background:** It originates from Europe.

**Identification:** It is an annual plant. Height ranges anywhere from 20-40 cm tall with few to many culms. When young, the leaf sheaths contain white hairs, but once matured, they become more or less smooth. The blades are rigid, sharp, pointed, and spreading. Flowers on this grass weed are spiked and grow to about 3 inches in length, including the awns. The flowers contain 3-5 spikelets; the lower ones are broad, while the upper ones are rudimentary. Glumes are very tough each ending in three stiff, stout and spreading awns. They are strongly veined and terminate in awns that are about one inch long. The grain is about 1/4 inch long, resembling a wheat kernel.

**Distribution:** It is found abundantly in areas throughout the Southwestern portion of Calaveras County, overlapping into eastern San Joaquin County and Northwestern Stanislaus County. Also found in Yolo and Mendocino Counties.

**Control:** Cattle grazing on land helps to reduce infestation.



## Iberian thistle

*Centaurea iberica*

**Other names:** Iberian star thistle

**Background:** Native to southeastern Europe, and has been well-established in parts of California since the 1950's.

**Identification:** It is an annual or biennial plant that grows to from 3 to 6 feet tall. It has a cobweb-like fuzziness over most of the plant and is a prolific seed producer. Young plants form a rosette of deeply lobed basal leaves in late spring. The upper leaves are reduced and narrowly lobed. Flowering typically occurs in July and August. Flowers are pinkish-purple with straw-colored spines that are over 1 inch long surrounding the base. Seeds are light tan colored and have short, flattened bristles attached to the top.

