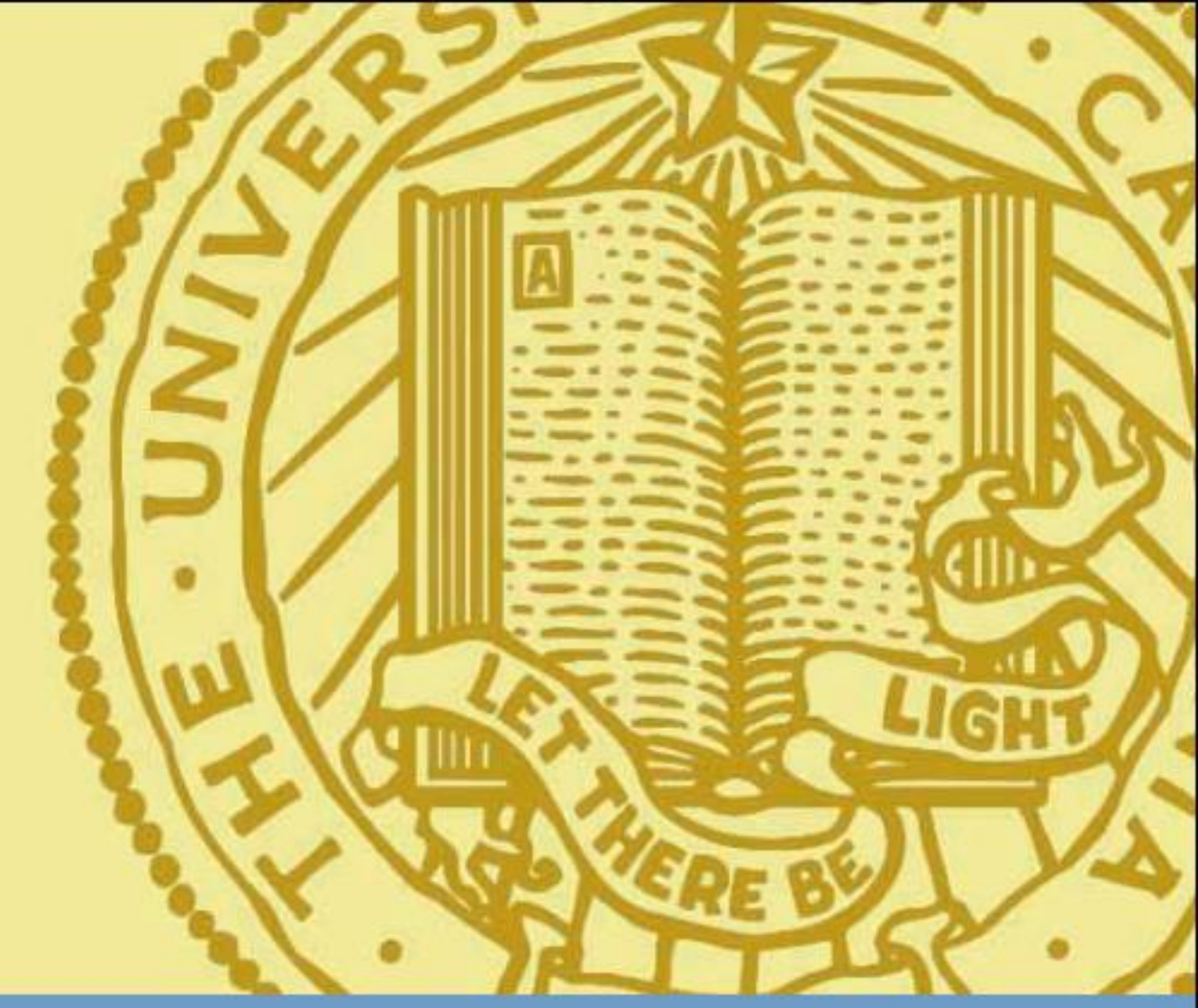


Control of Hedge Parsley (*Torilis arvensis*)



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Introduction

Hedge parsley or beggar's tick (*Torilis arvensis*) is an upright annual weed, native to Europe that grows 6-24 inches tall. It flowers from April through July and can grow on most soil types. The white flowers are found in compound umbels 1/2 to 1 inch wide and the seed heads have coarse bristles with hooks. The seed heads are similar to Velcro and attach to fur or clothing as a method of seed dispersal.



Flowers occur in compound umbels.

Hedge parsley is a growing concern in many habitats including; rangelands, roadsides, ornamental landscapes, and forested areas. Its coarse bristles get stuck in the hair of pets causing a nuisance for both the animal and the pet

owner. In livestock, the burrs lower the quality of the wool or hide and can cause mechanical injury by getting lodged in the eyes and nose.



Fruits of hedge parsley. Note the coarse bristles.

In March 2004, we tested six herbicides [Transline® (clopyralid), Arsenal® (imazapyr), Plateau® (imazapic), Garlon 4® (triclopyr), Roundup Max® (glyphosate), and Telar® (chlorsulfuron)], each at three rates. The trial was conducted in Amador County, California. Treatments were made shortly after emergence.

Materials & Methods

The site is located in a blue oak woodland in Amador County, California. It is dominated by annual grasses and forbs including riggut brome (*Bromus rigidus*), wild oats (*Avena fatua*), fiddleneck (*Amsinckia intermedia*), hedge parsley (*Torilis arvensis*), and tarweed (*Madia sp.*). Plots measured 10' x 20' and each treatment was replicated 4 times in a randomized block design. Plots were flagged at each corner and GPS. Treatments were applied using a CO₂ backpack sprayer delivering 20 gal/A through four 8002 nozzles at 30 p.s.i. Treatments included:

- Transline® - 4, 7, 10 oz product/ac
- Arsenal® - 8, 16, 32 oz product/ac
- Plateau® - 4, 6, 8 oz product/ac
- Garlon 4® - 16, 32, 48 oz product/ac
- Roundup Max® - 32, 64, 96 oz product/ac
- Telar® - 1, 1.5, 2 oz product/ac

All treatments were applied in water and 0.25% Activator 90®. Activator 90® is a low foaming, non-ionic type spreader adjuvant. It provides quick wetting, more uniform distribution, and increases retention of spray by reducing surface tension of the spray droplets.



Site at time of herbicide application.



Treatments were made prior to hedge parsley flowering at the 3-5 leaf stage.



Hedge parsley at time of application.



Untreated plot at time of application. Note hedge parsley is not noticeable at this stage.

Untreated plot one week after application. Note hedge parsley has begun to flower and is much more obvious.



Site at time of evaluation.

Data

Plots were evaluated on June 3rd, 2004. Treatments were evaluated based on percent control, number of hedge parsley plants per square meter and the effect on a native *Madia* species.

	Rate (oz product /A)	% Control	# of hedge parsley / m ²	Effect on native <i>Madia</i> ¹
Transline®	4	60.0 ^c	24.2 ^b	2 ^{b,c,d}
	7	62.5 ^{b,c}	24.2 ^b	1 ^{c,d}
	10	75.0 ^{ab}	29.6 ^b	3 ^a
Arsenal®	8	87.5 ^{ab}	5.4 ^b	2 ^{ab,c}
	16	95.0 ^a	2.7 ^b	2 ^{ab,c}
	32	87.5 ^{ab}	2.7 ^b	3 ^{ab}
Plateau®	4	100.0 ^a	0.0 ^b	2 ^{ab,c}
	6	100.0 ^a	0.0 ^b	3 ^a
	8	100.0 ^a	0.0 ^b	2 ^{ab,c}
Garlon 4®	16	100.0 ^a	0.0 ^b	3 ^a
	32	100.0 ^a	0.0 ^b	3 ^a
	48	100.0 ^a	0.0 ^b	3 ^a
Roundup Max®	32	100.0 ^a	0.0 ^b	3 ^a
	64	100.0 ^a	0.0 ^b	3 ^a
	96	100.0 ^a	0.0 ^b	3 ^a
Telar®	1	100.0 ^a	0.0 ^b	3 ^a
	1.5	100.0 ^a	0.0 ^b	3 ^a
	2	100.0 ^a	0.0 ^b	3 ^a
Untreated		0.0 ^d	78.0 ^a	1 ^d

¹ Effect on native *Madia* (Scale 0 - 3): 3 = Killed all *Madia*, 0 = *Madia* not affected



Native tarweed (*Madia sp.*) found growing at the site.

Results

Treatments were evaluated on June 3rd 2004. Hedge parsley was completely controlled at all rates of Plateau®, Garlon 4®, Roundup Max®, and Telar®. These four herbicides had different effects on other vegetation in the plots; for example, a native tarweed (*Madia sp.*) showed some tolerance to the Plateau® treatments, but was completely killed by Garlon 4®, Roundup Max®, and Telar® applications. Arsenal® gave partial control of hedge parsley and Transline® failed to effectively control hedge parsley even at the highest rates.