Asphodelus fistulosus L.

Onionweed

Family: Liliaceae
Range: California, New Mexico and Texas.
Habitat: Fields, pastures, roadsides, coastal dunes, orchard and agronomic crops, and other disturbed places, especially those with sparse vegetation. Most recently, onionweed is beginning to move into grasslands and other wildland sites following burning.
Origin: Native to southern Europe.
Impacts: In pastures and on rangeland, onionweed is avoided by livestock and can develop dense populations that exclude grasses and other desirable forage species. It is a government-listed noxious weed in Australia, where it is most problematic on pastureland in the southern areas.
Western states listed as Noxious Weed: California, New Mexico, Oregon
California Invasive Plant Council (Cal-IPC) Inventory: Moderate Invasiveness (Alert)

Onionweed is an annual to short-lived perennial to 2 ft tall with thick, tuber-like stem bases and numerous glabrous, slender, grass-like basal leaves. Although the common name is onionweed, it lacks an onion or garlic scent when crushed.

Inflorescences are open, branched panicles of racemes. Flower stems are rigid, hollow, and usually several per plant. Flowers are 5 to 14 mm long, white or pale pink, with a conspicuous chocolate-brown midvein. Anthers are distinctly orange. Plants reproduce by seed, which disperse with water, mud, animals, vehicles, agricultural machinery, and other human activities. Seeds are reported to survive for many years in the soil seedbank.

NON-CHEMICAL CONTROL

Mechanical (pulling, cutting, disking)	Isolated plants can be hand-pulled or hoed before they produce viable seed. This is often too difficult with a larger population. Plants need to be cut below the soil surface to prevent resprouting. Tillage when the soil is dry can be effective since plants do not have creeping roots, true tubers or bulbs. However, tillage often leaves an ideal seedbed for new germinants, thus retreatment is generally necessary.
Cultural	Onionweed is not considered a palatable species and grazing is not generally considered an option. Prescribed burning is also not generally used for control of onionweed.
Biological	In Australia, onionweed can be affected in some seasons by a *Fusarium* fungus that destroys the roots. This occurs in moist areas. Some work is being conducted in Europe on a fungus, *Puccinia barbeyi*, as a biocontrol agent. No biological control agents are currently available in the United States.

CHEMICAL CONTROL

There is very little information available for the chemical control of onionweed.

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	
Picloram *Tordon 22K*	**Rate:** 2 qt product/acre (1 lb a.e./acre) **Timing:** Postemergence after the flowering stage. This is generally in late summer or autumn. Applications are expected to have preemergence activity on germinating seedlings. **Remarks:** Picloram can be tank mixed with paraquat. Picloram is a restricted use herbicide. It is not registered for use in California.
AROMATIC AMINO ACID INHIBITORS	
Glyphosate *Roundup*, *Accord XRT II*, and others	**Rate:** Spot treatments with 2 to 5% v/v *Roundup ProMax* or product with similar concentration of glyphosate **Timing:** Plants should be fully leafed out and rapidly growing. Typically the best time to treat is in summer. **Remarks:** Spray-to-wet treatments are generally used for spot treatments. Some studies show that glyphosate is not that effective for onionweed control. Glyphosate is a nonselective herbicide with no soil activity. It may be possible to use a wiper application technique to reduce drift as well as contact with non-target species, although such studies have not yet been conducted.
BRANCHED-CHAIN AMINO ACID INHIBITORS	
Chlorsulfuron *Telar*	**Rate:** 2 oz product/acre (1.5 oz a.i./acre) **Timing:** In Australia, early winter treatments are recommended. Other trials in California were conducted in April on mature, rapidly growing plants and these proved successful. **Remarks:** Studies from California show this to be the most effective treatment. Onionweed prefers alkaline soils, and under these conditions chlorsulfuron will remain in the soil for a longer time compared to more neutral or acid soils.
Metsulfuron *Escort*	**Rate:** 0.1 to 1 oz product/acre (0.06 to 0.6 oz a.i./acre) **Timing:** In Australia, early winter treatments are recommended. **Remarks:** Metsulfuron is considered to be a bit safer on non-target species than chlorsulfuron. Metsulfuron is not registered for use in California.

RECOMMENDED 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.