Picris echioides L.
(= *Helminthotheca echioides* (L.) Holub [Jepson Manual 2012])

Bristly oxtongue

Family: Asteraceae
Range: Primarily in California, but also found in Nevada, Oregon, Washington, Montana, and North Dakota.
Habitat: Roadsides, waste places, fields, pastures, crop fields, orchards, vineyards, landscaped areas, gardens, and other disturbed open places. Most common in seasonally wet places.
Origin: Native to the Mediterranean regions of Europe.
Impacts: Can form dense stands in rangelands and other areas near coastal grasslands.
California Invasive Plant Council (Cal-IPC) Inventory: Limited Invasiveness

Bristly oxtongue is an erect winter, or sometimes summer, annual or biennial to nearly 3 ft tall. It has milky sap, stiff-bristly foliage, and yellow dandelion-like flowerheads. Young plants overwinter as rosettes before bolting in late spring. The leaves are alternate and covered with stiff, coarse, papilla-based hairs that are minutely branched at the tips.

The flowerheads are both terminal and axillary, mostly 1 to 2 inches wide, and consist only of yellow ligulate flowers. The achenes have a white bristly to plumose pappus on a stalk. Plants reproduce only by seed. Seeds probably disperse short distances with wind. Some seeds disperse greater distances by clinging to tools, vehicle tires, and landscaping and agricultural machinery. No studies have determined the seed longevity in the soil, but seeds would be expected to persist for a couple of years.

NON-CHEMICAL CONTROL

Mechanical (pulling, cutting, disking)	Control can be achieved by hand pulling, string trimming, or hoeing when soil is moist. Roots should be removed to 2 inches below the soil surface. Mowing repeatedly will suppress plants, but basal leaves may result in some recovery.
Cultural	It is not known whether plants are palatable to livestock. Burning may be an effective control option, but there are no studies to support this. However, bristly oxtongue often occurs in areas with annual grasses, and it is a late season plant. As such, there is likely a window of opportunity for burning after grasses have dried to provide fuel, but before bristly oxtongue has produced viable seed.
Biological	There are no biological control agents available for the control of bristly oxtongue.

CHEMICAL CONTROL

There is very little information available for the control of bristly oxtongue, but control measures for other members of the Asteraceae are expected to be effective. In particular, the chemical control options for yellow starthistle are likely to also be effective on bristly oxtongue.

The following specific use information is based on reports by researchers and land managers. Other trade names may be available, and other compounds also are labeled for this weed. Directions for use may vary between brands; see label before use. Herbicides are listed by mode of action and then alphabetically. The order of herbicide listing is not reflective of the order of efficacy or preference.

GROWTH REGULATORS	
2,4-D Several names	**Rate:** 1 to 4 pt product/acre (0.48 to 1.9 lb a.e./acre) **Timing:** Postemergence to seedlings or plants no later than the bolting stage. **Remarks:** 2-4-D is a broadleaf herbicide with no soil activity. Older plants are expected to require a higher rate compared to seedlings or plants in the early rosette stage.
Aminocyclopyrachlor + chlorsulfuron *Perspective*	**Rate:** 3 to 4.5 oz product/acre **Timing:** Postemergence in spring and early summer to rosettes or bolting plants, or in fall to seedlings and rosettes before the ground freezes. **Remarks:** Higher rates are necessary after plants bolt. Aminocyclopyrachlor has similar activity as aminopyralid and is expected to provide similar control of bristly oxtongue. *Perspective* provides broad-spectrum control of many broadleaf species. Although generally safe to grasses, it may suppress or injure certain annual and perennial grass species. Do not treat in the root zone of desirable trees and shrubs. Do not apply more than 11 oz product/acre per year. At this high rate, cool-season grasses will be damaged, including bluebunch wheatgrass. Not yet labeled for grazing lands. Add an adjuvant to the spray solution. This product is not approved for use in California and some counties of Colorado (San Luis Valley).
Aminopyralid *Milestone*	**Rate:** 5 to 7 oz product/acre (1.25 to 1.75 oz a.e./acre) **Timing:** Postemergence in spring and early summer to rosettes or bolting plants, or in fall to seedlings and rosettes before the ground freezes. **Remarks:** Higher rates are necessary after plants bolt.
Clopyralid *Transline*	**Rate:** 6 to 10 oz product/acre (2.25 to 3.75 oz a.e./acre) **Timing:** Postemergence in spring and early summer to rosettes or bolting plants, or in fall to seedlings and rosettes before the ground freezes. **Remarks:** Higher rates are necessary after plants bolt. See recommendations for yellow starthistle; control is expected to be similar for bristly oxtongue.
Picloram *Tordon 22K*	**Rate:** 1 pt product/acre (4 oz a.e./acre) **Timing:** Preemergence in winter, or early postemergence in late fall or spring. **Remarks:** Picloram has a very long soil residual activity and should provide 2 years of control. It is selective on broadleaf species and does not generally injure grasses. *Tordon 22K* is a federally restricted use pesticide. Picloram is not registered for use in California.
AROMATIC AMINO ACID INHIBITORS	
Glyphosate *Roundup*, *Accord XRT II*, and others	**Rate:** Broadcast foliar treatment: 2 to 4 pt product (*Roundup ProMax*)/acre (1.1 to 2.25 lb a.e./acre). Spot treatment: 1% v/v solution **Timing:** Postemergence to seedlings or plants no later than the bolting stage. **Remarks:** Glyphosate is a nonselective herbicide. Studies with yellow starthistle show good control with glyphosate, and it is expected that similar results would occur with bristly oxtongue.

ECOMMENDED CITATION: DiTomaso, J.M., G.B. Kyser et al. 2013. *Weed Control in Natural Areas in the Western United States*. Weed Research and Information Center, University of California. 544 pp.