

Spiny emex

Calotropis procera



The arrangement of the spines on spiny emex ensures that one spine is always pointing upward. This allows the burr to attach to most things that are placed on it—making it easily dispersed.

Also, the weed has high levels of oxalic acid, which can cause poisoning in sheep, but generally the incidence is low.

Spiny emex competes strongly with cereal crops and legumes in early growth stages and can cause significant reductions in yield.

Although spiny emex is not a declared plant, its control is recommended.

Declaration details

Spiny emex is not a declared plant under Queensland legislation. A local government may declare spiny emex under its own local law.

Description and general information

Spiny emex is a vigorous annual with a thick taproot. Leaves form a rosette in early growth and branch later. Prostrate stems grow from the centre of the rosette. Flowers are not conspicuous.

Fruits are very distinctive, forming clusters of spiny butts in the forks of the leaves. Burrs are woody, about 7 mm long, triangular in cross-section and bear three rigid spines.



Queensland Government

Habitat and distribution

Spiny emex is a native of South Africa, and is now a common weed from the southern border areas of the Moreton and Darling Downs districts to the Maranoa, Burnett and Leichhardt districts.

It occurs in disturbed sites such as cultivated paddocks, around buildings and along roadsides and in waste places. It is also common in cereal and lucerne growing areas.

Control

As spiny emex can produce seed at an early age, any control program must aim to kill all plants shortly after emergence.

Cultivation will kill seedlings; however, due to the plant's long germination period, cultivation alone can be impractical and it is usually better to combine with chemical control.

Herbicide control

Spiny emex is resistant to 2,4-D alone but can be controlled by spraying with the herbicides listed in Table 1.

Further information

Further information is available from your local government office, or by contacting Biosecurity Queensland (call 13 25 23 or visit our website at www.biosecurity.qld.gov.au).

Table 1 Some of the herbicides registered for the control of spiny emex. Other herbicides are available for use in other situations

Situation	Herbicide active ingredient	Rate	Comments
Winter cereals—wheat, barley, oats	metsulfuron-methyl (600 g/kg) (e.g. Brushhoff®)	5 or 7 g/ha	Apply to actively growing plants
	2,4-D as tipa (300 g/L) + picloram as tipa (75 g/L) (e.g. Tordon® 75D)	5 or 7 g/ha	Spray actively growing plants. Wet plants thoroughly
	MCPA as K salt (420 g/L) + picloram as K salt (26 g/L) (e.g. Tordon® 242)	1 L/ha	Apply to actively growing weeds
	MCPA as dma (340 g/L) + dicamba as dma (80 g/L)	1 L/ha	Spray when weed is in the 2–4 leaf stage
	fluroxypyr as mhe (200 g/L) (e.g. Starane® 200)	1.5 L/ha	
Non-agricultural land, rights of way, agricultural buildings	glyphosate as ipa (360 g/L)	0.5–0.7 L/100 L water	Spot spray only, non-selective herbicide
	2,4-D as tipa (300 g/L) + picloram as tipa (75 g/L) (e.g. Tordon® 75D)	0.3 L/100 L water or 300 L/ha	Spray actively growing plants. Wet plants thoroughly
Pasture	dicamba as dma (500 g/L)	280 ml–1.1 L/ha or 40 ml–76 ml/100 L water hand spray	Don't apply to pastures with clover, lucerne or medics
	glyphosate as ipa (360 g/L)	0.5–0.7 L/100 L water	Spot spray only, non-selective herbicide
	2,4-D as tipa (300 g/L) + picloram as tipa (75 g/L) (e.g. Tordon® 75D)	0.3 L/100 L water or 300 ml/ha	Spray actively growing plants. Wet plants thoroughly
Fallow	glyphosate as ipa (360 g/L)	2–3 L/ha or 0.5–0.7 L/100 L water hand spray	Spray when actively growing
	2,4-D as tipa (300g/L) + picloram as tipa (75 g/L) (e.g. Tordon® 75D)	30 ml/10 L water	Spray actively growing plants. Wet plants thoroughly
	fluroxypyr as mhe (200 g/L) (e.g. Starane® 200)	1.5 L/ha	Winter fallow only

Read the label carefully before use. Always use the herbicide in accordance with the directions on the label.

Fact sheets are available from Department of Employment, Economic Development and Innovation (DEEDI) service centres and our Customer Service Centre (telephone 13 25 23). Check our website at www.biosecurity.qld.gov.au to ensure you have the latest version of this fact sheet. The control methods referred to in this fact sheet should be used in accordance with the restrictions (federal and state legislation, and local government laws) directly or indirectly related to each control method. These restrictions may prevent the use of one or more of the methods referred to, depending on individual circumstances. While every care is taken to ensure the accuracy of this information, DEEDI does not invite reliance upon it, nor accept responsibility for any loss or damage caused by actions based on it.