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).

Peganum harmala

Harmal or African rue

Family: Zygophyllaceae (caltrop)

NON-CHEMICAL CONTROL

Cultural: grazing	P	not palatable to livestock
Cultural: prescribed burning	P	recovery will occur rapidly
Mechanical: mowing and cutting	P	recover will occur from underground reproductive structures
Mechanical: tillage	P	roots will fragment and recover
Mechanical: grubbing, digging or hand pulling	G	roots must be removed or new plants will form

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	NIA	
Aminocyclopyrachlor + chlorsulfuron	NIA	
Aminopyralid	NIA	
Chlorsulfuron	NIA	
Clopyralid	NIA	
Dicamba	NIA	
Glyphosate	F-G	often mixed with 2,4-D
Hexazinone	E	also tebuthiuron

Imazapic	NIA
Imazapyr	E
Metsulfuron	E
Paraquat	NIA
Picloram	NIA
Rimsulfuron	NIA
Sulfometuron	NIA
Sulfosulfuron	NIA
Triclopyr	NIA

= 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 \mathbf{E} or \mathbf{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.

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