

This does not constitute a formal recommendation. When using herbicides always read the label, and when in doubt consult your farm advisor or county agent.

This is an excerpt from the book *Weed Control in Natural Areas in the Western United States* and is available wholesale through the UC Weed Research & Information Center (wric.ucdavis.edu) or retail through the Western Society of Weed Science (wsweedscience.org) or the California Invasive Species Council (cal-ipc.org).

Verbena bonariensis

Tall vervain

Family: Verbenaceae (vervain)

NON-CHEMICAL CONTROL

<i>Cultural:</i> grazing	NIA
<i>Cultural:</i> prescribed burning	NIA
<i>Mechanical:</i> mowing and cutting	NIA
<i>Mechanical:</i> tillage	NIA
<i>Mechanical:</i> grubbing, digging or hand pulling	NIA

CHEMICAL CONTROL

The following specific use information is based on published papers and 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.

2,4-D	E
Aminocyclopyrachlor + chlorsulfuron	NIA
Aminopyralid	NIA
Chlorsulfuron	NIA
Clopyralid	NIA
Dicamba	NIA
Glyphosate	P-F*
Hexazinone	P*

Imazapic	F*	Postemergence
Imazapyr	E*	
Metsulfuron	NIA	
Paraquat	NIA	
Picloram	NIA	
Rimsulfuron	NIA	
Sulfometuron	P*	
Sulfosulfuron	NIA	
Triclopyr	NIA	

E = Excellent control, generally better than 95%

G = Good control, 80-95%

F = Fair control, 50-80%

P = Poor control, below 50%

Control includes effects within the season of treatment.

Control is followed by best timing, if known, when efficacy is **E** or **G**.

***** = Likely based on results of observations of related species

FLW = flowering

NIA = No information available

Fa = Fall

Sp = Spring

Su = Summer

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.